



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

RE: 3458616 - NORRIS CONST. - HERITAGE

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:

Customer Info: JOHN NORRIS CONST. Project Name: Spec Hse Model: Custom
Lot/Block: N/A Subdivision: HERITAGE
Address: 331 SW Legacy Glen, 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 37 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.

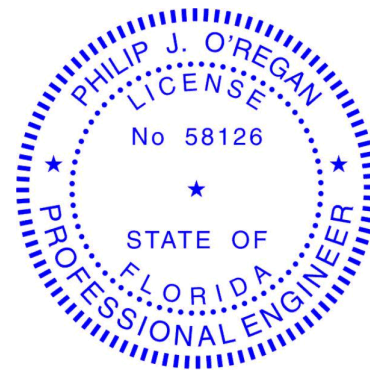
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T30144155	CJ01	3/27/23	15	T30144169	T06	3/27/23
2	T30144156	CJ03	3/27/23	16	T30144170	T07	3/27/23
3	T30144157	CJ05	3/27/23	17	T30144171	T08	3/27/23
4	T30144158	EJ01	3/27/23	18	T30144172	T08A	3/27/23
5	T30144159	EJ02	3/27/23	19	T30144173	T09	3/27/23
6	T30144160	HJ09	3/27/23	20	T30144174	T10	3/27/23
7	T30144161	HJ10	3/27/23	21	T30144175	T11	3/27/23
8	T30144162	T01	3/27/23	22	T30144176	T12	3/27/23
9	T30144163	T01G	3/27/23	23	T30144177	T13	3/27/23
10	T30144164	T02	3/27/23	24	T30144178	T14	3/27/23
11	T30144165	T02G	3/27/23	25	T30144179	T15	3/27/23
12	T30144166	T03	3/27/23	26	T30144180	T16	3/27/23
13	T30144167	T04	3/27/23	27	T30144181	T17	3/27/23
14	T30144168	T05	3/27/23	28	T30144182	T18	3/27/23

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

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.



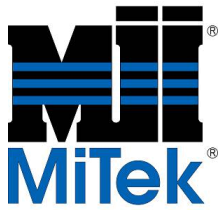
Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

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.

March 27, 2023

ORegan, Philip

1 of 2



RE: 3458616 - NORRIS CONST. - HERITAGE

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:

Customer Info: JOHN NORRIS CONST. Project Name: Spec Hse Model: Custom
Lot/Block: N/A Subdivision: HERITAGE
Address: 331 SW Legacy Glen, N/A
City: Columbia Cty State: FL

No.	Seal#	Truss Name	Date
29	T30144183	T19	3/27/23
30	T30144184	T20	3/27/23
31	T30144185	T21	3/27/23
32	T30144186	T22	3/27/23
33	T30144187	T23	3/27/23
34	T30144188	T24	3/27/23
35	T30144189	T25	3/27/23
36	T30144190	T26	3/27/23
37	T30144191	T26G	3/27/23

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144155
3458616	CJ01	Jack-Open	6	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Mar 9 2023 MiTek Industries, Inc.
Fri Mar 24 07:24:54 2023
Page 1
ID:YpMxjjoROp4_h6tHh_ArnIzVUvx-_UfKuR4WIny65s96NkuZ9IfUh8P3J1tjH46Y1XzXo5d



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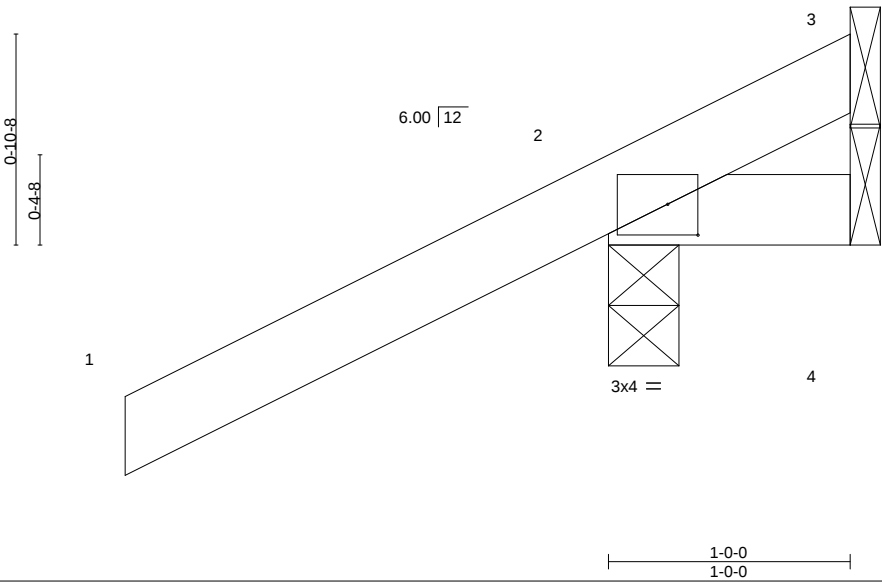


Plate Offsets (X,Y)--		[2:0-1-8,0-1-8]	
LOADING (psf)		SPACING-	2-0-0
TCLL 20.0		Plate Grip DOL	1.25
TCDL 7.0		Lumber DOL	1.25
BCLL 0.0 *		Rep Stress Incr	YES
BCDL 10.0		Code	FBC2020/TPI2014
		CSI.	
		TC 0.25	
		BC 0.05	
		WB 0.00	
		Matrix-MP	
		DEFL.	
		in (loc)	I/defl
		Vert(LL)	0.00 7 >999 240
		Vert(CT)	0.00 7 >999 180
		Horz(CT)	0.00 2 n/a n/a
		PLATES	GRIP
		MT20	244/190
		Weight: 7 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 1-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=46(LC 12)
Max Uplift 3=-27(LC 1), 2=-102(LC 12), 4=-46(LC 1)
Max Grav 3=16(LC 16), 2=254(LC 1), 4=29(LC 16)

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 27 lb uplift at joint 3, 102 lb uplift at joint 2 and 46 lb uplift at joint 4.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

March 27,2023



Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144156
3458616	CJ03	Jack-Open	6	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:24:55 2023 Page 1
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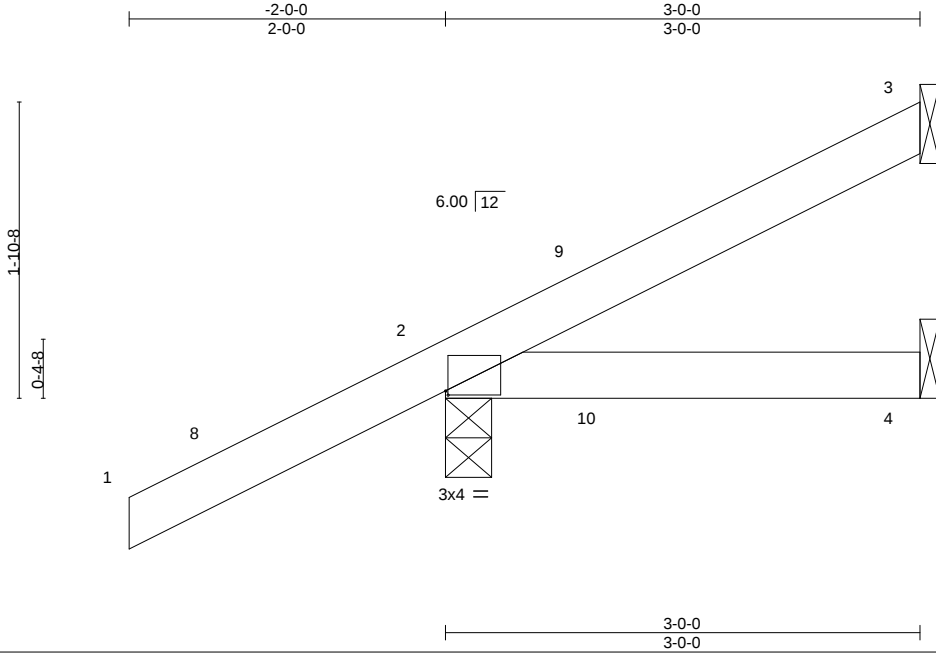


Plate Offsets (X,Y)-- [2:0-0-3,0-0-5]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.25	Vert(LL)	0.01 4-7 >999	240	MT20 244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	-0.01 4-7 >999	180	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00 3 n/a	n/a	
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP					Weight: 13 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=80(LC 12)
Max Uplift 3=-31(LC 12), 2=-76(LC 12), 4=-14(LC 9)
Max Grav 3=52(LC 1), 2=253(LC 1), 4=48(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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 2-11-4 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 31 lb uplift at joint 3, 76 lb uplift at joint 2 and 14 lb uplift at joint 4.

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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:

March 27,2023

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

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

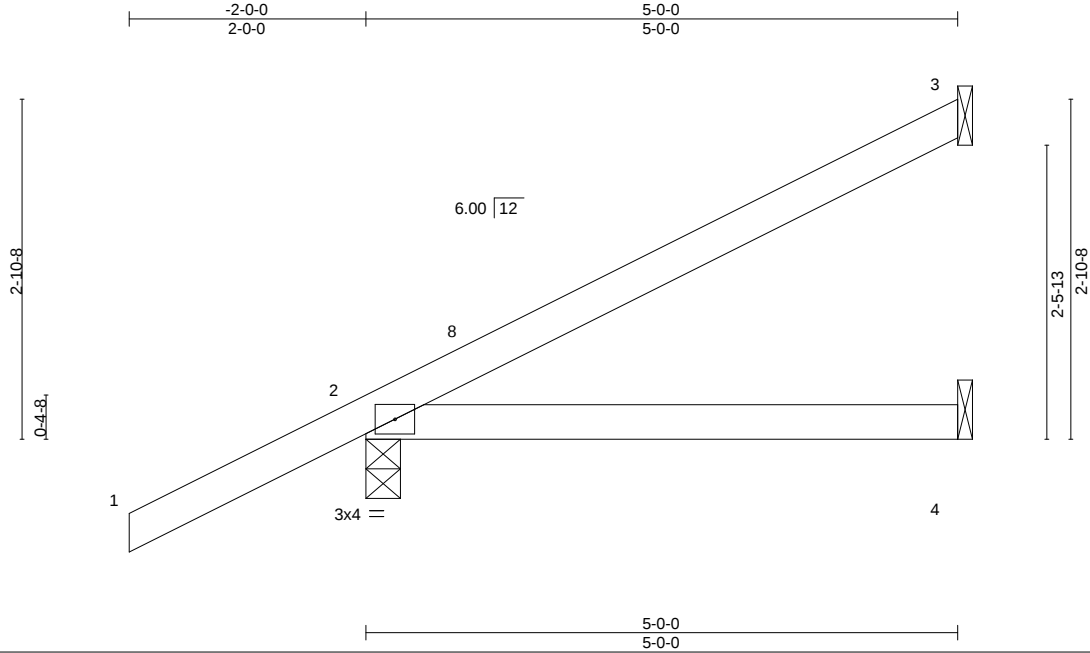


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144157
3458616	CJ05	Jack-Open	6	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:24:56 2023 Page 1
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Scale = 1:19.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.26	Vert(LL)	0.03	4-7	>999	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.23	Vert(CT)	-0.05	4-7	>999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP					Weight: 19 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=114(LC 12)
Max Uplift 3=-64(LC 12), 2=-80(LC 12)
Max Grav 3=108(LC 1), 2=313(LC 1), 4=87(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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 4-11-4 zone; porch 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 64 lb uplift at joint 3 and 80 lb uplift at joint 2.

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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:

March 27,2023

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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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144158
3458616	EJ01	Jack-Partial	20	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:24:58 2023 Page 1

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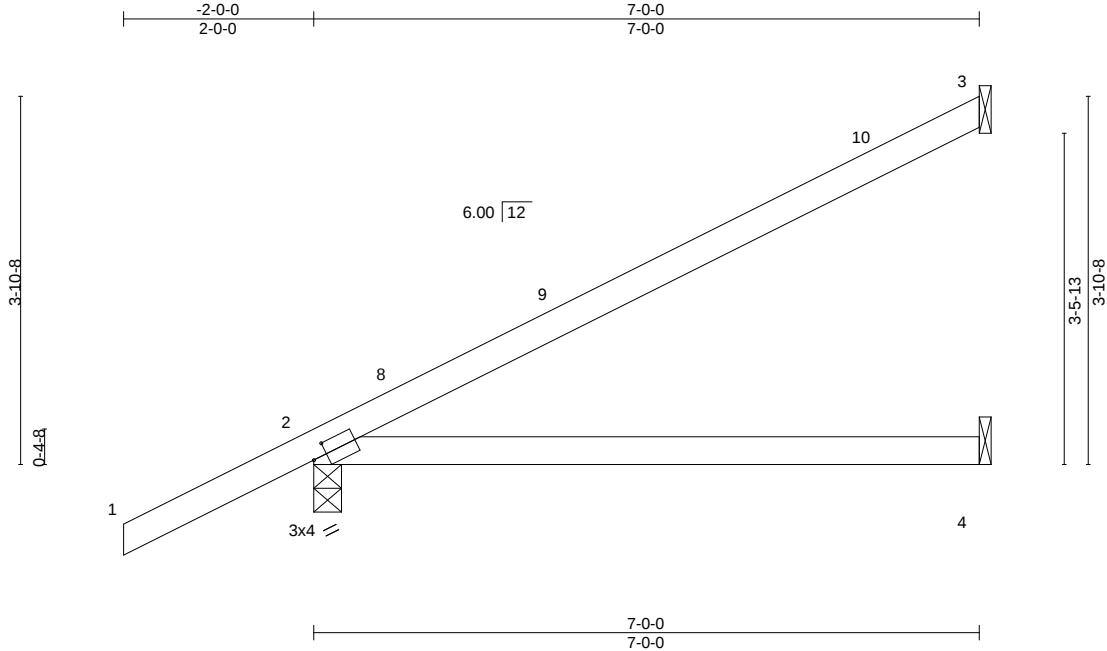


Plate Offsets (X,Y)--		[2:0-1-13,0-1-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.25	TC 0.60
TCDL 7.0	Lumber DOL	1.25	BC 0.51
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS
DEFL.	in (loc)	I/defl	L/d
Vert(LL)	0.10 4-7	>876	240
Vert(CT)	-0.21 4-7	>393	180
Horz(CT)	0.01 2	n/a	n/a
PLATES	GRIP		
MT20	244/190		
Weight: 26 lb		FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=144(LC 12)
Max Uplift 3=84(LC 12), 2=90(LC 12)
Max Grav 3=160(LC 1), 2=380(LC 1), 4=125(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) -2'-0" to 1'-0", Interior(1) 1'-0" to 6'-11"-4 zone; 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" tall by 2'-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 84 lb uplift at joint 3 and 90 lb uplift at joint 2.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

March 27,2023

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144159
3458616	EJ02	Jack-Open	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:24:59 2023 Page 1

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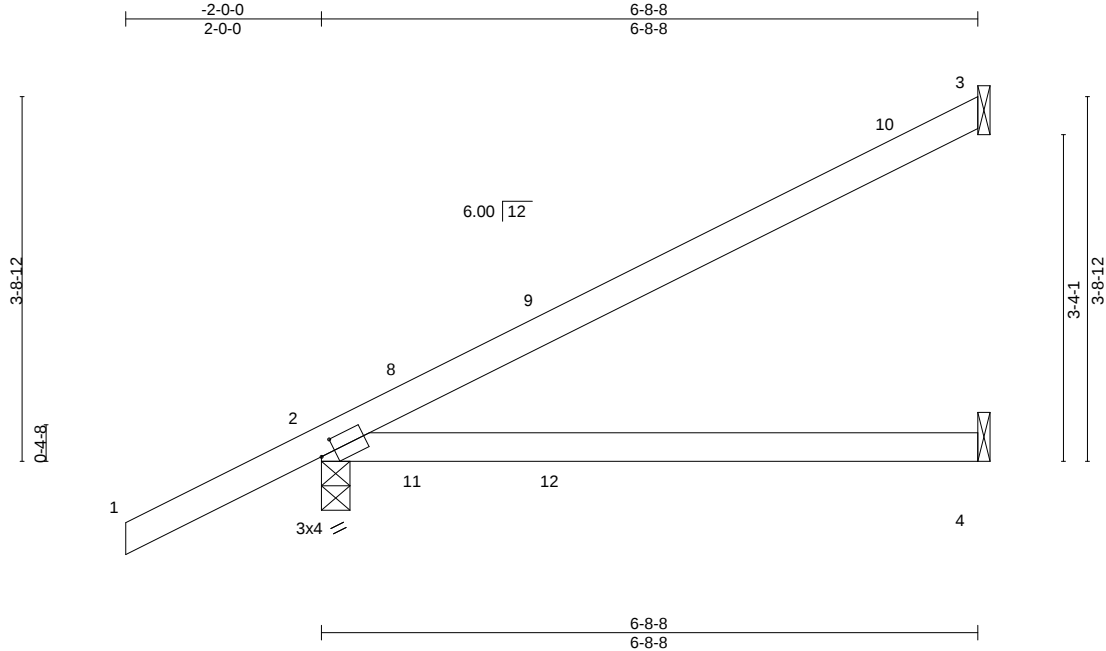


Plate Offsets (X,Y)--		[2:0-1-13,0-1-8]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.63	Vert(LL) 0.25 4-7 >317 240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.62	Vert(CT) 0.22 4-7 >371 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.01 3 n/a n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP		Weight: 25 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=140(LC 12)
Max Uplift 3=-83(LC 12), 2=-89(LC 12), 4=-38(LC 9)
Max Grav 3=153(LC 1), 2=370(LC 1), 4=119(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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 6-7-12 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 83 lb uplift at joint 3, 89 lb uplift at joint 2 and 38 lb uplift at joint 4.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
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Date:

March 27,2023

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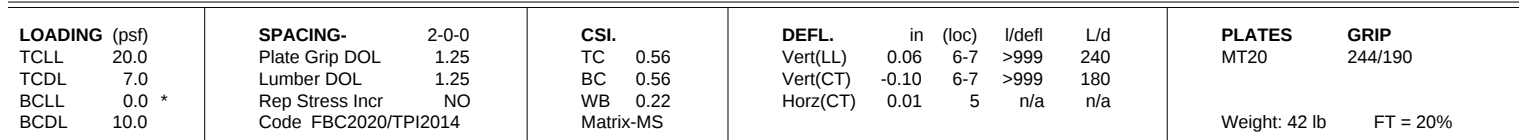
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:01 2023 Page 1
 ID:YPMxjjoRop4_h6tHh_ArnIzVUvx-HrazMqAv5Xq6RxBShJWCynRbCygjS99IugJPndzXo5W
 2-9-15 4-9-0 9-5-2
 2-9-15 4-9-0 4-8-2



REACTIONS. (size) 4=Mechanical, 2=0-4-9, 5=Mechanical
 Max Horz 2=157(LC 4)
 Max Uplift 4=-78(LC 4), 2=-214(LC 4), 5=-111(LC 5)
 Max Grav 4=138(LC 1), 2=446(LC 1), 5=259(LC 3)

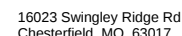
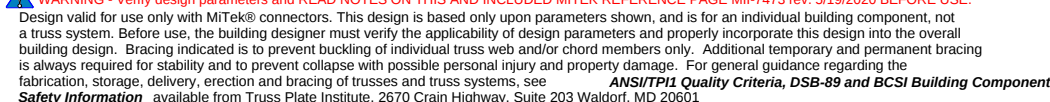
TOP CHORD 2-3=-547/213
BOT CHORD 2-7=-252/490, 6-7=-252/490
WEBS 3-6=-533/274

- 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 78 lb uplift at joint 4, 214 lb uplift at joint 2 and 111 lb uplift at joint 5.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 54 lb down and 103 lb up at 1-6-1, 54 lb down and 103 lb up at 1-6-1, 20 lb down and 33 lb up at 4-4-0, 20 lb down and 33 lb up at 4-4-0, and 41 lb down and 75 lb up at 7-1-15, and 41 lb down and 75 lb up at 7-1-15 on top chord, and 44 lb down and 74 lb up at 1-6-1, 44 lb down and 74 lb up at 1-6-1, 42 lb down and 21 lb up at 4-4-0, 42 lb down and 21 lb up at 4-4-0, and 65 lb down at 7-1-15, and 65 lb down at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 5-8=-20
Concentrated Loads (lb)
Vert: 11=50(F=25, B=25) 13=-64(F=-32, B=-32) 15=70(F=35, B=35) 16=5(F=2, B=2) 17=-49(F=-24, B=-24)

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

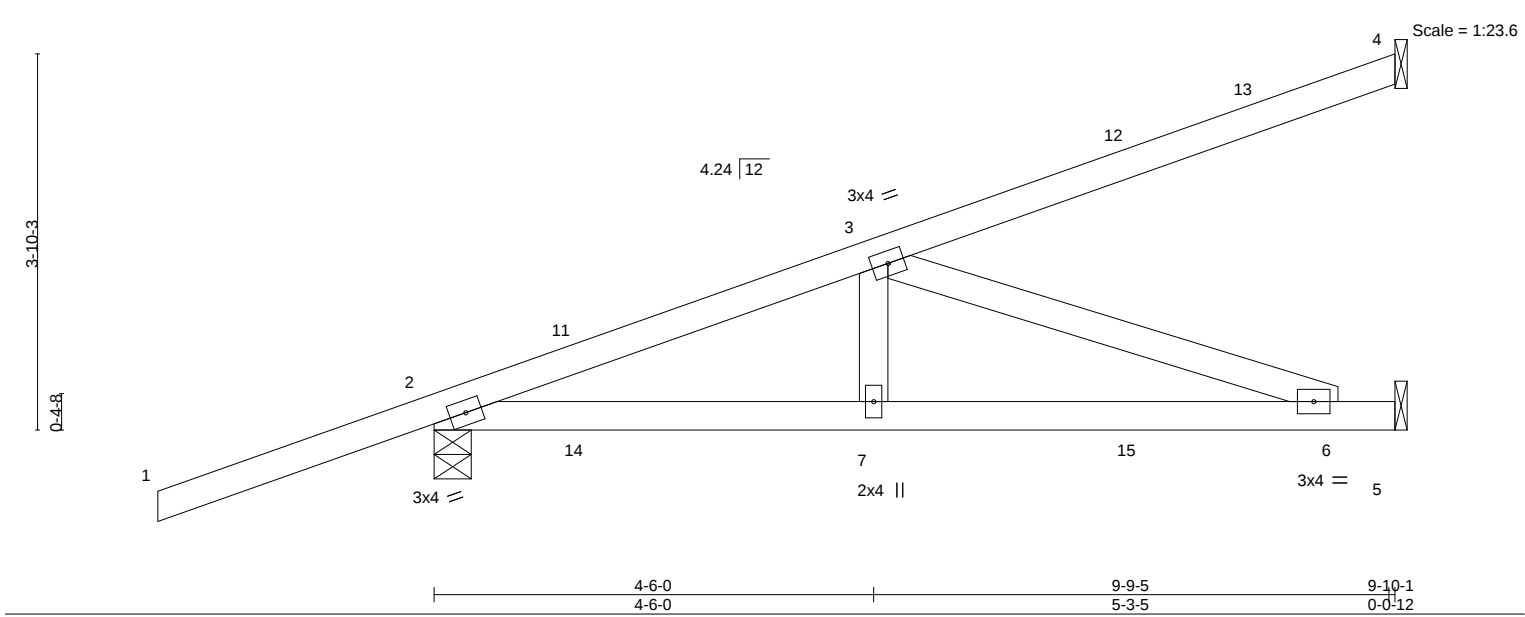
March 27, 2023



Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144161
3458616	HJ10	Diagonal Hip Girder	2	1	Job Reference (optional)	

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

8.530 s Mar 9 2023
MiTek Industries, Inc.
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Page 1
ID:YpMxjjoROp4_h6tHh_ArnIzVUvx-l18LaABXsryz35mfrQ1RU__lIM_OBbxu6K2zJ3zXo5V



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.60	Vert(LL) -0.06	6-7	>999	240		MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.66	Vert(CT) -0.15	6-7	>807	180			
BCLL 0.0 *	Rep Stress Incr NO	WB 0.32	Horz(CT) 0.01	5	n/a	n/a			
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS						Weight: 44 lb	FT = 20%

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

REACTIONS. (size) 4=Mechanical, 2=0-4-9, 5=Mechanical

Max Horz 2=160(LC 4)

Max Uplift 4=-79(LC 4), 2=-200(LC 4), 5=-63(LC 8)

Max Grav 4=152(LC 1), 2=463(LC 1), 5=264(LC 3)

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

TOP CHORD 2-3=-631/216

BOT CHORD 2-7=-250/575, 6-7=-250/575

WEBS 3-7=-4/258, 3-6=-609/265

- 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; 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 79 lb uplift at joint 4, 200 lb uplift at joint 2 and 63 lb uplift at joint 5.
 - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 54 lb down and 103 lb up at 1-6-1, 54 lb down and 103 lb up at 1-6-1, 20 lb down and 33 lb up at 4-4-0, 20 lb down and 33 lb up at 4-4-0, and 41 lb down and 75 lb up at 7-1-15, and 41 lb down and 75 lb up at 7-1-15 on top chord, and 21 lb down and 74 lb up at 1-6-1, 21 lb down and 74 lb up at 1-6-1, 19 lb down and 21 lb up at 4-4-0, 19 lb down and 21 lb up at 4-4-0, and 42 lb down and 42 lb down at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 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: 1-4=-54, 5-8=-20

Concentrated Loads (lb)

Vert: 7=5(F=2, B=2) 11=50(F=25, B=25) 12=-64(F=-32, B=-32) 14=70(F=35, B=35) 15=-49(F=-24, B=-24)

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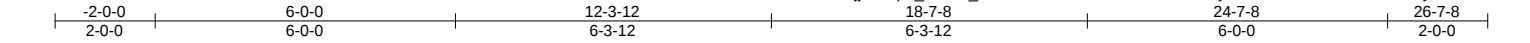
Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 27,2023

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144162
3458616	T01	Common	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:04 2023 Page 1
ID:YpMxjjoRop4_h6tHh_ArnLzVUvx-iPG6?sCnOSDhIPv1yr3vZP38UAfVfWZBaeX3OyzXo5T



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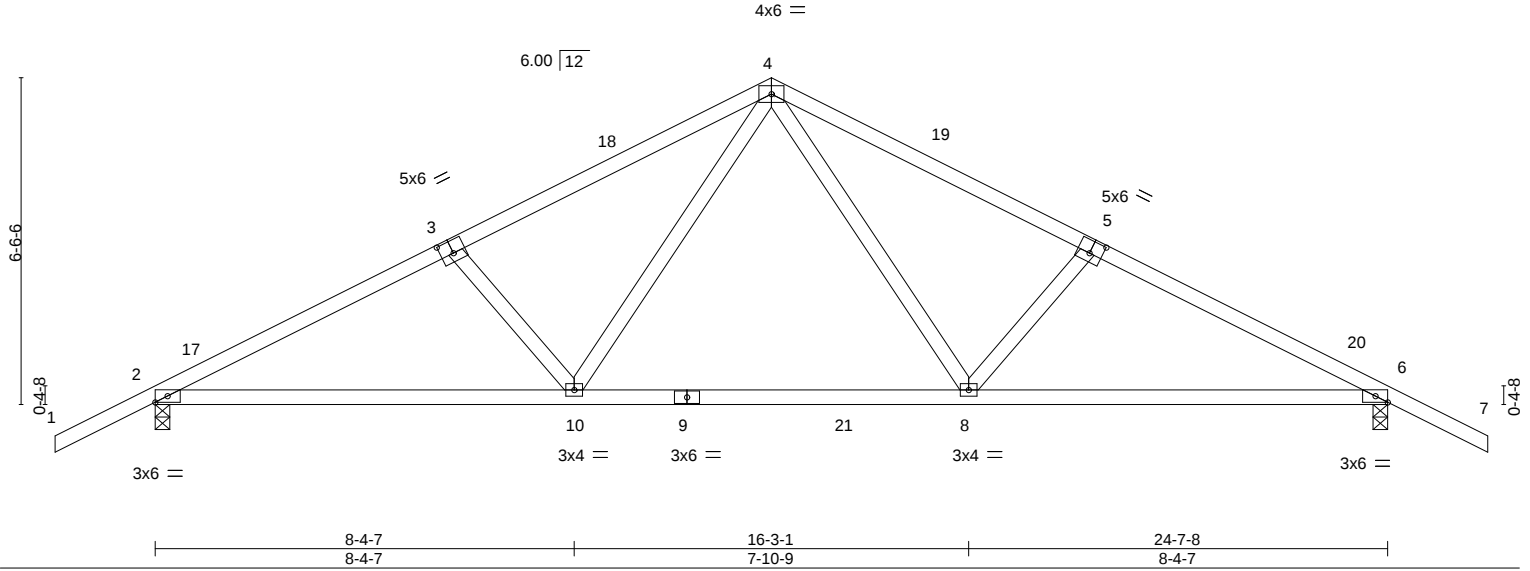


Plate Offsets (X,Y)-- [3:0-3-0,0-3-0], [5:0-3-0,0-3-0], [6:0-2-15,Edge]

LOADING (psf)	SPACING-		CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.43		Vert(LL)	-0.16	8-10	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.75		Vert(CT)	-0.24	8-10	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.24		Horz(CT)	0.05	6	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 117 lb	FT = 20%

LUMBER-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=-106(LC 13)
Max Uplift 2=-233(LC 12), 6=-233(LC 13)
Max Grav 2=1084(LC 2), 6=1084(LC 2)

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

TOP CHORD 2-3=-1706/371, 3-4=-1547/356, 4-5=-1546/356, 5-6=-1705/371
BOT CHORD 2-10=-310/1503, 8-10=-107/985, 6-8=-254/1500
WEBS 4-8=-133/638, 5-8=-343/208, 4-10=-133/640, 3-10=-343/207

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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 12-3-12, Exterior(2R) 12-3-12 to 15-3-12, Interior(1) 15-3-12 to 26-7-8 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 233 lb uplift at joint 2 and 233 lb uplift at joint 6.

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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:

March 27,2023

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144163
3458616	T01G	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),	Lake City, FL - 32055,	8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:06 2023 Page 1
		ID:YPmxjjoROp4_h6tHh_ArnIzVUVx-eoNsQYE2w3TPYj3Q4G6Nfq8XozV37SgU1y0ASqzXo5R
-2-0-0	12-3-12	24-7-8
2-0-0	12-3-12	26-7-8
		2-0-0

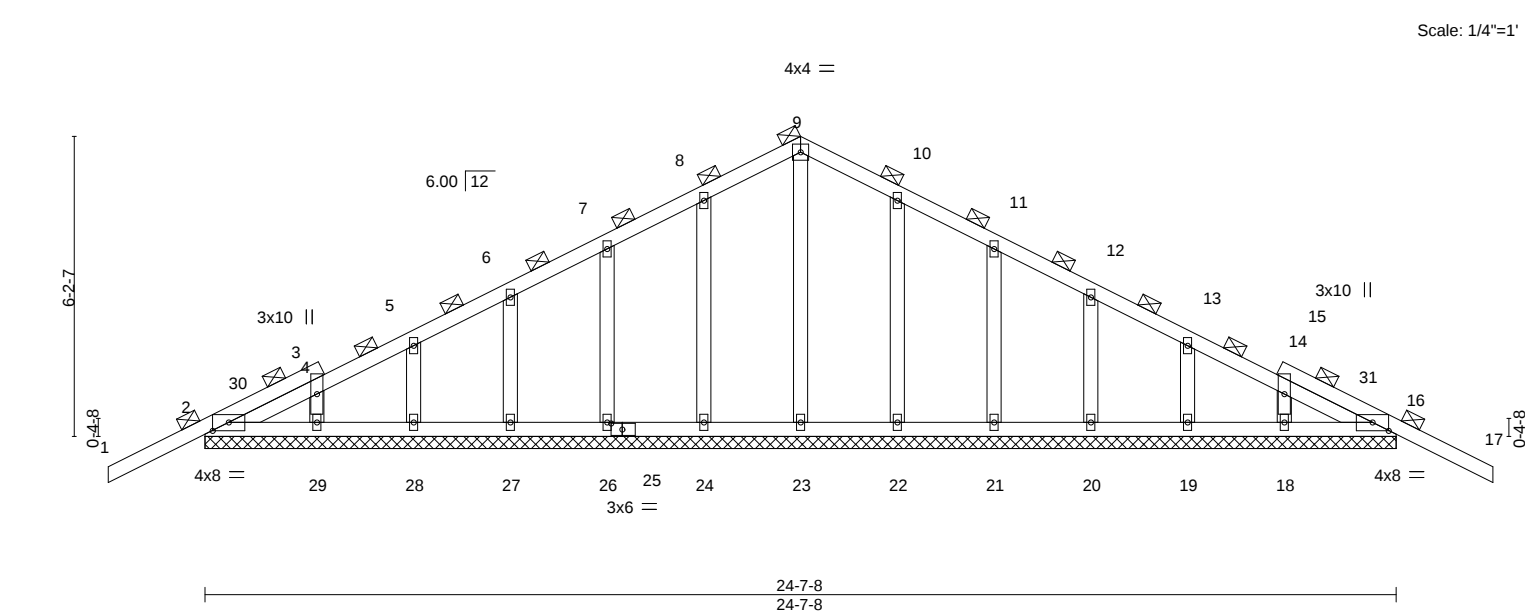


Plate Offsets (X,Y)-- [2:0-4-0,0-2-1], [16:0-4-0,0-2-1], [25:0-2-12,0-1-8]					
LOADING (psf)		SPACING-	CSI.	DEFL.	PLATES
TCLL	20.0	2-0-0	TC 0.24	in (loc) l/defl L/d	MT20
TCDL	7.0	Plate Grip DOL 1.25	BC 0.04	Vert(LL) -0.02 17 n/r 120	GRIP 244/190
BCLL	0.0 *	Lumber DOL 1.25	WB 0.08	Vert(CT) -0.03 17 n/r 120	
BCDL	10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 16 n/a n/a	
		Code FBC2020/TPI2014			Weight: 139 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD 2-0-0 oc purlins (6-0-0 max.).
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

REACTIONS.	All bearings 24-7-8.
(lb) - Max Horz	2=-102(LC 13)
Max Uplift	All uplift 100 lb or less at joint(s) 2, 16, 24, 26, 27, 28, 29, 22, 21, 20, 19, 18
Max Grav	All reactions 250 lb or less at joint(s) 2, 16, 23, 24, 26, 27, 28, 29, 22, 21, 20, 19, 18

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
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- 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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -2-0-0 to 1-0-0, Exterior(2N) 1-0-0 to 12-3-12, Corner(3R) 12-3-12 to 15-3-12, Exterior(2N) 15-3-12 to 26-7-8 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, 16, 24, 26, 27, 28, 29, 22, 21, 20, 19, 18.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

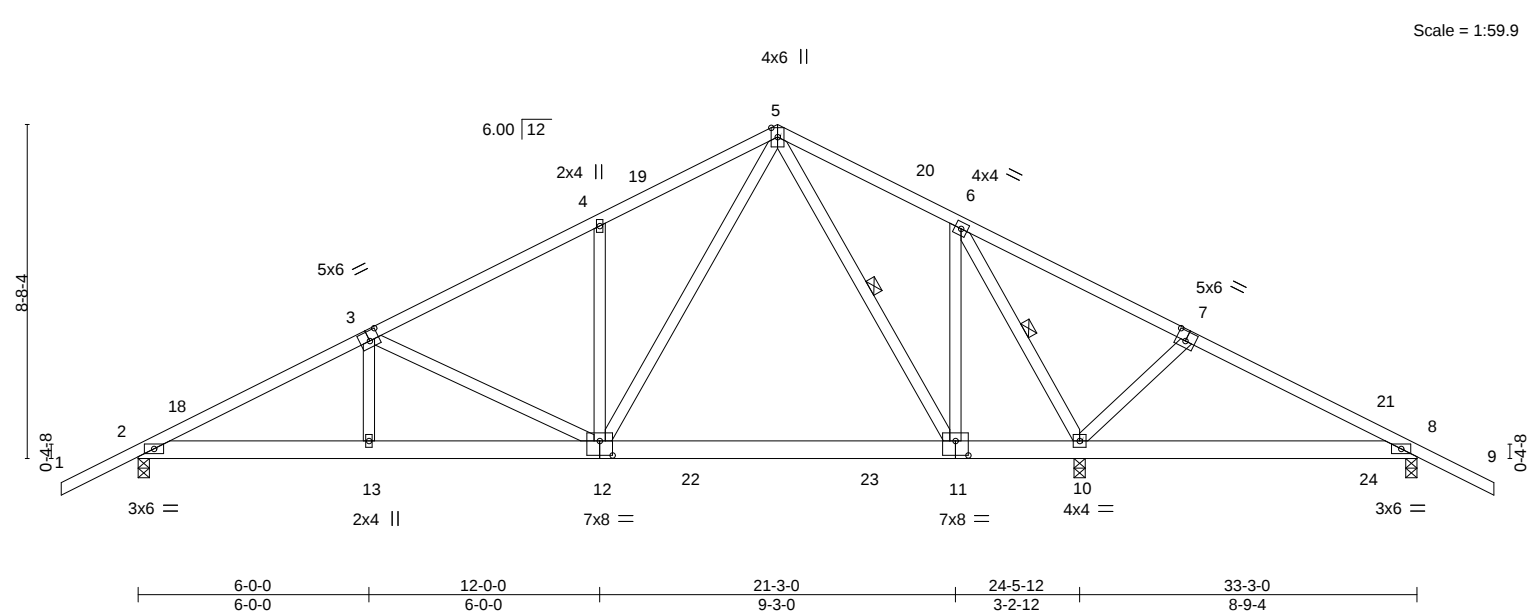
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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 27,2023

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144164
3458616	T02	Common	2	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),		Lake City, FL - 32055,		8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:08 2023 Page 1			
				ID:YpMxjjoROp4_h6tHh_ArnizVUvx-aBVdqEFIShj6n0DoBh8rkFEpln?3b88nVGvHXjzXo5P			
-2-0-0	6-0-0	12-0-0	16-7-8	21-3-0	27-3-0	33-3-0	35-3-0
2-0-0	6-0-0	6-0-0	4-7-8	4-7-8	6-0-0	6-0-0	2-0-0



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	0.21 11-12 >999	MT20	244/190		
TCDL	7.0	Lumber DOL	1.25	BC	0.77	Vert(CT)	-0.31 11-12 >943				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.91	Horz(CT)	0.03 10 n/a				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS						Weight: 212 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-0-11 oc purlins.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS	2x4 SP No.3	WEBS	6-0-0 oc bracing: 8-10.
			1 Row at midpt

REACTIONS.	(size) 2=0-3-8, 10=0-3-8, 8=0-3-8
	Max Horz 2=138(LC 12)
	Max Uplift 2=-281(LC 12), 10=-394(LC 13), 8=-84(LC 8)
	Max Grav 2=1162(LC 2), 10=1949(LC 2), 8=308(LC 24)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1922/588, 3-4=-1505/622, 4-5=-1496/712, 5-6=-622/378, 6-7=-129/475, 7-8=-97/291
BOT CHORD	2-13=-434/1760, 12-13=-432/1762, 11-12=-134/761, 10-11=-95/566
WEBS	5-11=-405/111, 6-11=-337/992, 6-10=-1830/733, 7-10=-316/191, 5-12=-536/1239, 4-12=-309/199, 3-12=-448/184

- 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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-3-14, Interior(1) 1-3-14 to 16-7-8, Exterior(2R) 16-7-8 to 19-11-6, Interior(1) 19-11-6 to 35-3-0 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, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=281, 10=394.
 - 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, 2-12=-20, 11-12=-80(F=-60), 8-11=-20

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

March 27,2023

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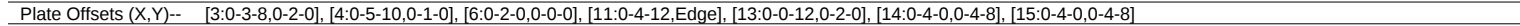
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Lake City, FL)		Lake City, FL - 32055,		8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:11 2023 Page 1	
ID: YPmxxjioRop4_h6tHh_ArnIzVUvx-?mBITFIAlc5HeUyNsphYMusK2_61odJDBDkx72zXoS5M					
-2-0-0	6-0-0	12-0-0	16-7-8	21-3-0	27-3-0
2-0-0	6-0-0	6-0-0	4-7-8	4-7-8	6-0-0
					33-3-0
					35-3-0
					2-0-0



LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	2-0-0 oc purlins (4-4-0 max.).
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS	2x4 SP No.3		6-0-0 oc bracing: 11-13.
OTHERS	2x4 SP No.3	WEBS	1 Row at midpt 6-14, 7-13

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

TOP CHORD 2-3=-1658/334, 3-4=-1149/245, 4-6=-1122/344, 6-7=-384/181, 7-9=-168/502,
9-11=-116/294

BOT CHORD 2-16=-341/1513, 15-16=-343/1490, 14-15=-27/564, 13-14=0/350

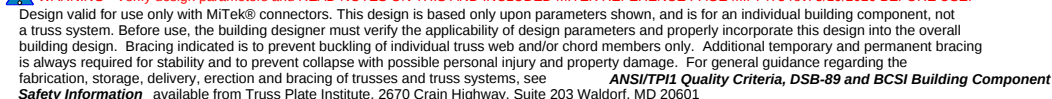
WEBS 3-15=-509/202, 4-15=-308/194, 6-15=-272/953, 6-14=-430/148, 7-14=-55/644,
7-13=-1393/236, 9-13=-319/187

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDF=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCp=-0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2.0-0 to 1-3-14, Interior(1) 1-3-14 to 16-7-8, Exterior(2R) 16-7-8 to 19-11-6, Interior(1) 19-11-6 to 35-3-0 zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) 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) 11 except (jt=lb) 2=238, 13=284.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

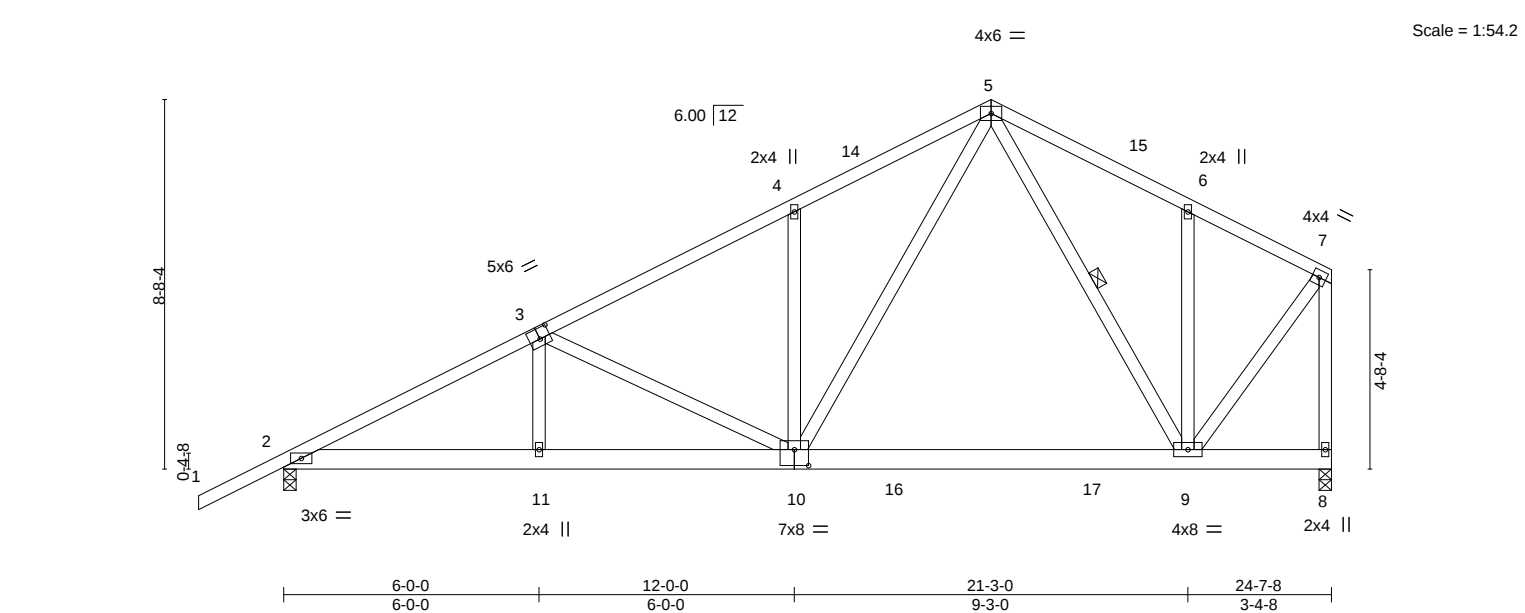
March 27, 2023



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144166
3458616	T03	Common	8	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),	Lake City, FL - 32055,	8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:12 2023 Page 1
ID:YpMxjjoROp4_h6tHh_ArnIzVUvx-Tyl7gblpVvDYGeXaQWDnu5OUvOMrX1jMQtTVgUzXo5L		
-2-0-0 2-0-0	6-0-0 6-0-0	12-0-0 6-0-0
	16-7-8	21-3-0 4-7-8
		24-7-8 3-4-8



Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144167
3458616	T04	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),		Lake City, FL - 32055,		8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:15 2023 Page 1				
ID:YpMxjioRop4_h6tHh_ArnIzVUvx-tXQGldLhoqb775F95fmUWk0tHcU8kNjp6ri9HpzXo5l								
-2-0-0	3-10-15	7-0-0	11-10-2	16-6-8	21-2-14	26-1-0	29-2-1	33-1-0
2-0-0	3-10-15	3-1-1	4-10-2	4-8-6	4-8-6	4-10-2	3-1-1	3-10-15

Scale = 1:59.3

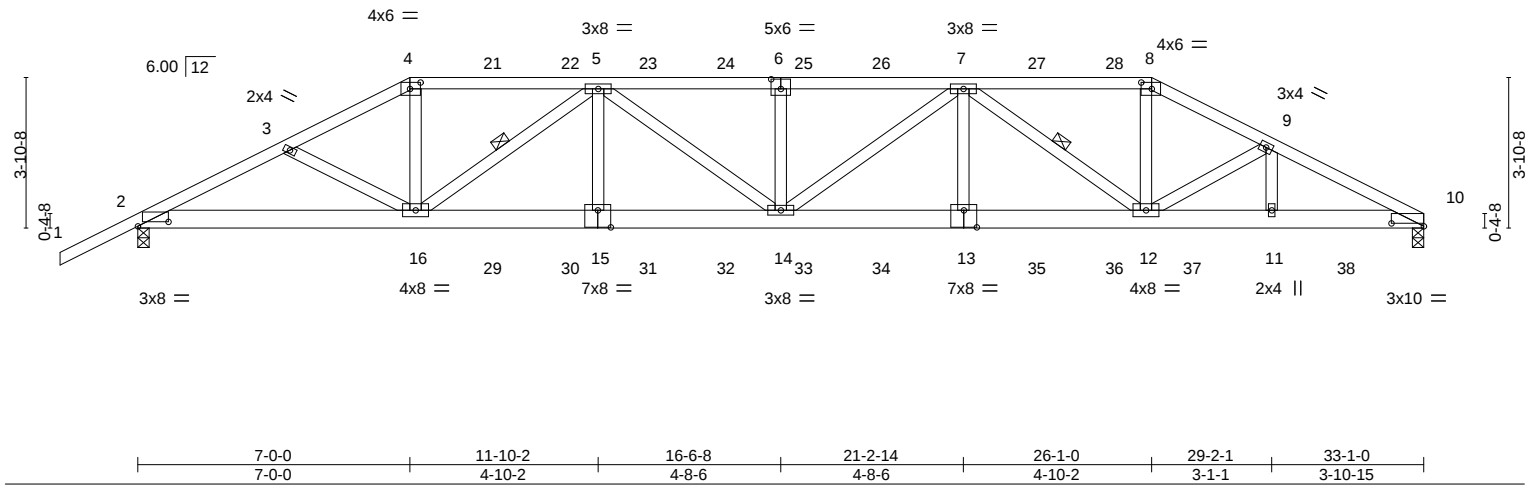


Plate Offsets (X,Y)--		[2:0-9-7,0-1-6], [4:0-3-4,0-2-0], [6:0-3-0,0-3-0], [8:0-3-4,0-2-0], [10:0-10-0,0-0-15], [13:0-4-0,0-5-4], [15:0-4-0,0-5-4]	
LOADING (psf)	SPACING-	CSL	DEFL.
TCLL 20.0	Plate Grip DOL 1.25	TC 0.96	in (loc) l/defl L/d
TCDL 7.0	Lumber DOL 1.25	BC 0.43	Vert(LL) -0.36 14 >999 240
BCLL 0.0 *	Rep Stress Incr NO	WB 0.69	Vert(CT) -0.67 14 >591 180
BCDL 10.0	Code FBC2020/TP12014	Matrix-MS	Horz(CT) 0.13 10 n/a n/a
		PLATES	GRIP
		MT20	244/190
		Weight: 201 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP M 26	BOT CHORD Rigid ceiling directly applied or 8-2-7 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-16, 7-12

REACTIONS. (size) 10=0-3-8, 2=0-3-8
Max Horz 2=82(LC 27)
Max Uplift 10=-772(LC 9), 2=-647(LC 8)
Max Grav 10=2655(LC 1), 2=2447(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4819/1256, 3-4=-4657/1210, 4-5=-4212/1122, 5-6=-6240/1627, 6-7=-6240/1627, 7-8=-4336/1234, 8-9=-4789/1333, 9-10=-5348/1547
BOT CHORD 2-16=-1128/4269, 15-16=-1476/5786, 14-15=-1476/5785, 13-14=-1488/5833, 12-13=-1487/5833, 11-12=-1339/4756, 10-11=-1339/4756
WEBS 4-16=-347/1690, 5-16=-2001/573, 5-15=0/405, 5-14=-197/606, 6-14=-464/239, 7-14=-145/558, 7-13=0/402, 7-12=-1918/501, 8-12=-435/1809, 9-12=-578/285, 9-11=-163/391

- 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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; 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.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=772, 2=647.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 125 lb down and 88 lb up at 7-0-0, 106 lb down and 88 lb up at 9-0-12, 106 lb down and 88 lb up at 11-0-12, 106 lb down and 88 lb up at 13-0-12, 106 lb down and 88 lb up at 15-0-12, 106 lb down and 85 lb up at 17-0-12, 106 lb down and 88 lb up at 19-0-12, 106 lb down and 88 lb up at 21-0-12, and 106 lb down and 88 lb up at 23-0-12, and 106 lb down and 88 lb up at 25-0-12 on top chord, and 293 lb down and 90 lb up at 7-0-0, 85 lb down at 9-0-12, 85 lb down at 11-0-12, 85 lb down at 13-0-12, 85 lb down at 15-0-12, 85 lb down at 17-0-12, 85 lb down at 19-0-12, 85 lb down at 21-0-12, 85 lb down at 23-0-12, 85 lb down at 25-0-12, 218 lb down and 111 lb up at 27-0-12, and 218 lb down and 111 lb up at 29-0-12, and 218 lb down and 111 lb up at 31-0-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

March 27,2023

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144167
3458616	T04	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Mar 9 2023
MiTek Industries, Inc.
Fri Mar 24 07:25:15 2023
Page 2
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LOAD CASE(S)
Standard

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

Uniform Loads (plf)

Vert: 1-4=-54, 4-8=-54, 8-10=-54, 2-10=-20

Concentrated Loads (lb)

Vert: 4=-106(F) 16=-282(F) 13=-61(F) 7=-106(F) 11=-218(F) 21=-106(F) 22=-106(F) 23=-106(F) 24=-106(F) 25=-106(F) 26=-106(F) 27=-106(F) 28=-106(F) 29=-61(F) 30=-61(F) 31=-61(F) 32=-61(F) 33=-61(F) 34=-61(F) 35=-61(F) 36=-61(F) 37=-218(F) 38=-218(F)

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144168
3458616	T05	Hip	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:17 2023 Page 1

ID:YPMxjjoROp4_h6tHh_ArnIzVUvx-pwY0jJMxKSrrMPPXD4oyb96liP3JCNN6Z9BFLizXo5G



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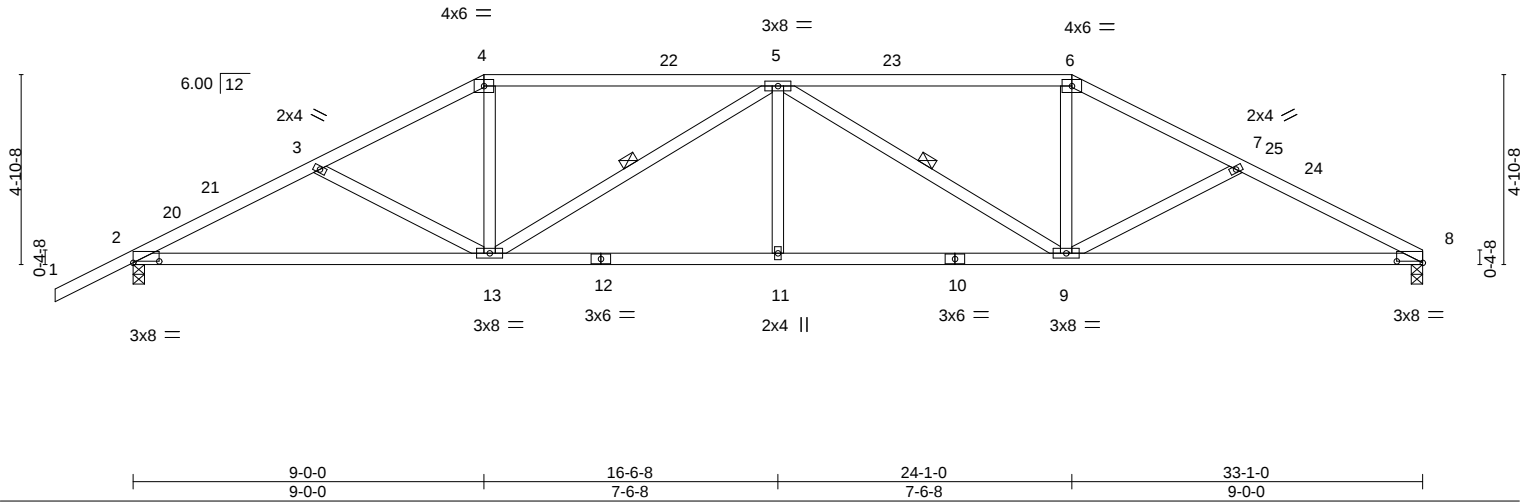


Plate Offsets (X,Y)-- [2:0-8-0,0-0-8], [8:0-8-0,0-0-7]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.65	Vert(LL)	-0.16	11	>999	240	MT20 244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.83	Vert(CT)	-0.34	9-16	>999	180	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.11	8	n/a	n/a	
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 163 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 3-3-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-8-3 oc bracing.
WEBS 1 Row at midpt 5-13, 5-9

REACTIONS.

(size) 8=0-3-8, 2=0-3-8
Max Horz 2=97(LC 12)
Max Uplift 8=-264(LC 13), 2=-309(LC 12)
Max Grav 8=1221(LC 1), 2=1335(LC 1)

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

TOP CHORD 2-3=-2283/499, 3-4=-2034/430, 4-5=-1791/418, 5-6=-1804/426, 6-7=-2049/440,
7-8=-2304/518
BOT CHORD 2-13=-459/2000, 11-13=-449/2282, 9-11=-449/2282, 8-9=-412/2035
WEBS 3-13=-259/148, 4-13=-81/596, 5-13=-669/213, 5-11=0/268, 5-9=-661/209, 6-9=-81/604,
7-9=-285/162

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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-3-11, Interior(1) 1-3-11 to 9-0-0, Exterior(2R) 9-0-0 to 13-8-2, Interior(1) 13-8-2 to 24-1-0, Exterior(2R) 24-1-0 to 28-9-2, Interior(1) 28-9-2 to 33-1-0 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.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=264, 2=309.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

March 27,2023

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144169
3458616	T06	Hip	1	1	Job Reference (optional)	

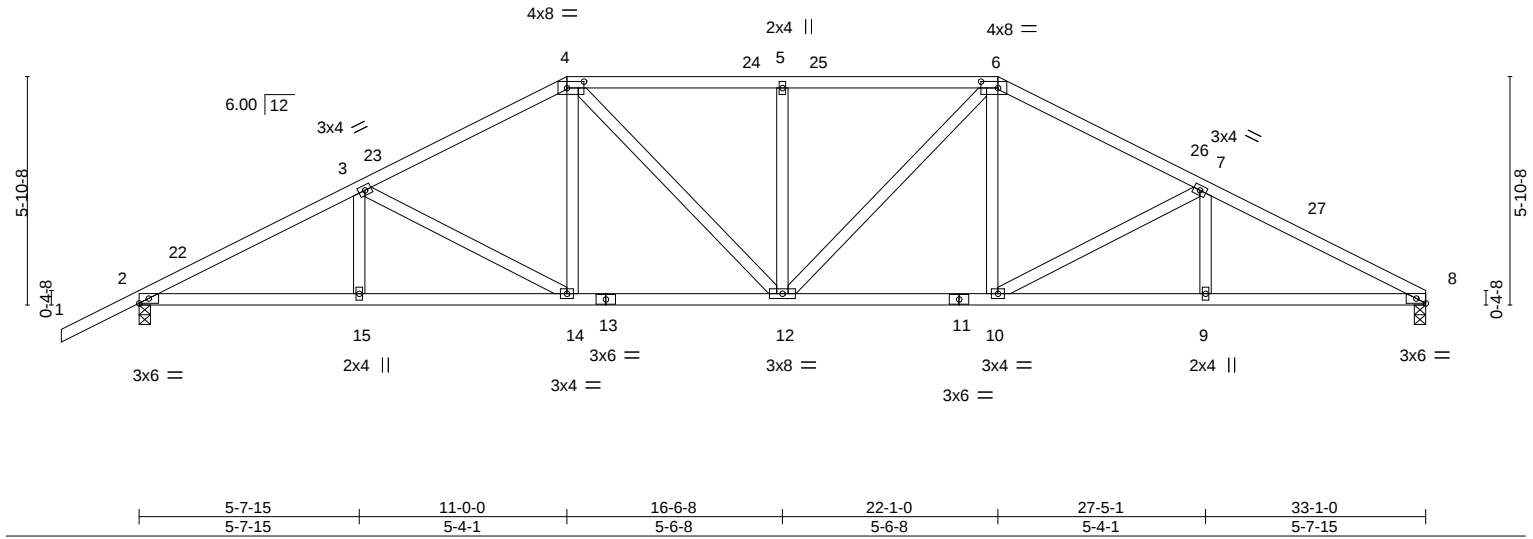
Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:19 2023 Page 1

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Scale = 1:59.2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.34	Vert(LL)	-0.13 12 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.56	Vert(CT)	-0.24 10-12 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.10 8 n/a n/a				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
								Weight: 177 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-7-7 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 8-10-6 oc bracing.
WEBS	2x4 SP No.3		

REACTIONS.	
(size)	8=0-3-8, 2=0-3-8
Max Horz	2=111(LC 16)
Max Uplift	8=-262(LC 13), 2=-306(LC 12)
Max Grav	8=1221(LC 1), 2=1335(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-2299/473, 3-4=-1875/416, 4-5=-1840/448, 5-6=-1840/448, 6-7=-1882/421, 7-8=-2333/493
BOT CHORD	2-15=-446/2003, 14-15=-446/2003, 12-14=-287/1622, 10-12=-243/1627, 9-10=-383/2037, 8-9=-383/2037
WEBS	3-14=-444/181, 4-14=-53/376, 4-12=-131/419, 5-12=-339/166, 6-12=-129/413, 6-10=-59/379, 7-10=-477/198

- 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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-3-11, Interior(1) 1-3-11 to 11-0-0, Exterior(2R) 11-0-0 to 15-8-2, Interior(1) 15-8-2 to 22-1-0, Exterior(2R) 22-1-0 to 26-9-2, Interior(1) 26-9-2 to 33-1-0 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.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=262, 2=306.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

March 27, 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



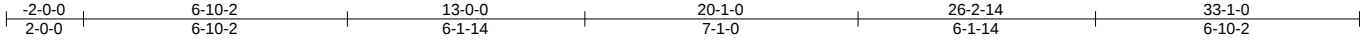
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144170
3458616	T07	Hip	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:21 2023 Page 1

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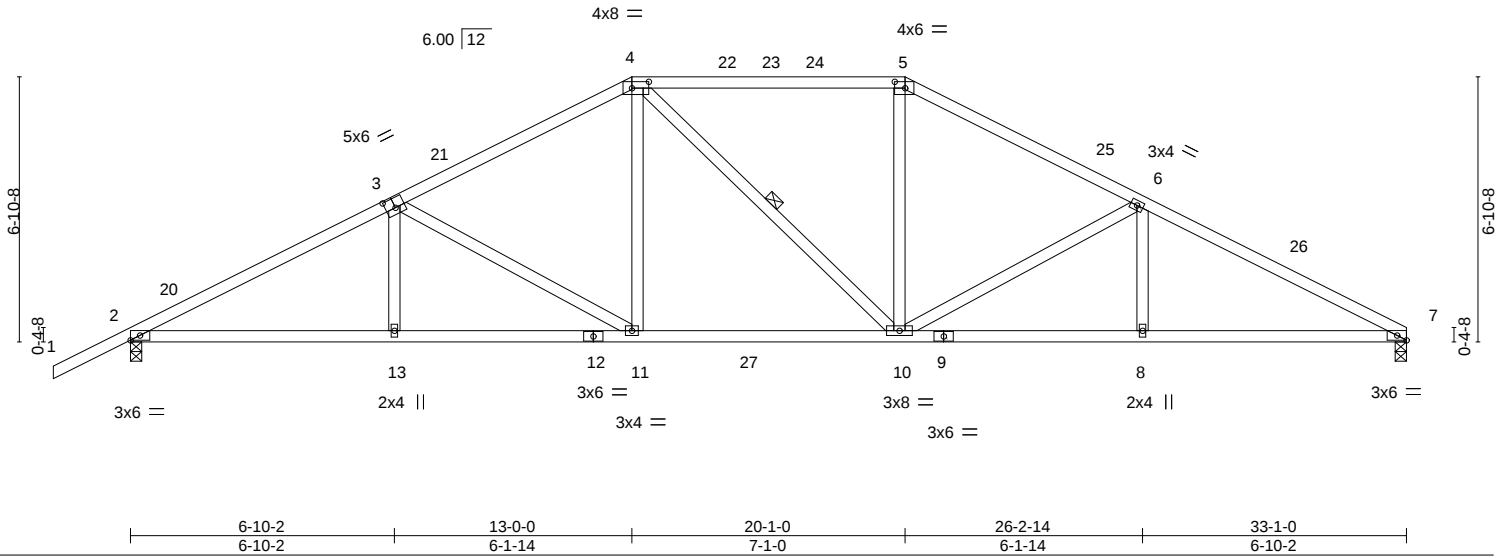


Plate Offsets (X,Y)-- [3:0-3-0,0-3-0], [4:0-5-4,0-2-0], [5:0-3-4,0-2-0], [7:0-2-15,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.79	Vert(LL)	-0.18 10-11	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.76	Vert(CT)	-0.31 10-11	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.59	Horz(CT)	0.10 7	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 169 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 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-10-6 oc bracing.
WEBS 1 Row at midpt 4-10

REACTIONS.

(size) 7=0-3-8, 2=0-3-8
Max Horz 2=126(LC 12)
Max Uplift 7=-259(LC 13), 2=-304(LC 12)
Max Grav 7=1323(LC 2), 2=1421(LC 2)

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

TOP CHORD 2-3=-2447/458, 3-4=-1894/403, 4-5=-1637/392, 5-6=-1884/405, 6-7=-2443/473
BOT CHORD 2-13=-436/2138, 11-13=-436/2141, 10-11=-242/1646, 8-10=-354/2149, 7-8=-354/2149
WEBS 3-13=0/263, 3-11=-589/223, 4-11=-66/551, 5-10=-58/537, 6-10=-607/237, 6-8=0/267

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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-3-11, Interior(1) 1-3-11 to 13-0-0, Exterior(2R) 13-0-0 to 17-8-2, Interior(1) 17-8-2 to 20-1-0, Exterior(2R) 20-1-0 to 24-9-2, Interior(1) 24-9-2 to 33-1-0 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.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=-259, 2=304.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

March 27,2023

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



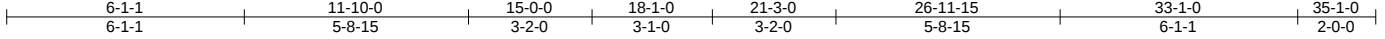
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144171
3458616	T08	Hip	1	1	Job Reference (optional)	

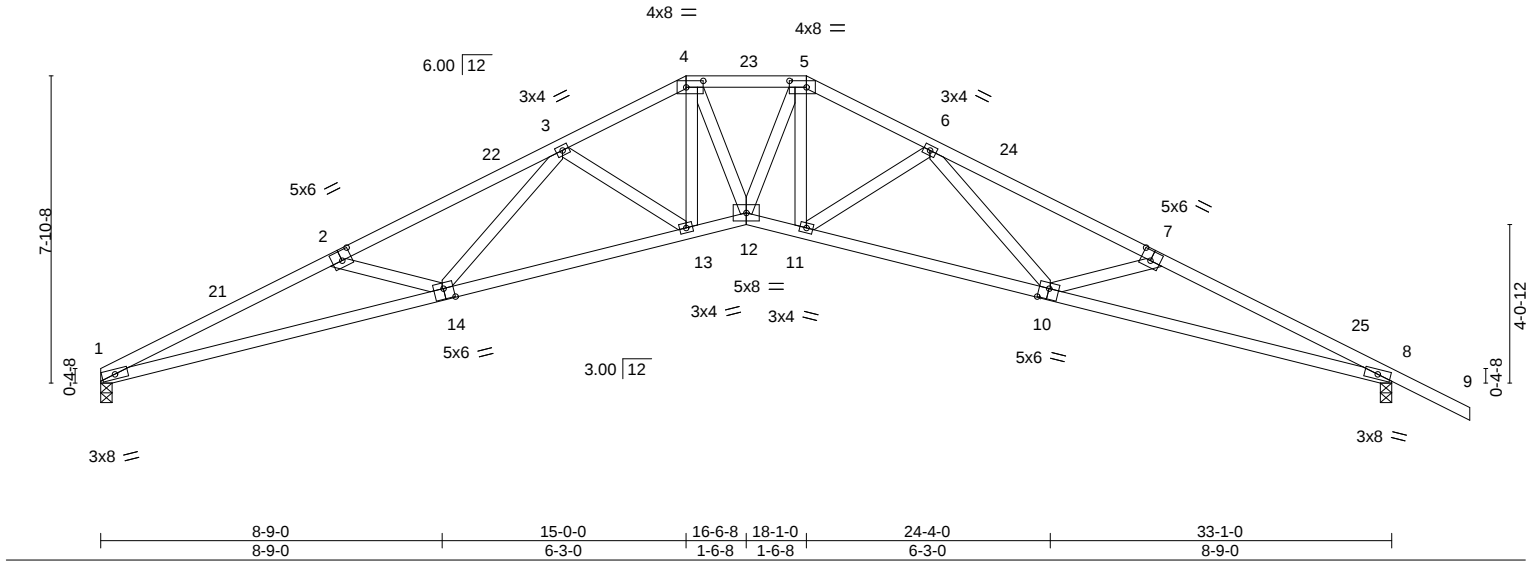
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:23 2023 Page 1

ID:YpMxjjoR0p4_h6tHh_ArnIzVUvx-e3vH_MRiWlc_4KshZKvMrQMKkq77c6C_x5eaZLzXo5A



Scale = 1:59.0



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.68	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.80	Vert(LL) -0.43 12 >930 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.25	Vert(CT) -0.79 10-11 >501 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.55 8 n/a n/a		
	Code FBC2020/TPI2014			Weight: 164 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-14 oc purlins.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 6-8-6 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS.	(size) 1=0-3-8, 8=0-3-8
	Max Horz 1=-141(LC 13)
	Max Uplift 1=-256(LC 12), 8=-300(LC 13)
	Max Grav 1=1221(LC 1), 8=1335(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-4154/925, 2-3=-3791/784, 3-4=-2922/547, 4-5=-2842/526, 5-6=-2922/540, 6-7=-3756/679, 7-8=-4105/770
BOT CHORD	1-14=-889/3779, 13-14=-569/3125, 12-13=-360/2649, 11-12=-303/2647, 10-11=-434/3116, 8-10=-631/3724
WEBS	2-14=-355/237, 3-14=-141/550, 3-13=-556/250, 4-13=-164/567, 4-12=-91/645, 5-12=-158/649, 5-11=-161/566, 6-11=-546/247, 6-10=-132/542, 7-10=-336/232

- 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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-3-11, Interior(1) 3-3-11 to 15-0-0, Exterior(2E) 15-0-0 to 18-1-0, Exterior(2R) 18-1-0 to 22-9-2, Interior(1) 22-9-2 to 35-1-0 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.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Bearing at joint(s) 1, 8 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) 1=256, 8=300.

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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:

March 27,2023

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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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144172
3458616	T08A	Scissor	2	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:25 2023 Page 1

ID:YPMxjjoROp4_h6tHh_ArnizVUvx-aS12P2SyRvsikD04hlxqrRgrem64seHPP7hdEzXo58

6-1-1	11-10-0	16-6-8	21-3-0	26-11-15	33-1-0	35-1-0	2-0-0
6-1-1	5-8-15	4-8-8	4-8-8	5-8-15	6-1-1	35-1-0	2-0-0

Scale = 1:59.2

4x4 ||

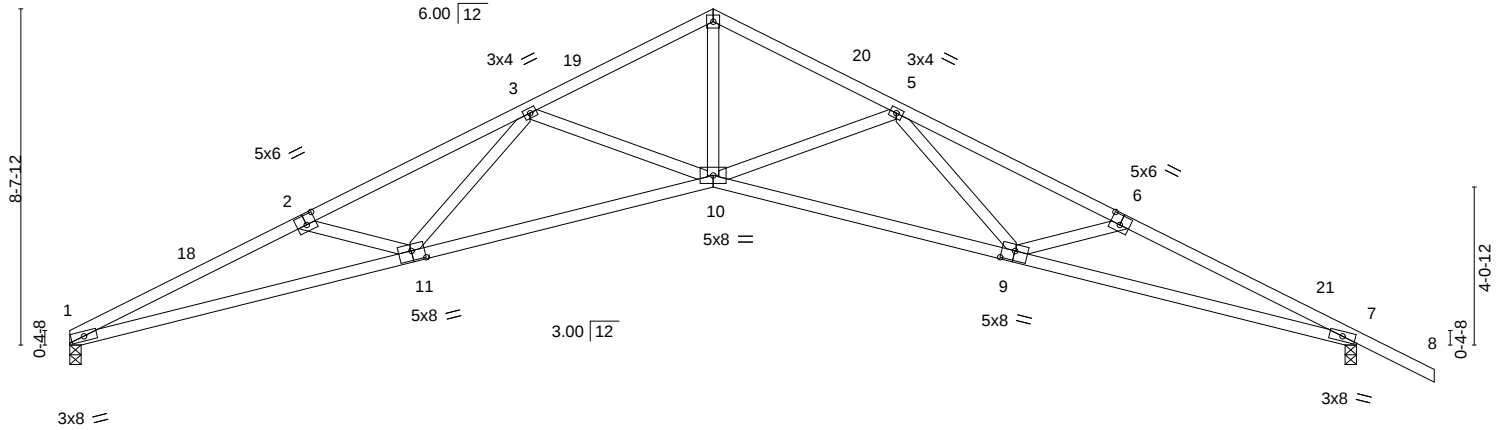


Plate Offsets (X,Y)--	[2:0-3-0,0-3-0], [6:0-3-0,0-3-0], [9:0-4-0,0-3-0], [11:0-4-0,0-3-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.70	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.90	Vert(LL) -0.45 9-10 >881 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.83	Vert(CT) -0.89 9-10 >447 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.57 7 n/a n/a		
	Code FBC2020/TPI2014			Weight: 153 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2 *Except*
 1-11,7-9: 2x4 SP No.1
 WEBS 2x4 SP No.3

REACTIONS.

(size) 1=0-3-8, 7=0-3-8
 Max Horz 1=-152(LC 13)
 Max Uplift 1=-253(LC 12), 7=-298(LC 13)
 Max Grav 1=1221(LC 1), 7=1335(LC 1)

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

TOP CHORD 1-2=-4167/926, 2-3=-3802/779, 3-4=-2731/485, 4-5=-2731/494, 5-6=-3769/652,
 6-7=-4119/760
 BOT CHORD 1-11=-901/3793, 10-11=-590/3126, 9-10=-421/3116, 7-9=-607/3742
 WEBS 4-10=-356/2170, 5-10=-687/307, 5-9=-117/594, 6-9=-335/233, 3-10=-698/309,
 3-11=-125/602, 2-11=-355/239

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=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) 0-0-0 to 3-3-11, Interior(1) 3-3-11 to 16-6-8, Exterior(2R) 16-6-8 to 19-10-3, Interior(1) 19-10-3 to 35-1-0 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.
- Bearing at joint(s) 1, 7 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) 1=253, 7=298.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

March 27,2023

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Continued on page 2

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

March 27, 2023

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144173
3458616	T09	Roof Special Girder	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:27 2023 Page 2
ID:YPmxjjoROp4_h6tHh_ArnIzVUvx-Xr9oqjUDzW6QZxASoA_!GWxeRRSYlgasjcnI6zXo56

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (plf)
- Vert: 1-3=-54, 3-5=-54, 5-7=-54, 7-11=-54, 17-19=-20, 13-17=-20, 13-22=-20
- Concentrated Loads (lb)
- Vert: 3=-99(F) 18=-278(F)

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

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



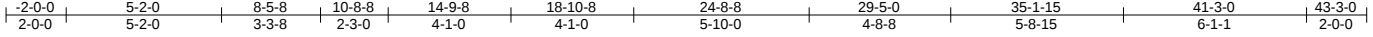
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144175
3458616	T11	Roof Special	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:31 2023 Page 1

ID:YPMxjoROp4_h6tHh_ArnIzVUvx-PcOJf5Xj1lcs2YUD102E96heg2qnUay9nLa?ruzXo52



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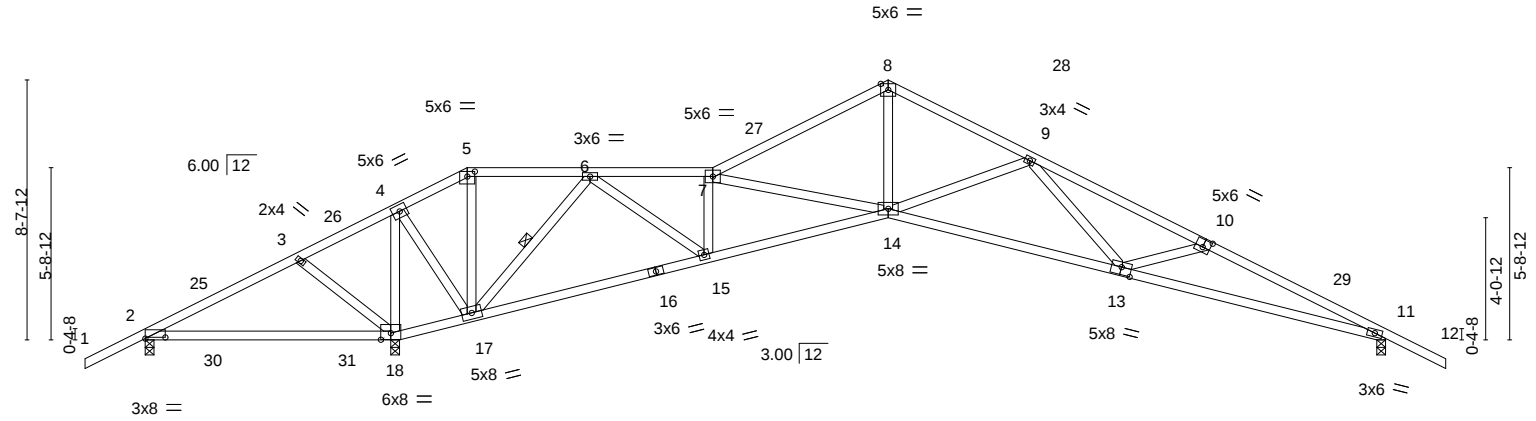


Plate Offsets (X,Y)--	8-3-12 8-3-12	8-5-8 0-1-12	10-8-8 2-3-0	18-10-8 8-2-0	24-8-8 5-10-0	32-6-0 7-9-8	41-3-0 8-9-0
	[2:0-8-0,0-0-7],	[5:0-3-0,0-2-0],	[10:0-3-0,0-3-0],	[13:0-4-0,0-3-0],	[18:0-4-0,0-2-10]		

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.87	Vert(LL)	0.21 18-21	>461	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.88	Vert(CT)	-0.52 13-14	>761	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.77	Horz(CT)	0.23 11	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 215 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-1-10 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 3-6-10 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 6-17

REACTIONS. (size) 2=0-3-8, 18=0-3-8, 11=0-3-8
Max Horz 2=138(LC 16)
Max Uplift 2=-688(LC 1), 18=-593(LC 12), 11=-271(LC 13)
Max Grav 2=81(LC 12), 18=2895(LC 1), 11=1061(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-370/2217, 3-4=-411/2421, 4-5=-146/1222, 5-6=-111/1083, 6-7=-955/266,
7-8=-1548/316, 8-9=-1543/313, 9-10=-2639/508, 10-11=-3014/654
BOT CHORD 2-18=-1909/352, 17-18=-2141/454, 15-17=-346/226, 14-15=-191/1049, 13-14=-278/2033,
11-13=-508/2733
WEBS 3-18=-313/212, 4-18=-2084/433, 4-17=-304/1766, 5-17=-701/144, 6-17=-1395/298,
6-15=-216/1431, 7-15=-996/215, 7-14=-6/458, 8-14=-152/1046, 9-14=-703/305,
9-13=-122/638, 10-13=-358/237

- 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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 2-1-8, Interior(1) 2-1-8 to 10-8-8, Exterior(2R) 10-8-8 to 14-9-8, Interior(1) 14-9-8 to 24-8-8, Exterior(2R) 24-8-8 to 28-10-0, Interior(1) 28-10-0 to 43-3-0 zone; porch 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.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Bearing at joint(s) 18, 11 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) 2=688, 18=593, 11=271.

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Date:

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144178
3458616	T14	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),		Lake City, FL - 32055,		8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:38 2023 Page 1					
ID:YPMxjjoROp4_h6tHh_ArnIzVUvx-iyJy7Uc6OvVsNdWZy_gtyaTsTtC5dn?BOWmta_zXo4x									
-2-0-0	5-2-0	8-5-8	12-0-0	16-8-8	20-7-8	24-6-8	29-5-0	35-1-15	41-3-0
2-0-0	5-2-0	3-3-8	3-6-8	4-8-8	3-11-0	3-11-0	4-10-8	5-8-15	6-1-1

Scale = 1:75.7

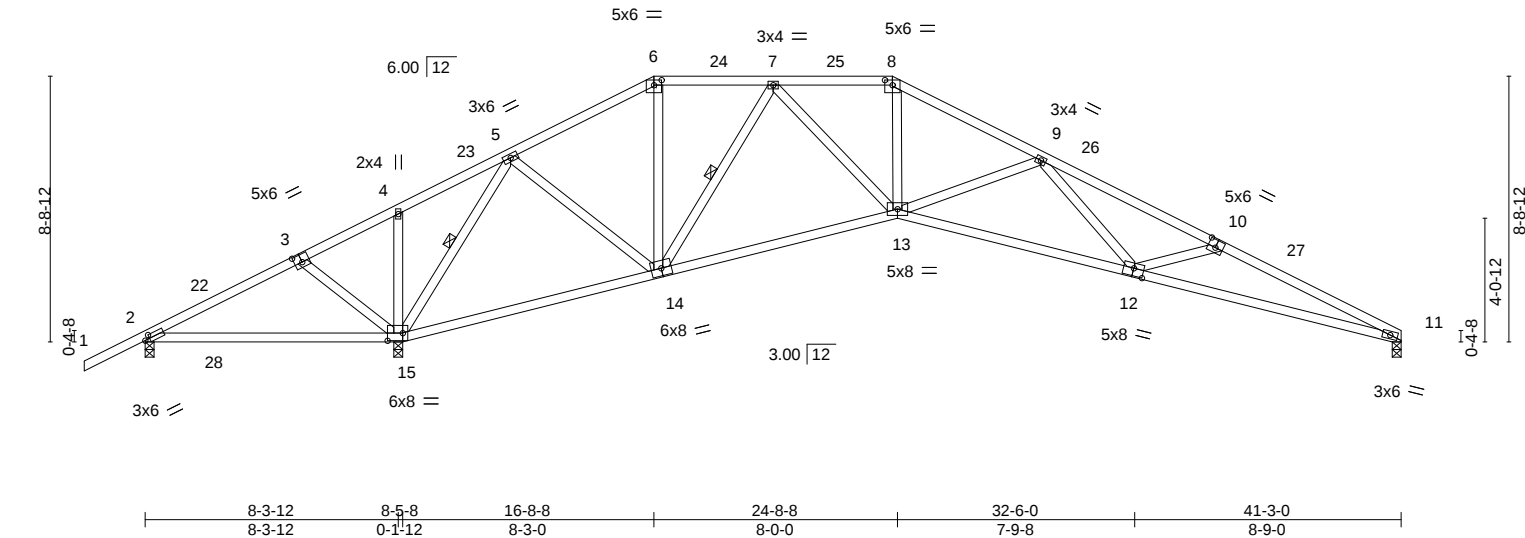


Plate Offsets (X,Y)--																			
[2:0-1-15,0-1-8], [3:0-3-0,0-3-0], [6:0-3-0,0-2-0], [8:0-3-0,0-2-0], [10:0-3-0,0-3-0], [12:0-4-0,0-3-0], [15:0-6-0,0-3-0]																			
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL		1.25		TC	0.77	Vert(LL)	0.26	15-18	>388		240		MT20		244/190		
TCDL	7.0	Lumber DOL		1.25		BC	0.90	Vert(CT)	-0.50	12-13	>790		180						
BCLL	0.0	*	Rep Stress Incr		YES		WB	0.69	Horz(CT)	0.23	11	n/a		n/a					
BCDL	10.0	Code		FBC2020/TPI2014		Matrix-MS										Weight: 217 lb		FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-11-12 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 4-2-10 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-15, 7-14

REACTIONS. (size) 2=0-3-8, 15=0-3-8, 11=0-3-8
Max Horz 2=154(LC 16)
Max Uplift 2=-630(LC 24), 15=-474(LC 12), 11=-243(LC 13)
Max Grav 2=102(LC 13), 15=2615(LC 1), 11=987(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-271/1709, 3-4=-282/1915, 4-5=-250/1945, 5-6=-529/176, 6-7=-418/184,
7-8=-1446/343, 8-9=-1710/356, 9-10=-2842/626, 10-11=-3223/773
BOT CHORD 2-15=-1461/387, 14-15=-631/292, 13-14=-108/904, 12-13=-348/2210, 11-12=-651/2930
WEBS 3-15=-295/221, 5-15=-2306/408, 5-14=-121/1151, 7-14=-992/209, 7-13=-144/856,
8-13=-72/530, 9-13=-715/316, 9-12=-133/634, 10-12=-363/242

- 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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 2-1-8, Interior(1) 2-1-8 to 16-8-8, Exterior(2R) 16-8-8 to 22-6-8, Interior(1) 22-6-8 to 24-6-8, Exterior(2R) 24-6-8 to 30-4-8, Interior(1) 30-4-8 to 41-3-0 zone; porch 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.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Bearing at joint(s) 11 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) 2=630, 15=474, 11=243.

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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:

March 27,2023

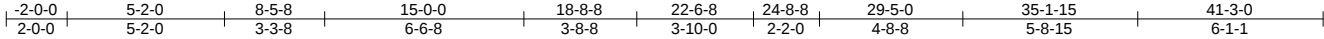
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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	MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017
--	--

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144179
3458616	T15	Hip	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:40 2023 Page 1

ID:YPmxjjoROp4_h6tHh_ArnIzVUvx-eLRjYAeNvWladxgy3PjL1?ZCohuU5coUsEFzeszXo4v



Scale = 1:75.7

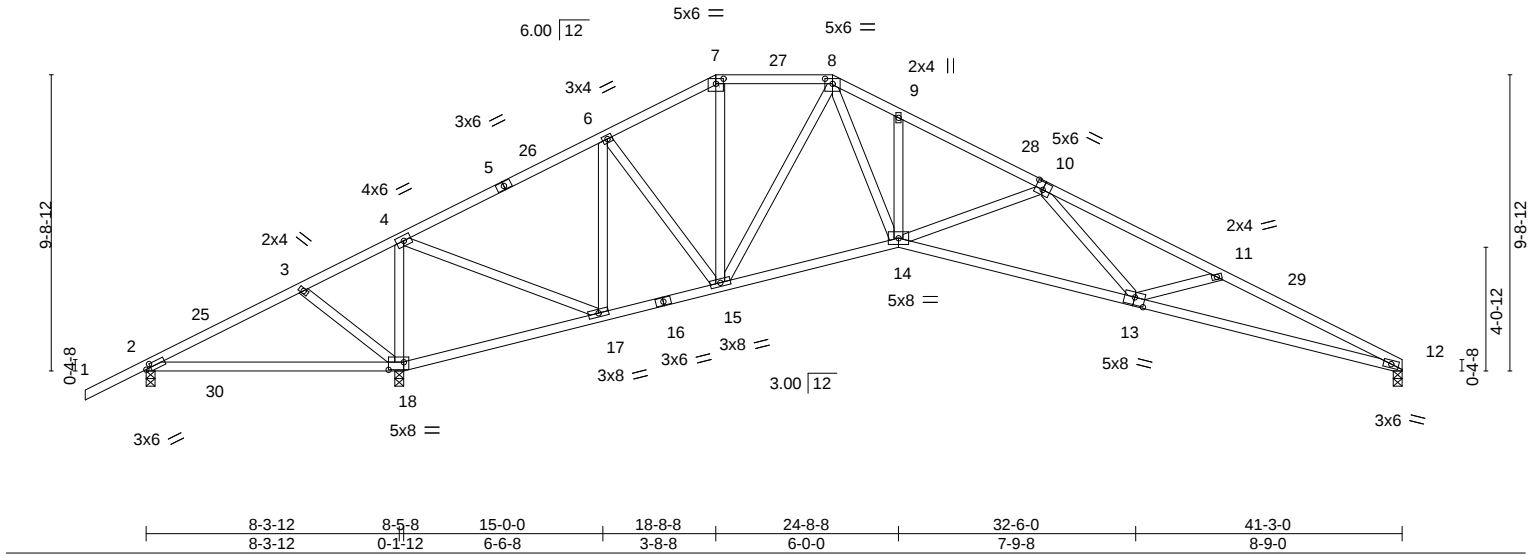


Plate Offsets (X,Y)--		[2:0-1-15,0-1-8], [7:0-3-0,0-2-0], [8:0-3-0,0-2-0], [10:0-3-0,0-3-0], [13:0-4-0,0-3-0], [18:0-6-0,0-3-0]													
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc) l/defl L/d		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL		1.25		TC	0.78	Vert(LL)	0.26	18-21	>396	240	MT20	244/190	
TCDL	7.0	Lumber DOL		1.25		BC	0.91	Vert(CT)	-0.52	13-14	>755	180			
BCLL	0.0 *	Rep Stress Incr		YES		WB	0.99	Horz(CT)	0.23	12	n/a	n/a			
BCDL	10.0	Code FBC2020/TPI2014				Matrix-MS							Weight: 227 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 3-0-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-2-6 oc bracing.

REACTIONS.

(size) 2=0-3-8, 18=0-3-8, 12=0-3-8
Max Horz 2=169(LC 16)
Max Uplift 2=-595(LC 24), 18=-475(LC 12), 12=-241(LC 13)
Max Grav 2=93(LC 13), 18=2600(LC 1), 12=990(LC 1)

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

TOP CHORD 2-3=-253/1686, 3-4=-265/1879, 4-6=-364/113, 6-7=-662/235, 7-8=-538/226,
8-9=-1692/411, 9-10=-1728/351, 10-11=-2852/613, 11-12=-3247/774
BOT CHORD 2-18=-1439/386, 17-18=-1777/454, 15-17=-45/270, 14-15=-28/987, 13-14=-334/2236,
12-13=-653/2954
WEBS 3-18=-255/192, 4-18=-1863/393, 4-17=-271/1959, 6-17=-1064/225, 6-15=-75/711,
8-15=-863/173, 8-14=-276/1446, 10-14=-718/312, 10-13=-123/624, 11-13=-375/251

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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 2-1-8, Interior(1) 2-1-8 to 18-8-8, Exterior(2E) 18-8-8 to 22-6-8, Exterior(2R) 22-6-8 to 28-4-8, Interior(1) 28-4-8 to 41-3-0 zone; porch 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.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 12 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) 2=595, 18=475, 12=241.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 27,2023

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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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Lake City, FL) Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:42 2023 Page 1
ID: YPmxxjoR0p4_h6tHh_ArnizVUvx-bjZTzsgdR7?IsFpLBqlp6QeY1UavZavnJYk4jIzXo4t
-2-0-0 | 5-2-0 | 8-5-8 | 15-0-0 | 20-7-8 | 24-8-0 | 29-5-0 | 35-1-15 | 41-3-0
2-0-0 | 5-2-0 | 3-3-8 | 6-6-8 | 5-7-8 | 4-1-0 | 4-8-8 | 5-8-15 | 6-1-1



LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-0-2 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 4-0-10 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 8-14

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

TOP CHORD 2-3=-253/1740, 3-4=-287/1935, 4-6=-334/108, 6-7=-789/245, 7-8=-760/255,
8-9=-1703/347, 9-10=-2826/599, 10-11=-3224/762

BOT CHORD 2-17=-1486/392, 16-17=-1831/461, 14-16=-91/250, 13-14=-104/1520, 12-13=-315/2205,
11-12=-642/2933

WEBS 3-17=-262/198, 4-17=-1879/397, 4-16=-278/1995, 6-16=-1062/231, 6-14=-75/696,
7-14=-109/416, 8-14=-1360/285, 8-13=-158/1263, 9-13=-707/305, 9-12=-124/631,
10-12=-383/253

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March 27, 2023

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Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144181
3458616	T17	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:44 2023 Page 1
ID:YPmxjjoROp4_h6tHh_ArnIzVUvx-X6gEOXhtzIF?5YzjEnHBrijvmlm1Wc4msDBndzXo4r
-2-0-0 3-11-15 7-0-0 11-1-1 16-2-1 21-3-0 25-4-0
2-0-0 3-11-15 3-0-1 4-1-1 5-1-0 5-0-15 4-1-0

Scale = 1:46.2

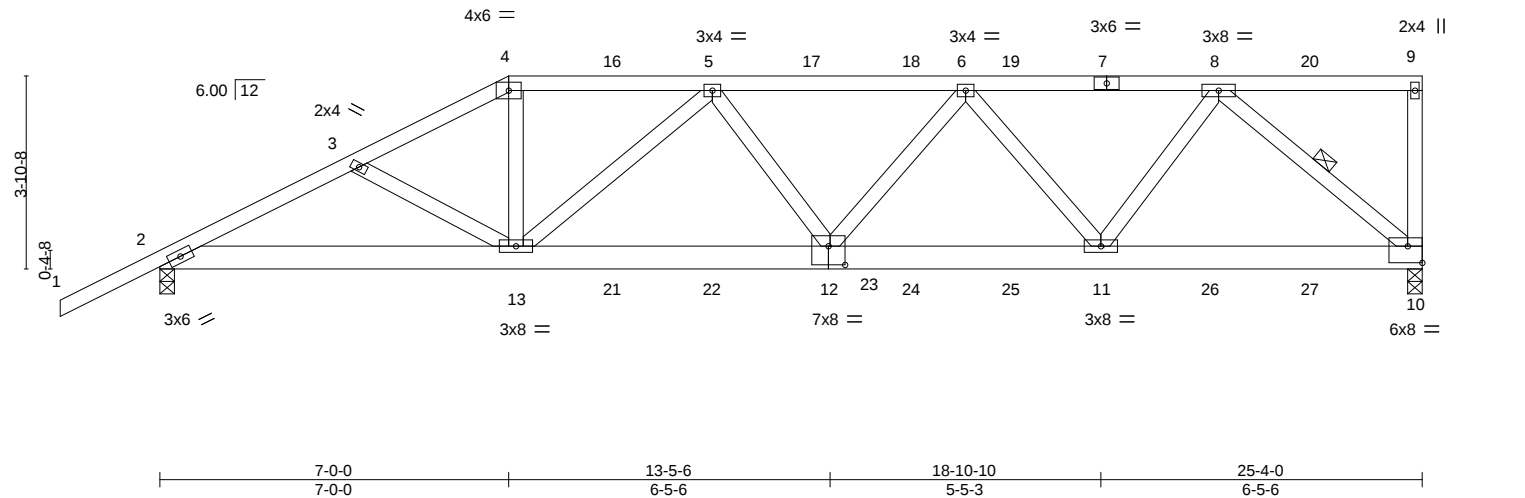


Plate Offsets (X,Y)-- [10:Edge,0-4-0], [12:0-4-0,0-4-8]		7-0-0 7-0-0		13-5-6 6-5-6		18-10-10 5-5-3		25-4-0 6-5-6	
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.66	in (loc)	l/defl	L/d	GRIP
TCDL	7.0	Lumber DOL	1.25	BC	0.76	Vert(LL)	-0.14 12-13	>999	240
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.55	Vert(CT)	-0.29 12-13	>999	180
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS		Horz(CT)	0.08 10	n/a	n/a
								Weight: 155 lb FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 2-8-2 oc purlins, except end verticals.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 7-6-14 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 8-10

REACTIONS. (size) 10=0-3-8, 2=0-3-8
Max Horz 2=151(LC 27)
Max Uplift 10=-565(LC 5), 2=-482(LC 8)
Max Grav 10=2020(LC 1), 2=1807(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3423/890, 3-4=-3250/841, 4-5=-2926/783, 5-6=-3530/890, 6-8=-2662/659, 9-10=-253/128
BOT CHORD 2-13=-870/3025, 12-13=-960/3521, 11-12=-885/3311, 10-11=-524/1887
WEBS 4-13=-210/1115, 5-13=-844/297, 6-12=-41/419, 6-11=-1060/380, 8-11=-252/1385, 8-10=-2488/695

- 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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; 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.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=565, 2=482.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 125 lb down and 88 lb up at 7-0-0, 106 lb down and 88 lb up at 9-0-12, 106 lb down and 88 lb up at 11-0-12, 106 lb down and 88 lb up at 13-0-12, 106 lb down and 88 lb up at 15-0-12, 106 lb down and 88 lb up at 17-0-12, 106 lb down and 88 lb up at 19-0-12, 106 lb down and 88 lb up at 21-0-12, and 106 lb down and 88 lb up at 23-0-12, and 130 lb down and 86 lb up at 25-2-4 on top chord, and 293 lb down and 90 lb up at 7-0-0, 85 lb down at 9-0-12, 85 lb down at 11-0-12, 85 lb down at 13-0-12, 85 lb down at 15-0-12, 85 lb down at 17-0-12, 85 lb down at 19-0-12, and 85 lb down at 21-0-12, and 85 lb down at 23-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 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

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Date:

March 27,2023

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144181
3458616	T17	Half Hip Girder	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023
MiTek Industries, Inc.
Fri Mar 24 07:25:44 2023
Page 2
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LOAD CASE(S)
Standard

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

Uniform Loads (plf)

Vert: 1-4=-54, 4-9=-54, 2-10=-20

Concentrated Loads (lb)

Vert: 4=-106(B) 7=-106(B) 9=-130(B) 13=-282(B) 5=-106(B) 11=-61(B) 8=-106(B) 16=-106(B) 17=-106(B) 18=-106(B) 19=-106(B) 20=-106(B) 21=-61(B) 22=-61(B) 23=-61(B) 24=-61(B) 25=-61(B) 26=-61(B) 27=-61(B)


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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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144182
3458616	T18	Half Hip	1	1	Job Reference (optional)	

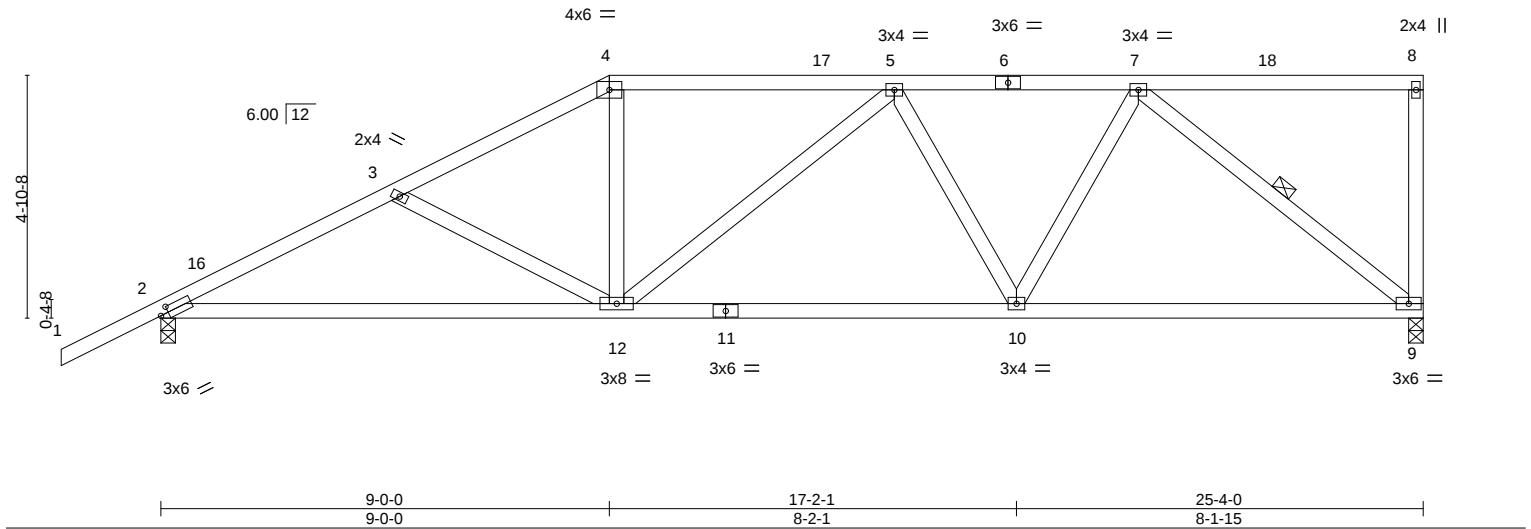
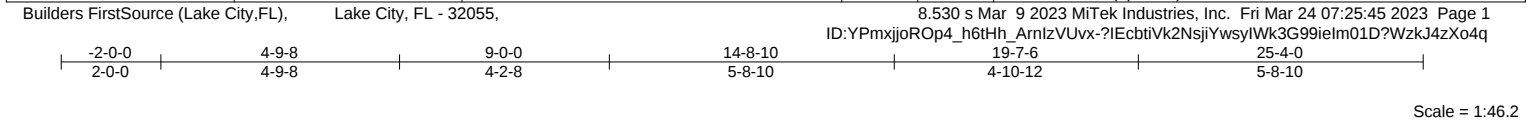


Plate Offsets (X,Y)-- [2:0-1-15,0-1-8]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.36	in (loc)	I/defl	L/d	GRIP
TCDL	7.0	Lumber DOL	1.25	BC	0.74	Vert(LL)	-0.14 12-15	>999	240
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.35	Vert(CT)	-0.29 12-15	>999	180
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS		Horz(CT)	0.05 9	n/a	n/a
								Weight: 136 lb FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-5-11 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 8-8-3 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 7-9
REACTIONS.			
(size) 9=0-3-8, 2=0-3-8			
Max Horz 2=185(LC 12)			
Max Uplift 9=-239(LC 9), 2=-262(LC 12)			
Max Grav 9=928(LC 1), 2=1044(LC 1)			

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-1645/400, 3-4=-1392/325, 4-5=-1206/321, 5-7=-1123/266
BOT CHORD	2-12=-460/1442, 10-12=-321/1259, 9-10=-239/897
WEBS	3-12=-280/157, 4-12=-24/399, 5-10=-288/164, 7-10=-105/484, 7-9=-1135/307

- 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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 9-0-0, Exterior(2R) 9-0-0 to 13-2-15, Interior(1) 13-2-15 to 25-2-4 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.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=239, 2=262.

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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:

March 27,2023

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144183
3458616	T19	Half Hip	1	1	Job Reference (optional)	



Plate Offsets (X,Y)-- [4:0-5-4,0-2-0]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.64	Vert(LL)	-0.09 8-10 >999 240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.60	Vert(CT)	-0.17 8-10 >999 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.04 7 n/a n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS				Weight: 142 lb	FT = 20%

LUMBER-					BRACING-				
TOP CHORD	2x4	SP	No.2		TOP CHORD	Structural wood sheathing directly applied or 4-2-9 oc purlins, except end verticals.			
BOT CHORD	2x4	SP	No.2		BOT CHORD	Rigid ceiling directly applied or 8-8-3 oc bracing.			
WEBS	2x4	SP	No.3		WEBS	1 Row at midpt	4-8		

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=219(LC 12)
Max Uplift 7=-232(LC 9), 2=-261(LC 12)
Max Grav 7=1039(LC 2), 2=1105(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1811/373, 3-4=-1352/302, 4-5=-997/223, 5-6=-997/223, 6-7=-906/249
BOT CHORD 2-11=-464/1578, 10-11=-464/1578, 8-10=-306/1171
WEBS 3-10=-485/180, 4-10=-48/474, 5-8=-448/217, 6-8=-279/1248

- 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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 11-0-0, Exterior(2R) 11-0-0 to 15-2-15, Interior(1) 15-2-15 to 25-2-4 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.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=232, 2=261.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

March 27,2023

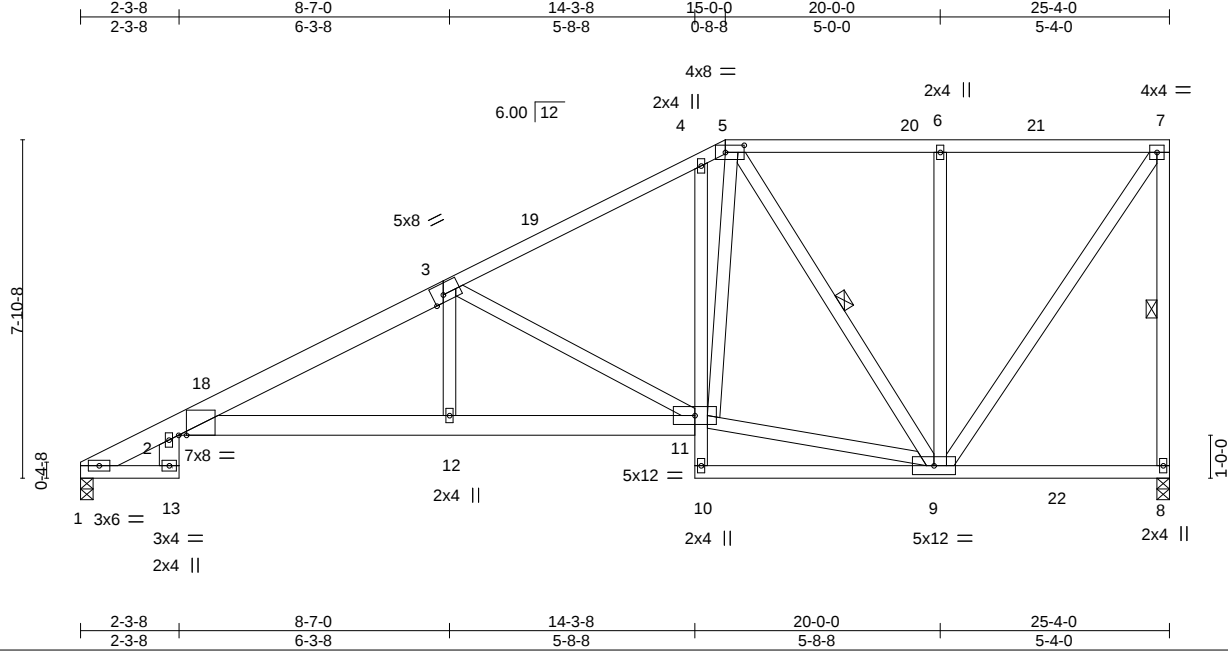
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144185
3458616	T21	Half Hip	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:50 2023 Page 1

ID:YPMxjjoROp4_h6tHh_ArnIzVUvx-MG1VfbmeZb?9pTRtfVuhR6zzcjNKR9uy9ogV?HzXo4l



Scale = 1:53.6

Plate Offsets (X,Y)--		[2:0-2-3,0-0-0], [3:0-3-0,Edge], [5:0-5-4,0-2-0]							
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 0.57	Vert(LL)	-0.23 2-12	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.62	Vert(CT)	-0.41 2-12	>737	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.20 8	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS					Weight: 187 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
1-3: 2x6 SP M 26
BOT CHORD 2x4 SP No.2 *Except*
2-13: 2x6 SP No.2, 2-11: 2x6 SP M 26, 4-10: 2x4 SP No.3
WEBS 2x4 SP No.3

REACTIONS.

(size) 8=0-3-8, 1=0-3-8
Max Horz 1=259(LC 12)
Max Uplift 8=-221(LC 12), 1=-203(LC 12)
Max Grav 8=1025(LC 2), 1=991(LC 2)

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

TOP CHORD 2-17=-708/0, 2-3=-2104/497, 3-4=-1169/287, 4-5=-1069/338, 5-6=-578/147,
6-7=-581/149, 7-8=-919/233
BOT CHORD 2-13=-129/387, 2-12=-624/1885, 11-12=-626/1908
WEBS 3-12=-55/506, 3-11=-1051/366, 9-11=-240/789, 5-11=-293/829, 6-9=-318/155,
7-9=-259/1002, 5-9=-592/231

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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 15-0-0, Exterior(2R) 15-0-0 to 19-2-15, Interior(1) 19-2-15 to 25-2-4 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.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=221, 1=203.

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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:

March 27,2023

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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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144186
3458616	T22	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Mar 9 2023 MiTek Industries, Inc.
Fri Mar 24 07:25:52 2023
Page 1

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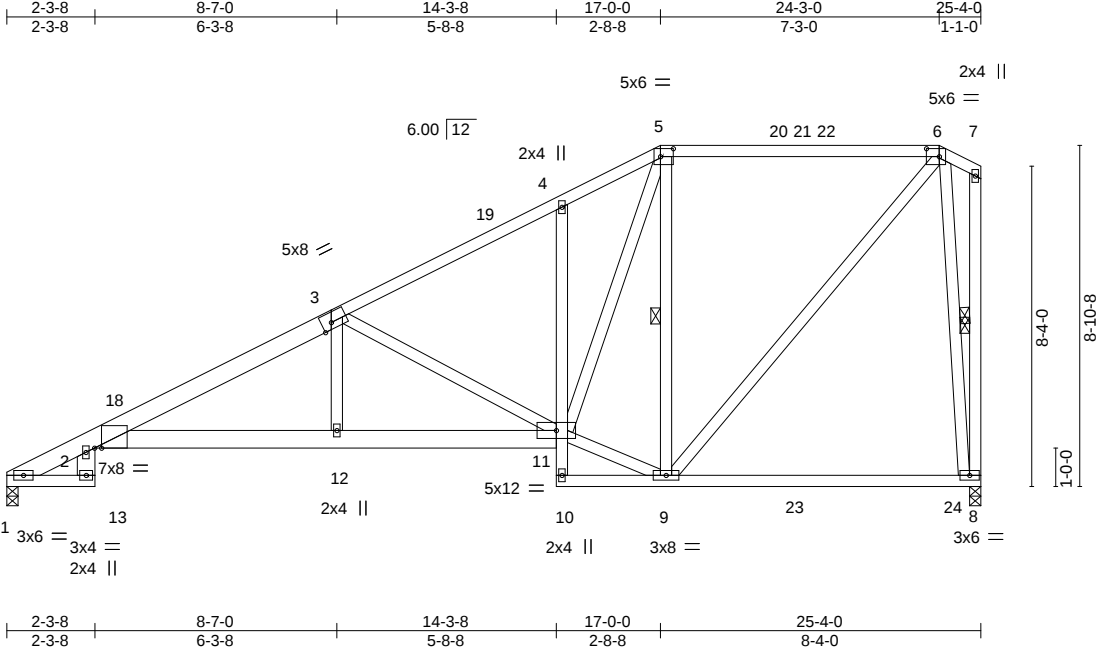


Plate Offsets (X,Y)--		[2:0-2-3,0-0-0], [3:0-3-0,Edge], [5:0-4-0,0-2-8], [6:0-4-0,0-2-8]			
LOADING (psf)		SPACING-	2-0-0	CSI.	
TCLL 20.0		Plate Grip DOL	1.25	TC 0.64	
TCDL 7.0		Lumber DOL	1.25	BC 0.70	
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.89	
BCDL 10.0		Code	FBC2020/TPI2014	Matrix-MS	
				DEFL.	in (loc) l/defl L/d
				Vert(LL)	-0.24 2-12 >999 240
				Vert(CT)	-0.41 2-12 >729 180
				Horz(CT)	0.21 8 n/a n/a
				PLATES	GRIP
				MT20	244/190
				Weight: 191 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2 *Except* 1-3: 2x6 SP M 26	TOP CHORD	Structural wood sheathing directly applied or 4-11-5 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2 *Except* 2-13: 2x6 SP No.2, 2-11: 2x6 SP M 26, 4-10: 2x4 SP No.3	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 10-11,9-10.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 5-9, 7-8, 6-8
REACTIONS. (size) 1=0-3-8, 8=0-3-8 Max Horz 1=284(LC 12) Max Uplift 1=-197(LC 12), 8=-237(LC 12) Max Grav 1=996(LC 2), 8=1044(LC 2)			
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.			
TOP CHORD	2-17=-711/0, 2-3=-2117/489, 3-4=-1183/275, 4-5=-1117/339, 5-6=-680/201		
BOT CHORD	2-13=-132/389, 2-12=-642/1897, 11-12=-645/1920		
WEBS	3-12=-58/505, 3-11=-1049/371, 9-11=-154/690, 5-11=-356/910, 5-9=-664/302, 6-9=-251/886, 6-8=-957/303		

- 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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 17-0-0, Exterior(2R) 17-0-0 to 21-2-15, Interior(1) 21-2-15 to 24-3-0, Exterior(2E) 24-3-0 to 25-2-4 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.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=197, 8=237.
- This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

March 27,2023



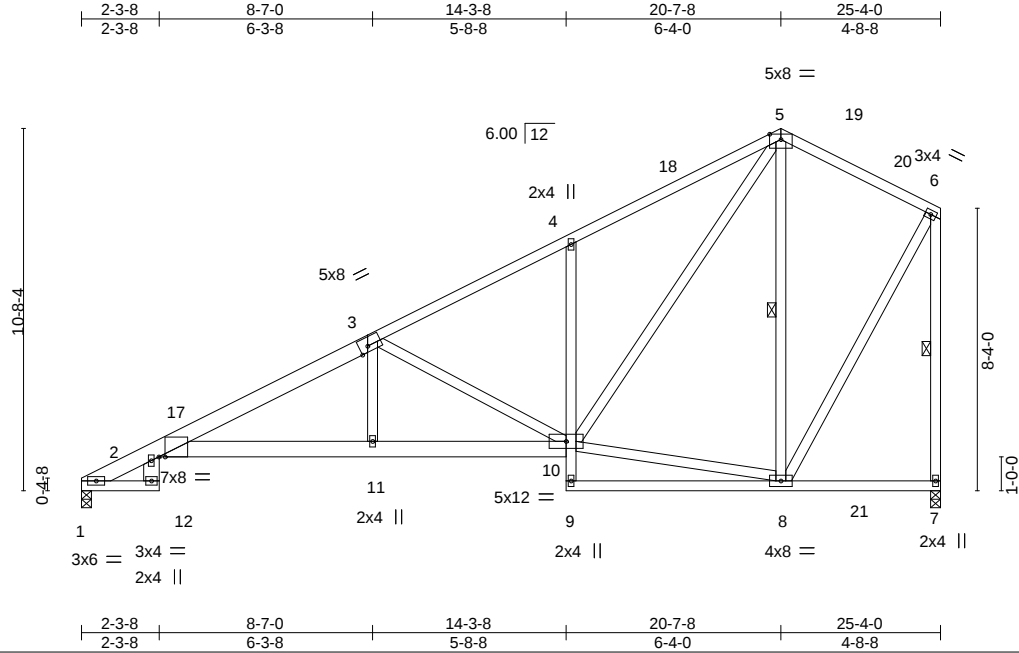
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144188
3458616	T24	Roof Special	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:56 2023 Page 1

ID:YpmxjioROp4_h6tHh_ArnIzVUvx-AQPMveqP8RmJY0u1?m?5gND?57Qkrr5rXk8qCxzXo4f



Scale = 1:67.9

Plate Offsets (X,Y)--		[2:0-2-3,0-0-0], [3:0-3-0,Edge]									
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 0.57		Vert(LL)	-0.24 2-11	>999	240	MT20	244/190
TCDL 7.0		Lumber DOL	1.25	BC 0.62		Vert(CT)	-0.42 2-11	>728	180		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.97		Horz(CT)	0.20 7	n/a	n/a		
BCDL 10.0		Code	FBC2020/TPI2014	Matrix-MS						Weight: 189 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
1-3: 2x6 SP M 26
BOT CHORD 2x4 SP No.2 *Except*
2-12: 2x6 SP No.2, 2-10: 2x6 SP M 26, 4-9: 2x4 SP No.3
WEBS 2x4 SP No.3

REACTIONS.

(size) 1=0-3-8, 7=0-3-8
Max Horz 1=311(LC 12)
Max Uplift 1=-187(LC 12), 7=-247(LC 12)
Max Grav 1=991(LC 2), 7=1022(LC 2)

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

TOP CHORD 2-16=-707/0, 2-3=-2097/465, 3-4=-1173/258, 4-5=-1173/380, 5-6=-457/145,
6-7=-942/266
BOT CHORD 2-12=-134/387, 2-11=-646/1875, 10-11=-649/1899, 4-10=-340/221
WEBS 3-11=-61/510, 3-10=-1027/357, 8-10=-77/258, 5-10=-420/1106, 5-8=-531/230,
6-8=-203/761

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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 20-7-8, Exterior(2R) 20-7-8 to 23-7-8, Interior(1) 23-7-8 to 25-2-4 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) 1=187, 7=247.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

March 27,2023

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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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144189
3458616	T25	Common	2	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Fri Mar 24 07:25:57 2023 Page 1

ID:YPMxjioRop4_h6tHh_ArnZVUvx-ecz87_r1vku99YTDZTWKDbmBJXm?aMg_mNtNINzXo4e

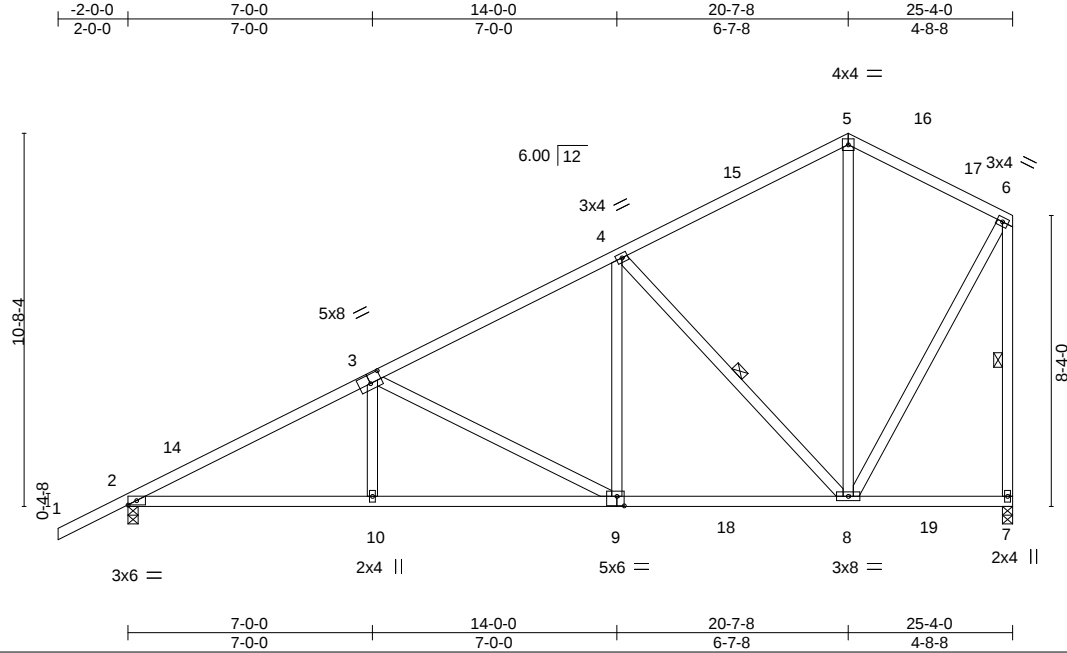


Plate Offsets (X,Y)-- [3:0-4-0,0-3-0], [9:0-2-8,0-3-4]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.48	Vert(LL)	-0.09 10-13	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.62	Vert(CT)	-0.16 10-13	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.04 7	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS					Weight: 164 lb	FT = 20%

LUMBER-

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

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
Max Horz 2=340(LC 12)
Max Uplift 2=-233(LC 12), 7=-245(LC 12)
Max Grav 2=1106(LC 2), 7=1053(LC 2)

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

TOP CHORD 2-3=-1760/302, 3-4=-1139/204, 4-5=-511/144, 5-6=-477/147, 6-7=-970/266
BOT CHORD 2-10=-510/1526, 9-10=-509/1534, 8-9=-302/957
WEBS 3-10=0/290, 3-9=-644/230, 4-9=-58/563, 4-8=-830/295, 6-8=-204/787

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 B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 20-7-8, Exterior(2R) 20-7-8 to 23-7-8, Interior(1) 23-7-8 to 25-2-4 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=233, 7=245.

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-2-4 oc bracing.
WEBS 1 Row at midpt 4-8, 6-7

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 27,2023

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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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144190
3458616	T26	Common	3	1	Job Reference (optional)	

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

8.530 s Mar 9 2023
MiTek Industries, Inc.
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Page 1
ID:YpMxjjoROp4_h6tHh_ArnizVUvx-b?4uXgtHRM8tPsdcguzoL0rW_LVs2RzHDhMUpGzXo4c
6-11-4
6-11-4
7-0-0
0-0-12

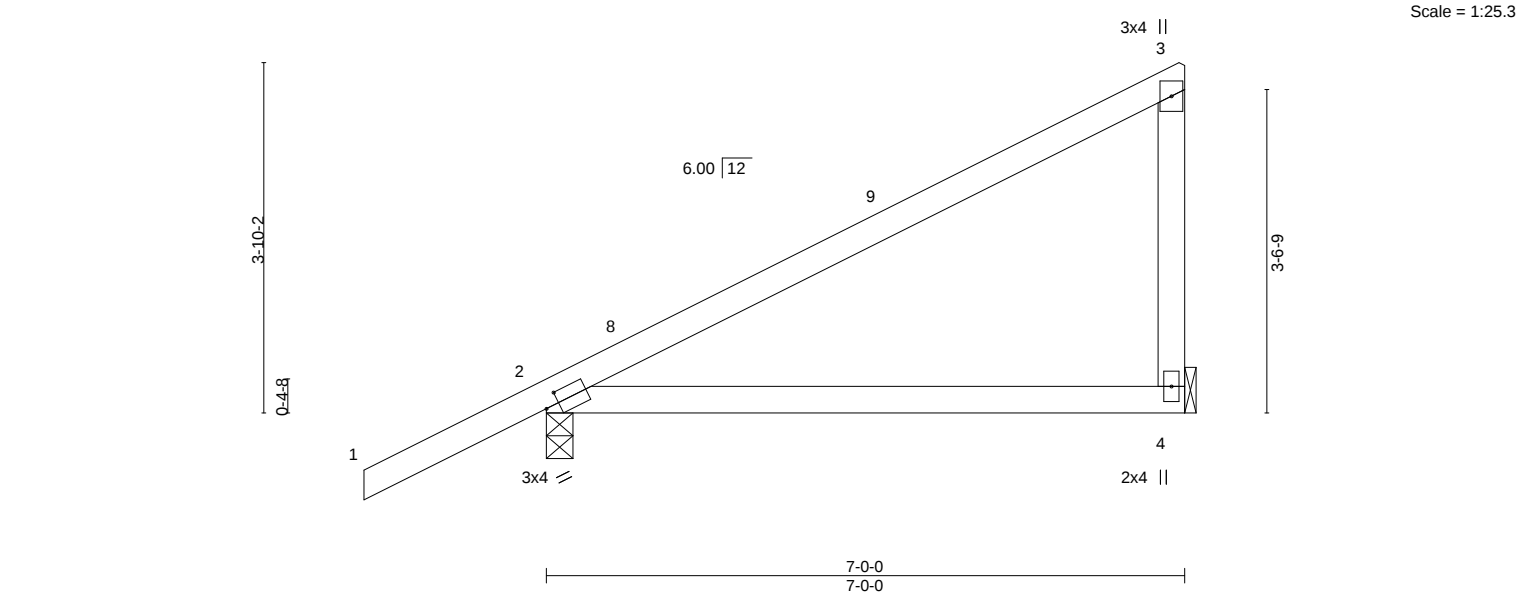


Plate Offsets (X,Y)--		[2:0-1-13,0-1-8]	
LOADING (psf)	SPACING-	CSL.	DEFL.
TCLL 20.0	Plate Grip DOL 1.25	TC 0.46	in (loc) l/defl L/d
TCDL 7.0	Lumber DOL 1.25	BC 0.40	Vert(LL) -0.07 4-7 >999 240
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Vert(CT) -0.15 4-7 >543 180
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.00 2 n/a n/a
			PLATES GRIP
			MT20 244/190
			Weight: 30 lb FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		

REACTIONS. (size) 2=0-3-8, 4=Mechanical
Max Horz 2=147(LC 12)
Max Uplift 2=-88(LC 12), 4=-91(LC 12)
Max Grav 2=377(LC 1), 4=238(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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 6-10-4 zone;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 100 lb uplift at joint(s) 2, 4.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 27,2023

Job	Truss	Truss Type	Qty	Ply	NORRIS CONST. - HERITAGE	T30144191
3458616	T26G	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Mar 9 2023 MiTek Industries, Inc.
Fri Mar 24 07:26:00 2023
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ID:YpMxjjoOp4_h6tHh_ArnIzVUvx-3BeHI0twCfGk00BoEc41rDOjOlw7nuQRSL61LizXo4b

-2-0-0
2-0-0

6-11-4
6-11-4

7-0-0
0-0-12

Scale = 1:22.9

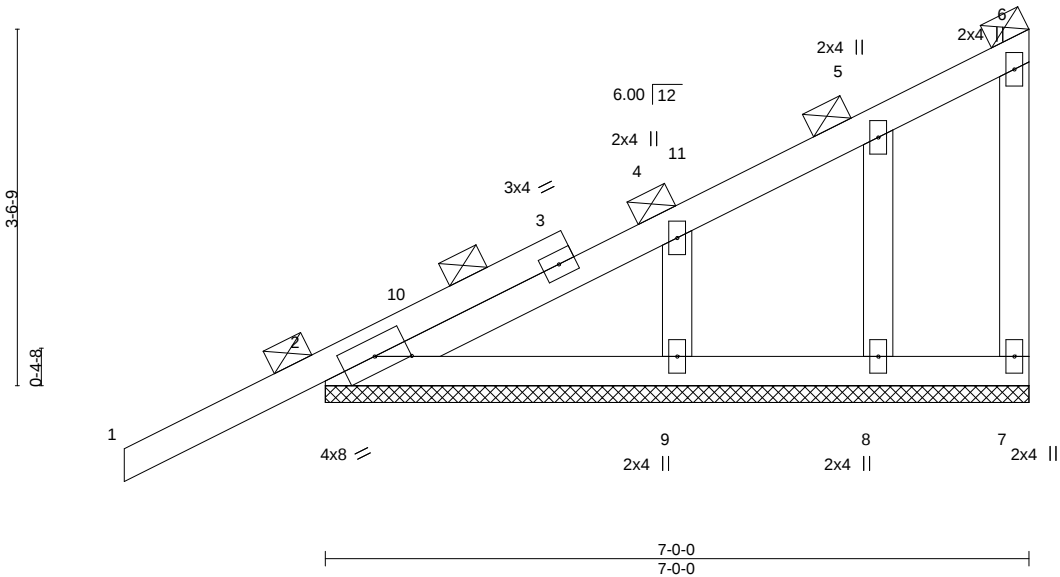


Plate Offsets (X,Y)-- [2:0-4-0,0-1-15]											
LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.36	Vert(LL)	0.01	1	n/r	120	GRIP
TCDL	7.0	Lumber DOL	1.25	BC	0.08	Vert(CT)	0.00	1	n/r	120	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	7	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-S							Weight: 38 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

REACTIONS. All bearings 7-0-0.
(lb) - Max Horz 2=137(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 7, 9, 8
Max Grav All reactions 250 lb or less at joint(s) 7, 9, 8 except 2=256(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 Corner(3E) -2-0-0 to 1-0-0, Exterior(2N) 1-0-0 to 6-10-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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.
- 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) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7, 9, 8.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

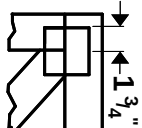
March 27,2023



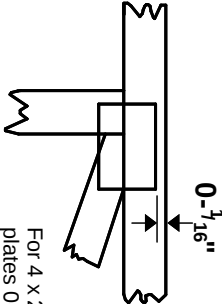
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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- $\frac{3}{16}$ " from outside edge of truss.

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

*** Plate location details available in MiTek 2012 software or upon request.**

PLATE SIZE

4 X 4

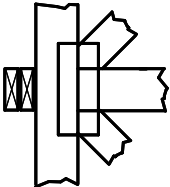
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



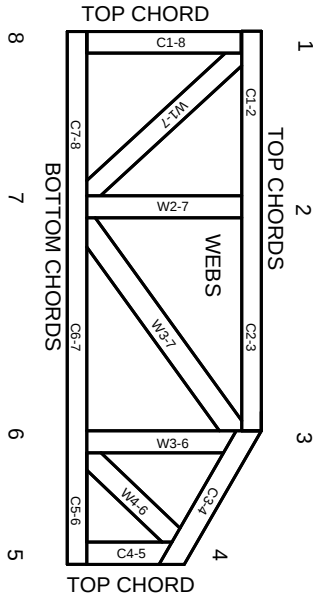
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.



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

RE: 2718981 - DETAILS

MiTek USA, Inc.

6904 Parke East Blvd.
Tampa, FL 33610-4115

Site Information:

Customer Info: DETAILS Project Name: N/A Model: N/A
Lot/Block: N/A Subdivision: N/A
Address: N/A, N/A
City: N/A State: N/A

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

Name: License #:
Address: State:
City:

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

Design Code: FBC2020/TPI2014 Design Program: MiTek 20/20 8.4
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 20 individual, General Truss Details 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#	Detail Name	Date	No.	Seal#	Detail Name	Date
1	T23399806	MII-REP10	4/2/21	15	T23399820	MII-VALLEY HIGH WIND2	4/2/21
2	T23399807	MII-T-BRACE 2	4/2/21	16	T23399821	MII-VALLEY SP	4/2/21
3	T23399808	MII-SCAB-BRACE	4/2/21	17	T23399822	MII-VALLEY SP	4/2/21
4	T23399809	MII-REP05	4/2/21	18	T23399823	MII-GE146-001	4/2/21
5	T23399810	MII-GE130-D-SP	4/2/21	19	T23399824	MII-REP13B	4/2/21
6	T23399811	MII-GE130-SP	4/2/21	20	T23399825	MII-STRGBCK	4/2/21
7	T23399812	MII-GE140-001	4/2/21				
8	T23399813	MII-GE170-D-SP	4/2/21				
9	T23399814	MII-GE180-D-SP	4/2/21				
10	T23399815	MII-GE180-D-SP	4/2/21				
11	T23399816	MII-PIGGY-ALT-7-16	4/2/21				
12	T23399817	MII-REP01A1	4/2/21				
13	T23399818	MII-TOENAIL SP	4/2/21				
14	T23399819	MII-VALLEY HIGH WIND1	4/2/21				

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature.

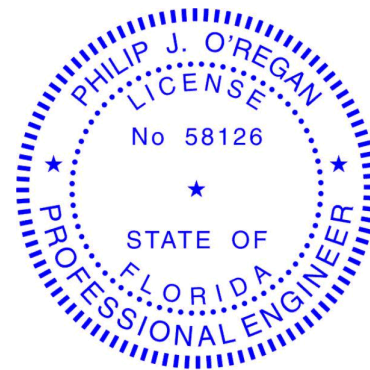
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

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

Truss Design Engineer's Name: ORegan, 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:

April 2, 2021

ORegan, Philip

1 of 1



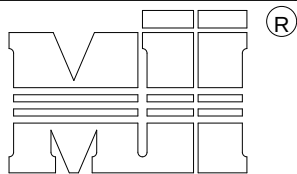
RE: \$JOBNAME - \$JOBDESC

MiTek USA, Inc.

6904 Parke East Blvd.
Tampa, FL 33610-4115

Site Information:

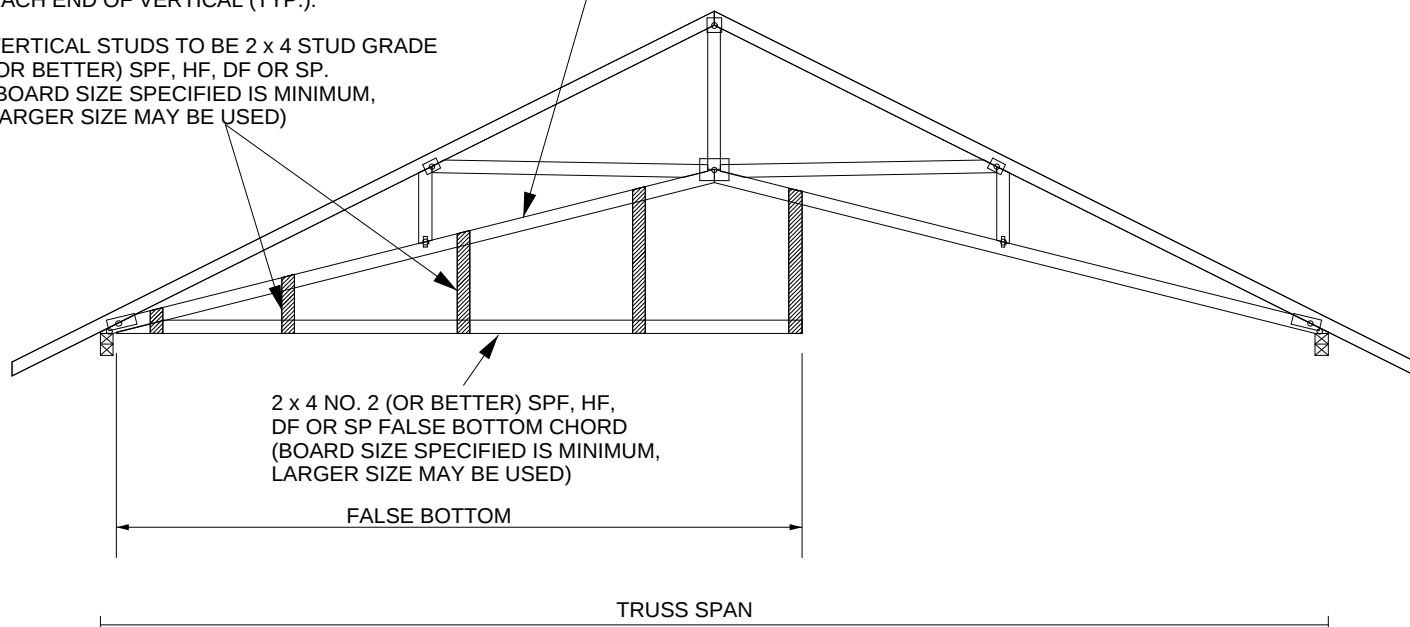
Customer Info: \$SI_CUSTOMER Project Name: \$SI_JOBNAME Model: \$SI_MODEL
Lot/Block: \$SI_LOTNUM Subdivision: \$SI_SUBDIV
Address: \$SI_SITEADDR
City: \$SI_SITECITY State: \$SI_SITESTATE



MiTek USA, Inc.

MAIN TRUSS MANUFACTURED WITHOUT
FALSE BOTTOM CHORD.

MAIN TRUSS (SPACING = 24" O.C.)

REFER TO THE BOTTOM CHORD BRACING SECTION OF
THE INDIVIDUAL TRUSS DESIGN FOR MAXIMUM SPACING
OF CONTINUOUS LATERAL BRACING WHENEVER RIGID
CEILING MATERIAL IS NOT DIRECTLY ATTACHED TO THE
BOTTOM CHORD.VERTICAL STUDS @ 48" O.C.. ATTACHED
WITH (3) - 10d (0.131" X 3") NAILS AT
EACH END OF VERTICAL (TYP.).VERTICAL STUDS TO BE 2 x 4 STUD GRADE
(OR BETTER) SPF, HF, DF OR SP.
(BOARD SIZE SPECIFIED IS MINIMUM,
LARGER SIZE MAY BE USED)2 x 4 NO. 2 (OR BETTER) SPF, HF,
DF OR SP FALSE BOTTOM CHORD
(BOARD SIZE SPECIFIED IS MINIMUM,
LARGER SIZE MAY BE USED)

FALSE BOTTOM

TRUSS SPAN

NOTES:

1. LOADING: TOP CHORD: (REFER TO THE MAIN TRUSS DESIGN FOR TOP CHORD LOADING).
BOTTOM CHORD: LL = 0 PSF, DL = 10 PSF.
2. REFER TO THE MAIN TRUSS DESIGN FOR LUMBER AND PLATING REQUIREMENTS.
3. MAXIMUM BOTTOM CHORD PITCH = 6/12.
4. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD.
5. FALSE BOTTOM CHORD ONLY DESIGNED TO CARRY VERTICAL LOAD. NO LATERAL (SHEAR) LOAD ALLOWED.
6. FILLER MAY EXTEND FOR FULL LENGTH OF TRUSS.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

April 2, 2021

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

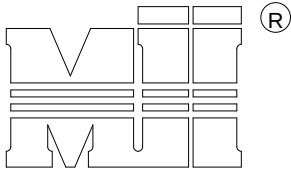
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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 33610



MiTek USA, Inc.

Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical. T-Brace / I-Brace must cover 90% of web length.

Note: This detail NOT to be used to convert T-Brace / I-Brace webs to continuous lateral braced webs.

Nailing Pattern

T-Brace size	Nail Size	Nail Spacing
2x4 or 2x6 or 2x8	10d (0.131" X 3")	6" o.c.
Note: Nail along entire length of T-Brace / I-Brace (On Two-Ply's Nail to Both Plies)		

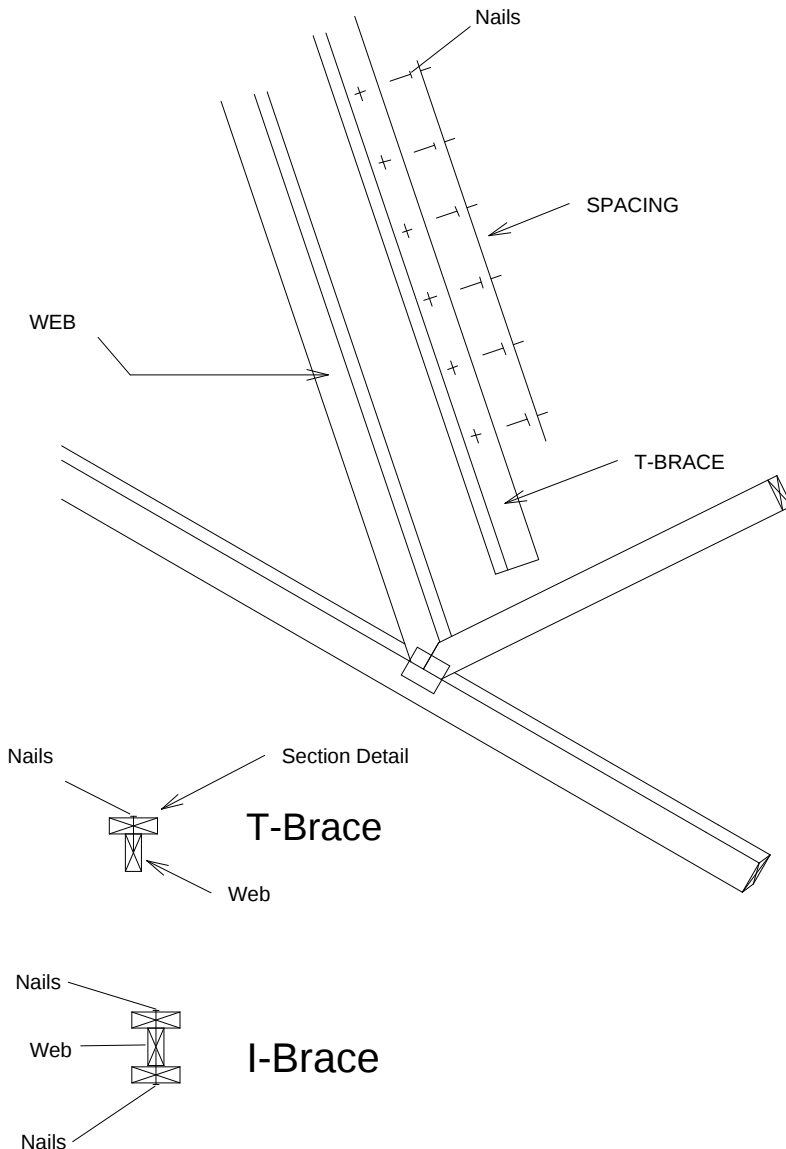
Brace Size
for One-Ply TrussSpecified Continuous
Rows of Lateral Bracing

Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

Brace Size
for Two-Ply TrussSpecified Continuous
Rows of Lateral Bracing

Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

T-Brace / I-Brace must be same species and grade (or better) as web member.



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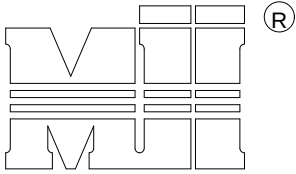
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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



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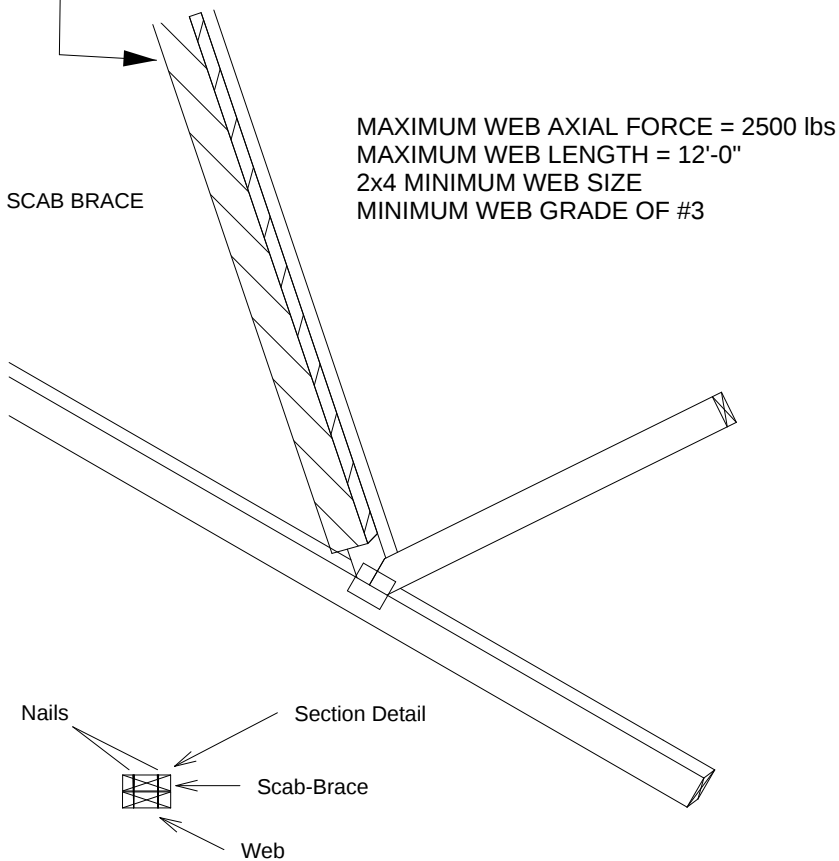
MiTek USA, Inc.

Page 1 of 1

Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.
Scab must cover full length of web +/- 6".

*** THIS DETAIL IS NOT APPLICABLE WHEN BRACING IS ***
REQUIRED AT 1/3 POINTS OR I-BRACE IS SPECIFIED.

APPLY 2x___ SCAB TO ONE FACE OF WEB WITH
2 ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
SCAB MUST BE THE SAME GRADE, SIZE AND
SPECIES (OR BETTER) AS THE WEB.



Scab-Brace must be same species grade (or better) as web member.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
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Date:

April 2, 2021

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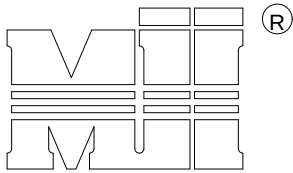
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

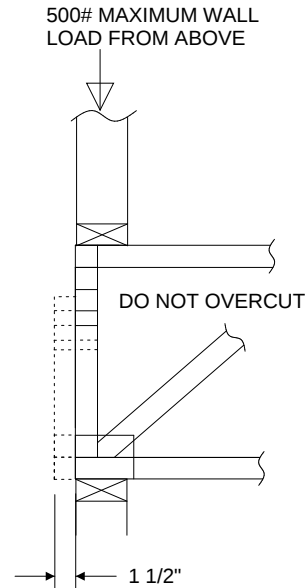
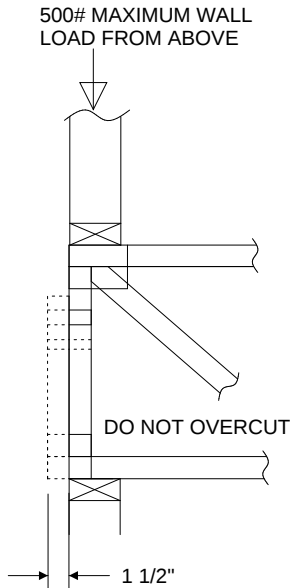
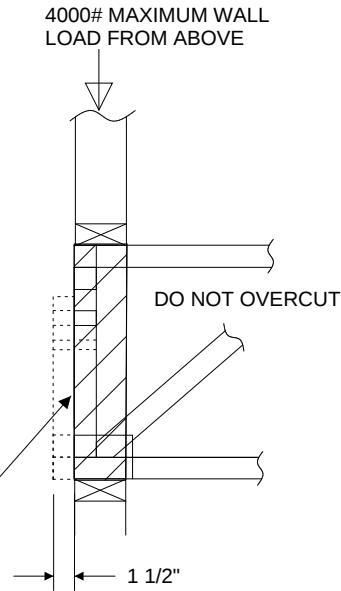
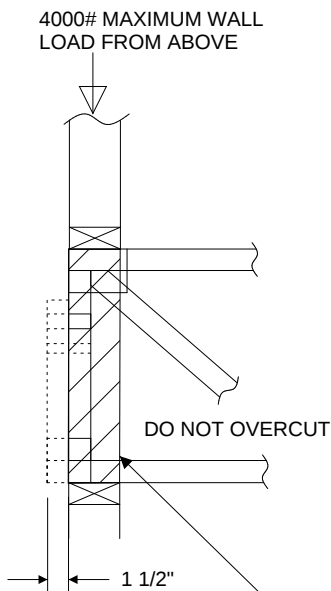


6904 Parke East Blvd.
Tampa, FL 33610



MiTek USA, Inc.

1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
3. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD.
4. LUMBER MUST BE CUT CLEANLY AND ACCURATELY AND THE REMAINING WOOD MUST BE UNDAMAGED.
5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 4X_ ORIENTATION ONLY.
6. CONNECTOR PLATES MUST BE FULLY IMBEDDED AND UNDISTURBED.

TRUSSES BUILT
WITH 4x2 MEMBERSTRUSSES BUILT
WITH 4x2 MEMBERS

ATTACH 2x4 SQUASH BLOCK (CUT TO FIT TIGHTLY)
TO BOTH SIDES OF THE TRUSS AS SHOWN WITH
10d (0.131" X 3") NAILS SPACED 3" O.C.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

April 2, 2021

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

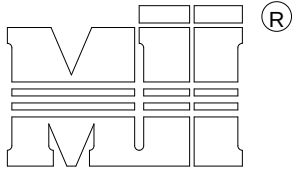
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

ANSI/TPI1 Quality Criteria, DSB-89 and BCS1 Building Component

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



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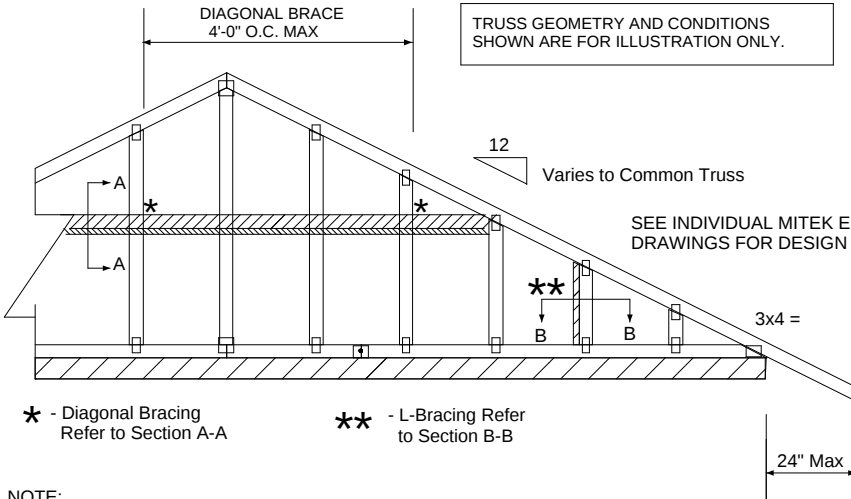
MiTek USA, Inc.

Typical 1x4 L-Brace Nailed To
2x Verticals w/10d Nails spaced 6" o.c.

Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.

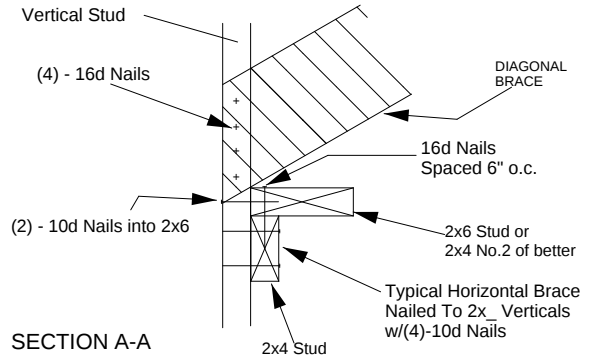


* - Diagonal Bracing
Refer to Section A-A

** - L-Bracing Refer
to Section B-B

NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

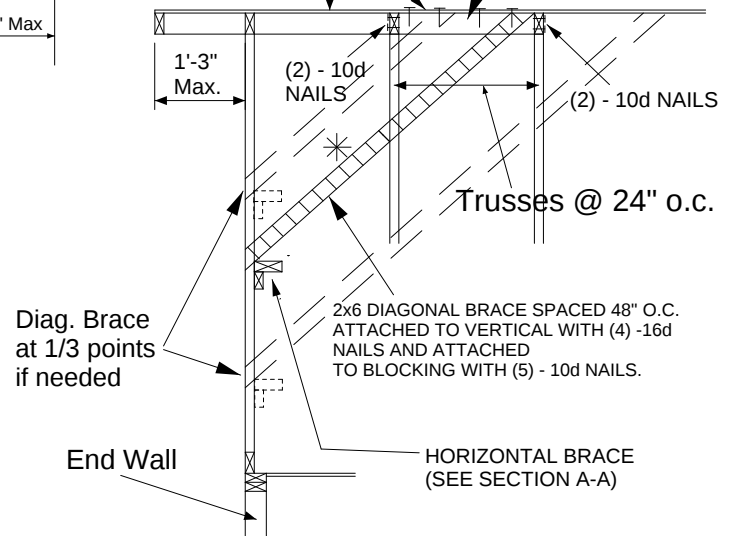


SECTION A-A

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK

Roof Sheathing



Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
2x4 SP No. 3 / Stud	12" O.C.	3-9-13	4-1-1	5-9-6	7-1-3	11-5-7
2x4 SP No. 3 / Stud	16" O.C.	3-5-4	3-6-8	5-0-2	6-10-8	10-3-13
2x4 SP No. 3 / Stud	24" O.C.	2-9-11	2-10-11	4-1-1	5-7-6	8-5-1

- * Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

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

April 2, 2021

MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE D
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH
ASCE 7-10, ASCE 7-16 160 MPH
DURATION OF LOAD INCREASE 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS. Rev. 5/19/2020 BEFORE USE.

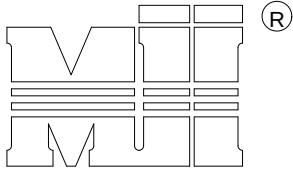
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

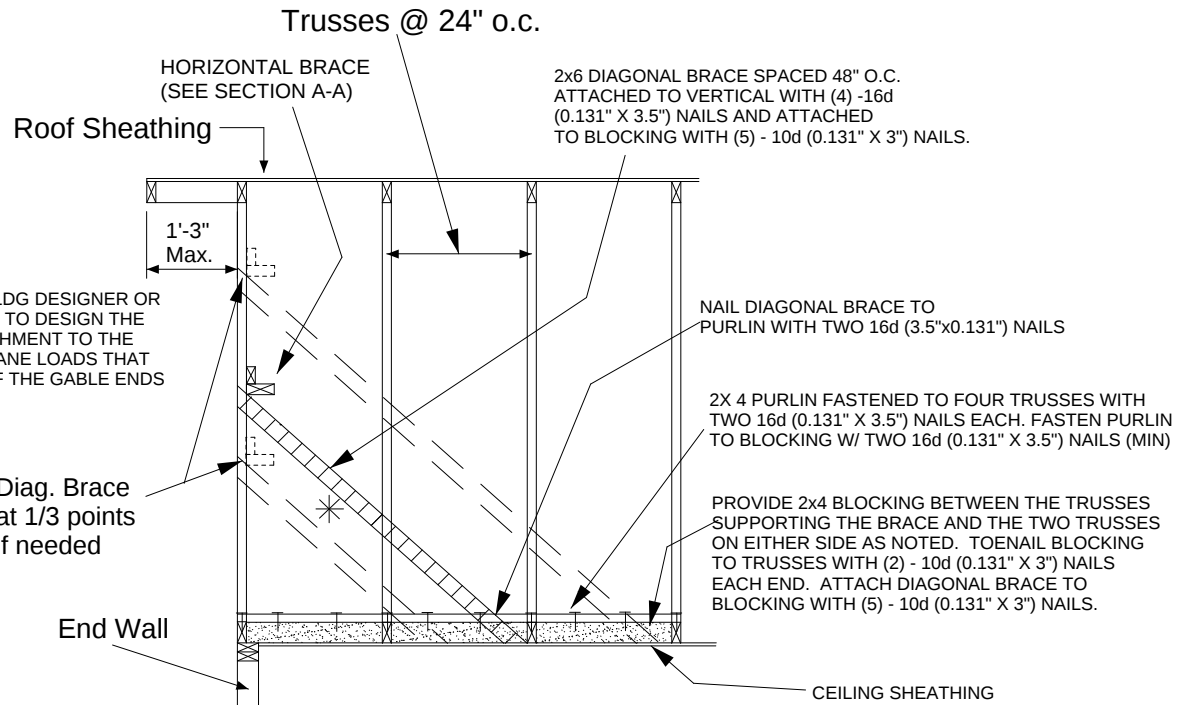


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MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



IT IS THE RESPONSIBILITY OF THE BLDG DESIGNER OR THE PROJECT ENGINEER/ARCHTCT TO DESIGN THE CEILING DIAPHRAGM AND ITS ATTACHMENT TO THE TRUSSES TO RESIST ALL OUT OF PLANE LOADS THAT MAY RESULT FROM THE BRACING OF THE GABLE ENDS

BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

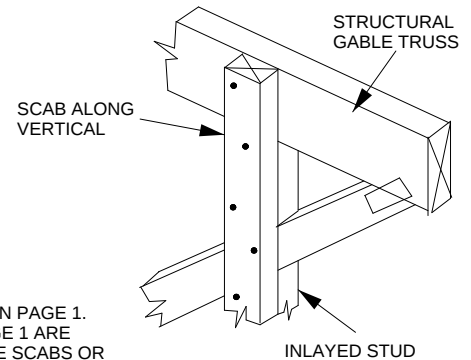
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

METHOD 2 : ATTACH 2X SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

STRUCTURAL GABLE TRUSS

AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

NOTE : THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAVED STUDS. TRUSSES WITHOUT INLAVED STUDS ARE NOT ADDRESSED HERE.

STANDARD GABLE TRUSS

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Date:

April 2, 2021

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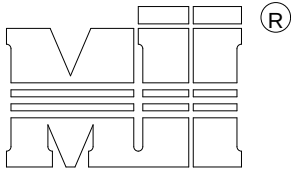
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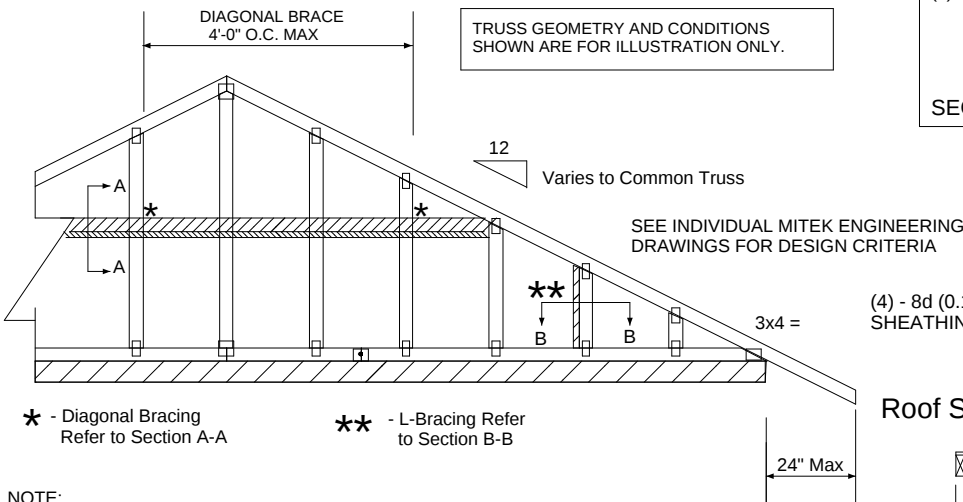
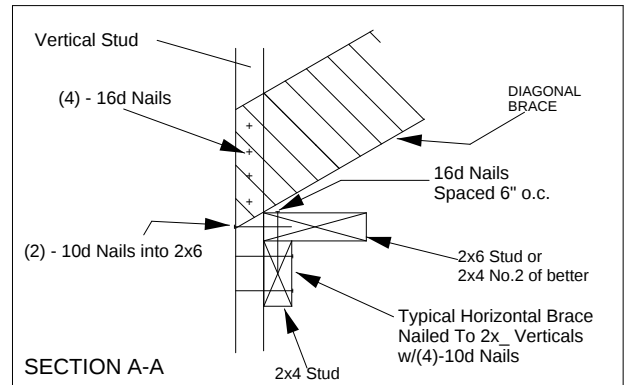
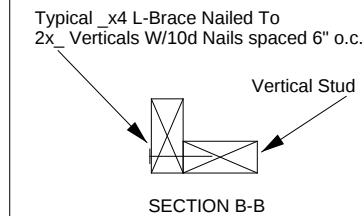
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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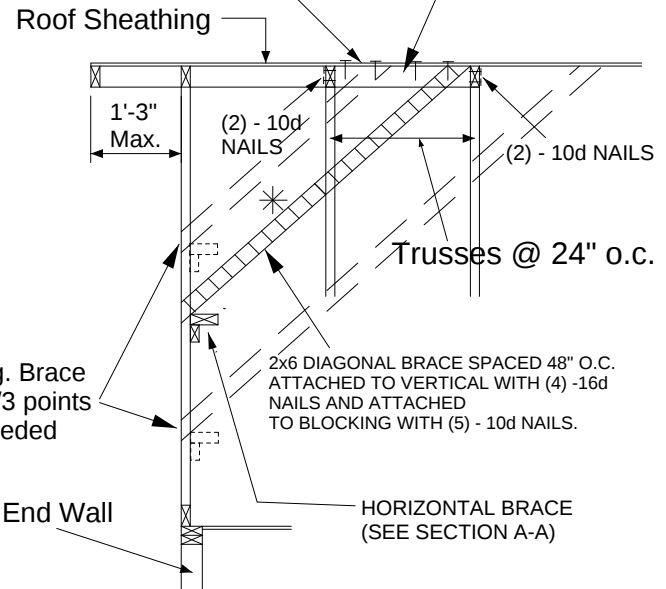


MiTek USA, Inc.



PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



- NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
 2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
 3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
 4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
 5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
 6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
 7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
 8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
 9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
 10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
 11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 SP No. 3 / Stud	12" O.C.	4-0-7	4-5-6	6-3-8	8-0-15	12-1-6
2x4 SP No. 3 / Stud	16" O.C.	3-8-0	3-10-4	5-5-6	7-4-1	11-0-1
2x4 SP No. 3 / Stud	24" O.C.	3-0-10	3-1-12	4-5-6	6-1-5	9-1-15

- * Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH
ASCE 7-10, ASCE 7-16 160 MPH
DURATION OF LOAD INCREASE = 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWPRS.

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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

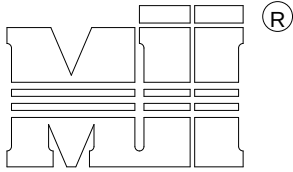
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April 2, 2021

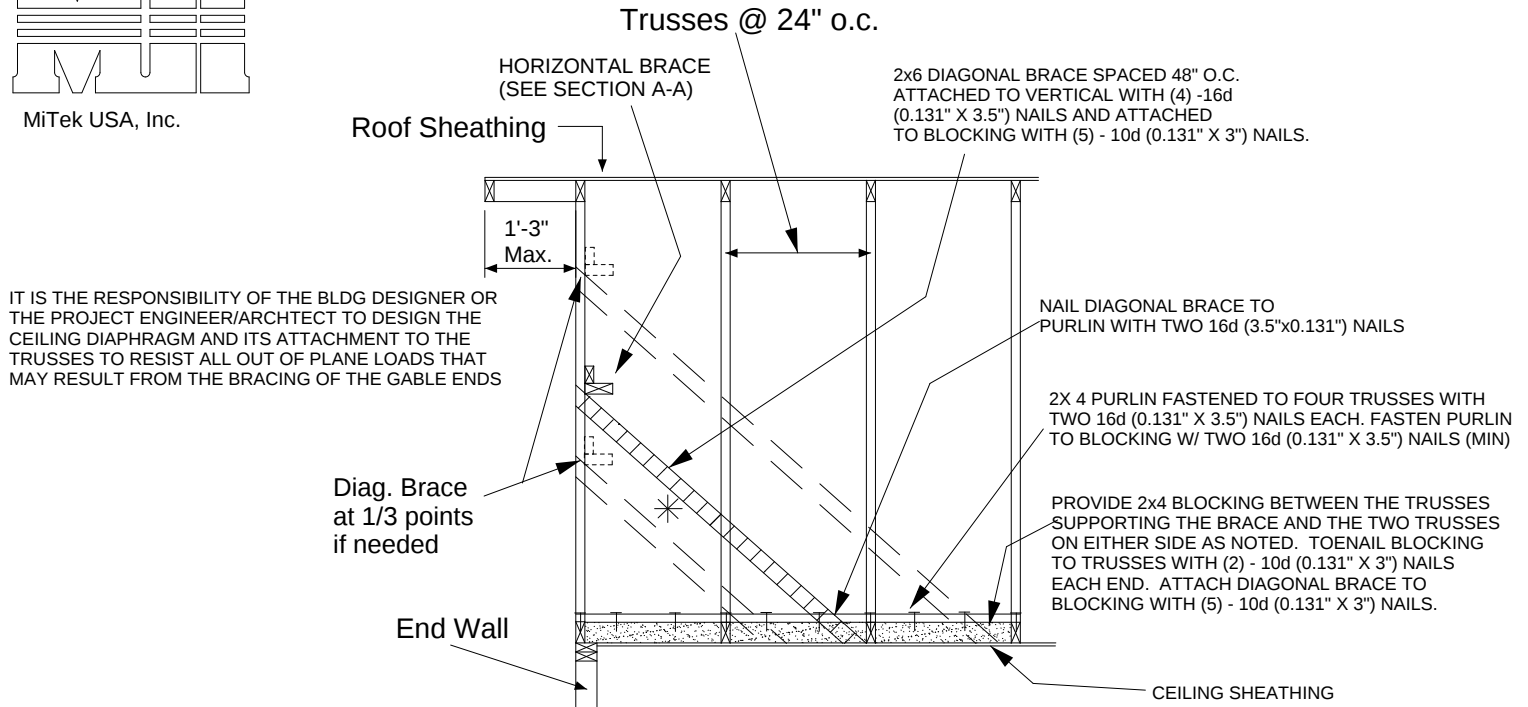


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MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

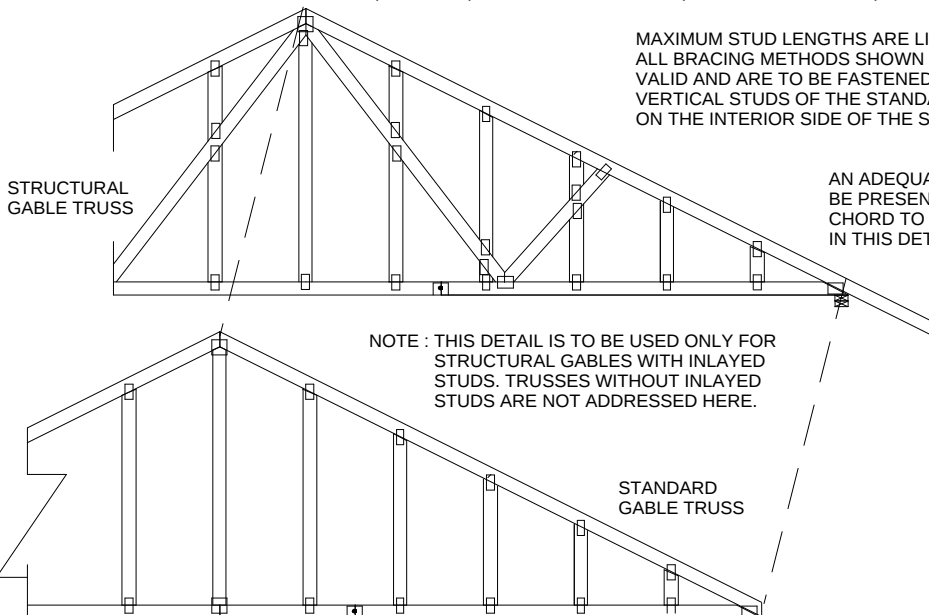
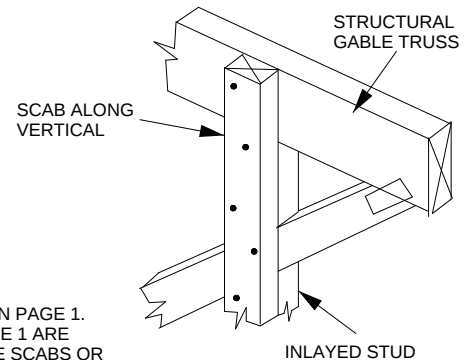
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

METHOD 2 : ATTACH 2X _ SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

NOTE : THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAYED STUDS. TRUSSES WITHOUT INLAYED STUDS ARE NOT ADDRESSED HERE.

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April 2, 2021

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



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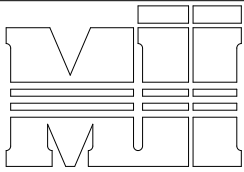
JANUARY 6, 2017

Standard Gable End Detail

MII-GE140-001
T23399812

MiTek USA, Inc.

Page 1 of 2



MiTek USA, Inc.

Typical 1x4 L-Brace Nailed To
2x Verticals W/10d Nails spaced 6" o.c.

Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.DIAGONAL BRACE
4'-0" O.C. MAX12
Varies to Common TrussSEE INDIVIDUAL MITEK ENGINEERING
DRAWINGS FOR DESIGN CRITERIA

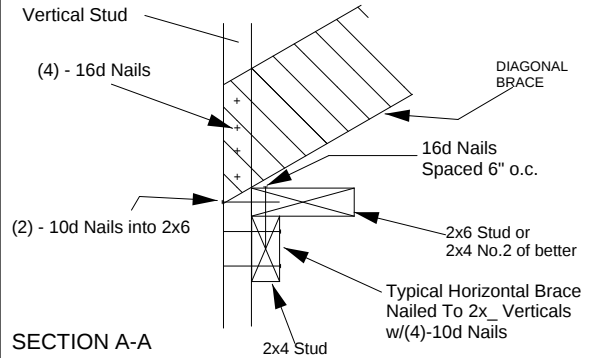
3x4 =

24" Max

* - Diagonal Bracing
Refer to Section A-A** - L-Bracing Refer
to Section B-B

NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")



PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

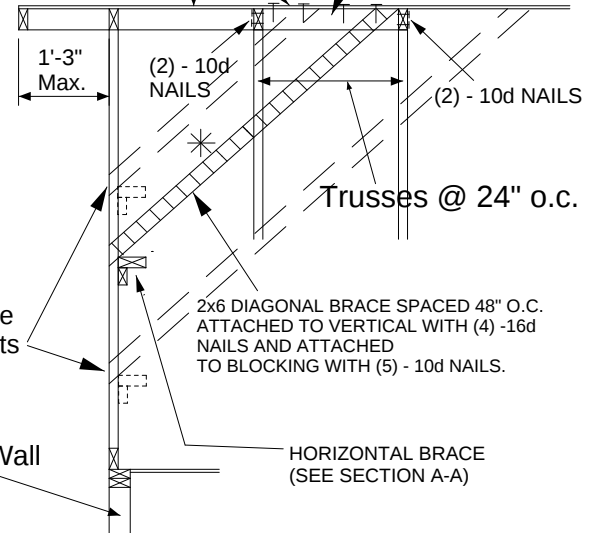
(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD DF/SPF BLOCK

Roof Sheathing

Diag. Brace
at 1/3 points
if needed

End Wall

HORIZONTAL BRACE
(SEE SECTION A-A)



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Date:

April 2, 2021

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 DF/SPF Std/Stud	12" O.C.	3-10-1	3-11-7	5-7-2	7-8-2	11-6-4
2x4 DF/SPF Std/Stud	16" O.C.	3-3-14	3-5-1	4-10-2	6-7-13	9-11-11
2x4 DF/SPF Std/Stud	24" O.C.	2-8-9	2-9-8	3-11-7	5-5-2	8-1-12



Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

MAXIMUM WIND SPEED = 140 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C

ASCE 7-98, ASCE 7-02, ASCE 7-05

DURATION OF LOAD INCREASE = 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.

CONNECTION OF BRACING IS BASED ON MWPRS 473 rev. 5/19/2020 BEFORE USE.

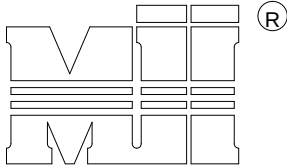
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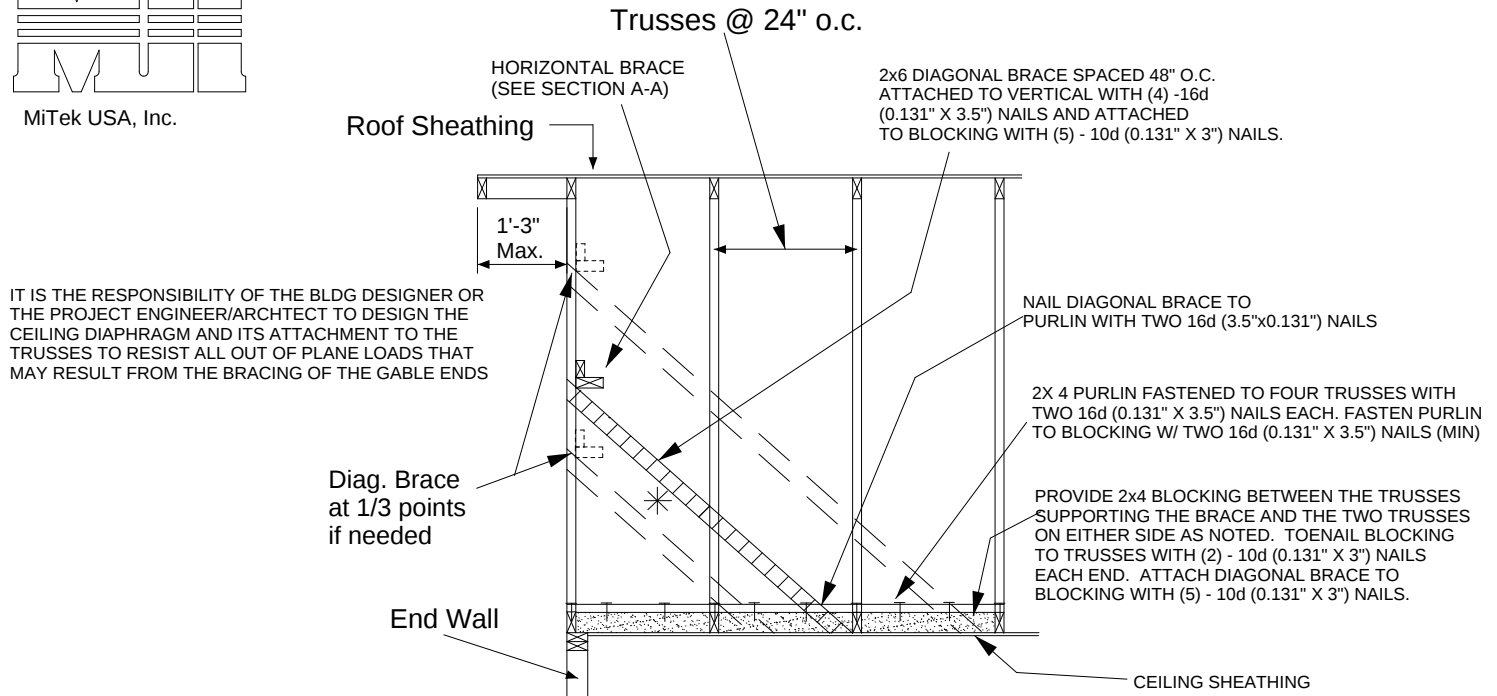


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MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

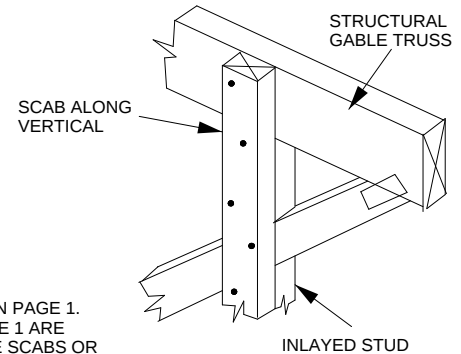
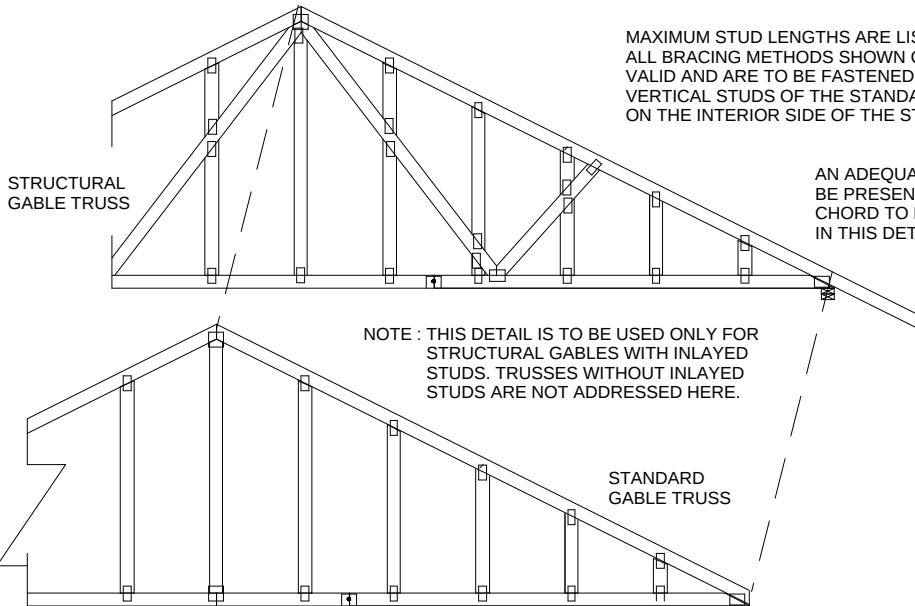
METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

METHOD 2 : ATTACH 2X 4 SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)

MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.



AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

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April 2, 2021

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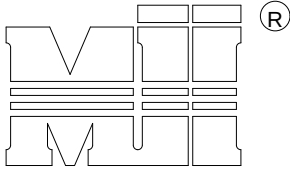
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

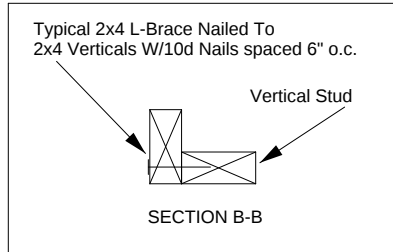
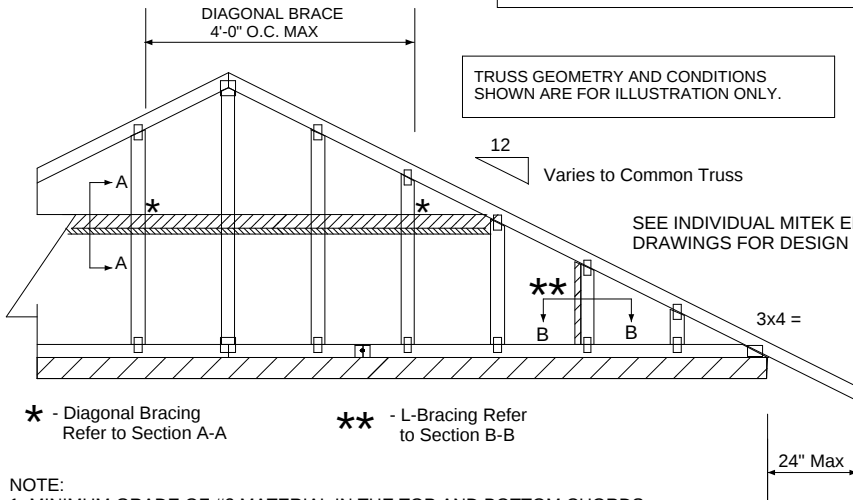
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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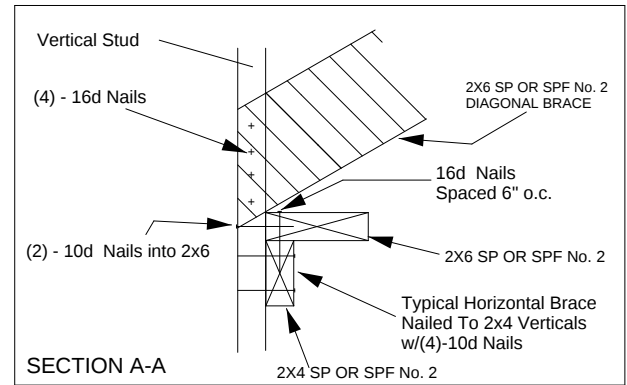


MiTek USA, Inc.

TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.12
Varies to Common TrussSEE INDIVIDUAL MITEK ENGINEERING
DRAWINGS FOR DESIGN CRITERIA* - Diagonal Bracing
Refer to Section A-A** - L-Bracing Refer
to Section B-B

NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")



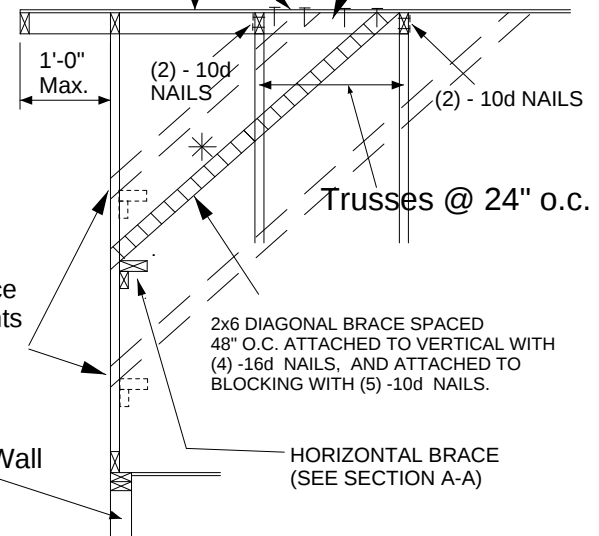
PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK

Roof Sheathing

Diag. Brace
at 1/3 points
if needed

End Wall



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

April 2, 2021

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No. 3 / Stud	12" O.C.	3-9-7	5-8-8	6-11-1	11-4-4
2x4 SP No. 3 / Stud	16" O.C.	3-4-12	4-11-15	6-9-8	10-2-3
2x4 SP No. 3 / Stud	24" O.C.	2-9-4	4-0-7	5-6-8	8-3-13
2x4 SP No. 2	12" O.C.	3-11-13	5-8-8	6-11-1	11-11-7
2x4 SP No. 2	16" O.C.	3-7-7	4-11-5	6-11-1	10-10-5
2x4 SP No. 2	24" O.C.	3-1-15	4-0-7	6-3-14	9-5-14

- * Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 6" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length. T or I braces must be 2x4 SPF No. 2 or SP No. 2.

MAX MEAN ROOF HEIGHT = 30 FEET
EXPOSURE DASCE 7-10, ASCE 7-16 170 MPH
DURATION OF LOAD INCREASE : 1.60STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIP-73 rev. 5/19/2020 BEFORE USE.

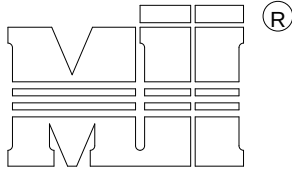
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

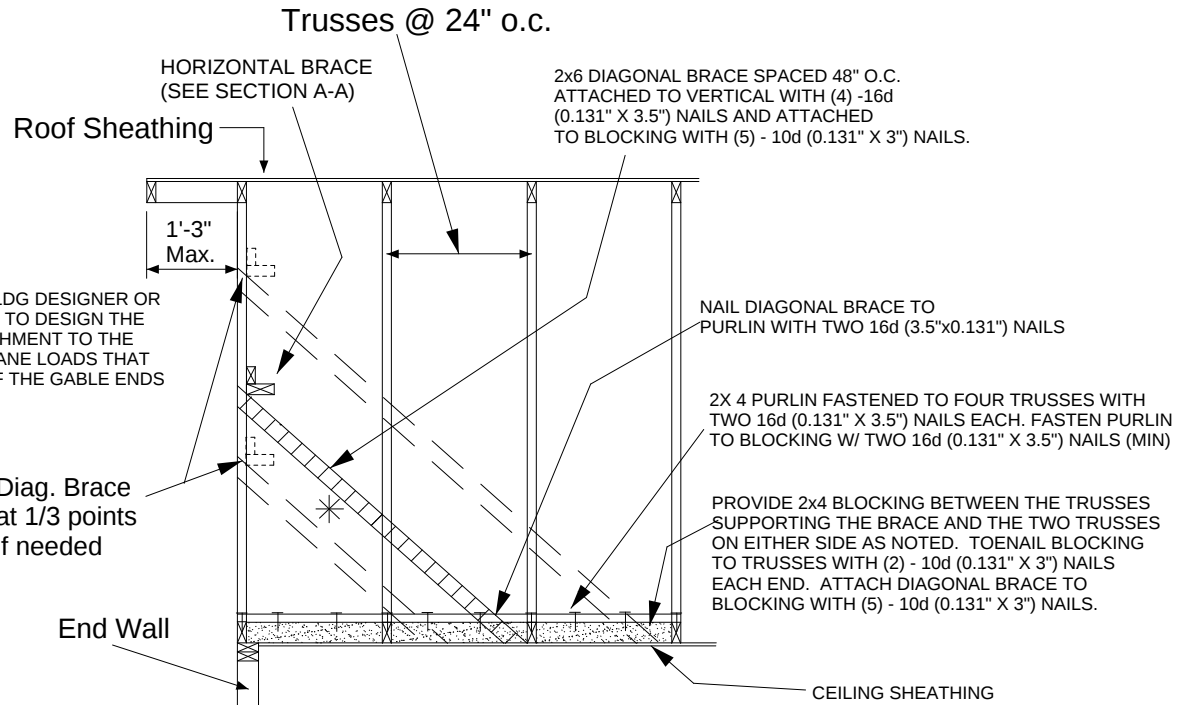


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ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



IT IS THE RESPONSIBILITY OF THE BLDG DESIGNER OR THE PROJECT ENGINEER/ARCHITECT TO DESIGN THE CEILING DIAPHRAGM AND ITS ATTACHMENT TO THE TRUSSES TO RESIST ALL OUT OF PLANE LOADS THAT MAY RESULT FROM THE BRACING OF THE GABLE ENDS

BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

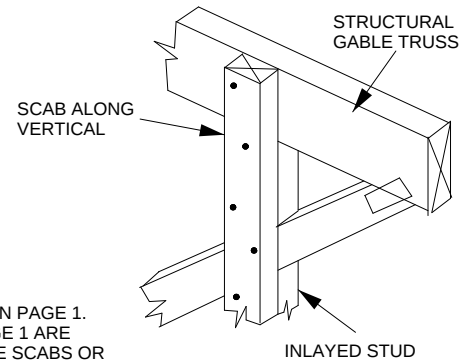
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

METHOD 2 : ATTACH 2X SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

STRUCTURAL GABLE TRUSS

AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

NOTE : THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAVED STUDS. TRUSSES WITHOUT INLAVED STUDS ARE NOT ADDRESSED HERE.

STANDARD GABLE TRUSS

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April 2, 2021

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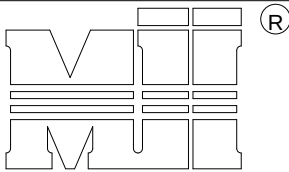
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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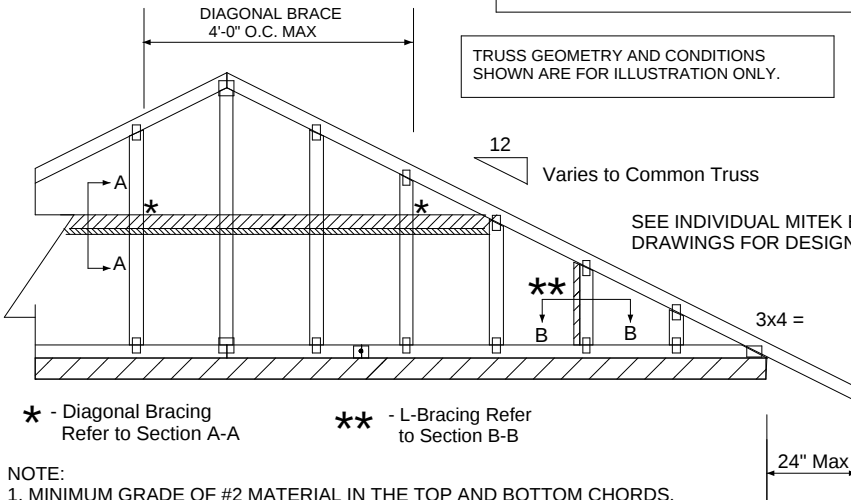
Typical 2x4 L-Brace Nailed To
2x4 Verticals w/10d Nails spaced 6" o.c.

Vertical Stud

SECTION B-B

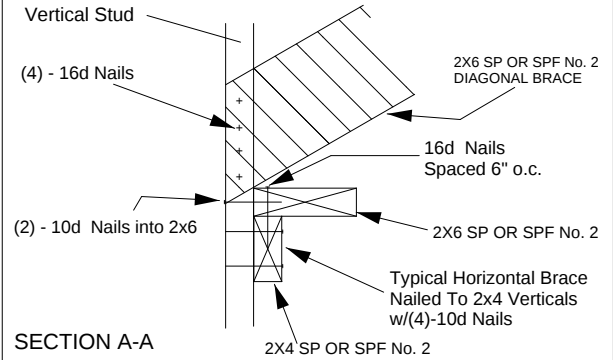
TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.

Varies to Common Truss

SEE INDIVIDUAL MITTEK ENGINEERING
DRAWINGS FOR DESIGN CRITERIA* - Diagonal Bracing
Refer to Section A-A** - L-Bracing Refer
to Section B-B

NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")



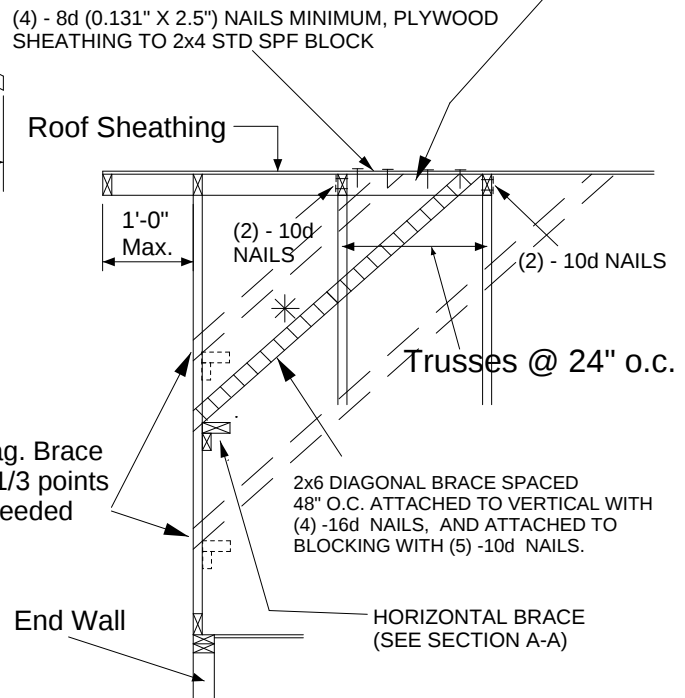
PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK

Roof Sheathing

Diag. Brace
at 1/3 points
if needed

End Wall



Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No. 3 / Stud	12" O.C.	3-7-12	5-4-11	6-2-1	10-11-3
2x4 SP No. 3 / Stud	16" O.C.	3-2-8	4-8-1	6-2-1	9-7-7
2x4 SP No. 3 / Stud	24" O.C.	2-7-7	3-9-12	5-2-13	7-10-4
2x4 SP No. 2	12" O.C.	3-10-0	5-4-11	6-2-1	11-6-1
2x4 SP No. 2	16" O.C.	3-5-13	4-8-1	6-2-1	10-5-7
2x4 SP No. 2	24" O.C.	3-0-8	3-9-12	6-1-1	9-1-9



Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 6in o.c., with 3in minimum end distance. Brace must cover 90% of diagonal length. T or I braces must be 2x4 SPF No. 2 or SP No. 2.

MAX MEAN ROOF HEIGHT = 30 FEET
EXPOSURE D

ASCE 7-10, ASCE 7-16 180 MPH
DURATION OF LOAD INCREASE = 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.

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

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

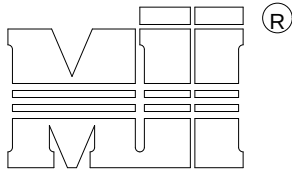
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April 2, 2021

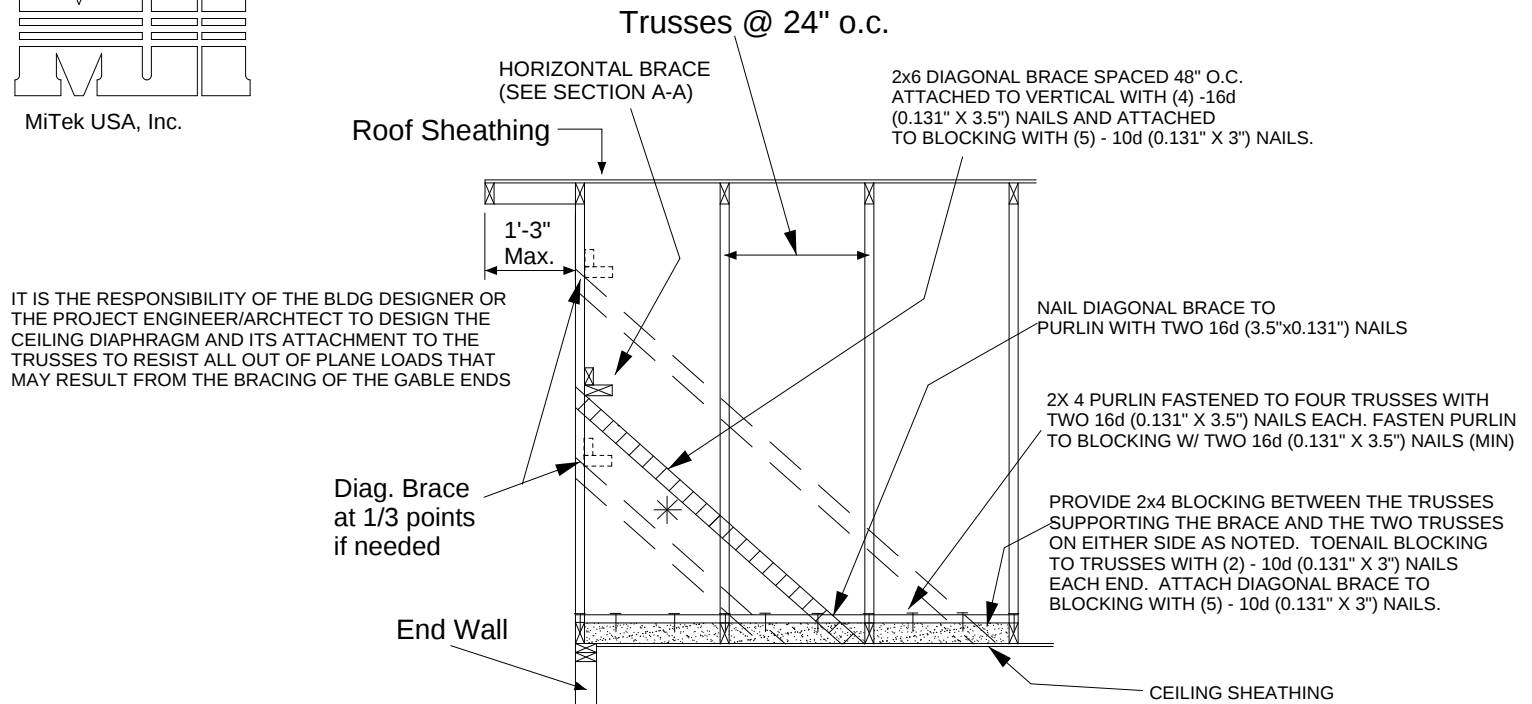


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ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

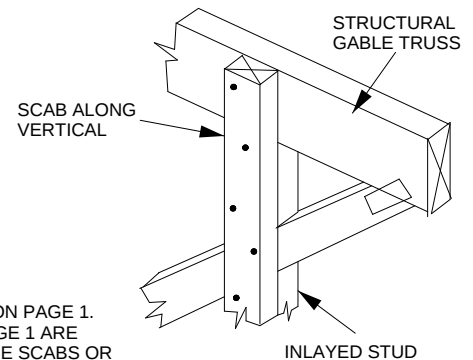
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

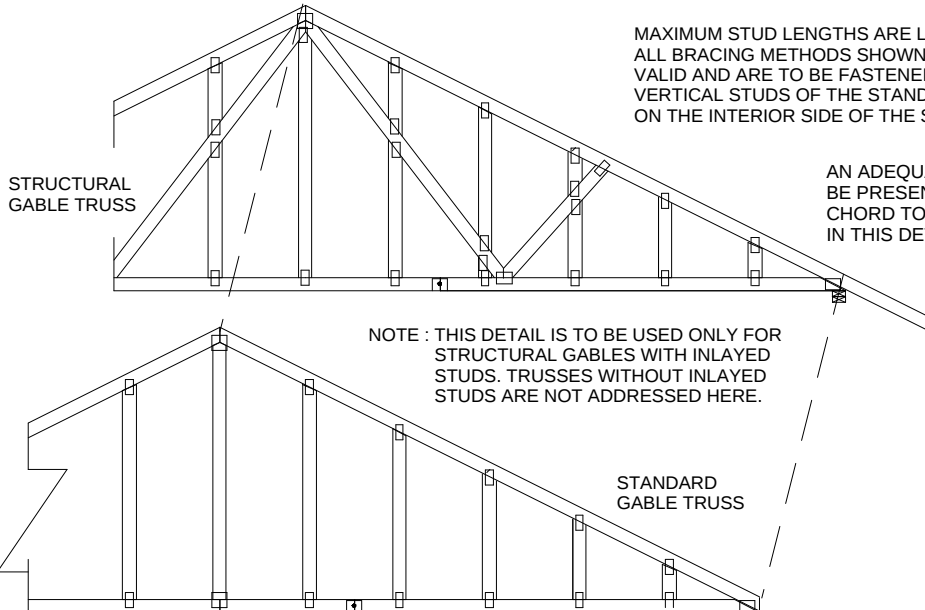
METHOD 2 : ATTACH 2X _ SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.



AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

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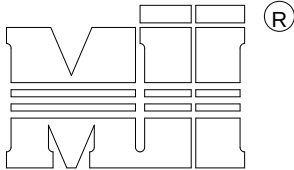
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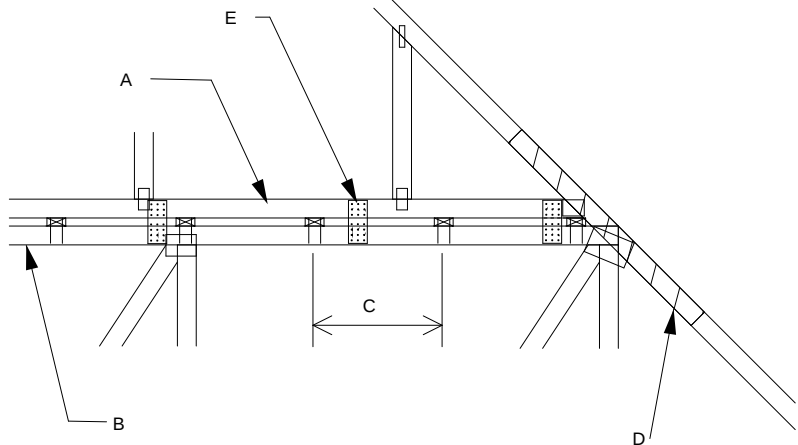


MiTek USA, Inc.

MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E
 MAX MEAN ROOF HEIGHT = 30 FEET
 MAX TRUSS SPACING = 24" O.C.
 CATEGORY II BUILDING
 EXPOSURE B or C
 ENCLOSED BUILDING
 LOADING = 5 PSF TCDL
 ASCE 7-10, ASCE 7-16
 DURATION OF LOAD INCREASE : 1.60

DETAIL IS NOT APPLICABLE FOR TRUSSES
 TRANSFERRING DRAG LOADS (SHEAR TRUSSES).
 ADDITIONAL CONSIDERATIONS BY BUILDING
 ENGINEER/DESIGNER ARE REQUIRED.

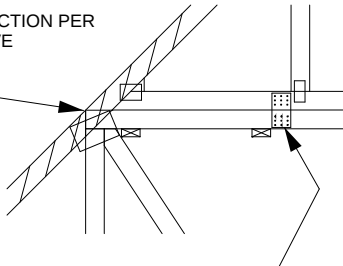
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X ____ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
 2. WIND SPEED OF 116 MPH TO 180 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEEDS BETWEEN 116 AND 180 MPH, ATTACH MITEK NP37 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 72" O.C. W/ (4) (0.131" X 1.5") NAILS PER MEMBER. STAGGER NAILS FROM OPPOSING FACES. ENSURE 0.5" NAIL EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)



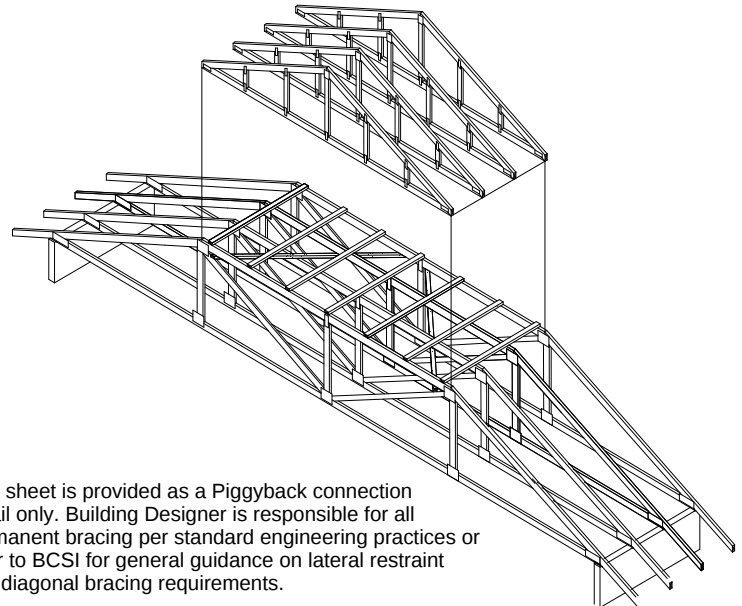
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER
NOTE D ABOVE

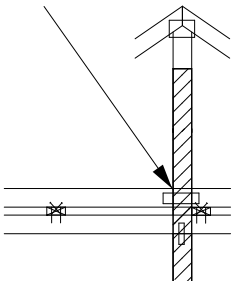


FOR ALL WIND SPEEDS, ATTACH MITEK NP37 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" NAIL EDGE DISTANCE.



This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO
EXTEND THROUGH
BOTTOM CHORD
OF PIGGYBACK



FOR LARGE CONCENTRATED LOADS APPLIED
TO CAP TRUSS REQUIRING A VERTICAL WEB:

- 1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
- 2) ATTACH 2 x ____ x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
- 3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
- 4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
- 5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.

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 Date:

April 2, 2021

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



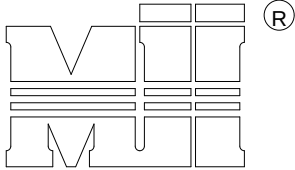
6904 Parke East Blvd.
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JANUARY 8, 2019

STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-ALT-7-16
T23399816

MiTek USA, Inc. Page 1 of 1

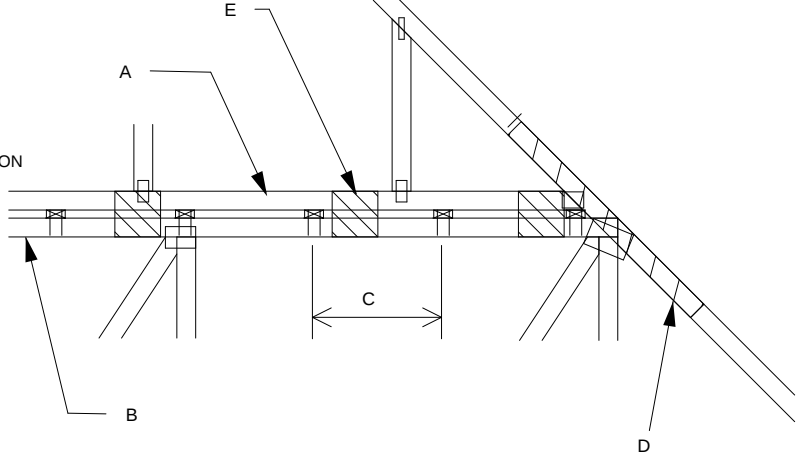


MiTek USA, Inc.

MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E
MAX MEAN ROOF HEIGHT = 30 FEET
MAX TRUSS SPACING = 24" O.C.
CATEGORY II BUILDING
EXPOSURE B or C
ENCLOSED BUILDING
LOADING = 5 PSF TCDL MINIMUM
ASCE 7-10, ASCE 7-16
DURATION OF LOAD INCREASE : 1.60

DETAIL IS NOT APPLICABLE FOR TRUSSES
TRANSFERING DRAG LOADS (SHEAR TRUSSES).
ADDITIONAL CONSIDERATIONS BY BUILDING
ENGINEER/DESIGNER ARE REQUIRED.

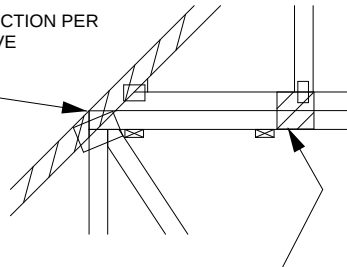
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0(0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X ____ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
 2. WIND SPEED OF 116 MPH TO 180 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEED IN THE RANGE 116 MPH - 180 MPH ADD 9' x 9' x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48" O.C. OR LESS. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



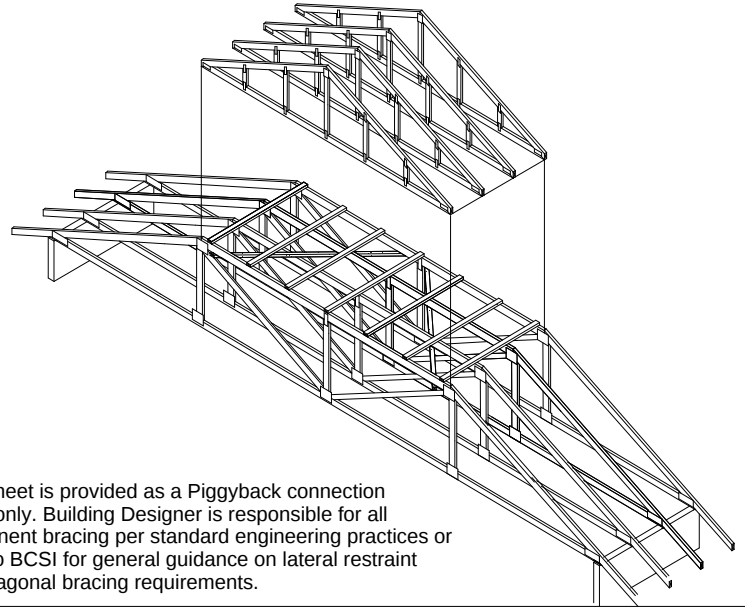
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH PLYWOOD GUSSETS AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER
NOTE D ABOVE

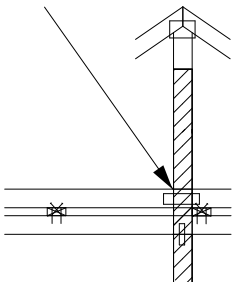


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO
EXTEND THROUGH
BOTTOM CHORD
OF PIGGYBACK



FOR LARGE CONCENTRATED LOADS APPLIED
TO CAP TRUSS REQUIRING A VERTICAL WEB:

- 1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
- 2) ATTACH 2 x ____ x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
- 3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
- 4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
- 5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.

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Philip J. O'Regan PE No.58126
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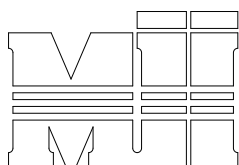
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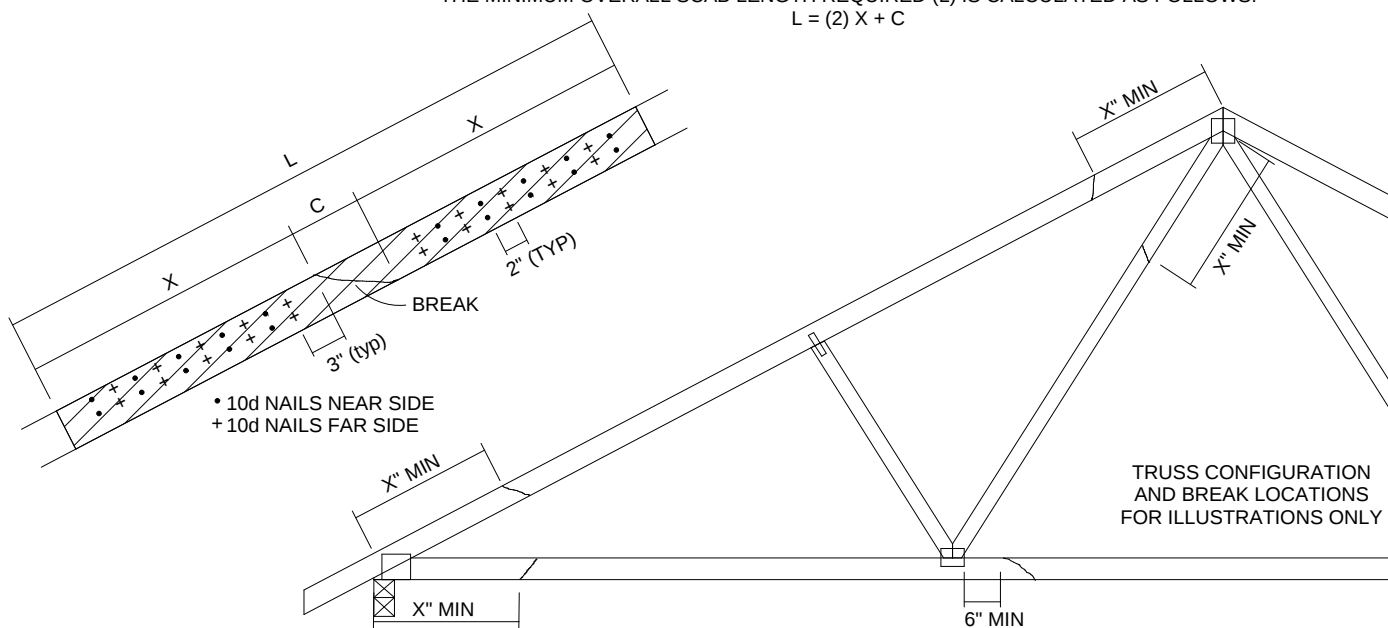
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TOTAL NUMBER OF NAILS EACH SIDE OF BREAK *		X INCHES	MAXIMUM FORCE (lbs) 15% LOAD DURATION							
			SP		DF		SPF		HF	
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125	3187
38	57	42"	3169	4754	2900	4350	2451	3677	2511	3767
44	66	48"	3657	5485	3346	5019	2829	4243	2898	4347

* DIVIDE EQUALLY FRONT AND BACK

ATTACH 2x SCAB OF THE SAME SIZE AND GRADE AS THE BROKEN MEMBER TO EACH FACE OF THE TRUSS (CENTER ON BREAK OR SPLICE) WITH 10d (0.131" X 3") NAILS (TWO ROWS FOR 2x4, THREE ROWS FOR 2x6) SPACED 4" O.C. AS SHOWN. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 0-2-0 O.C. SPACING IN THE MAIN MEMBER. USE A MIN. 0-3-0 MEMBER END DISTANCE.

THE LENGTH OF THE BREAK (C) SHALL NOT EXCEED 12". (C=PLATE LENGTH FOR SPLICE REPAIRS)
THE MINIMUM OVERALL SCAB LENGTH REQUIRED (L) IS CALCULATED AS FOLLOWS:
 $L = (2) X + C$



THE LOCATION OF THE BREAK MUST BE GREATER THAN OR EQUAL TO THE REQUIRED X DIMENSION FROM ANY PERIMETER BREAK OR HEEL JOINT AND A MINIMUM OF 6" FROM ANY INTERIOR JOINT (SEE SKETCH ABOVE)

DO NOT USE REPAIR FOR JOINT SPLICES

NOTES:

1. THIS REPAIR DETAIL IS TO BE USED ONLY FOR THE APPLICATION SHOWN. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
3. THE END DISTANCE, EDGE DISTANCE AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
4. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.
5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 2x ORIENTATION ONLY.
6. THIS REPAIR IS LIMITED TO TRUSSES WITH NO MORE THAN THREE BROKEN MEMBERS.

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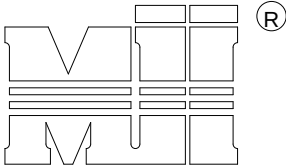
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NOTES:

- TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 45 DEGREES WITH THE MEMBER AND MUST HAVE FULL WOOD SUPPORT. (NAIL MUST BE DRIVEN THROUGH AND EXIT AT THE BACK CORNER OF THE MEMBER END AS SHOWN.)
- THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
- ALLOWABLE VALUE SHALL BE THE LESSER VALUE OF THE TWO SPECIES FOR MEMBERS OF DIFFERENT SPECIES.

THIS DETAIL APPLICABLE TO THE
THREE END DETAILS SHOWN BELOWVIEWS SHOWN ARE FOR
ILLUSTRATION PURPOSES ONLY

TOE-NAIL SINGLE SHEAR VALUES PER NDS 2018 (lb/nail)						
	DIAM.	SP	DF	HF	SPF	SPF-S
3.5" LONG	.131	88.0	80.6	69.9	68.4	59.7
	.135	93.5	85.6	74.2	72.6	63.4
	.162	108.8	99.6	86.4	84.5	73.8
3.25" LONG	.128	74.2	67.9	58.9	57.6	50.3
	.131	75.9	69.5	60.3	59.0	51.1
	.148	81.4	74.5	64.6	63.2	52.5

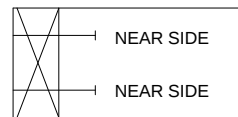
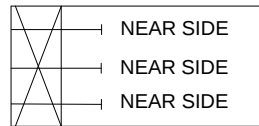
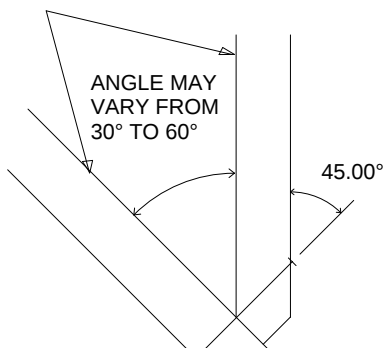
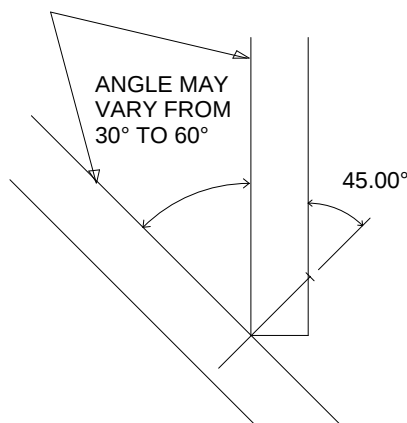
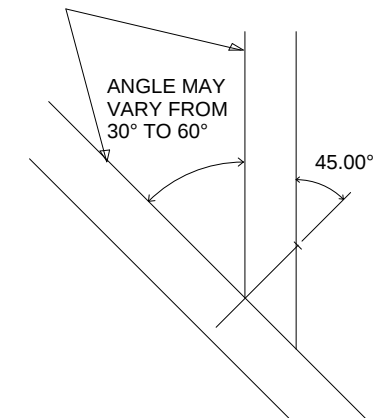
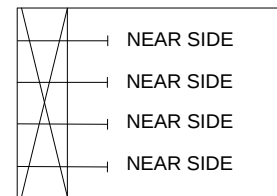
VALUES SHOWN ARE CAPACITY PER TOE-NAIL.
APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

EXAMPLE:

(3) - 16d (0.162" X 3.5") NAILS WITH SPF SPECIES BOTTOM CHORD

For load duration increase of 1.15:

3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity

SIDE VIEW
(2x3)
2 NAILSSIDE VIEW
(2x4)
3 NAILSSIDE VIEW
(2x6)
4 NAILS

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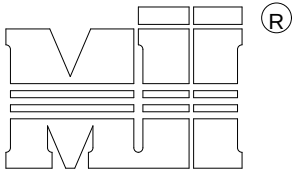
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



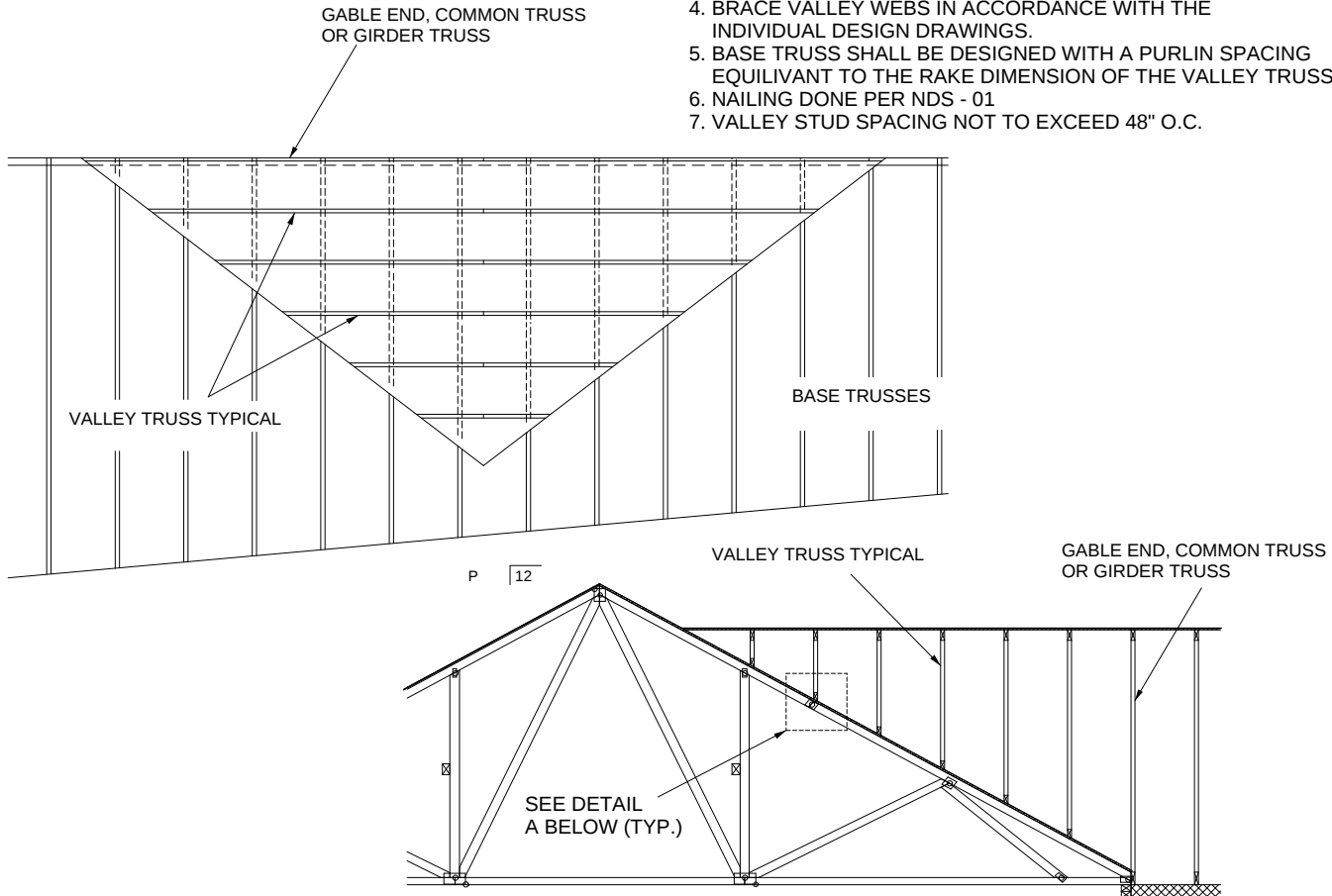
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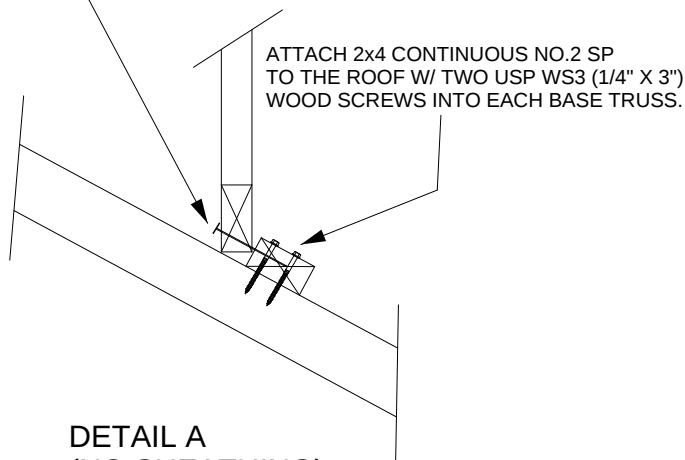
MiTek USA, Inc.

GENERAL SPECIFICATIONS

1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 3" WS3 USP OR EQUIVALENT
DO NOT USE DRYWALL OR DECKING TYPE SCREW
3. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
4. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
5. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING EQUIVANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
6. NAILING DONE PER NDS - 01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.



SECURE VALLEY TRUSS
W/ ONE ROW OF 10d
NAILS 6" O.C.



DETAIL A
(NO SHEATHING)
N.T.S.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH
WIND DESIGN PER ASCE 7-10, ASCE 7-16 160 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12
CATEGORY II BUILDING
EXPOSURE C
WIND DURATION OF LOAD INCREASE : 1.60
MAX TOP CHORD TOTAL LOAD = 50 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 6 PSF
ON THE TRUSSES

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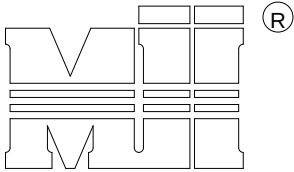
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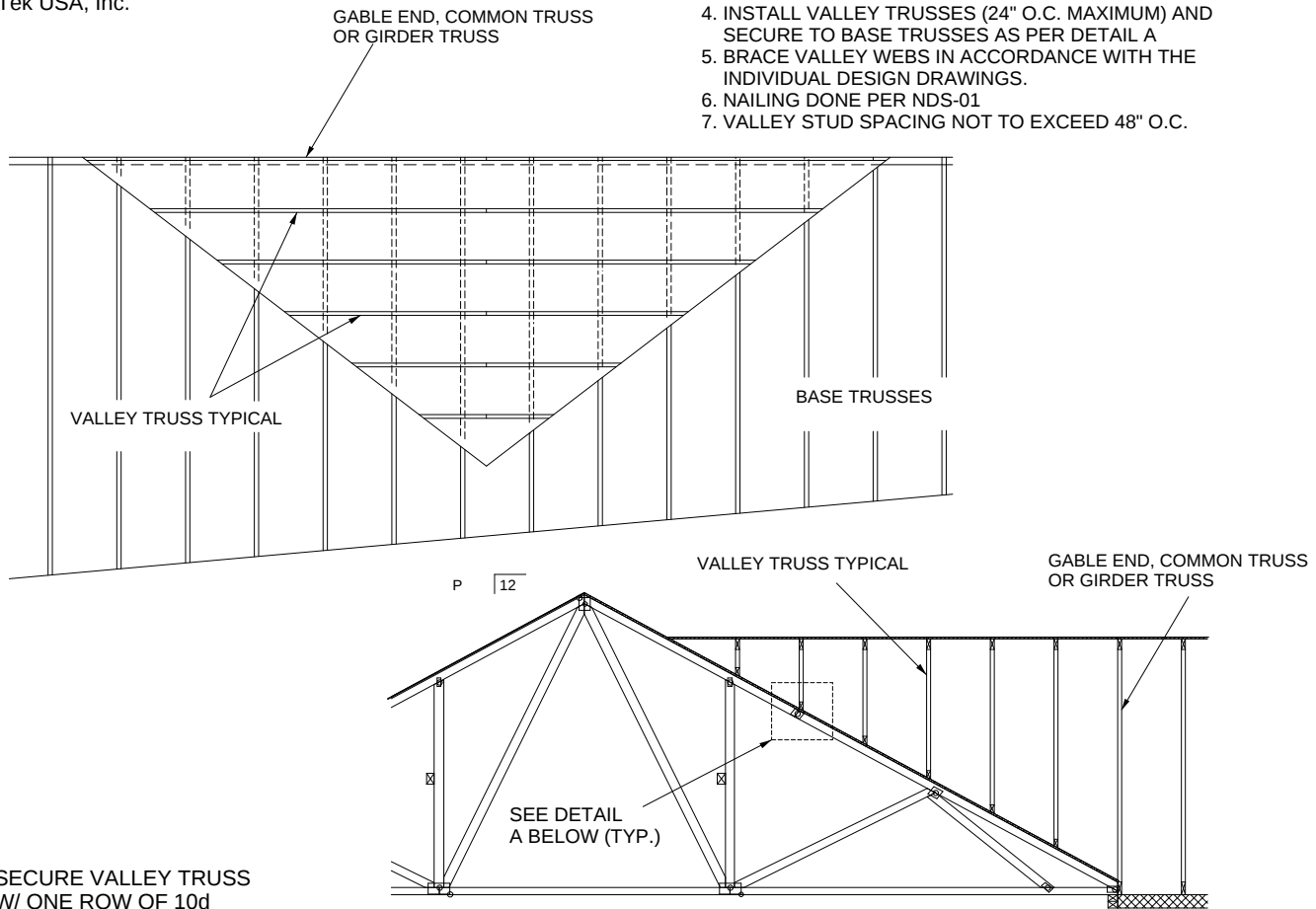
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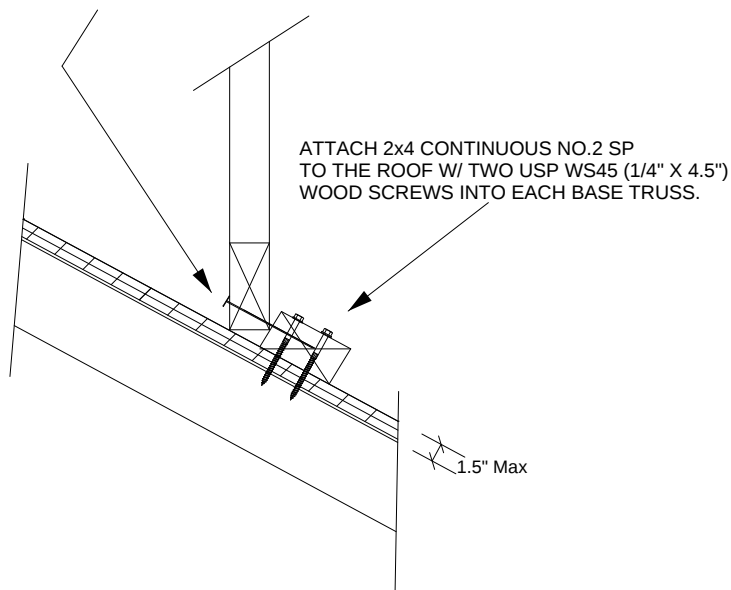
MiTek USA, Inc.

GENERAL SPECIFICATIONS

1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 4.5" WS45 USP OR EQUIVANT
3. INSTALL SHEATHING TO TOP CHORD OF BASE TRUSSES.
4. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE TO BASE TRUSSES AS PER DETAIL A
5. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
6. NAILING DONE PER NDS-01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.



SECURE VALLEY TRUSS
W/ ONE ROW OF 10d
NAILS 6" O.C.



WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH
WIND DESIGN PER ASCE 7-10, ASCE 7-16 160 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12
CATEGORY II BUILDING
EXPOSURE C
WIND DURATION OF LOAD INCREASE : 1.60
MAX TOP CHORD TOTAL LOAD = 50 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 6 PSF
ON THE TRUSSES

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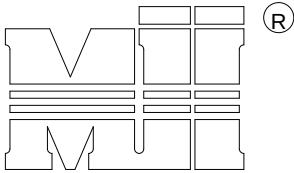
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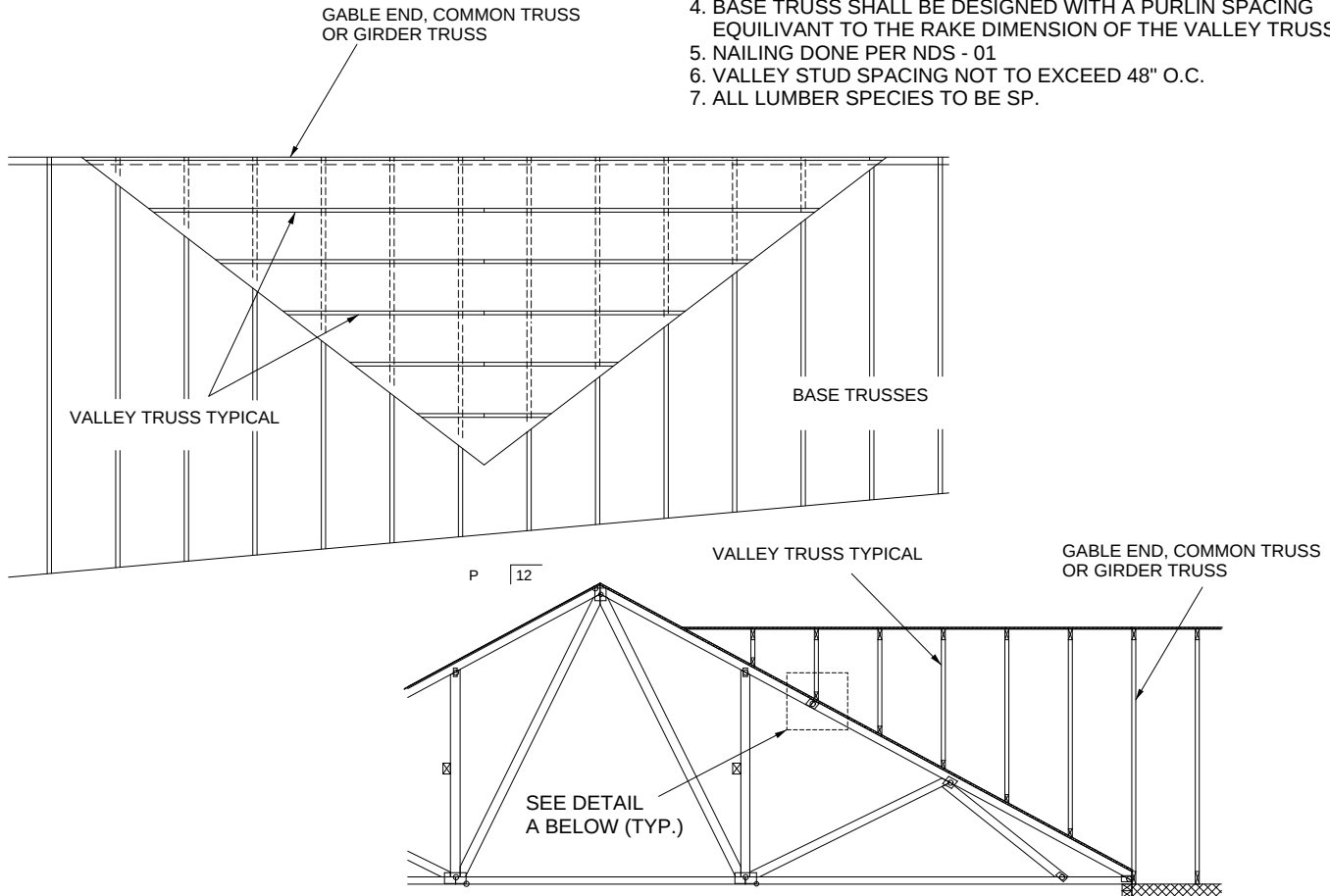
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Tampa, FL 36610



MiTek USA, Inc.

GENERAL SPECIFICATIONS

1. NAIL SIZE 16d (0.131" X 3.5")
2. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
3. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
4. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING EQUIVARIANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
5. NAILING DONE PER NDS - 01
6. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.
7. ALL LUMBER SPECIES TO BE SP.



SECURE VALLEY TRUSS
W/ ONE ROW OF 16d
NAILS 6" O.C.

ATTACH 2x4 CONTINUOUS NO.2 SP
TO THE ROOF W/ TWO 16d NAILS
INTO EACH BASE TRUSS.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH
WIND DESIGN PER ASCE 7-10, ASCE 7-16 150 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12
CATEGORY II BUILDING
EXPOSURE C OR B
WIND DURATION OF LOAD INCREASE : 1.60
MAX TOP CHORD TOTAL LOAD = 60 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 4.2 PSF
ON THE TRUSSES

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DETAIL A
(MAXIMUM 1" SHEATHING)
N.T.S.

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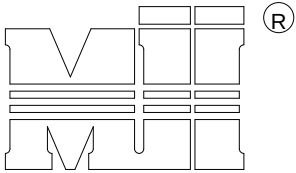
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



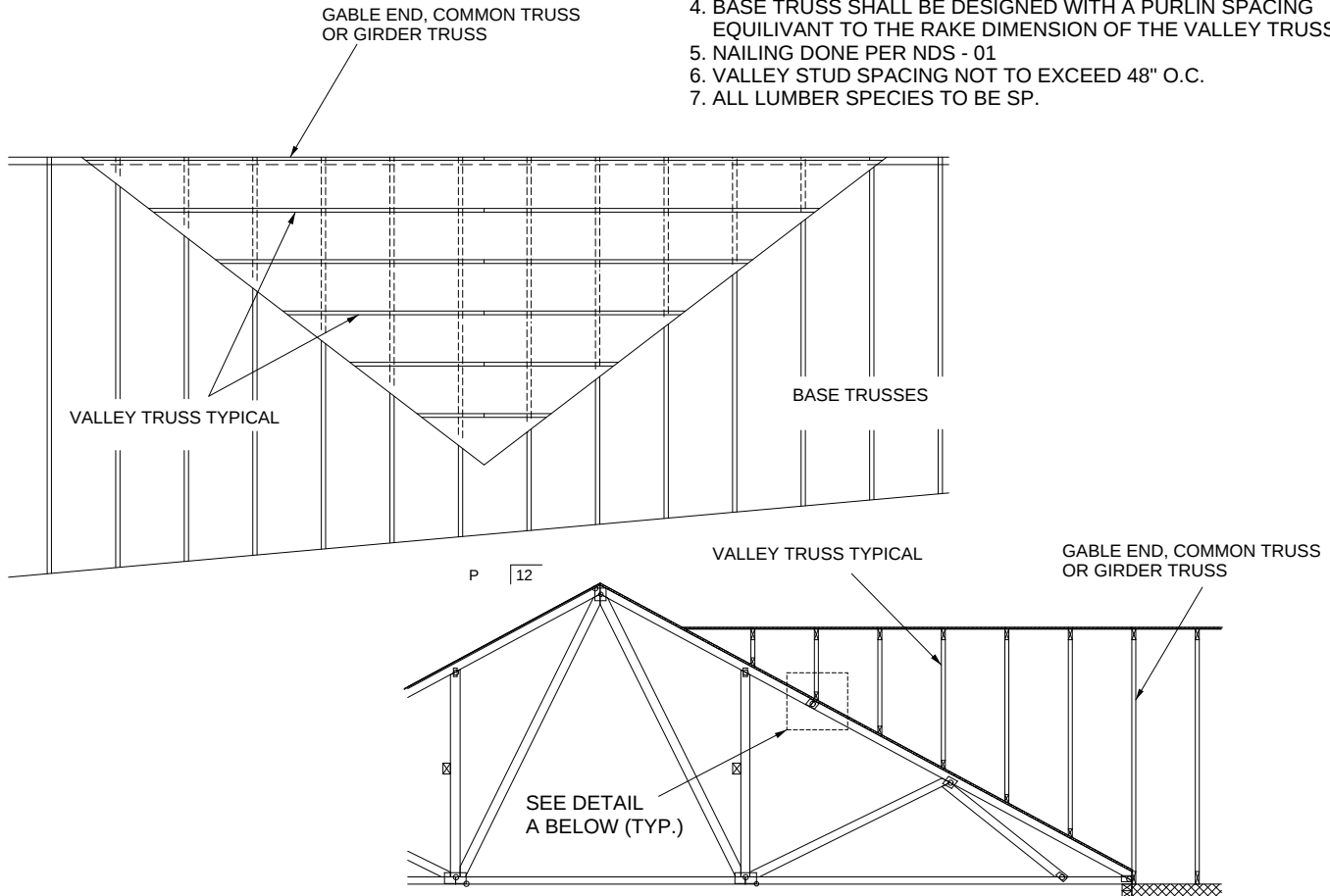
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MiTek USA, Inc.

GENERAL SPECIFICATIONS

1. NAIL SIZE 16d (0.131" X 3.5")
2. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
3. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
4. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING EQUIVARIANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
5. NAILING DONE PER NDS - 01
6. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.
7. ALL LUMBER SPECIES TO BE SP.



SECURE VALLEY TRUSS
W/ ONE ROW OF 16d
NAILS 6" O.C.

ATTACH 2x4 CONTINUOUS NO.2 SP
TO THE ROOF W/ TWO 16d NAILS
INTO EACH BASE TRUSS.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH
WIND DESIGN PER ASCE 7-10, ASCE 7-16 150 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12
CATEGORY II BUILDING
EXPOSURE C OR B
WIND DURATION OF LOAD INCREASE : 1.60
MAX TOP CHORD TOTAL LOAD = 60 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 4.2 PSF
ON THE TRUSSES

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DETAIL A
(MAXIMUM 1" SHEATHING)
N.T.S.

April 2, 2021

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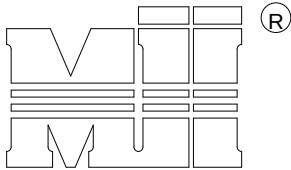
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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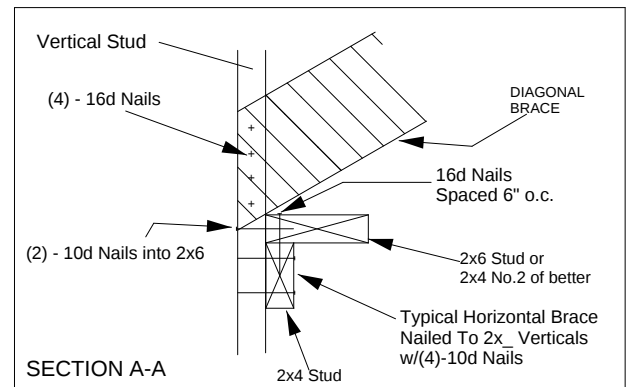
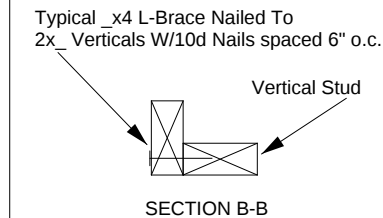
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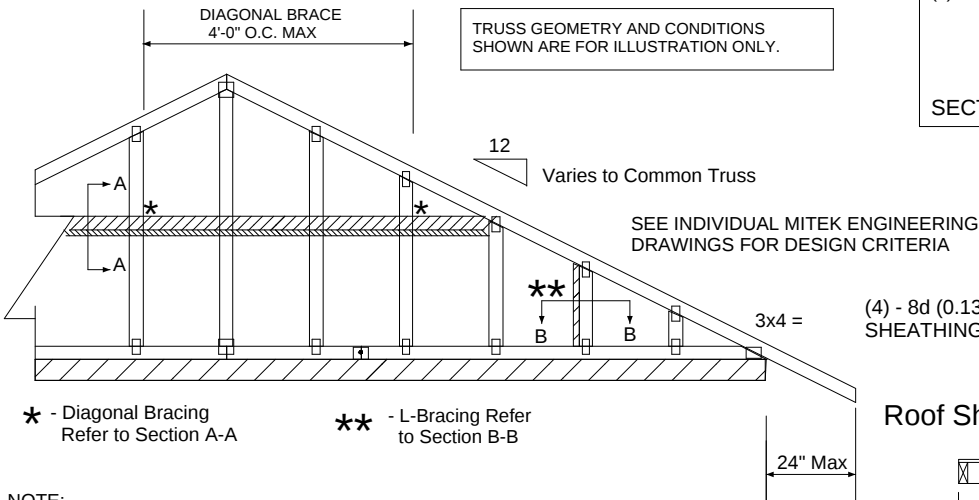
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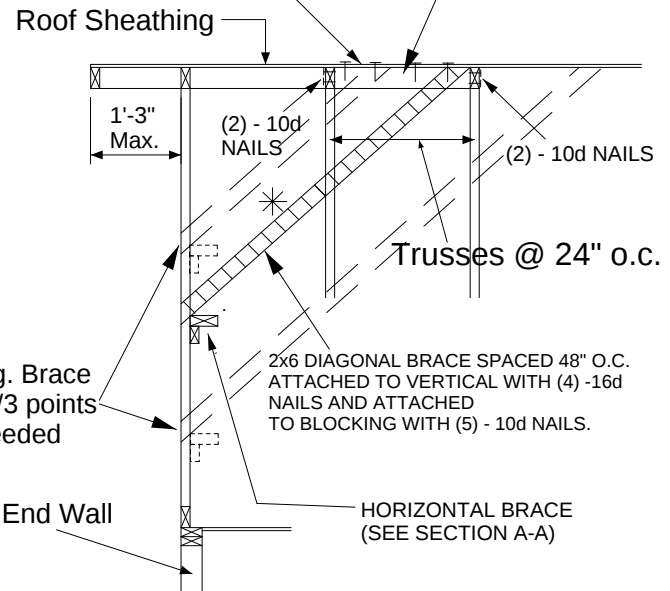


TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.



PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SP BLOCK



NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 2x4 No 3/STUD SP OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No 3/Stud	12" O.C.	3-11-3	6-8-0	7-2-14	11-9-10
2x4 SP No 3/Stud	16" O.C.	3-6-14	5-9-5	7-1-13	10-8-11
2x4 SP No 3/Stud	24" O.C.	3-1-8	4-8-9	6-2-15	9-4-7

- ✱ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

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MAXIMUM WIND SPEED = 146 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C

ASCE 7-98, ASCE 7-02, ASCE 7-05
DURATION OF LOAD INCREASE = 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.

CONNECTION OF BRACING IS BASED ON MWPRS 473 rev. 5/19/2020 BEFORE USE.

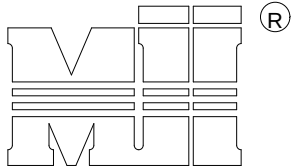
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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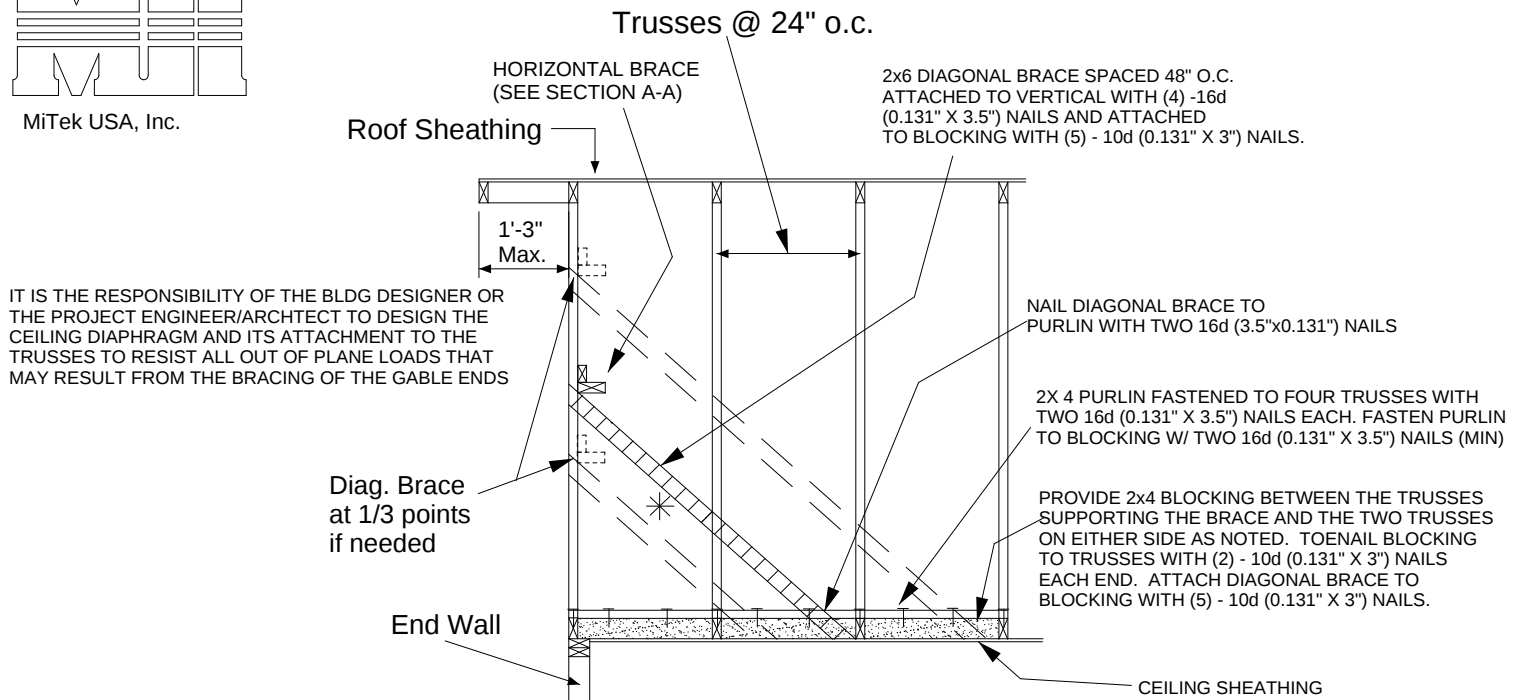


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ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

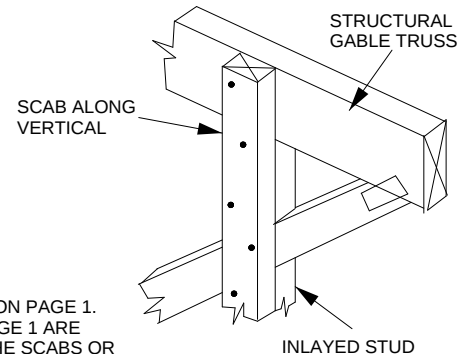
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

METHOD 2 : ATTACH 2X _ SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

STRUCTURAL GABLE TRUSS

AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

NOTE : THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAVED STUDS. TRUSSES WITHOUT INLAVED STUDS ARE NOT ADDRESSED HERE.

STANDARD GABLE TRUSS

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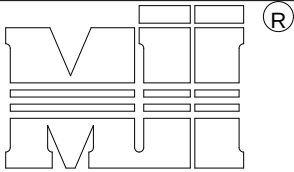
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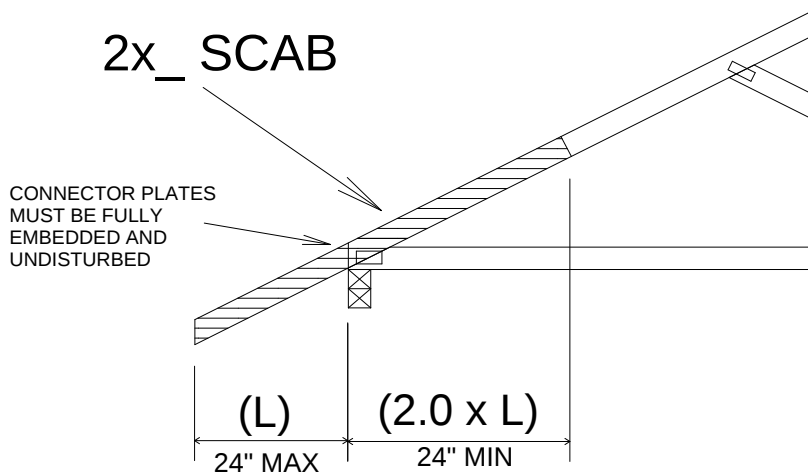
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TRUSS CRITERIA:

LOADING: 40-10-0-10
 DURATION FACTOR: 1.15
 SPACING: 24" O.C.
 TOP CHORD: 2x4 OR 2x6
 PITCH: 4/12 - 12/12
 HEEL HEIGHT: STANDARD HEEL UP TO 12" ENERGY HEEL
 END BEARING CONDITION

NOTES:

1. ATTACH 2x SCAB (MINIMUM NO.2 GRADE SPF, HF, SP, DF) TO ONE FACE OF TRUSS WITH TWO ROWS OF 10d (0.131" X 3") SPACED 6" O.C.
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
3. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.



IMPORTANT

This detail to be used only with trusses (spans less than 40') spaced 24" o.c. maximum and having pitches between 4/12 and 12/12 and total top chord loads not exceeding 50 psf. Trusses not fitting these criteria should be examined individually.

REFER TO INDIVIDUAL TRUSS DESIGN
FOR PLATE SIZES AND LUMBER GRADES

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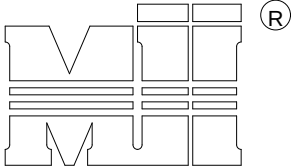
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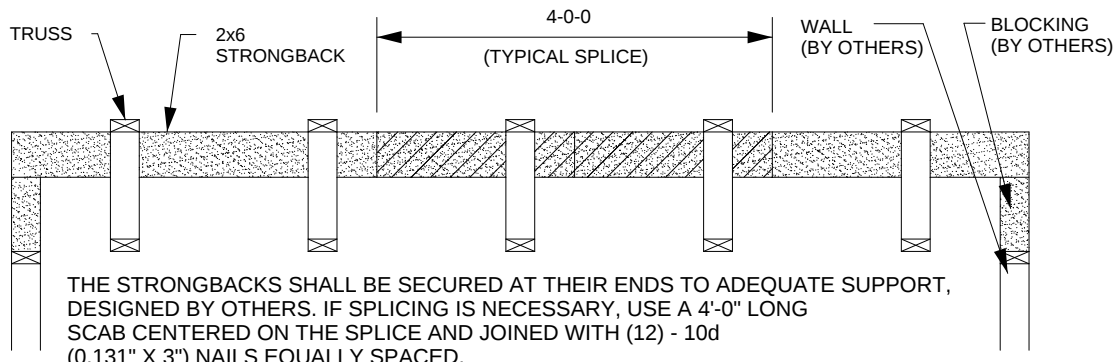
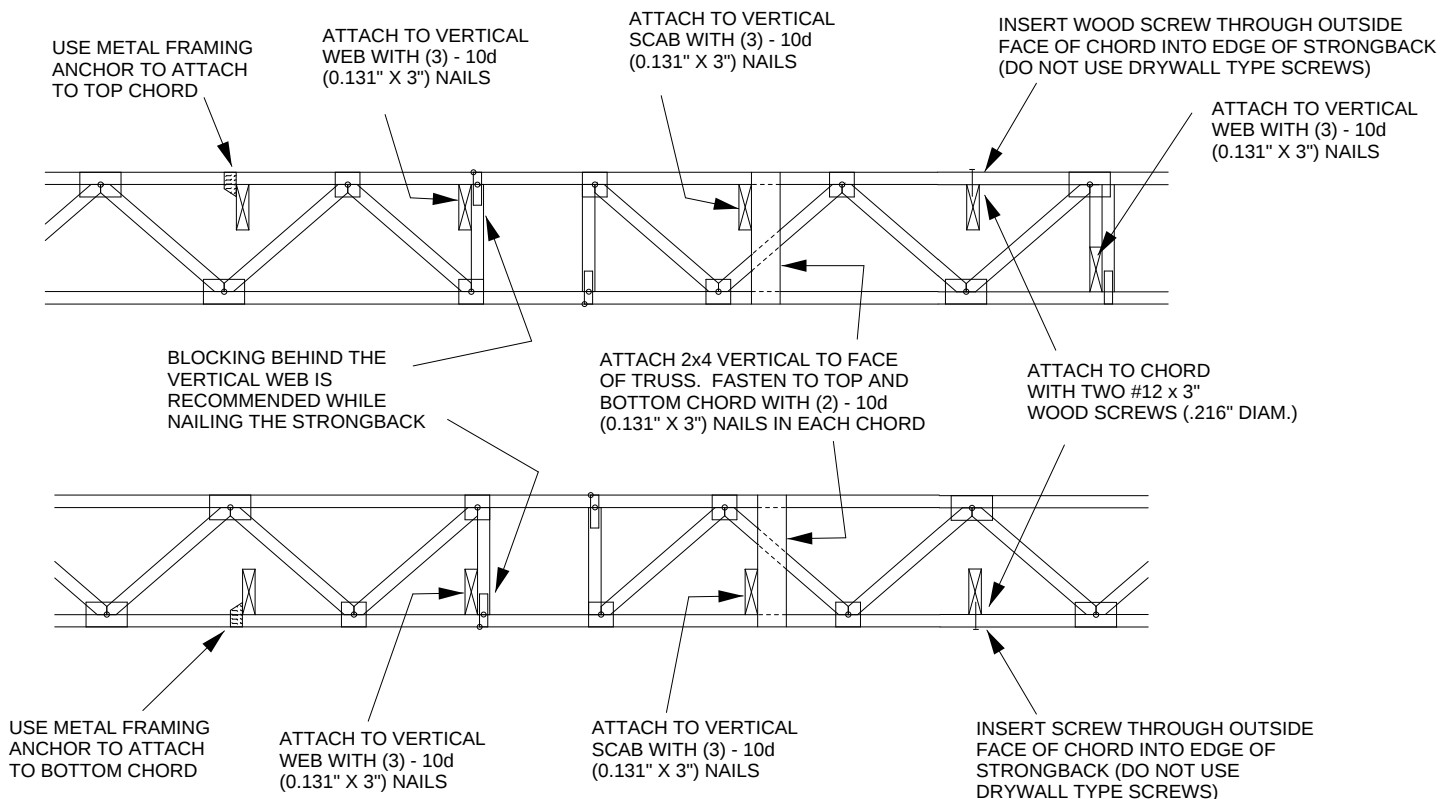


MiTek USA, Inc.

TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.

NOTE 1: 2X6 STRONGBACK ORIENTED VERTICALLY MAY BE POSITIONED DIRECTLY UNDER THE TOP CHORD OR DIRECTLY ABOVE THE BOTTOM CHORD. SECURELY FASTENED TO THE TRUSS USING ANY OF THE METHODS ILLUSTRATED BELOW.

NOTE 2: STRONGBACK BRACING ALSO SATISFIES THE LATERAL BRACING REQUIREMENTS FOR THE BOTTOM CHORD OF THE TRUSS WHEN IT IS PLACED ON TOP OF THE BOTTOM CHORD, IS CONTINUOUS FROM END TO END, CONNECTED WITH A METHOD OTHER THAN METAL FRAMING ANCHOR, AND PROPERLY CONNECTED, BY OTHERS, AT THE ENDS.



ALTERNATE METHOD OF SPLICING:
OVERLAP STRONGBACK MEMBERS A MINIMUM OF 4'-0" AND FASTEN WITH (12) - 10d (0.131" X 3") NAILS STAGGERED AND EQUALLY SPACED.
(TO BE USED ONLY WHEN STRONGBACK IS NOT ALIGNED WITH A VERTICAL)

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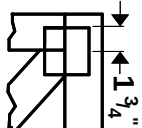
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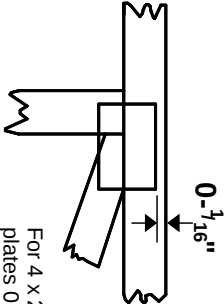
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Symbols

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- $\frac{3}{16}$ " from outside edge of truss.

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

*** Plate location details available in MITek 20120 software or upon request.**

PLATE SIZE

4 X 4

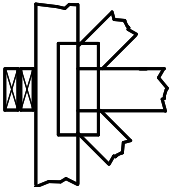
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



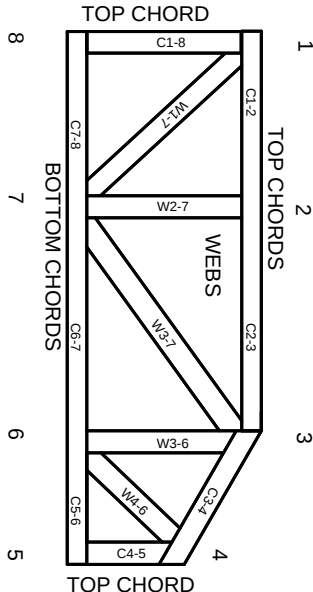
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: 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

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.