

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

RE: 2281688 - NORRIS - SUMMERALL RES.

MiTek USA, Inc.

6904 Parke East Blvd. Tampa, FL 33610-4115

Site Information:

Customer Info: Norris Const. Project Name: Summerall Res. Model: Custom

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

Address: 682 NW Falling Creek Rd., N/A

City: Columbia Cty State: FL

ate: FI

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

License #:

Address:

City:

State:

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

Design Code: FBC2017/TPI2014

Wind Code: ASCE 7-10 Roof Load: 37.0 psf Design Program: MiTek 20/20 8.2

Wind Speed: 130 mph Floor Load: N/A psf

This package includes 4 individual, Truss Design Drawings and 0 Additional Drawings. With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date
1 2 3	T19646197 T19646198 T19646199	T01 T01G T03	3/10/20 3/10/20 3/10/20
4	T19646200	T04	3/10/20



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, 2021.

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.

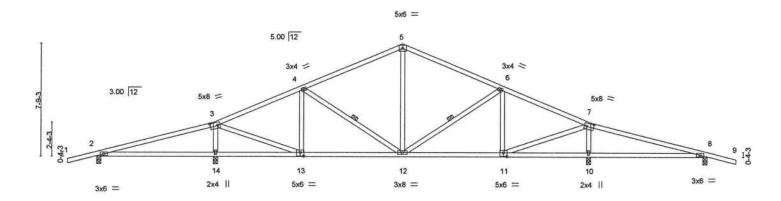


Philip J. O'Regan PE No.58126 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

March 10,2020

Job	Truss	Truss Type		Qty	Ply	NORRIS - SUMMERALL RES	*	
2281688	T01	Roof Special		9		1 Inh Defenses (astioned)		T1964619
Builders FirstSource.	Jacksonville, FL - 32244.				8.240 s F	Job Reference (optional) eb 7 2020 MiTek Industries, Inc.	Tue Mar 10 11:31:52	2020 Page 1
				ID:0izdHwz4t3G		x?GtzeO?s-zXtkpmpod?0HjVFfM		
-2-0-0	8-0-0	14-1-0	21-0-0	27-	11-0	34-0-0	42-0-0	44-0-0
2-0-0	8-0-0	6-1-0	6-11-0	6-	11-0	6-1-0	8.0.0	2.0.0

Scale = 1:76.2



	1	8-0-0	8-1 <sub>n</sub> 12	14-1-0	1	21-0-0	1	27-11-	0	- 6	33-10-4	34-0-0	42-0-0	
		8-0-0	0-1-12	5-11-4		6-11-0		6-11-0	)		5-11-4	0-1-12	8-0-0	
Plate Offse	ets (X,Y)-	[3:0-6-0,0-2-8], [7:0-6-	-0,0-2-8],	[11:0-3-0,0-3-0],	13:0	-3-0,0-3-0]		- 2000						
LOADING	(psf)	SPACING-	2-0	-0 0	SI.		DEFL.	in	(loc)	I/defi	L/d	PLA	TES	GRIP
TCLL	20.0	Plate Grip DOL	. 1.3	25 T	C	0.61	Vert(LL)	0.26	10-20	>371	240	MT2	0	244/190
TCDL	7.0	Lumber DOL	1.3	25 E	C	0.51	Vert(CT)	-0.23	10-20	>427	180			
BCLL	0.0 *	Rep Stress Inc	r YE	ES V	VB.	0.40	Horz(CT)	0.02	10	n/a	n/a			
BCDL	10.0	Code FBC201	7/TPI2014	4 N	atrix	-MS	A					Weig	aht: 206 lb	FT = 20%

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

### BRACING-

TOP CHORD BOT CHORD WEBS

Structural wood sheathing directly applied or 5-2-9 oc purlins.

Rigid ceiling directly applied or 6-0-0 oc bracing. 1 Row at midpt 6-12, 4-12

REACTIONS. All bearings 0-3-8.

(lb) - Max Horz 2=166(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) except 2=-348(LC 8), 10=-496(LC 13), 14=-521(LC 12), 8=-359(LC

Max Grav All reactions 250 lb or less at joint(s) except 2=390(LC 23), 10=1283(LC 1), 14=1283(LC 1), 8=390(LC 24)

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

TOP CHORD 3-4=-1054/612, 4-5=-947/622, 5-6=-947/622, 6-7=-1054/612 BOT CHORD 12-13=-361/924, 11-12=-361/924

WEBS 12-13=-361/924, 11-12=-361/92-WEBS 5-12=-181/394, 7-11=-394/1055.

5-12=-181/394, 7-11=-394/1055, 7-10=-1083/640, 3-13=-400/1055, 3-14=-1083/641

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 348 lb uplift at joint 2, 496 lb uplift at joint 10, 521 lb uplift at joint 14 and 359 lb uplift at joint 8.



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

March 10,2020

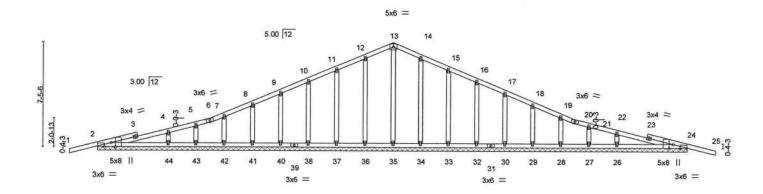
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Job	Truss	Truss Type	Qty	Ply	NORRIS - SUMMERALL RES.		
2281688	T01G	Roof Special Supported Gable	2	1	The second secon		T19646198
					Job Reference (optional)		
Builders FirstSource,	Jacksonville, FL - 32244,			8.240 s Fe	b 7 2020 MiTek Industries, Inc. Tu	ue Mar 10 11:31:55	2020 Page 1
			ID:0izdHwz4t3	G8RvK9CC	x?GtzeO?s-N5ZtSorhvwOsay_D16	Sajlp0EVT0Y4shiGe	QUWEzcLo2
2-0-0	7-11-14	21-0-0	4		34-0-2	42-0-0	44-0-0
2-0-0	7-11-14	13-0-2	3		13-0-2	7-11-14	2-0-0

Scale = 1:78.7



		<del> </del>				42-0-0 42-0-0		7.5				
Plate Offse	ets (X,Y)-	[2:0-3-8,Edge], [2:0-5-12,	Edge], [24:0-3-	-8,Edge], [24	:0-5-12,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	0.26	Vert(LL)	-0.01	25	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.17	Vert(CT)	-0.01	25	n/r	120	1277007550	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	24	n/a	n/a		
BCDL	10.0	Code FBC2017/T	PI2014	Matri	x-S				1000	5000	Weight: 228 lb	FT = 20%

LUMBER-

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

TOP CHORD BOT CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins.

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

REACTIONS. All bearings 42-0-0.

(lb) - Max Horz 2=160(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 36, 37, 38, 40, 41, 42, 43, 34, 33, 32, 30, 29, 28, 27 except 2=-198(LC 8), 24=-203(LC 9), 44=-134(LC 12), 26=-138(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 35, 36, 37, 38, 40, 41, 42, 43, 34, 33, 32, 30, 29, 28, 27 except 2=288(LC 23), 24=288(LC 24), 44=319(LC 23), 26=319(LC 24)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 12-13=-86/281, 13-14=-86/281

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 36, 37, 38, 40, 41, 42, 43, 34, 33, 32, 30, 29, 28, 27 except (jt=lb) 2=198, 24=203, 44=134, 26=138.



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

March 10,2020

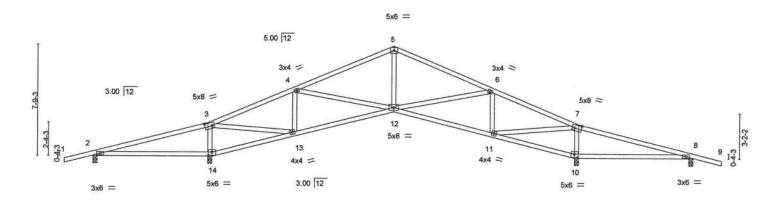
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, crection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-85 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Job	Truss		Truss Type		Qty	Ply	NORRIS - SUM	MERALL RES.	most-re-	
2281688	тоз		Roof Special		9		1			T19646199
Builders FirstSource,	Jacksonville, FL	- 32244,				8.240 s Fe	Job Reference (e eb 7 2020 MiTek Ir		Tue Mar 10 11:31:	56 2020 Page 1
L-2-0-0	8-0-0	8-3-8	14-1-0	21-0-0		3G8RvK9C	Cx?GtzeO?s-rl7Ffi			
2-0-0	8-0-0	0-3-8	5-9-8	6-11-0	6-11		5-9-8	0-3-8	8-0-0	2-0-0

Scale = 1:77.4



	-	8-0-0 0-	1112	5-9-8	6-11-0	-	6-11-0	+	33-8-8 5-9-8	0-1112	42-0-0 8-1-12	
Plate Offse	ets (X,Y)-	[3:0-6-0,0-2-8], [7:0-6-0,		0:0-3-0,0-2-12], [1	4:0-3-0,0-2-12]							
LOADING TCLL TCDL BCLL	(psf) 20.0 7.0 0.0 *	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.25 1.25 YES	TC BC	0.73 0.58 0.61	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) 0.33 10-20 -0.30 10-20 0.08 10	l/defi >306 >329 n/a	L/d 240 180 n/a		PLATES MT20	GRIP 244/190
BCDL	10.0	Code FBC2017/T	PI2014	Mat	rix-MS		(### ## ## ## ## ## ## ## ## ## ## ## ##				Weight: 194 lb	FT = 20%

LUMBER-

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

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied or 4-2-2 oc purlins.

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

REACTIONS. All bearings 0-3-8.

Max Horz 2=166(LC 12) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) except 2=-336(LC 8), 14=-553(LC 12), 10=-519(LC 13), 8=-350(LC

Max Grav All reactions 250 lb or less at joint(s) except 2=325(LC 23), 14=1371(LC 1), 10=1371(LC 1), 8=325(LC

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

2-3=-183/447, 3-4=-1212/676, 4-5=-1344/697, 5-6=-1344/697, 6-7=-1212/674, TOP CHORD

8-3-8

7-8=-122/447

**BOT CHORD** 2-14=-385/188, 13-14=-568/242, 12-13=-437/1114, 11-12=-438/1114, 10-11=-568/246,

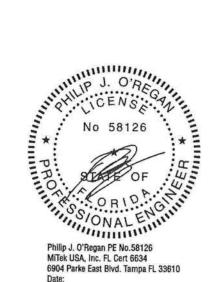
8-10=-385/153

WEBS 5-12=-237/626, 6-11=-438/296, 7-11=-632/1608, 4-13=-438/298, 3-13=-644/1608,

3-14=-1074/652, 7-10=-1074/656

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 336 lb uplift at joint 2, 553 lb uplift at joint 14, 519 lb uplift at joint 10 and 350 lb uplift at joint 8.



6904 Parke East Blvd. Tampa FL 33610 Date:

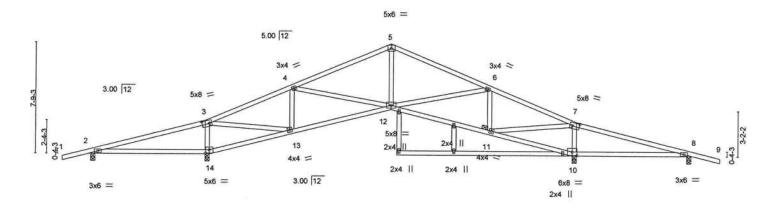
March 10,2020

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Job	Truss		Truss Type			Qty	Ply	NO	RRIS - SUM	MERALL RES.		
2281688	T04		Roof Special			3		1				T19646200
Builders FirstSource,	Jacksonville, FL	- 32244,					8.240 s F		Reference (c		Tue Mar 10 11:31:	58 2020 Page 1
-2-0-0	8-0-0	8-3,8	14-1-0		21-0-0	ID:0izdHwz4t3	G8RvK90	Cx?G	tzeO?s-ogE?	4qtZCrmQRQji 34 <sub>1</sub> 0-0	oiF7QNSedTgxvHi 42-0-0	658ycf87ZzcLo?
2-0-0	8-0-0	0-3-8	5-9-8	1	6-11-0	6-11	-0		5-9-8	0-3-8	8-0-0	2-0-0

Scale = 1:77.4



	-	8-1-12	8-3-8	14-1-0		21-0-0	21,5r0	27-11-0	i .	33-8-8	33-10-4	42-0-0	- 1
Plate Offse	te (Y V)_	8-1-12 [3:0-6-0,0-2-8], [7:0-6-	0-1-12	5-9-8	2 451 147	6-11-0	0-5-0	6-6-0	1	5-9-8	0-1-12	8-1-12	
r late Offse	(X, I)-	[5.0-0-0,0-2-0], [7.0-0-	0,0-2-0].	10.0-4-0,0	-2-15], [14	:0-3-0,0-2-12]							
LOADING	3.0	SPACING-	2-0	200	CSI.		DEFL.	in (loc)	l/defl	L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL		25	TC	0.73	Vert(LL)	0.33 10-24	>306	240	- 1	MT20	244/190
TCDL	7.0	Lumber DOL		25	BC	0.58	Vert(CT)	-0.30 10-24	>329	180	- 1		
BCLL BCDL	10.0	Rep Stress Incr Code FBC2017	4	247	WB Matri	0.61 x-MS	Horz(CT)	0.08 10	n/a	n/a		Weight: 219 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD **BOT CHORD** 

Structural wood sheathing directly applied or 4-2-2 oc purlins. Rigid ceiling directly applied or 6-0-0 oc bracing, Except:

8-9-11 oc bracing: 12-13.

JOINTS

1 Brace at Jt(s): 11

REACTIONS. All bearings 0-3-8.

Max Horz 2=166(LC 12) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) except 2=-336(LC 8), 14=-553(LC 12), 10=-519(LC 13), 8=-350(LC

Max Grav All reactions 250 lb or less at joint(s) except 2=325(LC 23), 14=1371(LC 1), 10=1371(LC 1), 8=325(LC 24)

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

2-3=-183/447, 3-4=-1212/676, 4-5=-1344/697, 5-6=-1344/697, 6-7=-1212/674, TOP CHORD 7-8=-122/447

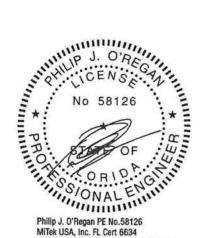
2-14=-385/188, 13-14=-568/242, 12-13=-437/1114, 11-12=-438/1114, 10-11=-568/246,

**BOT CHORD** 8-10=-385/153 WEBS 5-12=-237/626, 6-11=-438/296, 7-11=-632/1608, 4-13=-438/298, 3-13=-644/1608,

3-14=-1074/652, 7-10=-1074/656

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 336 lb uplift at joint 2, 553 lb uplift at joint 14, 519 lb uplift at joint 10 and 350 lb uplift at joint 8.



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March 10,2020

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ANS/TPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

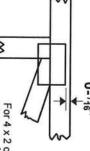


### Symbols

# PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate edge of truss. plates 0- 316" from outside

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

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

### PLATE SIZE



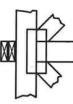
width measured perpendicular the length parallel to slots. to slots. Second dimension is The first dimension is the plate

## LATERAL BRACING LOCATION



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

### BEARING



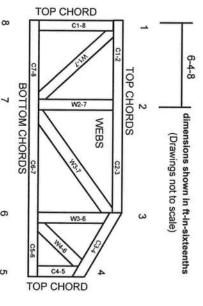
number where bearings occur. Min size shown is for crushing only reaction section indicates joint (supports) occur. Icons vary but Indicates location where bearings

### Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction. Design Standard for Bracing

Connected Wood Trusses Installing & Bracing of Metal Plate Guide to Good Practice for Handling, Building Component Safety Information,

## Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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

# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
- Truss bracing must be designed by an engineer, For wide truss spacing, individual lateral braces themselves bracing should be considered may require bracing, or alternative Tor I
- Never exceed the design loading shown and never stack materials on inadequately braced trusses

ω

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

6

5

Place plates on each face of truss at each ocations are regulated by ANSI/TPI 1. oint and embed fully. Knots and wane at joint

6 5

Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.

7.

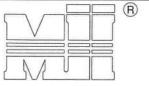
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the camber for dead load deflection. responsibility of truss fabricator. General practice is to
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- Connections not shown are the responsibility of others
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable project engineer before use. environmental, health or performance risks. Consult with
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.

### T-BRACE / I-BRACE DETAIL WITH 2X BRACE ONLY

MII-T-BRACE 2

MiTek USA, Inc. Page 1 of 1

Brace Size



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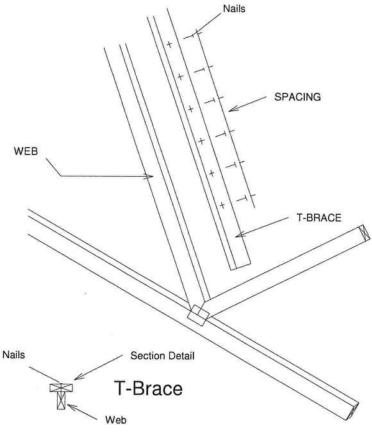
Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical. T-Brace / I-Brace must cover 90% of web length.

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)

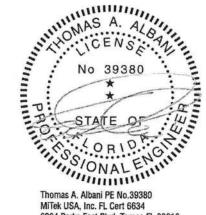
	for One-Ply Truss							
	Specified Rows of La	Continuous iteral Bracing						
Web Size	1	2						
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace						
2x6	2x6 T-Brace	2x6 I-Brace						
2x8	2x8 T-Brace	2x8 I-Brace						



M	Web
Nails	3
Web	I-Brace
Nails /	

	Brace Size for Two-Ply Truss Specified 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.



Thomas A. Albani PE No.39380 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

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### STANDARD REPAIR TO REMOVE END VERTICAL (RIBBON NOTCH VERTICAL)

MII-REP05

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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.

THE LOADS INDICATED.

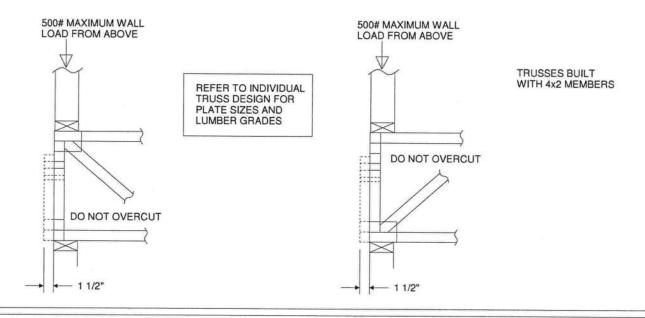
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.

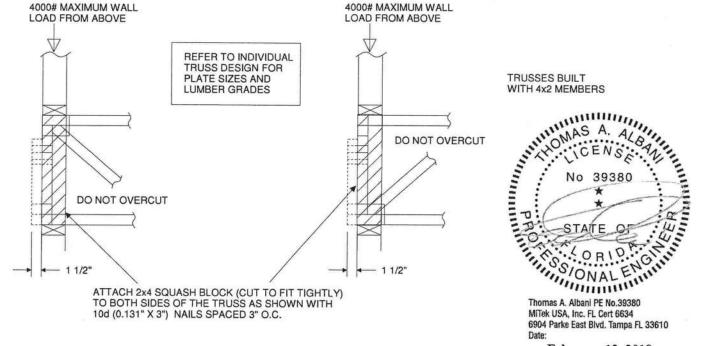
3. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD.

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.





### Standard Gable End Detail

### MII-GE130-SP

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(2) - 10d NAILS

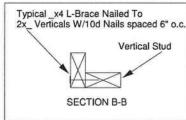
Trusses @ 24" o.c.

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DIAGONAL BRACE 4'-0" O.C. MAX



TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY. Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

3x4 =

24" Max

Vertical Stud -DIAGONAL BRACE (4) - 16d Nails 16d Nails Spaced 6" o.c. (2) - 10d Nails into 2x6 2x6 Stud or 2x4 No.2 of better Typical Horizontal Brace Nailed To 2x\_ Verticals w/(4)-10d Nails 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" X2.5") NAILS MINIMUM, PLYWOOD

10d

NAILS

SHEATHING TO 2x4 STD SPF BLOCK

Roof Sheathing

1'-3"

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)
- GABLE STUD DEFLECTIÓN MEETS OR EXCEEDS L/240. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES
- 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.
- . NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

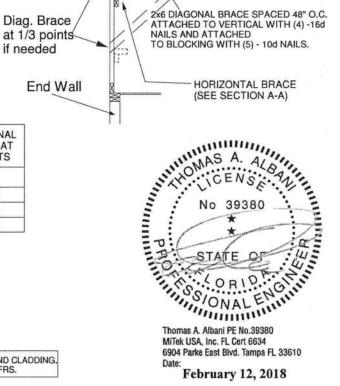
Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS	
		Maximum Stud Length					
2x4 SP No. 3 / Stud	12" O.C.	4-0-7	4-5-6	6-3-8	8-0-15	12-1-6	
2x4 SP No. 3 / Stud	16" O.C.	3-8-0	3-10-4	5-5-6	7-4-1	11-0-1	
2x4 SP No. 3 / 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 7-10 160 MPH

**DURATION OF LOAD INCREASE: 1.60** 

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



### Standard Gable End Detail

MII-GE170-D-SP

ATTACH DIAGONAL BRACE TO BLOCKING WITH

(5) - 10d NAILS.

Roof Sheathing

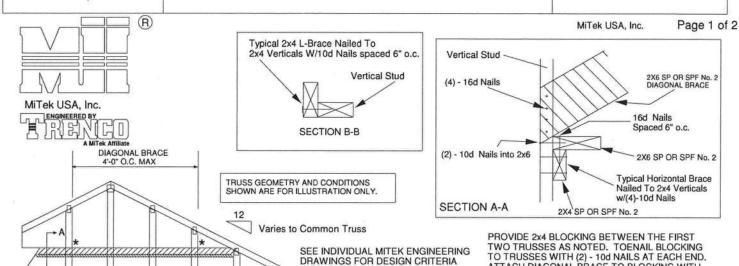
1'-0"

Max.

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

- 10d

NAILS



3x4 =

24" Max

Diag. Brace

at 1/3 points

End Wall

if needed

 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)
GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
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	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
Species and Grade			ud 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 D ASCE 7-10 170 MPH **DURATION OF LOAD INCREASE: 1.60** 

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

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(2) - 10d NAILS

Trusses @ 24" o.c.

2x6 DIAGONAL BRACE SPACED 48" O.C. ATTACHED TO VERTICAL WITH

(4) -16d NAILS, AND ATTACHED TO BLOCKING WITH (5) -10d NAILS.

HORIZONTAL BRACE

(SEE SECTION A-A)

Thomas A. Albani PE No.39380 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

MiTek USA, Inc. Page 1 of 1

(R)

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ENGINEERED 

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 **ASCE 7-10 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. E

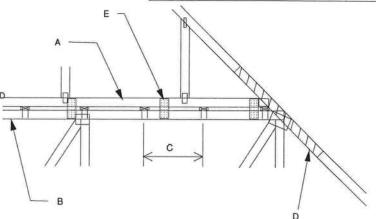
A - PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
SHALL BE CONNECTED TO EACH PURLIN
WITH (2) (0.131\* X 3.5") TOE-NAILED.
B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24\* O.C.
UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING.
CONNECT 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 3.7") 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: DIRECTIONS AND:

DIRECTIONS AND:

1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR.

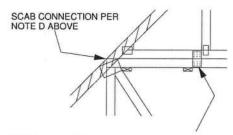
2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM
PIGGYBACK SPAN OF 12 ft.

E - FOR WIND SPEEDS BETWEEN 126 AND 160 MPH, ATTACH
MITEK 3X8 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" EDGE DISTANCE.
(MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)

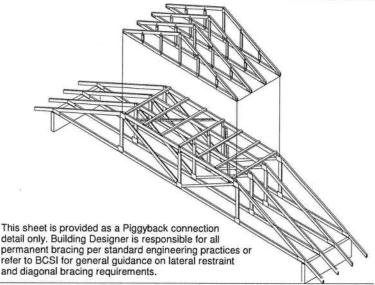


### WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

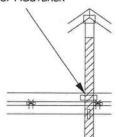
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH NAII-ON PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.



FOR ALL WIND SPEEDS, ATTACH MITEK 3X6 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" EDGE DISTANCE.



**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.

AS SHOWN IN DE FAIL.

2) ATTACH 2 × 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)

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.

FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS. CONCENTRATED LOAD MUST BE APPLIED TO BOTH

THE PIGGYBACK AND THE BASE TRUSS DESIGN.

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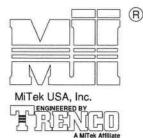
Thomas A. Albani PE No.39380 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

### STANDARD REPAIR DETAIL FOR BROKEN CHORDS, WEBS AND DAMAGED OR MISSING CHORD SPLICE PLATES

### MII-REP01A1

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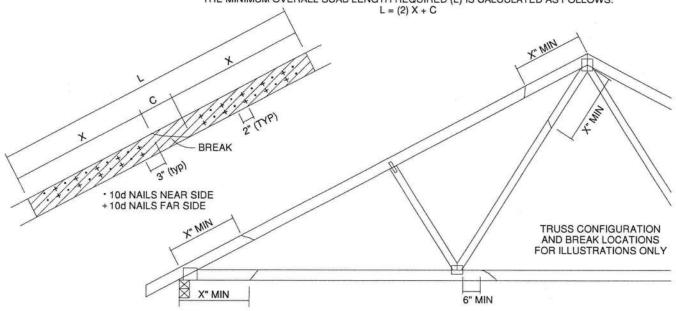


TOTAL NUMBER OF			MAXIMUM FORCE (lbs) 15% LOAD DURATION							
NAILS EACH SIDE OF BREAK *	X INCHES	SP		DF		SPF		HF		
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125	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:



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:

- 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 APPLING 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

- THE END DISTANCE, EDGE DISTANCE AND STACING OF MAILS STALL BE SOOR AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
   WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.
   THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 2x\_ ORIENTATION ONLY.
   THIS REPAIR IS LIMITED TO TRUSSES WITH NO MORE THAN THREE BROKEN MEMBERS.



Thomas A. Albani PE No.39380 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

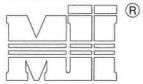
January 19, 2018

### TRUSSED VALLEY SET DETAIL

MII-VALLEY HIGH WIND1

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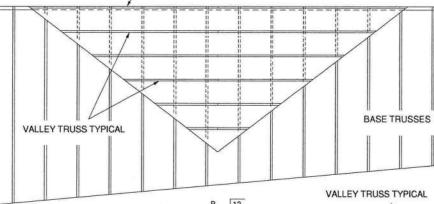
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GABLE END, COMMON TRUSS OR GIRDER TRUSS

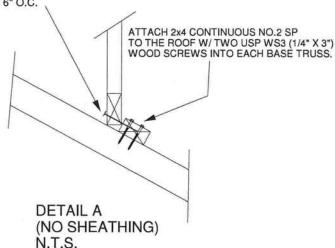
### GENERAL SPECIFICATIONS

- 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 EQUILIVANT 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.



GABLE END, COMMON TRUSS OR GIRDER TRUSS 12 SEE DETAIL A BELOW (TYP.)

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 7-10 160 MPH MAX MEAN ROOF HEIGHT = 30 FEET ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12 CATEGORY II BUILDING EXPOSURE C 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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January 19, 2018

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N.T.S.

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### GENERAL SPECIFICATIONS

R

NAIL SIZE 16d (0.131" X 3.5")
 INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A

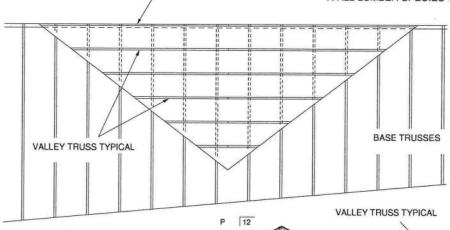
3. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.

4. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING EQUILIVANT 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.

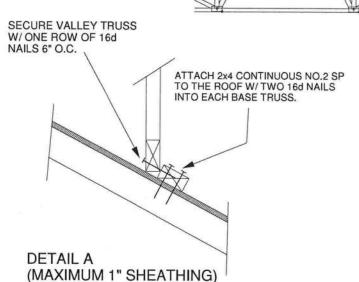


SEE DETAIL A BELOW (TYP.)

GABLE END, COMMON TRUSS

OR GIRDER TRUSS

GABLE END, COMMON TRUSS OR GIRDER TRUSS



WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH WIND DESIGN PER ASCE 7-10 150 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



Thomas A. Albani PE No.39380 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date: February 12, 2018

### Standard Gable End Detail

### MII-GE146-001

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Refer to Section A-A

DIAGONAL BRACE 4'-0" O.C. MAX

Typical \_x4 L-Brace Nailed To 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 MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA \*\* (4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SP BLOCK

3x4 =

24" Max

Vertical Stud DIAGONAL BRACE (4) - 16d Nails 16d Nails Spaced 6" o.c. (2) - 10d Nails into 2x6 2x6 Stud or 2x4 No.2 of better Typical Horizontal Brace Nailed To 2x\_ Verticals w/(4)-10d Nails 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.

 Diagonal Bracing Roof Sheathing 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:
  2x4 No 3/STUD SP OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.

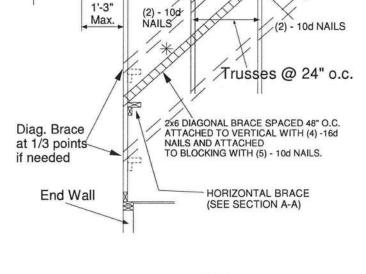
  5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF
- DIAPHRAM AT 4'-0" O.C.
- 6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
- 7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES
- 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
		Maxin	num Stud L	.ength	
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.

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 MWFRS.





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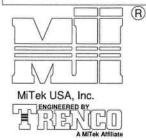
January 19, 2018

### LATERAL BRACING RECOMMENDATIONS

### MII-STRGBCK

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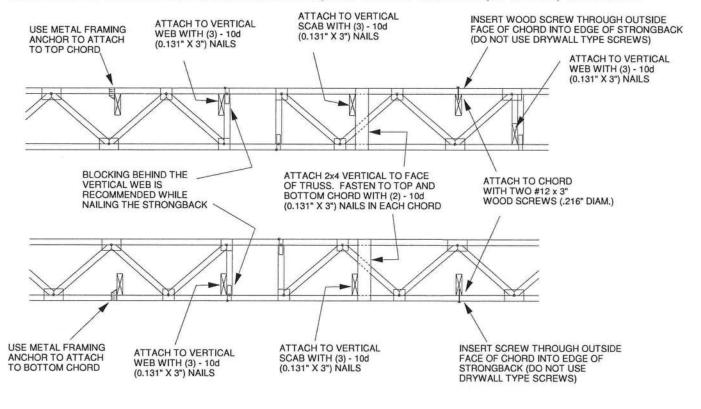
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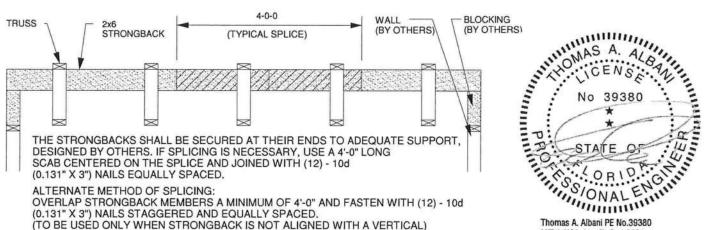


TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.

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.





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