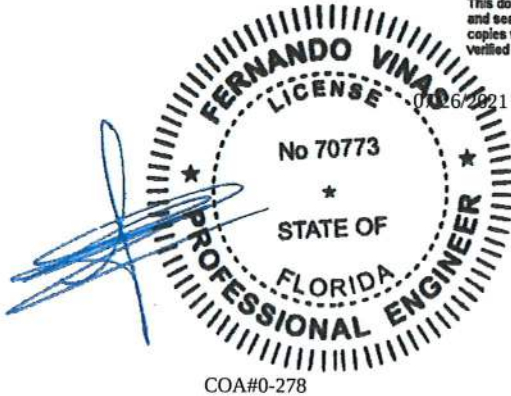


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6750 Forum Drive, Suite 305  
Orlando, FL 32821  
Phone: (800)755-6001  
www.alpineitw.com



COA#0-278

Site Information:	Page 1:
Customer: Seminole Trusses, Inc.	Job Number: B54135b
Job Description: TOWNSEND RESIDENCE	
Address: SW DON COOK WAY, FORT WHITE, FL 32038	

Job Engineering Criteria:			
Design Code: FBC 7th Ed. 2020 Res		IntelliVIEW Version: 20.02.00A	
		JRef #: 1X7f8570005	
Wind Standard: ASCE716	Wind Speed (mph): 0	Design Loading (psf): 55.00	
Building Type:			

This package contains general notes pages, 1 truss drawing(s) and 4 detail(s).

Item	Drawing Number	Truss
1	207.21.1028.57049	F1 17'11"14 Floor Truss
3	PB180160118	
5	STRBRIBR1014	

Item	Drawing Number	Truss
2	PB160160118	
4	REPCHRD1014	



## **General Notes**

### **Truss Design Engineer Scope of Work, Design Assumptions and Design Responsibilities:**

The design responsibilities assumed in the preparation of these design drawings are those specified in ANSI/TPI 1, Chapter 2; and the National Design Standard for Metal Plate Connected Wood Truss Construction, by the Truss Plate Institute. The truss component designs conform to the applicable provisions of ANSI/TPI 1 and NDS, the National Design Specification for Wood Construction by AWC. The truss component designs are based on the specified loading and dimension information furnished by others to the Truss Design Engineer. The Truss Design Engineer has no duty to independently verify the accuracy or completeness of the information provided by others and may rely on that information without liability. The responsibility for verification of that information remains with others neither employed nor controlled by the Truss Design Engineer. The Truss Design Engineer's seal and signature on the attached drawings, or cover page listing these drawings, indicates acceptance of professional engineering responsibility solely for the truss component designs and not for the technical information furnished by others which technical information and consequences thereof remain their sole responsibility.

The suitability and use of these drawings for any particular structure is the responsibility of the Building Designer in accordance with ANSI/TPI 1 Chapter 2. The Building Designer is responsible for determining that the dimensions and loads for each truss component match those required by the plans and by the actual use of the individual component, and for ascertaining that the loads shown on the drawings meet or exceed applicable building code requirements and any additional factors required in the particular application. Truss components using metal connector plates with integral teeth shall not be placed in environments that will cause the moisture content of the wood in which plates are embedded to exceed 19% and/or cause corrosion of connector plates and other metal fasteners.

The Truss Design Engineer shall not be responsible for items beyond the specific scope of the agreed contracted work set forth herein, including but not limited to: verifying the dimensions of the truss component, calculation of any of the truss component design loads, inspection of the truss components before or after installation, the design of temporary or permanent bracing and their attachment required in the roof and/or floor systems, the design of diaphragms or shear walls, the design of load transfer connections to and from diaphragms and shear walls, the design of load transfer to the foundation, the design of connections for truss components to their bearing supports, the design of the bearing supports, installation of the truss components, observation of the truss component installation process, review of truss assembly procedures, sequencing of the truss component installation, construction means and methods, site and/or worker safety in the installation of the truss components and/or its connections.

This document may be a high quality facsimile of the original engineering document which is a digitally signed electronic file with third party authentication. A wet or embossed seal copy of this engineering document is available upon request.

### **Temporary Lateral Restraint and Bracing:**

Temporary lateral restraint and diagonal bracing shall be installed according to the provisions of BCSI chapters B1, B2, B7 and/or B10 (Building Component Safety Information, by TPI and SBCA), or as specified by the Building Designer or other Registered Design Professional. The required locations for lateral restraint and/or bracing depicted on these drawings are only for the permanent lateral support of the truss members to reduce buckling lengths, and do not apply to and may not be relied upon for the temporary stability of the truss components during their installation.

### **Permanent Lateral Restraint and Bracing:**

The required locations for lateral restraint or bracing depicted on these drawings are for the permanent lateral support of the truss members to reduce buckling lengths. Permanent lateral support shall be installed according to the provisions of BCSI chapters B3, B7 and/or B10, or as specified by the Building Designer or other Registered Design Professional. These drawings do not depict or specify installation/erection bracing, wind bracing, portal bracing or similar building stability bracing which are parts of the overall building design to be specified, designed and detailed by the Building Designer.

### **Connector Plate Information:**

Alpine connector plates are made of ASTM A653 or ASTM A1063 galvanized steel with the following designations, gauges and grades: W=Wave, 20ga, grade 40; H=High Strength, 20ga, grade 60; S=Super Strength, 18ga, grade 60. Information on model code compliance is contained in the ICC Evaluation Service report ESR-1118, available on-line at [www.icc-es.org](http://www.icc-es.org).

### **Fire Retardant Treated Lumber:**

Fire retardant treated lumber must be properly re-dried and maintained below 19% or less moisture level through all stages of construction and usage. Fire retardant treated lumber may be more brittle than untreated lumber. Special handling care must be taken to prevent breakage during all handling activities.

## **General Notes** (continued)

### **Key to Terms:**

Information provided on drawings reflects a summary of the pertinent information required for the truss design. Detailed information on load cases, reactions, member lengths, forces and members requiring permanent lateral support may be found in calculation sheets available upon written request.

BCDL = Bottom Chord standard design Dead Load in pounds per square foot.

BCLL = Bottom Chord standard design Live Load in pounds per square foot.

CL = Certified lumber.

Des Ld = total of TCLL, TCDL, BCLL and BCDL Design Load in pounds per square foot.

FRT = Fire Retardant Treated lumber.

FRT-DB = D-Blaze Fire Retardant Treated lumber.

FRT-DC = Dricon Fire Retardant Treated lumber.

FRT-FP = FirePRO Fire Retardant Treated lumber.

FRT-FL = FlamePRO Fire Retardant Treated lumber.

FRT-FT = FlameTech Fire Retardant Treated lumber.

FRT-PG = PYRO-GUARD Fire Retardant Treated lumber.

g = green lumber.

HORZ(LL) = maximum Horizontal panel point deflection due to Live Load, in inches.

HORZ(TL) = maximum Horizontal panel point long term deflection in inches, due to Total Load, including creep adjustment.

HPL = additional Horizontal Load added to a truss Piece in pounds per linear foot or pounds.

Ic = Incised lumber.

FJ = Finger Jointed lumber.

L/# = user specified divisor for limiting span/deflection ratio for evaluation of actual L/defl value.

L/defl = ratio of Length between bearings, in inches, divided by the vertical Deflection due to creep, in inches, at the referenced panel point. Reported as 999 if greater than or equal to 999.

Loc = Location, starting location of left end of bearing or panel point (joint) location of deflection.

Max BC CSI = Maximum bending and axial Combined Stress Index for Bottom Chords for of all load cases.

Max TC CSI = Maximum bending and axial Combined Stress Index for Top Chords for of all load cases.

Max Web CSI = Maximum bending and axial Combined Stress Index for Webs for of all load cases.

NCBCLL = Non-Concurrent Bottom Chord design Live Load in pounds per square foot.

PL = additional Load applied at a user specified angle on a truss Piece in pounds per linear foot or pounds.

PLB = additional vertical load added to a Bottom chord Piece of a truss in pounds per linear foot or pounds

PLT = additional vertical load added to a Top chord Piece of a truss in pounds per linear foot or pounds.

PP = Panel Point.

R = maximum downward design Reaction, in pounds, from all specified gravity load cases, at the indicated location (Loc).

-R = maximum upward design Reaction, in pounds, from all specified gravity load cases, at the identified location (Loc).

Rh = maximum horizontal design Reaction in either direction, in pounds, from all specified gravity load cases, at the indicated location (Loc).

RL = maximum horizontal design Reaction in either direction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).

Rw = maximum downward design Reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the identified location (Loc).

TCDL = Top Chord standard design Dead Load in pounds per square foot.

TCLL = Top Chord standard design Live Load in pounds per square foot.

U = maximum Upward design reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).

VERT(CL) = maximum Vertical panel point deflection in inches due to Live Load and Creep Component of Dead Load in inches.

VERT(CTL) = maximum Vertical panel point deflection ratios due to Live Load and Creep Component of Dead Load, and maximum long term Vertical panel point deflection in inches due to Total load, including creep adjustment.

VERT(LL) = maximum Vertical panel point deflection in inches due to Live Load.

VERT(TL) = maximum Vertical panel point long term deflection in inches due to Total load, including creep adjustment.

W = Width of non-hanger bearing, in inches.

Refer to ASCE-7 for Wind and Seismic abbreviations.

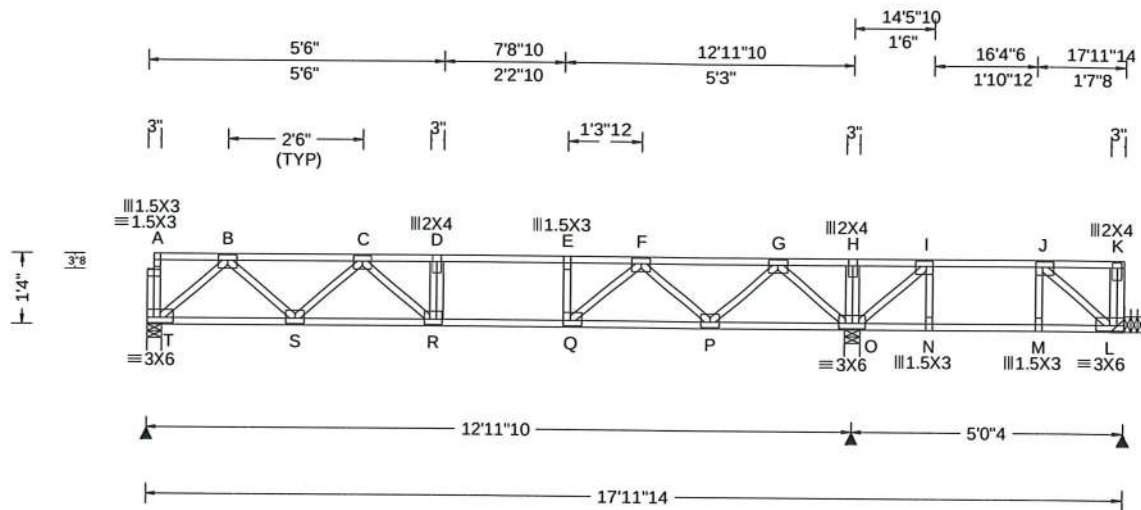
Uppercase Acronyms not explained above are as defined in TPI 1.

**References:**

1. AWC: American Wood Council; 222 Catocin Circle SE, Suite 201; Leesburg, VA 20175; [www.awc.org](http://www.awc.org).
2. ICC: International Code Council; [www.iccsafe.org](http://www.iccsafe.org).
3. Alpine, a division of ITW Building Components Group Inc.: 514 Earth City Expressway, Suite 242, Earth City, MO 63045; [www.alpineitw.com](http://www.alpineitw.com).
4. TPI: Truss Plate Institute, 2670 Crain Highway, Suite 203, Waldorf, MD 20601; [www.tpinst.org](http://www.tpinst.org).
5. SBCA: Wood Truss Council of America, 6300 Enterprise Lane, Madison, WI 53719; [www.sbcindustry.com](http://www.sbcindustry.com).



SEQN: 57703 / FROM: RJL	SY42	Ply: 1 Qty: 11	Job Number: B54135b TOWNSEND RESIDENCE Truss Label: F1 17'11"14 Floor Truss	Cust: R 857 JRef: 1X7R8570005 T7 DrwNo: 207.21.1028.57049 SSB / FV 07/26/2021
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	Maximum Reactions (lbs)
TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.00 Spacing: 19.2 "	Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Kzt: NA Mean Height: NA ft TCDL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA  Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT: 12(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.069 D 999 360 VERT(CL): 0.107 D 999 240 HORZ(LL): 0.017 B - - HORZ(TL): 0.026 B - - Creep Factor: 2.0 Max TC CSI: 0.500 Max BC CSI: 0.402 Max Web CSI: 0.245  VIEW Ver: 20.02.00A.1020.20	Gravity Loc R+ / R- / Rh Non-Gravity / Rw / U / RL T 564 /- /- /- /- /- O 840 /- /- /- /- /- L 223 /- /- /- /- /- T Brg Width = 3.4 Min Req = 1.5 O Brg Width = 3.5 Min Req = 1.5 L Brg Width = - Min Req = - Bearings T & O are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp.

**Lumber**  
Top chord: 4x2 SP #1;  
Bot chord: 4x2 SP #1;  
Webs: 4x2 SP #3;

**Plating Notes**  
All plates are 3X4 except as noted.

**Hangers / Ties**  
(J) Hanger Support Required, by others

**Additional Notes**  
See detail STRBRIBR1014 for bracing and bridging recommendations.  
Deflection estimate assumes composite action with single layer of the appropriate span rated glue-nailed wood sheathing.  
Truss must be installed as shown with top chord up.

Maximum Bot Chord Forces Per Ply (lbs)				
Chords	Tens.Comp.	Chords	Tens. Comp.	
T - S	555	0	Q - P	1169
S - R	1215	0	P - O	460
R - Q	1377	0		

Maximum Web Forces Per Ply (lbs)				
Webs	Tens.Comp.	Webs	Tens. Comp.	
T - B	0	-756	F - P	0
B - S	478	0	P - G	514
S - C	0	-440	G - O	0
Q - F	408	0	O - I	0



COA#0-278  
07/26/2021

**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS DRAWING!  
**\*\*IMPORTANT\*\*** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS  
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCEA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7, or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-2 for standard plate positions. Refer to job's General Notes page for additional information.  
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.  
For more information see these web sites: Alpine: [alpineitw.com](http://alpineitw.com); TPI: [tpinst.org](http://tpinst.org); SBCEA: [sbceaindustry.com](http://sbceaindustry.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)

**ALPINE**  
AN ITW COMPANY  
6750 Forum Drive  
Suite 305  
Orlando FL, 32821

# Piggyback Detail - ASCE 7-16: 160 mph, 30' Mean Height, Enclosed, Exposure C, Kzt=1.00

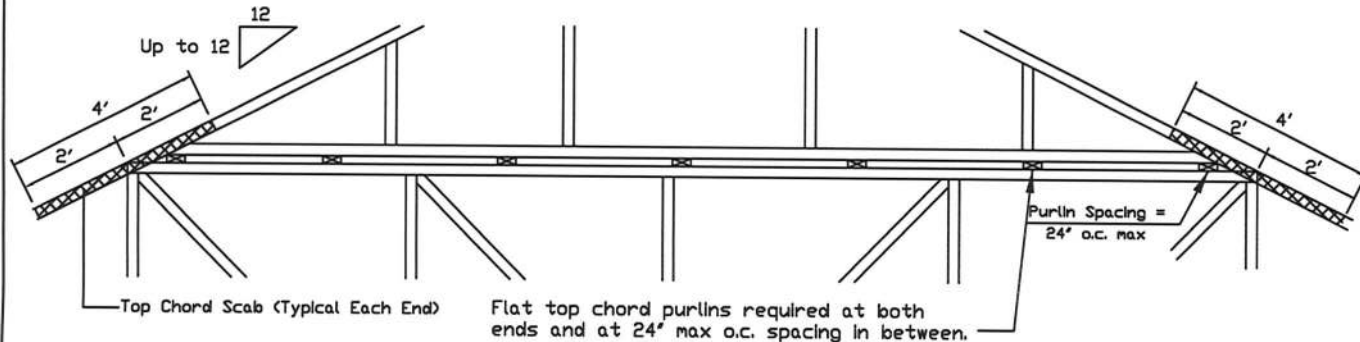
160 mph Wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp C, Wind DL= 5.0 psf (min), Kzt=1.0.  
Or 140 mph wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp D, Wind DL= 5.0 psf (min), Kzt=1.0.

Note: Top chords of trusses supporting piggyback cap trusses must be adequately braced by sheathing or purlins. The building Engineer of Record shall provide diagonal bracing or any other suitable anchorage to permanently restrain purlins, and lateral bracing for out of plane loads over gable ends.

Maximum truss spacing is 24' o.c. detail is not applicable if cap supports additional loads such as cupola, steeple, chimney or drag strut loads.

Refer to Engineer's sealed truss design drawing for piggyback and base truss specifications.

## Detail A : Purlin Spacing = 24" o.c. or less

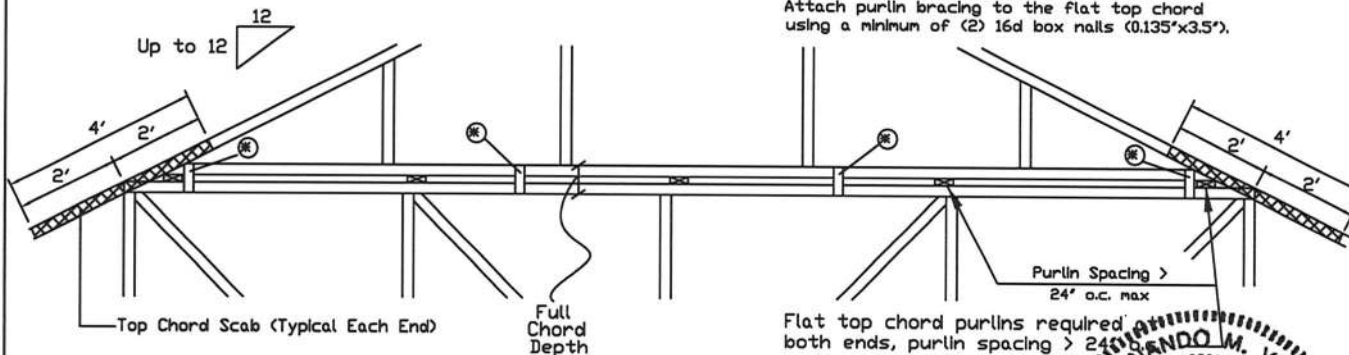


Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135"x3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128"x3") at 4' o.c.

Attach purlin bracing to the flat top chord using (2) 16d box nails (0.135"x3.5").

The top chord #3 grade 2x4 scab may be replaced with either of the following: (1) 3X8 Trulox plate attached with (8) 0.120"x1.375" nails, (4) into cap TC & (4) into base truss TC or (1) 28PB wave piggyback plate to the piggyback truss TC and attached to the base truss TC with (4) 0.120"x1.375" nails. Note: Nailing thru holes of wave plate is acceptable.

## Detail B : Purlin Spacing > 24" o.c.



Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135"x3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128"x3") at 4' o.c.

Attach purlin bracing to the flat top chord using a minimum of (2) 16d box nails (0.135"x3.5").

Flat top chord purlins required both ends, purlin spacing > 24' o.c. max.

Note: If purlins or sheathing are not specified on the flat top of the base truss, purlins must be installed at 24' o.c. max. and use Detail A.

In addition, provide connection with one of the following methods:

### Trulox

Use 3X8 Trulox plates for 2x4 chord member, and 3X10 Trulox plates for 2x6 and larger chord members. Attach to each face @ 8' o.c. with (4) 0.120"x1.375" nails into cap bottom chord and (4) in base truss top chord. Trulox plates may be staggered 4' o.c. front to back faces.

### APA Rated Gusset

8"x8"x7/16" (min) APA rated sheathing gussets (each face). Attach @ 8' o.c. with (8) 6d common (0.113"x2") nails per gusset, (4) in cap bottom chord and (4) in base truss top chord. Gussets may be staggered 4' o.c. front to back faces.

### 2x4 Vertical Scabs

2x4 SPF #2, full chord depth scabs (each face). Attach @ 8' o.c. with (6) 10d box nails (0.128"x3") per scab, (3) in cap bottom chord and (3) in base truss top chord. Scabs may be staggered 4' o.c. front to back faces.

### 28PB Wave Piggyback Plate

One 28PB wave piggyback plate to each face @ 8' o.c. Attach teeth to piggyback at time of fabrication. Attach to supporting truss with (4) 0.120"x1.375" nails per face per ply. Piggyback plates may be staggered 4' o.c. front to back faces.



13723 Riverport Drive  
Suite 200  
Maryland Heights, MO 63043

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Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.  
A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.  
For more information see this job's general notes page and these web sites:  
ALPINE: [www.alpineitw.com](http://www.alpineitw.com) TPI: [www.tpinstr.org](http://www.tpinstr.org) SBCA: [www.sbcindustry.org](http://www.sbcindustry.org) ICC: [www.iccsafe.org](http://www.iccsafe.org)



COA#0-278

REF PIGGYBACK  
DATE 01/02/2018  
DRWG PB160160118

SPACING 24.0'

# Piggyback Detail - ASCE 7-16: 180 mph, 30' Mean Hgt, Partially Enclosed, Exp. C, Kzt=1.00

180 mph Wind, 30.00 ft Mean Hgt, ASCE 7-16, Part. Enclosed Bldg. located anywhere in roof, Exp C, Wind DL= 5.0 psf (min), Kzt=1.0.  
Or 160 mph wind, 30.00 ft Mean Hgt, ASCE 7-16, Part. Enclosed Bldg. located anywhere in roof, Exp D, wind DL= 5.0 psf (min), Kzt=1.0.

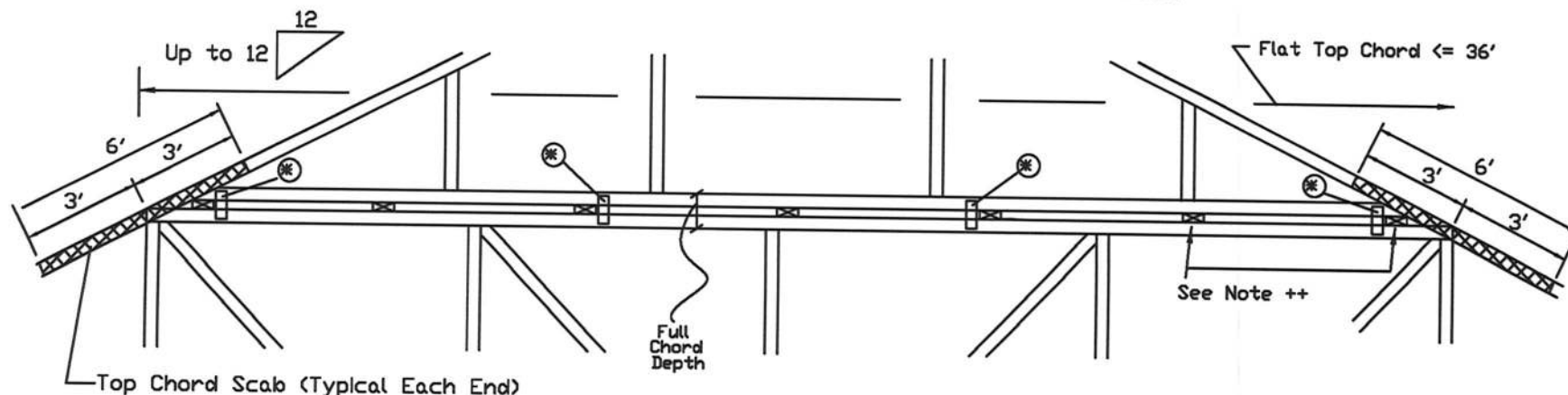
Note: Top chords of trusses supporting piggyback cap trusses must be adequately braced by sheathing or purlins. The building Engineer of Record shall provide diagonal bracing or any other suitable anchorage to permanently restrain purlins, and lateral bracing for out of plane loads over gable ends.

Maximum truss spacing is 24' o.c. detail is not applicable if cap supports additional loads such as cupola, steeple, chimney or drag strut loads.

■ Refer to Engineer's sealed truss design drawing for piggyback and base truss specifications.

Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135"x3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128"x3") at 4' o.c.

++ Flat top chord purlins required at both ends and at a maximum of 24' intervals unless otherwise noted on base truss design drawing. Attach purlin bracing to the flat top chord using a minimum of (2) 16d box nails (0.135"x3.5").



■ In addition, provide connection with one of the following methods:

## Trulox

Use 3X8 Trulox plates for 2x4 chord member, and 3X10 Trulox plates for 2x6 and larger chord members. Attach to each face @ 8' o.c. with (4) 0.120"x1.375" nails into cap bottom chord and (4) in base truss top chord. Trulox plates may be staggered 4' o.c. front to back faces.

## APA Rated Gusset

8"x8"x7/16" (min) APA rated sheathing gussets (each face). Attach @ 8' o.c. with (8) 6d common (0.113"x2") nails per gusset, (4) in cap bottom chord and (4) in base truss top chord. Gussets may be staggered 4' o.c. front to back faces.

## 28PB Wave Piggyback Plate

One 28PB wave piggyback plate to each face @ 8' o.c. Attach teeth to piggyback at time of fabrication. Attach to supporting truss with (4) 0.120"x1.375" nails per face per ply. Piggyback plates may be staggered 4' o.c. front to back faces.

## 2x4 Vertical Scabs

2x4 SPF #2, Full chord depth scabs (each face). Attach @ 8' o.c. with (6) 10d box nails (0.128"x3") per scab, (3) in cap bottom chord and (3) in base truss top chord. Scabs may be staggered 4' o.c. front to back faces.



514 Earth City Expressway  
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Earth City, MO 63045

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Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.  
A seal on this drawing or cover page listing this drawing indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

For more information see this Job's general notes page and these web sites:  
ALPINE [www.alphnetts.com](http://www.alphnetts.com) TPI [www.tpihst.org](http://www.tpihst.org) SBCA [www.sbcindustry.org](http://www.sbcindustry.org) ICC [www.iccsafe.org](http://www.iccsafe.org)



COA#0-278

SPACING 24.0'

REF PIGGYBACK  
DATE 01/02/2018  
DRWG PB180160118



# Cracked or Broken Member Repair Detail

This drawing specifies repairs for a truss with broken chord or web member.

Load Duration = 0%

Member forces may be increased for Duration of Load

This design is valid only for single ply trusses with 2x4 or 2x6 broken members. No more than one break per chord panel and no more than two breaks per truss are allowed. Contact the truss manufacturer for any repairs that do not comply with this detail.

(B) = Damaged area, 12" max length of damaged section

(L) = Minimum nailing distance on each side of damaged area (B)

(S) = Two 2x4 or two 2x6 side members, same size, grade, and species as damaged member. Apply one scab per face. Minimum side member length(s) = (2)(L) + (B)

Scab member length (S) must be within the broken panel.

Nail into 2x4 members using two (2) rows at 4" o.c., rows staggered.

Nail into 2x6 members using three (3) rows at 4" o.c., rows staggered.

Nail using 10d box or gun nails (0.128"x3", min) into each side member.

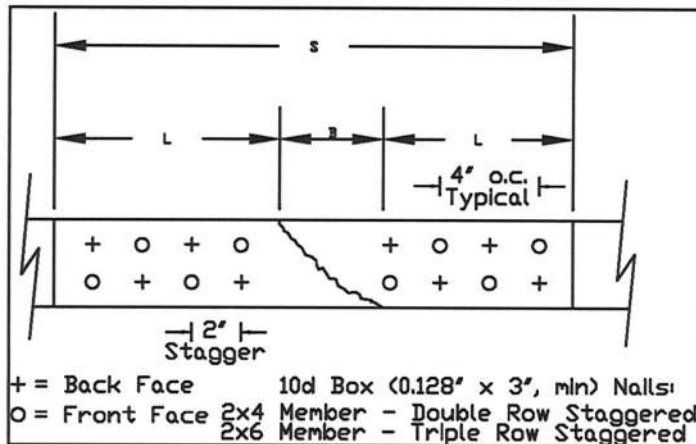
The maximum permitted lumber grade for use with this detail is limited to Visual grade #1 and MSR grade 1650f.

This repair detail may be used for broken connector plate at mid-panel splices.

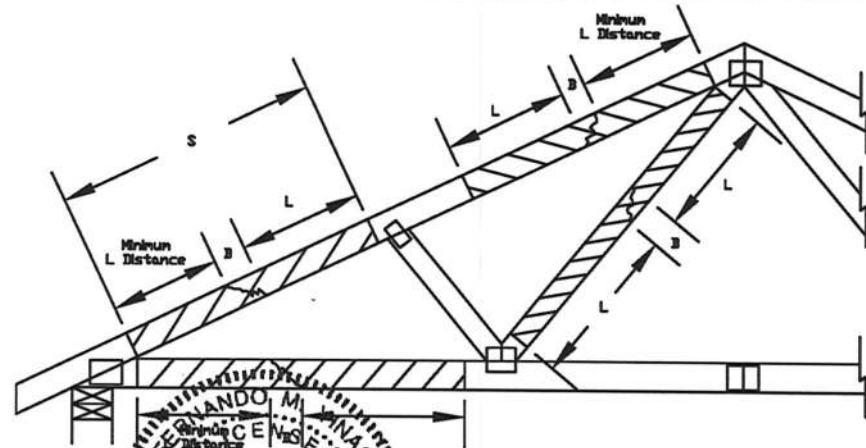
This repair detail may not be used for damaged chord or web sections occurring within the connector plate area.

Broken chord may not support any tie-in loads.

Member	Size	L	Maximum Member Axial Force			
			SPF-C	HF	DF-L	SYP
Web Only	2x4	12'	620#	635#	730#	800#
Web Only	2x4	18'	975#	1055#	1295#	1415#
Web or Chord	2x4	24'	975#	1055#	1495#	1745#
Web or Chord	2x6		1465#	1585#	2245#	2620#
Web or Chord	2x4	30'	1910#	1960#	2315#	2555#
Web or Chord	2x6		2230#	2365#	3125#	3575#
Web or Chord	2x4	36'	2470#	2530#	2930#	3210#
Web or Chord	2x6		3535#	3635#	4295#	4745#
Web or Chord	2x4	42'	2975#	3045#	3505#	3835#
Web or Chord	2x6		4395#	4500#	5225#	5725#
Web or Chord	2x4	48'	3460#	3540#	4070#	4445#
Web or Chord	2x6		5165#	5280#	6095#	6660#



Nail Spacing Detail



514 Earth City Expressway  
Suite 242  
Earth City, MO 63045

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 Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.  
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 For more information see this job's general notes page and these web sites:  
 ALPINE: [www.alpine.com](http://www.alpine.com) TPI: [www.tpi.org](http://www.tpi.org) SCAI: [www.scaiindustry.org](http://www.scaiindustry.org) ICCI: [www.icci.org](http://www.icci.org)



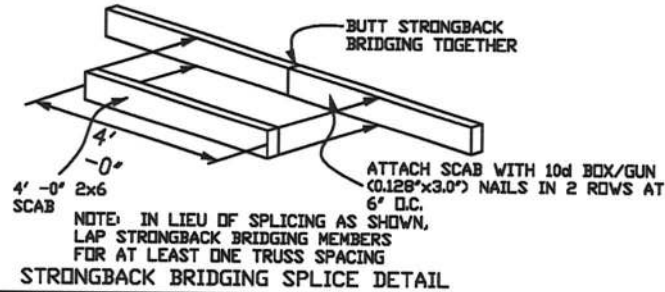
COA#0-278

REF MEMBER REPAIR  
 DATE 10/01/14  
 DRWG REPCHRD1014

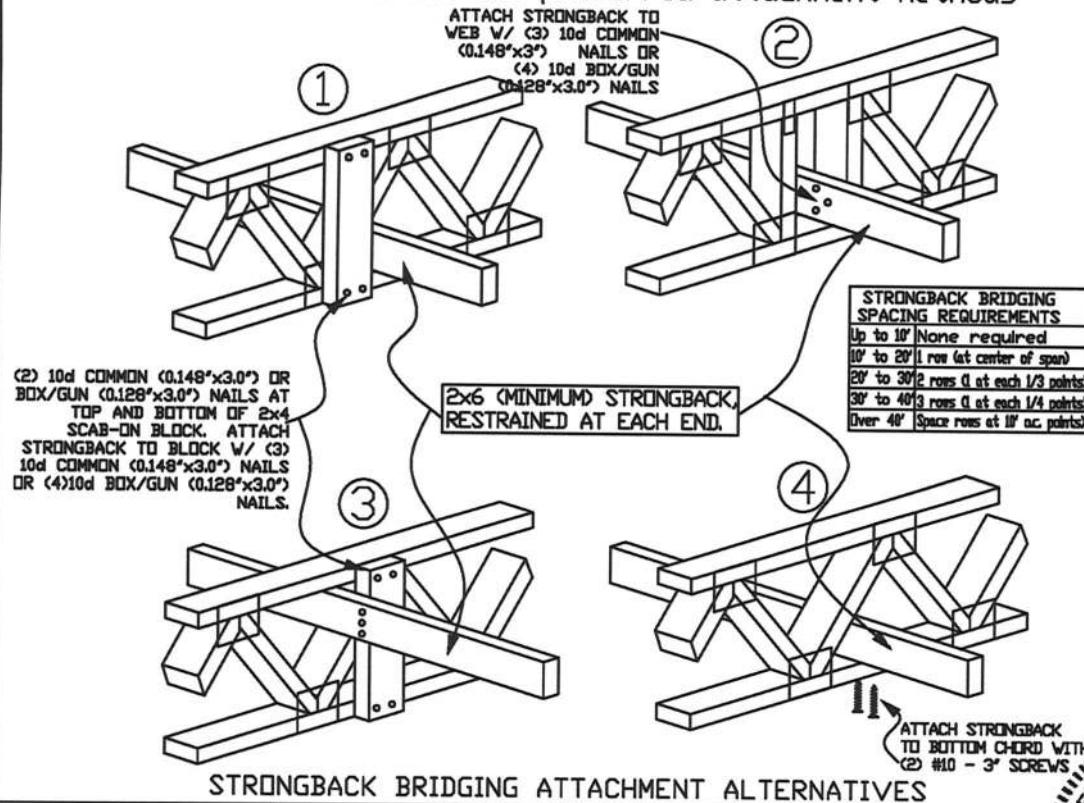
SPACING 24.0' MAX



# STRONGBACK BRIDGING RECOMMENDATIONS



NOTE: Details 1 and 2 are the preferred attachment methods



- All scab-on blocks shall be a minimum 2x4 "stress graded lumber."
- All strongback bridging and bracing shall be a minimum 2x6 "stress graded lumber."
- The purpose of strongback bridging is to develop load sharing between individual trusses, resulting in an overall increase in the stiffness of the floor system. 2x6 strongback bridging, positioned as shown in details, is recommended at 10' - 0" o.c. (max.)

- The terms "bridging" and "bracing" are sometimes mistakenly used interchangeably. "Bracing" is an important structural requirement of any floor or roof system. Refer to the Truss Design Drawing (TDD) for the bracing requirements for each individual truss component. "Bridging," particularly "strongback bridging" is a recommendation for a truss system to help control vibration. In addition to aiding in the distribution of point loads between adjacent truss, strongback bridging serves to reduce "bounce" or residual vibration resulting from moving point loads, such as footsteps.

The performance of all floor systems are enhanced by the installation of strongback bridging and therefore is strongly recommended by Alpine.

For additional information regarding strongback bridging, refer to BCSI (Building Component Safety Information).



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Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

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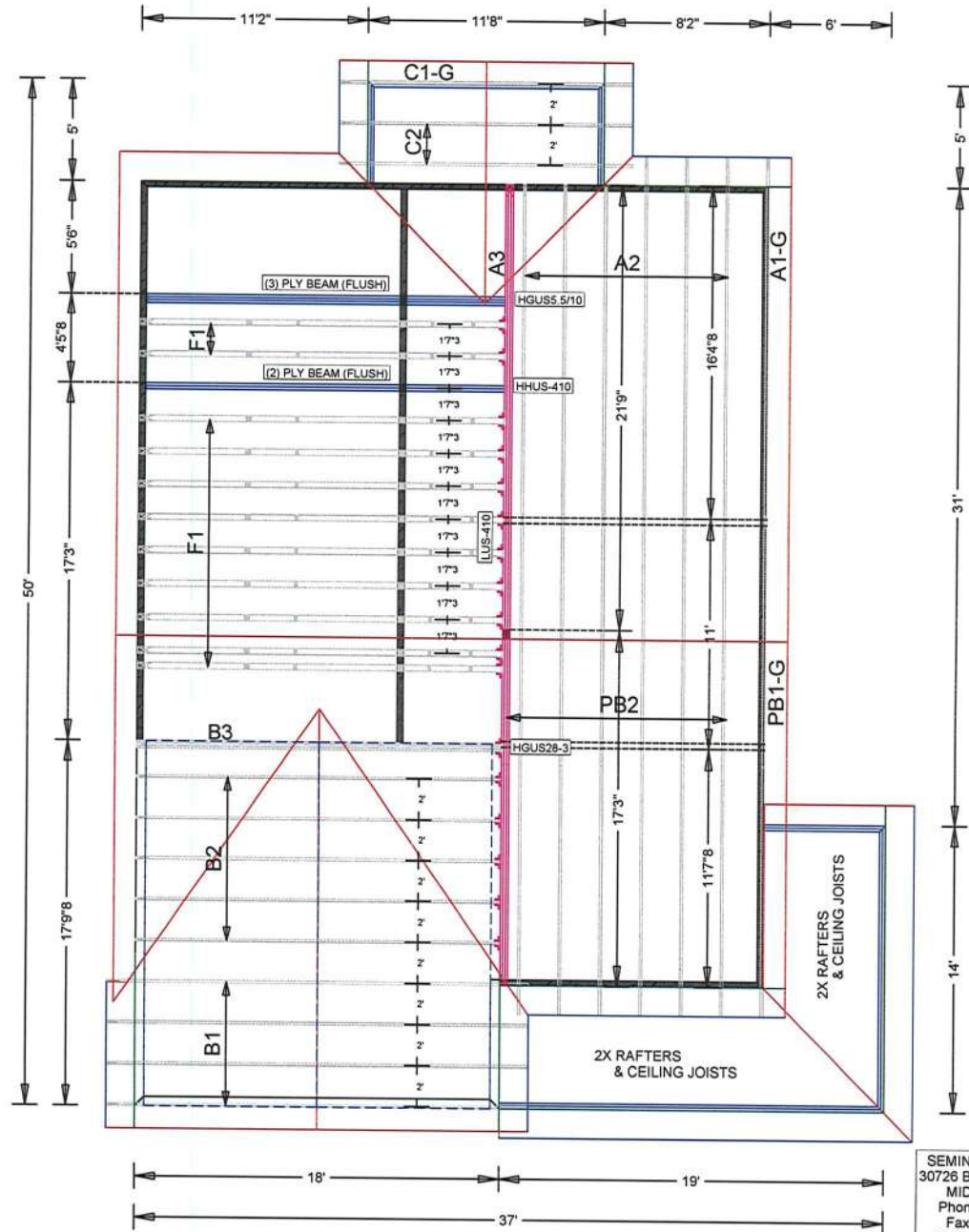
For more information see this job's general notes page and these web sites:  
ALPINE: [www.alpineitw.com](http://www.alpineitw.com) TPI: [www.tpinet.org](http://www.tpinet.org) BCSA: [www.bcsiindustry.org](http://www.bcsiindustry.org) ICC: [www.iccsafe.org](http://www.iccsafe.org)



COA#0-278

MC LL	PSF	REF STRONGBACK
MC DL	PSF	DATE 10/01/14
MC DL	PSF	DRWG STRBRIBR1014
MC LL	PSF	
TOT. LD.	PSF	
DUR. FAC.	1.00	
SPACING		

ALL WALLS SHOWN TO BE BEARING  
AMERICA'S HOME PLACE, INC.  
TOWNSEND RESIDENCE ~ NOTTELY-MFH



SEMINOLE TRUSSES INC.  
30726 Bluestar Memorial Hwy.  
MIDWAY FL 32343  
Phone (850) 575-0102  
Fax (850) 575-4413  
Design By Robert J. Little

Job Name: TOWNSEND RESIDENCE  
Customer: America's Home Place  
Designer: ROBERT J. LITTLE  
PlanName: NOTTELY-MFH  
Created : 07-27-2021  
SemRef#: B54135b

JOB NO:  
B54135b

PAGE NO:  
1 OF 1



# Piggyback Detail - ASCE 7-16: 160 mph, 30' Mean Height, Enclosed, Exposure C, Kzt=1.00

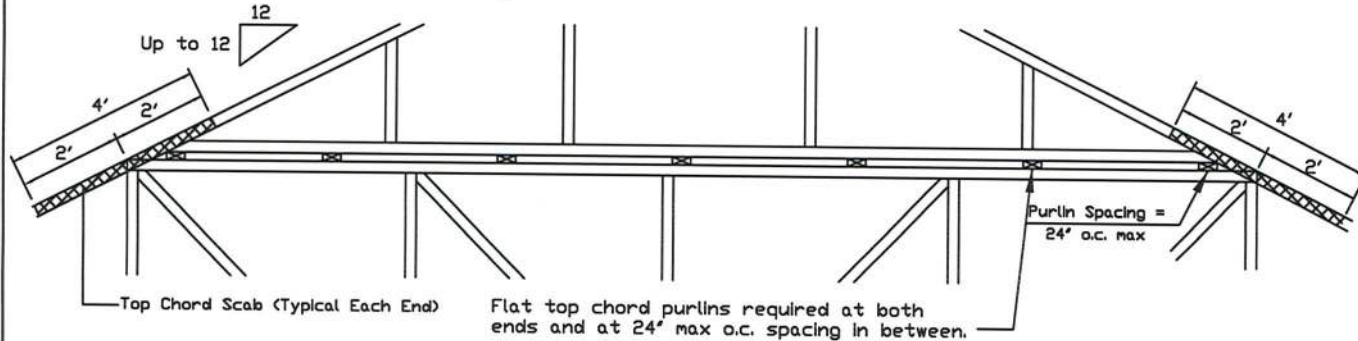
160 mph Wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp C, Wind DL= 5.0 psf (min), Kzt=1.0.  
Or 140 mph wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp D, wind DL= 5.0 psf (min), Kzt=1.0.

Note: Top chords of trusses supporting piggyback cap trusses must be adequately braced by sheathing or purlins. The building Engineer of Record shall provide diagonal bracing or any other suitable anchorage to permanently restrain purlins, and lateral bracing for out of plane loads over gable ends.

Maximum truss spacing is 24' o.c. detail is not applicable if cap supports additional loads such as cupola, steeple, chimney or drag strut loads.

Refer to Engineer's sealed truss design drawing for piggyback and base truss specifications.

## Detail A : Purlin Spacing = 24" o.c. or less

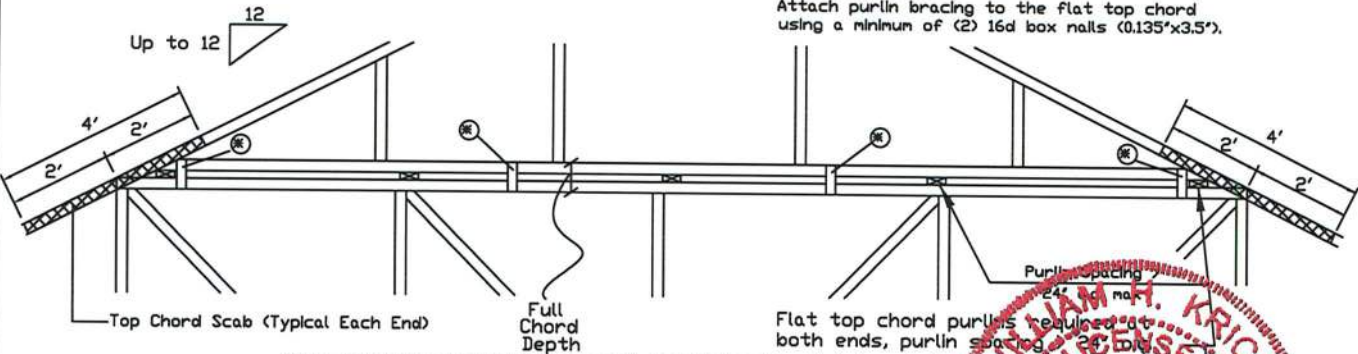


Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135"x3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128"x3") at 4' o.c.

Attach purlin bracing to the flat top chord using (2) 16d box nails (0.135"x3.5").

The top chord #3 grade 2x4 scab may be replaced with either of the following: (1) 3X8 Trulox plate attached with (8) 0.120"x1.375" nails, (4) into cap TC & (4) into base truss TC or (1) 28PB wave piggyback plate attached to the piggyback truss TC and attached to the base truss TC with (4) 0.120"x1.375" nails. Note: Nailing thru holes of wave plate is acceptable.

## Detail B : Purlin Spacing > 24" o.c.



Piggyback cap truss slanted nailed to all top chord purlin bracing with (2) 16d box nails (0.135"x3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128"x3") at 4' o.c.

Attach purlin bracing to the flat top chord using a minimum of (2) 16d box nails (0.135"x3.5").

In addition, provide connection with one of the following methods:

### Trulox

Use 3X8 Trulox plates for 2x4 chord member, and 3X10 Trulox plates for 2x6 and larger chord members. Attach to each face @ 8' o.c. with (4) 0.120"x1.375" nails into cap bottom chord and (4) in base truss top chord. Trulox plates may be staggered 4' o.c. front to back faces.

### APA Rated Gusset

8"x8"x7/16" (min) APA rated sheathing gussets (each face). Attach @ 8' o.c. with (8) 6d common (0.113"x2") nails per gusset, (4) in cap bottom chord and (4) in base truss top chord. Gussets may be staggered 4' o.c. front to back faces.

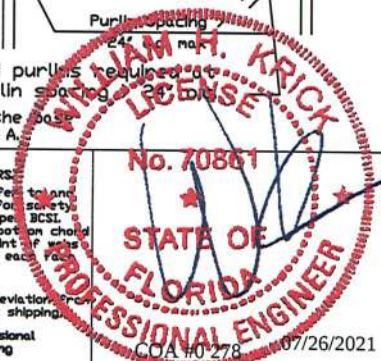
### 2x4 Vertical Scabs

2x4 SPF #2, full chord depth scabs (each face). Attach @ 8' o.c. with (6) 10d box nails (0.128"x3") per scab, (3) in cap bottom chord and (3) in base truss top chord. Scabs may be staggered 4' o.c. front to back faces.

### 28PB Wave Piggyback Plate

One 28PB wave piggyback plate to each face @ 8' o.c. Attach teeth to piggyback at time of fabrication. Attach to supporting truss with (4) 0.120"x1.375" nails per face per ply. Piggyback plates may be staggered 4' o.c. front to back faces.

Note: If purlins or sheathing are not specified on the flat top of the base truss, purlins must be installed at 24' o.c. max. and use Detail A.



13723 Riverport Drive  
Suite 200  
Maryland Heights, MO 63043

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Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

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For more information see this job's general notes page and these web sites:  
ALPINE: [www.alpineitw.com](http://www.alpineitw.com) TPI: [www.tpinstr.org](http://www.tpinstr.org) SBCA: [www.sbcindustry.org](http://www.sbcindustry.org) ICC: [www.iccsafe.org](http://www.iccsafe.org)

REF PIGGYBACK  
DATE 01/02/2018  
DRWG PB160160118

SPACING 24.0'



# Piggyback Detail - ASCE 7-16: 180 mph, 30' Mean Hgt, Partially Enclosed, Exp. C, Kzt=1.00

180 mph Wind, 30.00 ft Mean Hgt, ASCE 7-16, Part. Enclosed Bldg. located anywhere in roof, Exp C, Wind DL= 5.0 psf (min), Kzt=1.0.  
Or 160 mph wind, 30.00 ft Mean Hgt, ASCE 7-16, Part. Enclosed Bldg. located anywhere in roof, Exp D, wind DL= 5.0 psf (min), Kzt=1.0.

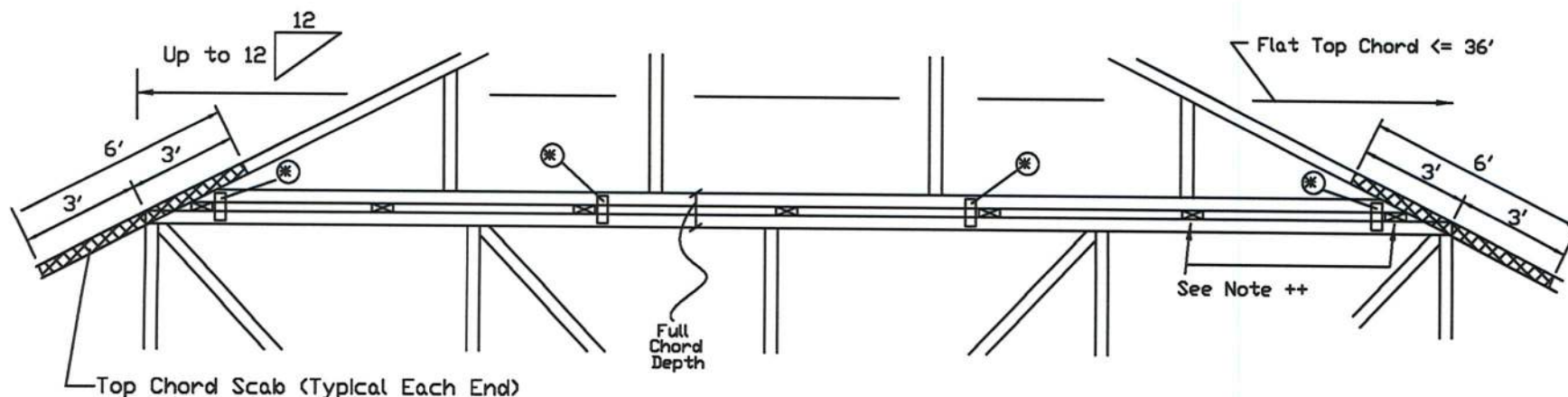
Note: Top chords of trusses supporting piggyback cap trusses must be adequately braced by sheathing or purlins. The building Engineer of Record shall provide diagonal bracing or any other suitable anchorage to permanently restrain purlins, and lateral bracing for out of plane loads over gable ends.

Maximum truss spacing is 24' o.c. detail is not applicable if cap supports additional loads such as cupola, steeple, chimney or drag strut loads.

Refer to Engineer's sealed truss design drawing for piggyback and base truss specifications.

Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135"x3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128"x3") at 4' o.c.

++ Flat top chord purlins required at both ends and at a maximum of 24' intervals unless otherwise noted on base truss design drawing. Attach purlin bracing to the flat top chord using a minimum of (2) 16d box nails (0.135"x3.5").



In addition, provide connection with one of the following methods:

<b>Trulox</b> Use 3X8 Trulox plates for 2x4 chord member, and 3X10 Trulox plates for 2x6 and larger chord members. Attach to each face @ 8' o.c. with (4) 0.120"x1.375" nails into cap bottom chord and (4) in base truss top chord. Trulox plates may be staggered 4' o.c. front to back faces.	<b>28PB Wave Piggyback Plate</b> One 28PB wave piggyback plate to each face @ 8' o.c. Attach teeth to piggyback at time of fabrication. Attach to supporting truss with (4) 0.120"x1.375" nails per face per ply. Piggyback plates may be staggered 4' o.c. front to back faces.
<b>APA Rated Gusset</b> 8"x8"x7/16" (min) APA rated sheathing gussets (each face). Attach @ 8' o.c. with (8) 6d common (0.113"x2") nails per gusset, (4) in cap bottom chord and (4) in base truss top chord. Gussets may be staggered 4' o.c. front to back faces.	<b>2x4 Vertical Scabs</b> 2x4 SPF #2, full chord depth scabs (each face). Attach @ 8' o.c. with (6) 10d box nails (0.128"x3") per scab, (3) in cap bottom chord and (3) in base truss top chord. Scabs may be staggered 4' o.c. front to back faces.



514 Earth City Expressway  
Suite 242  
Earth City, MO 63045

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 For more information see this job's general notes page and these web sites:  
 ALPINE www.alpineitw.com TPI www.tpinet.org SBCA www.sbcaindustry.org ICCI www.iccifa.org

REF PIGGYBACK  
DATE 01/02/2018  
DRWG PB180160118

SPACING 24.0'



# Cracked or Broken Member Repair Detail

This drawing specifies repairs for a truss with broken chord or web member.

Load Duration = 0%

Member forces may be increased for Duration of Load

This design is valid only for single ply trusses with 2x4 or 2x6 broken members. No more than one break per chord panel and no more than two breaks per truss are allowed. Contact the truss manufacturer for any repairs that do not comply with this detail.

(B) = Damaged area, 12" max length of damaged section

(L) = Minimum nailing distance on each side of damaged area (B)

(S) = Two 2x4 or two 2x6 side members, same size, grade, and species as damaged member. Apply one scab per face. Minimum side member length(s) =  $(2)(L) + (B)$

Scab member length (S) must be within the broken panel.

Nail into 2x4 members using two (2) rows at 4" o.c., rows staggered.

Nail into 2x6 members using three (3) rows at 4" o.c., rows staggered.

Nail using 10d box or gun nails (0.128"x3", min) into each side member.

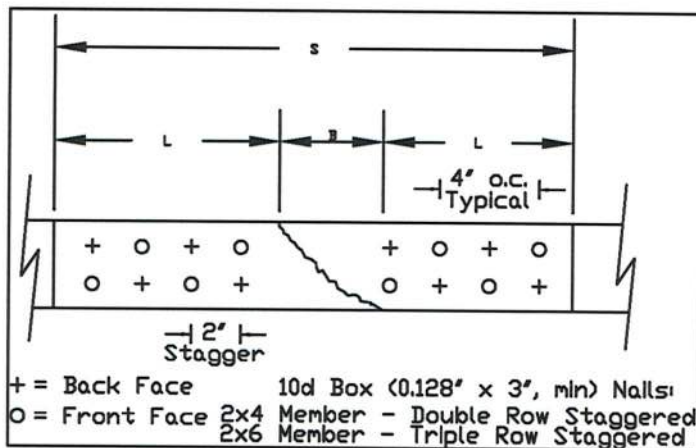
The maximum permitted lumber grade for use with this detail is limited to Visual grade #1 and MSR grade 1650f.

This repair detail may be used for broken connector plate at mid-panel spllices.

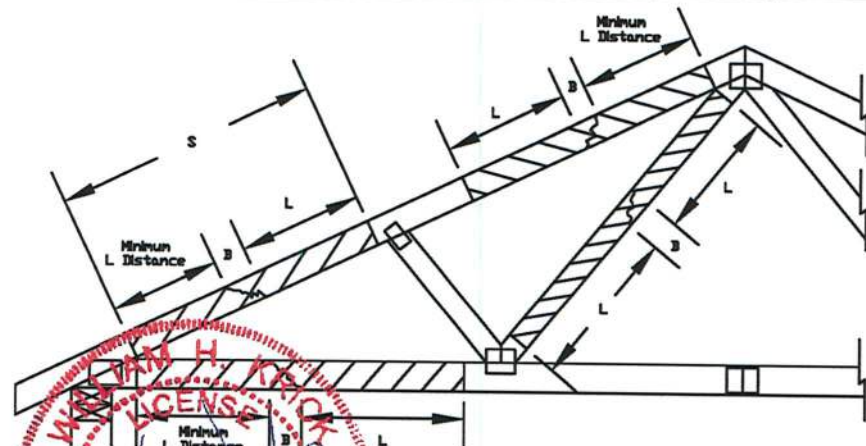
This repair detail may not be used for damaged chord or web sections occurring within the connector plate area.

Broken chord may not support any tie-in loads.

Member	Size	L	Maximum Member Axial Force			
			SPF-C	HF	DF-L	SYP
Web Only	2x4	12'	620#	635#	730#	800#
Web Only	2x4	18'	975#	1055#	1295#	1415#
Web or Chord	2x4	24'	975#	1055#	1495#	1745#
Web or Chord	2x6		1465#	1585#	2245#	2620#
Web or Chord	2x4	30'	1910#	1960#	2315#	2555#
Web or Chord	2x6		2230#	2365#	3125#	3575#
Web or Chord	2x4	36'	2470#	2530#	2930#	3210#
Web or Chord	2x6		3535#	3635#	4295#	4745#
Web or Chord	2x4	42'	2975#	3045#	3505#	3835#
Web or Chord	2x6		4395#	4500#	5225#	5725#
Web or Chord	2x4	48'	3460#	3540#	4070#	4445#
Web or Chord	2x6		5165#	5280#	6095#	6660#



Nail Spacing Detail



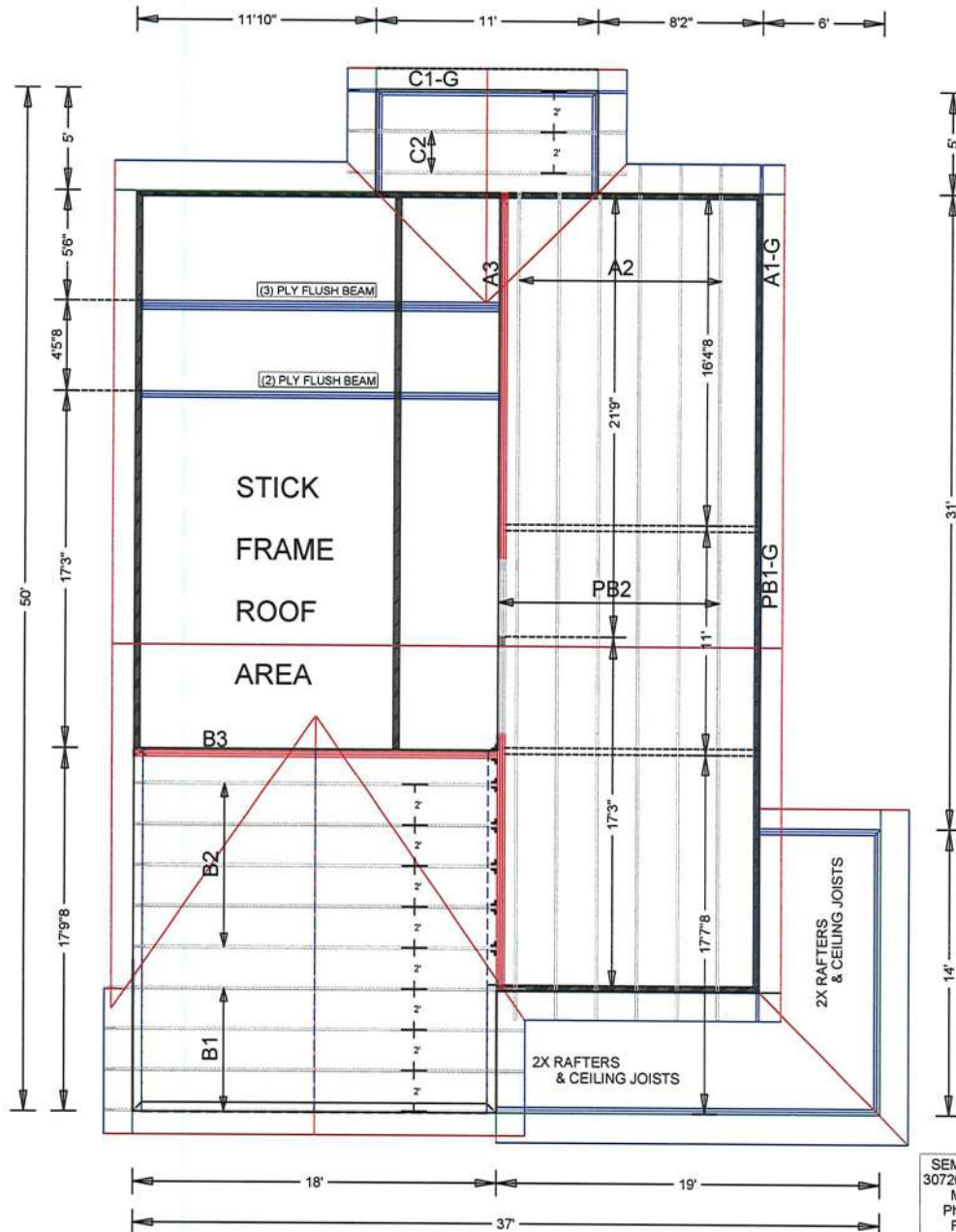
**ALPINE**  
 AN ITW COMPANY  
 514 Earth City Expressway  
 Suite 242  
 Earth City, MO 63045

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 For more information see this job's general notes page and these web sites:  
 ALPINE www.alpineitw.com TPI www.tpihq.org SCSA www.scsa.org ICC www.iccif.org

REF MEMBER REPAIR  
 DATE 10/01/14  
 DRWG REPCHRD1014

SPACING 24.0' MAX

ALL WALLS SHOWN TO BE BEARING  
AMERICA'S HOME PLACE, INC.  
TOWNSEND RESIDENCE ~ NOTTELY-MFH



SEMINOLE TRUSSES INC.  
30726 Bluestar Memorial Hwy.  
MIDWAY FL 32343  
Phone (850) 575-0102  
Fax (850) 575-4413  
Design By Robert J. Little

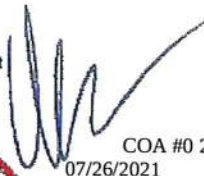
Job Name: TOWNSEND RESIDENCE  
Customer: America's Home Place  
Designer: ROBERT J. LITTLE  
PlanName: NOTTELY-MFH  
Created : 07-27-2021  
SemRef# : B54135a

JOB NO:  
B54135a

PAGE NO:  
1 OF 1



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COA #0 278  
07/26/2021



Alpine, an ITW Company  
6750 Forum Drive, Suite 305  
Orlando, FL 32821  
Phone: (800)755-6001  
www.alpineitw.com



Site Information:	Page 1:
Customer: Seminole Trusses, Inc.	Job Number: B54135a
Job Description: TOWNSEND RESIDENCE	
Address: SW DON COOK WAY, FORT WHITE, FL 32038	

Job Engineering Criteria:			
Design Code: FBC 7th Ed. 2020 Res		IntelliVIEW Version: 20.02.00A JRef #: 1X7f8570003	
Wind Standard: ASCE 7-16	Wind Speed (mph): 130	Design Loading (psf): 37.00	
Building Type: Closed			

This package contains general notes pages, 10 truss drawing(s) and 7 detail(s).

Item	Drawing Number	Truss	Item	Drawing Number	Truss
1	207.21.1553.18930	A1-G 39' Gable	2	207.21.1553.22070	A2 39' Common
3	207.21.1555.52220	A3 39' Common Girder	4	207.21.1028.57046	B1 18' Common
5	207.21.1028.57052	B2 18' Common	6	207.21.1028.57050	B3 18' Flat Girder
7	207.21.1553.30800	C1-G 11' Gable	8	207.21.1553.32510	C2 11' Common
9	207.21.1553.50937	PB1-G 8'4" Gable	10	207.21.1553.53993	PB2 8'4" Common
11	A14015ENC160118		12	A14030ENC160118	
13	BRCLBSUB0119		14	GBLLETIN0118	
15	PB160160118		16	PB180160118	
17	REPCHRD1014				

## **General Notes**

### **Truss Design Engineer Scope of Work, Design Assumptions and Design Responsibilities:**

The design responsibilities assumed in the preparation of these design drawings are those specified in ANSI/TPI 1, Chapter 2; and the National Design Standard for Metal Plate Connected Wood Truss Construction, by the Truss Plate Institute. The truss component designs conform to the applicable provisions of ANSI/TPI 1 and NDS, the National Design Specification for Wood Construction by AWC. The truss component designs are based on the specified loading and dimension information furnished by others to the Truss Design Engineer. The Truss Design Engineer has no duty to independently verify the accuracy or completeness of the information provided by others and may rely on that information without liability. The responsibility for verification of that information remains with others neither employed nor controlled by the Truss Design Engineer. The Truss Design Engineer's seal and signature on the attached drawings, or cover page listing these drawings, indicates acceptance of professional engineering responsibility solely for the truss component designs and not for the technical information furnished by others which technical information and consequences thereof remain their sole responsibility.

The suitability and use of these drawings for any particular structure is the responsibility of the Building Designer in accordance with ANSI/TPI 1 Chapter 2. The Building Designer is responsible for determining that the dimensions and loads for each truss component match those required by the plans and by the actual use of the individual component, and for ascertaining that the loads shown on the drawings meet or exceed applicable building code requirements and any additional factors required in the particular application. Truss components using metal connector plates with integral teeth shall not be placed in environments that will cause the moisture content of the wood in which plates are embedded to exceed 19% and/or cause corrosion of connector plates and other metal fasteners.

The Truss Design Engineer shall not be responsible for items beyond the specific scope of the agreed contracted work set forth herein, including but not limited to: verifying the dimensions of the truss component, calculation of any of the truss component design loads, inspection of the truss components before or after installation, the design of temporary or permanent bracing and their attachment required in the roof and/or floor systems, the design of diaphragms or shear walls, the design of load transfer connections to and from diaphragms and shear walls, the design of load transfer to the foundation, the design of connections for truss components to their bearing supports, the design of the bearing supports, installation of the truss components, observation of the truss component installation process, review of truss assembly procedures, sequencing of the truss component installation, construction means and methods, site and/or worker safety in the installation of the truss components and/or its connections.

This document may be a high quality facsimile of the original engineering document which is a digitally signed electronic file with third party authentication. A wet or embossed seal copy of this engineering document is available upon request.

### **Temporary Lateral Restraint and Bracing:**

Temporary lateral restraint and diagonal bracing shall be installed according to the provisions of BCSI chapters B1, B2, B7 and/or B10 (Building Component Safety Information, by TPI and SBCA), or as specified by the Building Designer or other Registered Design Professional. The required locations for lateral restraint and/or bracing depicted on these drawings are only for the permanent lateral support of the truss members to reduce buckling lengths, and do not apply to and may not be relied upon for the temporary stability of the truss components during their installation.

### **Permanent Lateral Restraint and Bracing:**

The required locations for lateral restraint or bracing depicted on these drawings are for the permanent lateral support of the truss members to reduce buckling lengths. Permanent lateral support shall be installed according to the provisions of BCSI chapters B3, B7 and/or B10, or as specified by the Building Designer or other Registered Design Professional. These drawings do not depict or specify installation/erection bracing, wind bracing, portal bracing or similar building stability bracing which are parts of the overall building design to be specified, designed and detailed by the Building Designer.

### **Connector Plate Information:**

Alpine connector plates are made of ASTM A653 or ASTM A1063 galvanized steel with the following designations, gauges and grades: W=Wave, 20ga, grade 40; H=High Strength, 20ga, grade 60; S=Super Strength, 18ga, grade 60. Information on model code compliance is contained in the ICC Evaluation Service report ESR-1118, available on-line at [www.icc-es.org](http://www.icc-es.org).

### **Fire Retardant Treated Lumber:**

Fire retardant treated lumber must be properly re-dried and maintained below 19% or less moisture level through all stages of construction and usage. Fire retardant treated lumber may be more brittle than untreated lumber. Special handling care must be taken to prevent breakage during all handling activities.



## **General Notes** (continued)

### **Key to Terms:**

Information provided on drawings reflects a summary of the pertinent information required for the truss design. Detailed information on load cases, reactions, member lengths, forces and members requiring permanent lateral support may be found in calculation sheets available upon written request.

BCDL = Bottom Chord standard design Dead Load in pounds per square foot.

BCLL = Bottom Chord standard design Live Load in pounds per square foot.

CL = Certified lumber.

Des Ld = total of TCLL, TCDL, BCLL and BCDL Design Load in pounds per square foot.

FRT = Fire Retardant Treated lumber.

FRT-DB = D-Blaze Fire Retardant Treated lumber.

FRT-DC = Dricon Fire Retardant Treated lumber.

FRT-FP = FirePRO Fire Retardant Treated lumber.

FRT-FL = FlamePRO Fire Retardant Treated lumber.

FRT-FT = FlameTech Fire Retardant Treated lumber.

FRT-PG = PYRO-GUARD Fire Retardant Treated lumber.

g = green lumber.

HORZ(LL) = maximum Horizontal panel point deflection due to Live Load, in inches.

HORZ(TL) = maximum Horizontal panel point long term deflection in inches, due to Total Load, including creep adjustment.

HPL = additional Horizontal Load added to a truss Piece in pounds per linear foot or pounds.

Ic = Incised lumber.

FJ = Finger Jointed lumber.

L/# = user specified divisor for limiting span/deflection ratio for evaluation of actual L/defl value.

L/defl = ratio of Length between bearings, in inches, divided by the vertical Deflection due to creep, in inches, at the referenced panel point. Reported as 999 if greater than or equal to 999.

Loc = Location, starting location of left end of bearing or panel point (joint) location of deflection.

Max BC CSI = Maximum bending and axial Combined Stress Index for Bottom Chords for of all load cases.

Max TC CSI = Maximum bending and axial Combined Stress Index for Top Chords for of all load cases.

Max Web CSI = Maximum bending and axial Combined Stress Index for Webs for of all load cases.

NCBCLL = Non-Concurrent Bottom Chord design Live Load in pounds per square foot.

PL = additional Load applied at a user specified angle on a truss Piece in pounds per linear foot or pounds.

PLB = additional vertical load added to a Bottom chord Piece of a truss in pounds per linear foot or pounds

PLT = additional vertical load added to a Top chord Piece of a truss in pounds per linear foot or pounds.

PP = Panel Point.

R = maximum downward design Reaction, in pounds, from all specified gravity load cases, at the indicated location (Loc).

-R = maximum upward design Reaction, in pounds, from all specified gravity load cases, at the identified location (Loc).

Rh = maximum horizontal design Reaction in either direction, in pounds, from all specified gravity load cases, at the indicated location (Loc).

RL = maximum horizontal design Reaction in either direction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).

Rw = maximum downward design Reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the identified location (Loc).

TCDL = Top Chord standard design Dead Load in pounds per square foot.

TCLL = Top Chord standard design Live Load in pounds per square foot.

U = maximum Upward design reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).

VERT(CL) = maximum Vertical panel point deflection in inches due to Live Load and Creep Component of Dead Load in inches.

VERT(CTL) = maximum Vertical panel point deflection ratios due to Live Load and Creep Component of Dead Load, and maximum long term Vertical panel point deflection in inches due to Total load, including creep adjustment.

VERT(LL) = maximum Vertical panel point deflection in inches due to Live Load.

VERT(TL) = maximum Vertical panel point long term deflection in inches due to Total load, including creep adjustment.

W = Width of non-hanger bearing, in inches.

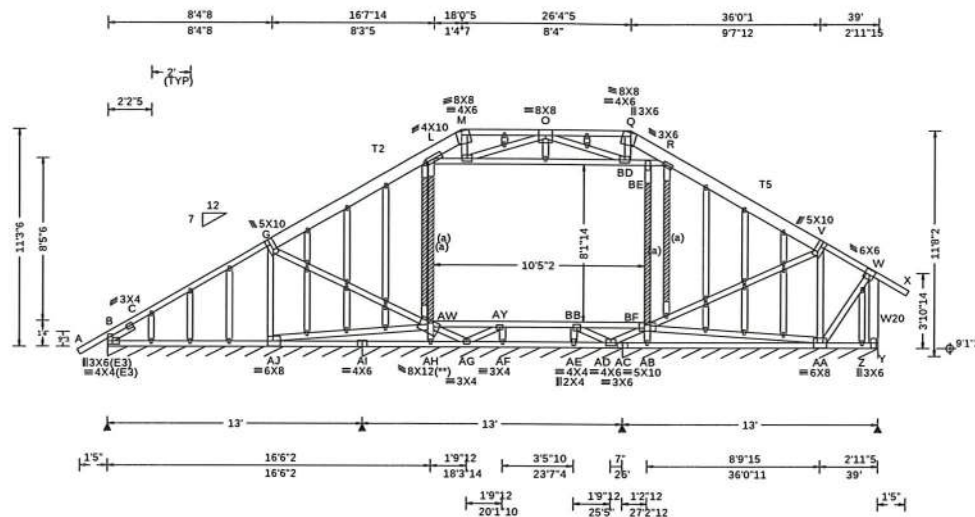
Refer to ASCE-7 for Wind and Seismic abbreviations.

Uppercase Acronyms not explained above are as defined in TPI 1.

**References:**

1. AWC: American Wood Council; 222 Catoctin Circle SE, Suite 201; Leesburg, VA 20175; [www.awc.org](http://www.awc.org).
2. ICC: International Code Council; [www.iccsafe.org](http://www.iccsafe.org).
3. Alpine, a division of ITW Building Components Group Inc.: 514 Earth City Expressway, Suite 242, Earth City, MO 63045; [www.alpineitw.com](http://www.alpineitw.com).
4. TPI: Truss Plate Institute, 2670 Crain Highway, Suite 203, Waldorf, MD 20601; [www.tpinst.org](http://www.tpinst.org).
5. SBCA: Wood Truss Council of America, 6300 Enterprise Lane, Madison, WI 53719; [www.sbcindustry.com](http://www.sbcindustry.com).

SEQN: 68800 FROM: RJL	GABL Qty: 1	Ply: 1 Job Number: B54135a TOWNSEND RESIDENCE Truss Label: A1-G 39' Gable	Cust: R 857 JRef: 1X7f8570003 T4 DrwNo: 207.21.1553.18930 AK / WHK 07/26/2021
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *PLF
TCLL: 20.00 TCDL: 7.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 5.2 psf MWFRS Parallel Dist: h to 2h C&C Dist a: 3.90 ft Loc. from endwall: not in 10.00 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA  Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.029 T 999 360 VERT(CL): 0.055 T 999 240 HORZ(LL): -0.010 T - - HORZ(TL): 0.019 T - - Creep Factor: 2.0 Max TC CSI: 0.322 Max BC CSI: 0.413 Max Web CSI: 0.390  VIEW Ver: 20.02.00A.1020.20	Gravity Loc R+ / R- / Rh Non-Gravity Loc / U / RL B* 100 - / - / 53 / 4 / 24 AI* 133 - / - / 30 / 7 / - AC* 137 - / - / 66 / 5 / - AC - / 201 Z - / 109 Wind reactions based on MWFRS B Brg Width = 156 Min Req = - AI Brg Width = 156 Min Req = - AC Brg Width = 156 Min Req = - Bearings B, AI, & AC are a rigid surface. Members not listed have forces less than 375#

Lumber	Wind
Top chord: 2x4 SP #1; T2, T5 2x8 SP SS Dense; Bot chord: 2x4 SP #1; Webs: 2x4 SP #3; W20 2x6 SP #1; Lt Slider: 2x4 SP #3; block length = 1.500'	Wind loads based on MWFRS with additional C&C member design. Right end vertical exposed to wind pressure. Deflection meets L/360.

Bracing	Maximum Top Chord Forces Per Ply (lbs)
(a) #3 or better scab reinforcement. Same size & 80% length of web member. Attach with 10d Box or Gun (0.128"x3", min.) nails @ 6" oc.	Chords Tens. Comp. Chords Tens. Comp. G - L 299 - 462 R - V 248 - 457 L - M 241 - 456
Plating Notes	Maximum Web Forces Per Ply (lbs)
All plates are 1.5X3 except as noted. (**) 1 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.	Webs Tens. Comp. Webs Tens. Comp. G - AJ 119 - 429 BE - BF 153 - 445 AW - AH 170 - 613 BF - AB 164 - 579 AY - AF 25 - 386 AA - V 161 - 460 O - BD 255 - 571 W - Y 141 - 428 AE - BB 9 - 392

Additional Notes
See DWGS A14015ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.

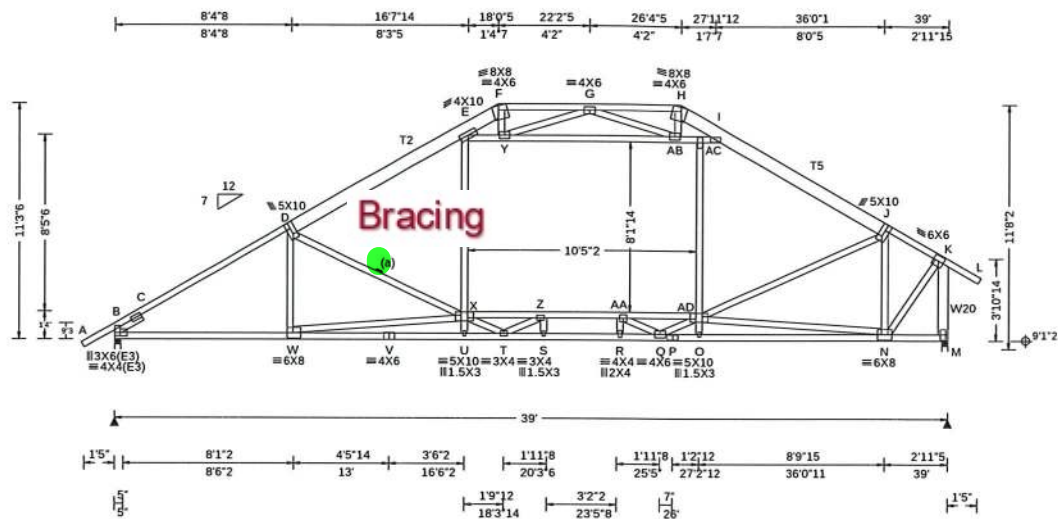


COA #0278  
07/26/2021

<p><b>**WARNING**</b> READ AND FOLLOW ALL NOTES ON THIS DRAWING!</p> <p><b>**IMPORTANT**</b> FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS</p> <p>Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCEA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7, or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-2 for standard plate positions. Refer to Job's General Notes page for additional information.</p> <p>Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.</p> <p>For more information see these web sites: Alpine: <a href="http://alpineitw.com">alpineitw.com</a>; TPI: <a href="http://tpinst.org">tpinst.org</a>; SBCEA: <a href="http://sbceaindustry.com">sbceaindustry.com</a>; ICC: <a href="http://iccsafe.org">iccsafe.org</a>; AWC: <a href="http://awc.org">awc.org</a></p>	<p><b>ALPINE</b> AN ITW COMPANY</p> <p>6750 Forum Drive Suite 305 Orlando FL, 32821</p>
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SEQN: 68781 FROM: RJL	COMN Ply: 1 Qty: 6	Job Number: B54135a TOWNSEND RESIDENCE Truss Label: A2 39' Common	Cust: R 857 JRef: 1X7f8570003 T5 DrwNo: 207.21.1553.22070 AK / WHK 07/26/2021
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 7.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 5.2 psf MWFRS Parallel Dist: h to 2h C&C Dist a: 3.90 ft Loc. from endwall: not in 9.00 ft GCpt: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA  Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.257 U 999 360 VERT(CL): 0.534 U 877 240 HORZ(LL): 0.120 T - - HORZ(TL): 0.255 T - - Creep Factor: 2.0 Max TC CSI: 0.912 Max BC CSI: 0.950 Max Web CSI: 0.859  VIEW Ver: 20.02.00A.1020.20	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 2346 - / - / 853 - / 286 M 2486 - / - / 798 - / - Wind reactions based on MWFRS B Brg Width = 3.5 Min Req = 2.8 M Brg Width = 3.5 Min Req = 2.9 Bearings B & M are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp.

**Lumber**  
Top chord: 2x4 SP #1; T2,T5 2x8 SP SS Dense;  
Bot chord: 2x4 SP #1;  
Webs: 2x4 SP #3; W20 2x6 SP #1;  
Lt Slider: 2x4 SP #3; block length = 1.500'

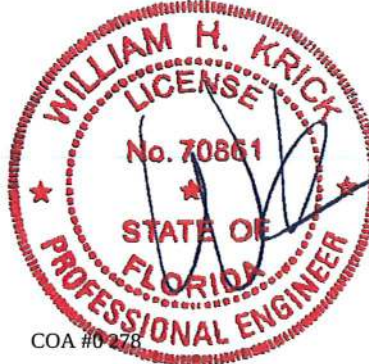
**Bracing**  
(a) Continuous lateral restraint equally spaced on member.

**Plating Notes**  
All plates are 3X6 except as noted.

**Loading**  
Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.  
Attic room loading from 16-7-14 to 27-1-0: Live Load: 40 PSF. Dead Load: 10 PSF Ceiling: 10 PSF, Kneewalls: 10 PSF

**Purlins**  
Collar-tie braced with continuous lateral bracing at 24" oc. or rigid ceiling.

**Wind**  
Wind loads based on MWFRS with additional C&C member design.  
Right end vertical exposed to wind pressure.  
Deflection meets L/360.  
Wind loading based on both gable and hip roof types.



COA #0278  
07/26/2021

Chords	Tens.Comp.	Chords	Tens. Comp.
B - W	3148 -284	S - R	2688 -50
W - V	2486 -224	R - Q	2642 -52
V - U	2486 -224	Q - P	384 -569
U - T	2512 -227	P - O	384 -569
T - S	2722 -57	O - N	407 -508

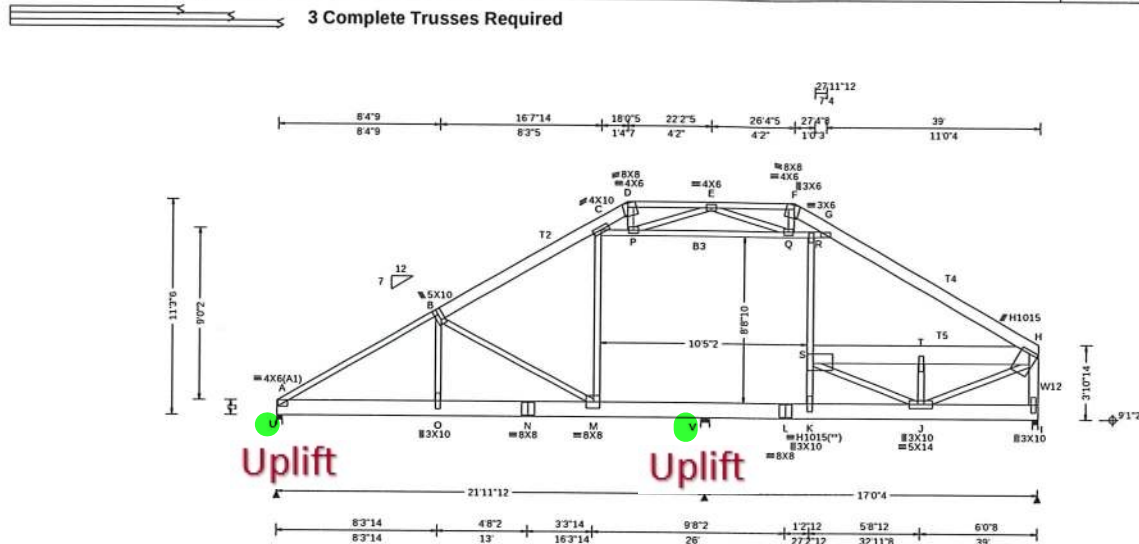
Maximum Web Forces Per Ply (lbs)	Maximum Bot Chord Forces Per Ply (lbs)
Webs Tens.Comp.	Webs Tens. Comp.
D - X 104 -703	AA-AD 1499 -145
W - X 1102 -71	Q -AD 1606 -71
E - X 1013 0	AB - H 931 -64
E - Y 151 -1287	AB-AC 221 -1710
X - T 779 -186	AC-AD 736 0
X - Z 256 -488	AC - I 238 -1629
F - Y 458 -95	AD - O 396 0
Y - AB 0 -1086	AD - N 1521 -135
T - Z 337 -532	AD - J 1513 -91
G - AB 251 -507	N - J 186 -1571
R - AA 425 -17	N - K 2020 -124
AA - Q 81 -1919	K - M 216 -2480

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For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCEA: sbceaindstry.com; ICC: iccsafe.org; AWC: awc.org

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SEQN: 68816 FROM: RJL	COMN Ply: 3 Qty: 1	Job Number: B54135a TOWNSEND RESIDENCE Truss Label: A3 39' Common Girder	Cust: R 857 JRef: 1X7f8570003 T3 DrwNo: 207.21.1555.52220 AK / WHK 07/26/2021
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 7.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 0.00 Soffit: 0.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 15.12 ft TCDL: 4.2 psf BCDL: 5.2 psf MWFRS Parallel Dist: h to 2h C&C Dist a: 3.90 ft Loc. from endwall: not in 9.00 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA  Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT: 20(0)/10(0) Plate Type(s): WAVE, HS	PP Deflection in loc L/defl L/# VERT(LL): 0.089 F 999 360 VERT(CL): 0.160 F 999 240 HORZ(LL): -0.037 K - - HORZ(TL): 0.067 K - - Creep Factor: 2.0 Max TC CSI: 0.354 Max BC CSI: 0.471 Max Web CSI: 0.893  VIEW Ver: 20.02.00A.1020.20	Gravity Loc R+ / R- / Rh Non-Gravity / Rw / U / RL  U 4248 - / - / 616 / 237 V 3579 - / 0 / 416 / 500 / 0 I 6323 - / - / 592 / 489 - / -  Wind reactions based on MWFRS U Brg Width = 3.5 Min Req = 1.5 V Brg Width = 5.5 Min Req = 1.5 I Brg Width = 3.5 Min Req = 2.1 Bearings U, V, & I are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp.

**Lumber**  
Top chord: 2x4 SP #1; T2, T4 2x8 SP SS Dense;  
T5 2x12 SP #2;  
Bot chord: 2x10 SP SS Dense; B3 2x4 SP SS Dense;  
Webs: 2x4 SP #3; W12 2x6 SP #1;

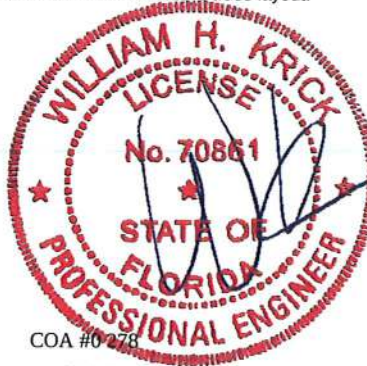
**Nailnote**  
Nail Schedule: 0.128"x3", min. nails  
Top Chord: 1 Row @ 4.50" o.c.  
Bot Chord: 1 Row @ 10.75" o.c.  
Webs: 1 Row @ 4" o.c.  
Repeat nailing as each layer is applied. Use equal spacing between rows and stagger nails in each row to avoid splitting.

**Special Loads**  
----- (Lumber Dur. Fac. = 1.00 / Plate Dur. Fac. = 1.00)  
TC: From 56 plf at 0.00 to 56 plf at 39.00  
PLT: From 20 plf at 16.65 to 20 plf at 27.08  
PLT: From 100 plf at 16.65 to 100 plf at 27.08  
BC: From 20 plf at 0.00 to 20 plf at 39.00  
PLT: 2239 lb Conc. Load at (27.40, 12.89)  
PLT: 746 lb Conc. Load at (28.94, 12.89), (30.94, 12.89)  
(32.94, 12.89), (34.94, 12.89), (36.94, 12.89)  
BC: 672 lb Conc. Load at 5.73  
BC: 223 lb Conc. Load at 6.91, 8.51, 11.70, 13.30  
14.90, 16.50, 18.10, 19.70, 21.30, 22.90, 23.60  
BC: 448 lb Conc. Load at 10.10  
BC: 174 lb Conc. Load at 16.65, 27.08

**Plating Notes**  
(\*\*) 1 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

**Purlins**  
Collar-tie braced with continuous lateral bracing at 24" oc. or rigid ceiling.

**Wind**  
Wind loads based on MWFRS.  
Right end vertical exposed to wind pressure.  
Deflection meets L/360.  
Wind loading based on both gable and hip roof types.  
It is the responsibility of the building designer and truss fabricator to review this dwg prior to cutting lumber to verify that all data, including dimensions and loads, conform to the architectural plans, specifications and fabricator's truss layout.



COA #0278  
07/26/2021

**Maximum Bot Chord Forces Per Ply (lbs)**

Chords	Tens.Comp.	Chords	Tens. Comp.
A - O	2041 - 319	M - L	2995 - 302
O - N	2046 - 320	L - K	1497 - 151
N - M	2046 - 320	K - J	1497 - 151

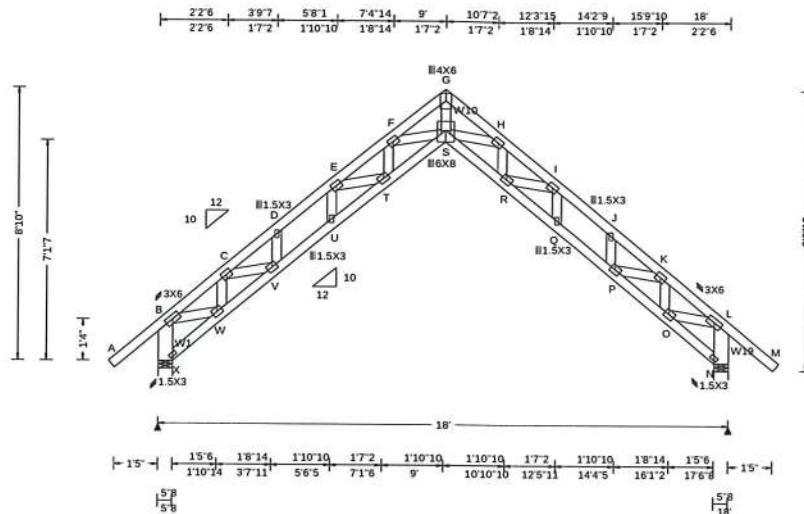
**Maximum Web Forces Per Ply (lbs)**

Webs	Tens.Comp.	Webs	Tens. Comp.
B - O	545 - 149	R - S	749 - 59
B - M	201 - 682	R - G	149 - 617
M - C	619 - 63	S - K	138 - 423
C - P	63 - 1102	J - H	1883 - 115
P - Q	71 - 730	T - J	65 - 784
Q - F	460 - 54	H - I	169 - 2070
Q - R	149 - 711		

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For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcindustry.com; ICC: iccsafe.org; AWC: awc.org

SEQN: 57689 / FROM: RJL	COMN Qty: 4	Ply: 1	Job Number: B54135a TOWNSEND RESIDENCE Truss Label: B1 18' Common	Cust: R 857 JRef: 1X718570003 T8 / DrwNo: 207.21.1028.57046 SSB / DF 07/26/2021
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 7.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 16.42 ft TCDL: 4.2 psf BCDL: 5.2 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA  Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.223 S 919 360 VERT(CL): 0.446 S 459 240 HORZ(LL): 0.403 N - - HORZ(TL): 0.806 N - - Creep Factor: 2.0 Max TC CSI: 0.383 Max BC CSI: 0.639 Max Web CSI: 0.533  VIEW Ver: 20.02.00A.1020.20	Gravity Loc R+ / R- / Rh Non-Gravity / Rw / U / RL  X 843 - / - / 488 / 24 / 205 N 843 - / - / 488 / 24 / - Wind reactions based on MWFRS X Brg Width = 5.5 Min Req = 1.5 N Brg Width = 5.5 Min Req = 1.5 Bearings X & N are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp.

#### Lumber

Top chord: 2x4 SP #1;  
Bot chord: 2x4 SP #1;  
Webs: 2x4 SP #3; W1, W19 2x6 SP #1;  
W10 2x4 SP #1;

#### Plating Notes

All plates are 3X4 except as noted.

#### Wind

Wind loads based on MWFRS with additional C&C member design.

End verticals not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

#### Additional Notes

Shim all supports to solid bearing.

Chords	Tens.Comp.	Chords	Tens. Comp.
X - W	107 - 381	S - R	2743 0
W - V	947 - 263	R - Q	2123 0
V - U	1936 - 252	Q - P	1936 0
U - T	2123 - 244	P - O	947 0
T - S	2743 - 198	O - N	121 - 381

Maximum Web Forces Per Ply (lbs)					
Webbs	Tens.Comp.		Webbs	Tens. Comp.	
B - X	174	- 631	R - I	568	- 79
B - W	890	- 15	P - J	7	- 397
W - C	27	- 729	P - K	916	0
C - V	916	0	K - O	9	- 729
D - V	24	- 397	O - L	890	- 31
E - T	568	0	N - L	165	- 631
G - S	3497	- 75			



COA #0278

07/26/2021

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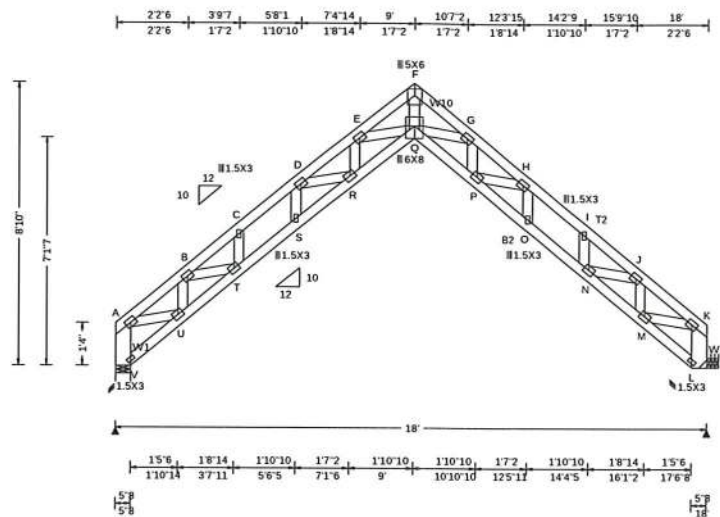
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SEQN: 57692 / FROM: RJL	COMN Ply: 1 Qty: 5	Job Number: B54135a TOWNSEND RESIDENCE Truss Label: B2 18' Common	Cust: R 857 JRef: 1X7/8570003 T12 / DrwNo: 207.21.1028.57052 SSB / DF 07/26/2021
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCCL: 7.00 BCCL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 17.08 ft TCDL: 4.2 psf BCDL: 5.2 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA  Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.207 Q 989 360 VERT(CL): 0.414 Q 495 240 HORZ(LL): 0.375 L - - HORZ(TL): 0.777 L - - Creep Factor: 2.0 Max TC CSI: 0.390 Max BC CSI: 0.658 Max Web CSI: 0.552  VIEW Ver: 20.02.00A.1020.20	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL V 746 /- /- /408 /19 /155 L 746 /- /- /408 /19 /- Wind reactions based on MWFRS V Brg Width = 5.5 Min Req = 1.5 L Brg Width = - Min Req = - Bearing V is a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp.

**Lumber**  
Top chord: 2x4 SP #1; T2 2x4 SP SS Dense;  
Bot chord: 2x4 SP #1; B2 2x4 SP SS Dense;  
Webs: 2x4 SP #3; W1, W19 2x6 SP #1;  
W10 2x4 SP #1;

**Plating Notes**  
All plates are 3X4 except as noted.

**Hangers / Ties**  
(J) Hanger Support Required, by others

**Wind**  
Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.  
Wind loading based on both gable and hip roof types.

**Additional Notes**  
Shim all supports to solid bearing.



COA #0 278  
07/26/2021

Maximum Bot Chord Forces Per Ply (lbs)				
Chords	Tens.Comp.	Chords	Tens. Comp.	
U - T	1061 -173	Q - P	2842	0
T - S	2038 -158	P - O	2226	-101
S - R	2226 -134	O - N	2037	-127
R - Q	2845 0	N - M	1060	-132

Maximum Web Forces Per Ply (lbs)				
Webs	Tens.Comp.	Webs	Tens. Comp.	
A - V	110 -557	P - H	566	-31
A - U	929 -142	N - I	44	-389
U - B	111 -759	N - J	908	0
B - T	908 0	J - M	107	-760
C - T	46 -389	M - K	930	-139
D - R	568 0	L - K	107	-556
F - Q	3623 0			

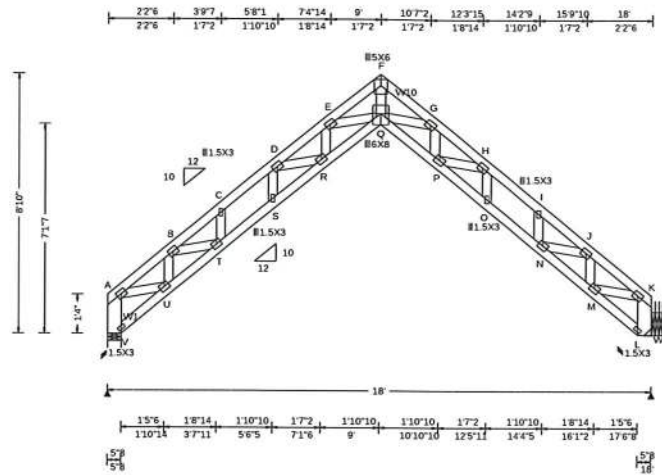
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SEQN: 57729 / FROM: RJL	COMN Ply: 3 Qty: 1	Job Number: B54135a TOWNSEND RESIDENCE Truss Label: B3 18' Flat Girder	Cust: R 857 JRef: 1X718570003 T13 / DrwNo: 207.21.1028.57050 SSB / DF 07/26/2021
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3 Complete Trusses Required



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 7.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 0.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 72.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 17.08 ft TCDL: 4.2 psf BCDL: 5.2 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: not in 6.50 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA  Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.192 Q 999 360 VERT(CL): 0.383 Q 535 240 HORZ(LL): 0.346 L - - HORZ(TL): 0.718 L - - Creep Factor: 2.0 Max TC CSI: 0.285 Max BC CSI: 0.356 Max Web CSI: 0.551  VIEW Ver: 20.02.00A.1020.20	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL V 2239 -/- /- /1223 /55 /465 L 2239 -/- /- /1223 /55 /- Wind reactions based on MWFRS V Brg Width = 5.5 Min Req = 1.5 L Brg Width = - Min Req = - Bearing V is a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp.

#### Lumber

Top chord: 2x4 SP SS Dense;  
Bot chord: 2x4 SP SS Dense;  
Webs: 2x4 SP #3; W1, W19 2x6 SP #1;  
W10 2x4 SP #1;

#### Nailnote

Nail Schedule: 0.128"x3", min. nails  
Top Chord: 1 Row @ 12.00" o.c.  
Bot Chord: 1 Row @ 12.00" o.c.  
Webs : 1 Row @ 4" o.c.  
Repeat nailing as each layer is applied. Use equal spacing between rows and stagger nails in each row to avoid splitting.

#### Plating Notes

All plates are 3X4 except as noted.

#### Hangers / Ties

(J) Hanger Support Required, by others

#### Purlins

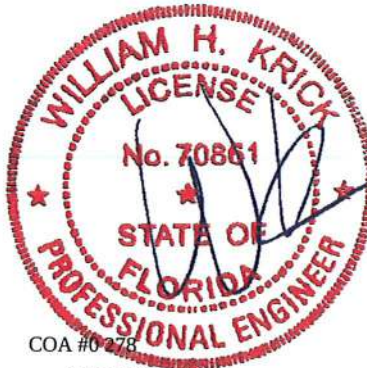
In lieu of structural panels use purlins to brace TC/ BC @ 24" oc.

#### Wind

Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.  
Wind loading based on both gable and hip roof types.

#### Additional Notes

Shim all supports to solid bearing.



COA #0278

07/26/2021

Chords	Tens.Comp.	Chords	Tens. Comp.
U - T	1060 -173	Q - P	2841 0
T - S	2037 -98	P - O	2226 0
S - R	2226 -74	O - N	2037 0
R - Q	2841 0	N - M	1060 -9

Max Web Forces Per Ply (lbs)	Max Bot Chord Forces Per Ply (lbs)
Chords Tens.Comp. Chords Tens. Comp.	Chords Tens.Comp. Chords Tens. Comp.
A - V 32 -556 P - H 566 -31	A - U 930 -23 N - I 1 -389
A - U 930 -23 N - I 1 -389	U - B 19 -760 N - J 908 0
U - B 19 -760 N - J 908 0	B - T 908 0 J - M 16 -760
B - T 908 0 J - M 16 -760	C - T 3 -389 M - K 930 -21
C - T 3 -389 M - K 930 -21	D - R 566 0 L - K 31 -556
D - R 566 0 L - K 31 -556	F - Q 3619 0

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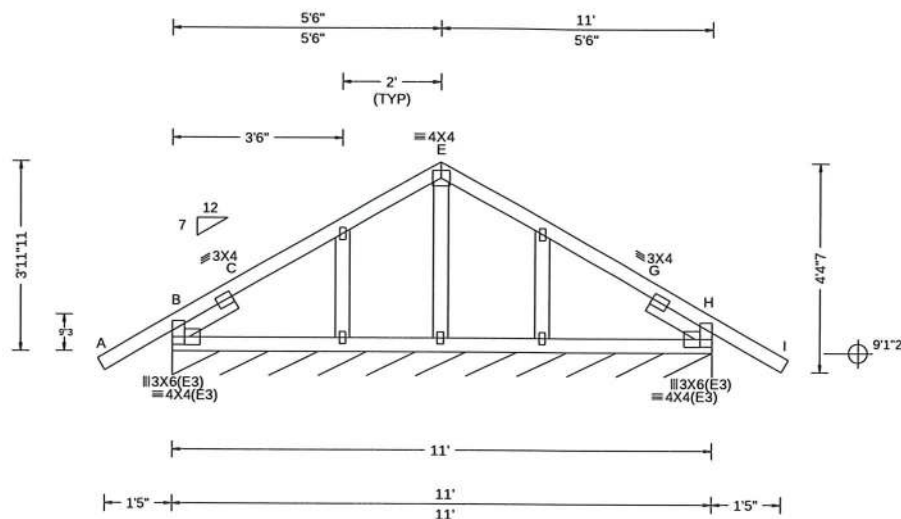
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SEQN: 68776 FROM: RJL	GABL Qty: 1	Ply: 1 Qty: 1	Job Number: B54135a TOWNSEND RESIDENCE Truss Label: C1-G 11' Gable	Cust: R 857 JRef: 1X718570003 T2 DrwNo: 207.21.1553.30800 AK / WHK 07/26/2021
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *PLF
TCLL: 20.00 TCCL: 7.00 BCCL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 5.2 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA  Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.004 G 999 360 VERT(CL): 0.008 G 999 240 HORZ(LL): -0.003 G - - HORZ(TL): 0.006 G - - Creep Factor: 2.0 Max TC CSI: 0.154 Max BC CSI: 0.070 Max Web CSI: 0.044  VIEW Ver: 20.02.00A.1020.20	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B* 102 /- /- /45 /22 /9 Wind reactions based on MWFRS B Brg Width = 132 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

#### Lumber

Top chord: 2x4 SP #1;  
Bot chord: 2x4 SP #1;  
Webs: 2x4 SP #3;  
Lt Slider: 2x4 SP #3; block length = 1.500'  
Rt Slider: 2x4 SP #3; block length = 1.500'

#### Plating Notes

All plates are 1.5X3 except as noted.

#### Loading

Truss designed to support 1-0-0 top chord outlookers and cladding load not to exceed 5.00 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

#### Wind

Wind loads based on MWFRS with additional C&C member design.  
Wind loading based on both gable and hip roof types.

#### Additional Notes

See DWGS A14015ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.



COA #0278

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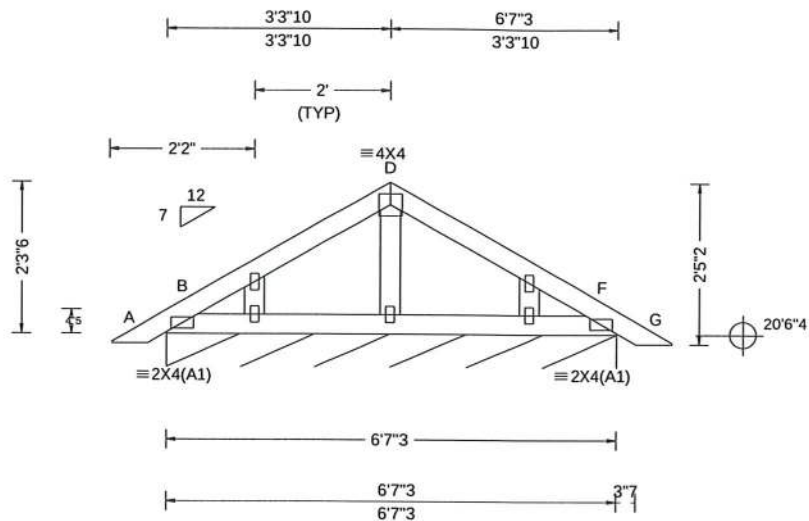
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SEQN: 68825 FROM: RJL	GABL Qty: 1	Ply: 1 Job Number: B54135a TOWNSEND RESIDENCE Truss Label: PB1-G 8'4" Gable	Cust: R 857 JRef: 1X7f8570003 T6 DrwNo: 207.21.1553.50937 AK / WHK 07/26/2021
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *PLF
TCLL: 20.00 TCDL: 7.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 21.60 ft TCDL: 4.2 psf BCDL: 5.2 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: not in 10.00 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA  Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.000 D 999 360 VERT(CL): 0.000 D 999 240 HORZ(LL): -0.000 C - - HORZ(TL): 0.000 C - - Creep Factor: 2.0 Max TC CSI: 0.061 Max BC CSI: 0.024 Max Web CSI: 0.035  VIEW Ver: 20.02.00A.1020.20	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B* 91 /- /- /43 /25 /9 Wind reactions based on MWFRS B Brg Width = 79.2 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

#### Lumber

Top chord: 2x4 SP #1;  
Bot chord: 2x4 SP #1;  
Webs: 2x4 SP #3;

#### Plating Notes

All plates are 1.5X3 except as noted.

#### Loading

Truss designed to support 1-0-0 top chord outlookers and cladding load not to exceed 5.00 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

#### Wind

Wind loads based on MWFRS with additional C&C member design.  
Wind loading based on both gable and hip roof types.

#### Additional Notes

See DWGS A14030ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.

See Detail PB160101014 for piggyback details.



COA #0 278

07/26/2021

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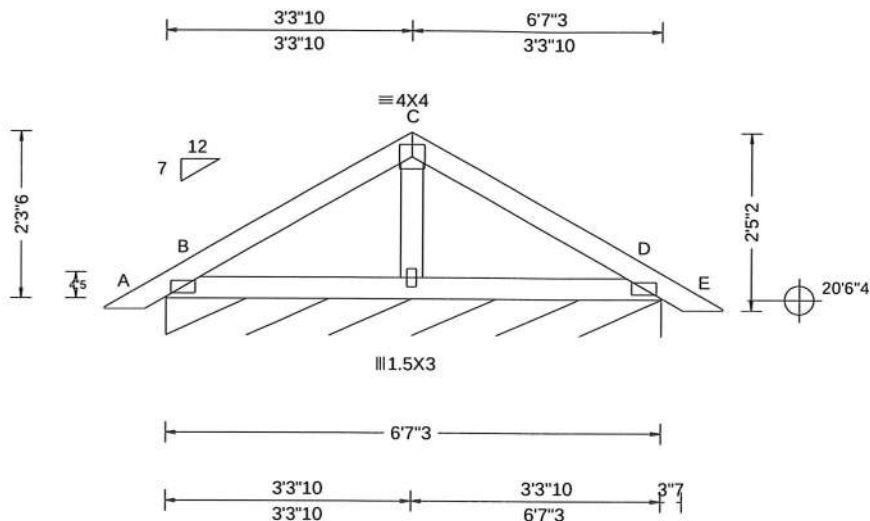
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SEQN: 68822 FROM: RJL	GABL Qty: 9	Ply: 1 Job Number: B54135a TOWNSEND RESIDENCE Truss Label: PB2 8'4" Common	Cust: R 857 JRef: 1X718570003 T7 DrwNo: 207.21.1553.53993 AK / WHK 07/26/2021
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *PLF
TCLL: 20.00 TCDL: 7.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: B Kzt: NA Mean Height: 21.60 ft TCDL: 4.2 psf BCDL: 5.2 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: not in 9.00 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.001 F 999 360 VERT(CL): 0.002 F 999 240 HORZ(LL): -0.001 F - - HORZ(TL): 0.002 F - - Creep Factor: 2.0 Max TC CSI: 0.118 Max BC CSI: 0.099 Max Web CSI: 0.014 VIEW Ver: 20.02.00A.1020.20	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B* 86 /- /- /40 /6 /8 Wind reactions based on MWFRS B Brg Width = 79.2 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

#### Lumber

Top chord: 2x4 SP #1;  
Bot chord: 2x4 SP #1;  
Webs: 2x4 SP #3;

#### Plating Notes

All plates are 2X4(A1) except as noted.

#### Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

#### Additional Notes

See DWGS A14030ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.

See Detail PB160101014 for piggyback details.



COA #0278

07/26/2021

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# Gable Stud Reinforcement Detail

ASCE 7-16: 140 mph Wind Speed, 15' Mean Height, Enclosed, Exposure C, Kzt = 1.00

Or: 120 mph Wind Speed, 15' Mean Height, Partially Enclosed, Exposure C, Kzt = 1.00

Or: 120 mph Wind Speed, 15' Mean Height, Enclosed, Exposure D, Kzt = 1.00

Or: 100 mph Wind Speed, 15' Mean Height, Partially Enclosed, Exposure D, Kzt = 1.00

Max Gable Vertical Length	2x4 Gable Vertical		Brace	No Braces	(1) 1x4 "L" Brace		(1) 2x4 "L" Brace		(2) 2x4 "L" Brace		(1) 2x6 "L" Brace		(2) 2x6 "L" Brace	
	Spacing	Species	Grade		Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B
24" o.c.	SPF	#1 / #2	4' 3"	7' 3"	7' 7"	8' 7"	8' 11"	10' 3"	10' 8"	13' 6"	14' 0"	14' 0"	14' 0"	
		#3	4' 1"	6' 7"	7' 1"	8' 6"	8' 10"	10' 1"	10' 6"	13' 4"	13' 10"	14' 0"	14' 0"	
		Stud	4' 1"	6' 7"	7' 0"	8' 6"	8' 10"	10' 1"	10' 6"	13' 4"	13' 10"	14' 0"	14' 0"	
		Standard	4' 1"	5' 8"	6' 0"	7' 7"	8' 1"	10' 1"	10' 6"	11' 10"	12' 8"	14' 0"	14' 0"	
		SP	#1	4' 6"	7' 4"	7' 8"	8' 8"	9' 0"	10' 4"	10' 9"	13' 8"	14' 0"	14' 0"	14' 0"
			#2	4' 3"	7' 3"	7' 7"	8' 7"	8' 11"	10' 3"	10' 8"	13' 6"	14' 0"	14' 0"	14' 0"
	DFL	#3	4' 2"	6' 0"	6' 4"	7' 11"	8' 6"	10' 2"	10' 7"	12' 5"	13' 4"	14' 0"	14' 0"	
		Stud	4' 2"	6' 0"	6' 4"	7' 11"	8' 6"	10' 2"	10' 7"	12' 5"	13' 4"	14' 0"	14' 0"	
		Standard	4' 0"	5' 3"	5' 7"	7' 0"	7' 6"	9' 6"	10' 2"	11' 0"	11' 10"	14' 0"	14' 0"	
		SPF	#1 / #2	4' 11"	8' 4"	8' 8"	9' 10"	10' 3"	11' 8"	12' 2"	14' 0"	14' 0"	14' 0"	14' 0"
			#3	4' 8"	8' 1"	8' 8"	9' 8"	10' 1"	11' 7"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
		Stud	4' 8"	8' 1"	8' 6"	9' 8"	10' 1"	11' 7"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"	
16" o.c.	SPF	Standard	4' 8"	6' 11"	7' 5"	9' 3"	9' 11"	11' 7"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"	
		SP	#1	5' 1"	8' 5"	8' 9"	9' 11"	10' 4"	11' 10"	12' 4"	14' 0"	14' 0"	14' 0"	14' 0"
			#2	4' 11"	8' 4"	8' 8"	9' 10"	10' 3"	11' 8"	12' 2"	14' 0"	14' 0"	14' 0"	14' 0"
		DFL	#3	4' 9"	7' 4"	7' 9"	9' 9"	10' 2"	11' 8"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
			Stud	4' 9"	7' 4"	7' 9"	9' 9"	10' 2"	11' 8"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
		Standard	4' 8"	6' 5"	6' 10"	8' 7"	9' 2"	11' 7"	12' 1"	13' 6"	14' 0"	14' 0"	14' 0"	
	SPF	#1 / #2	5' 5"	9' 2"	9' 6"	10' 10"	11' 3"	11' 8"	13' 5"	14' 0"	14' 0"	14' 0"	14' 0"	
		#3	5' 1"	9' 0"	9' 4"	10' 8"	11' 1"	12' 9"	13' 3"	14' 0"	14' 0"	14' 0"	14' 0"	
		Stud	5' 1"	9' 0"	9' 4"	10' 8"	11' 1"	12' 9"	13' 3"	14' 0"	14' 0"	14' 0"	14' 0"	
		Standard	5' 1"	8' 0"	8' 6"	10' 8"	11' 1"	12' 9"	13' 3"	14' 0"	14' 0"	14' 0"	14' 0"	
		SP	#1	5' 8"	9' 3"	9' 8"	10' 11"	11' 4"	13' 0"	13' 6"	14' 0"	14' 0"	14' 0"	14' 0"
			#2	5' 5"	9' 2"	9' 6"	10' 10"	11' 3"	12' 11"	13' 5"	14' 0"	14' 0"	14' 0"	14' 0"
DFL	#3	5' 3"	8' 5"	9' 0"	10' 9"	11' 2"	12' 10"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"		
	Stud	5' 3"	8' 5"	9' 0"	10' 9"	11' 2"	12' 10"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"		
	Standard	5' 1"	7' 5"	7' 11"	9' 11"	10' 7"	12' 9"	13' 3"	14' 0"	14' 0"	14' 0"	14' 0"		

## Bracing Group Species and Grades:

Group A:			
Spruce-Pine-Fir		Hem-Fir	
#1 / #2	Standard	#2	Stud
#3	Stud	#3	Standard
Douglas Fir-Larch		Southern Pine	
#3	Stud	#3	Stud
Standard	Standard	Standard	Standard

Group B:			
Hem-Fir			
#1 & Btr			
#1			
Douglas Fir-Larch		Southern Pine	
#1	Stud	#1	Stud
#2	Standard	#2	Standard

1x4 Braces shall be SRB (Stress-Rated Board).

For 1x4 So. Pine use only Industrial S5 or Industrial 45 Stress-Rated Boards. Group B values may be used with these grades.

Gable Truss Detail Notes:  
Wind Load deflection criterion is L/240.

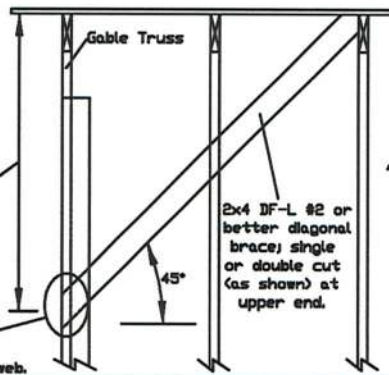
Provide uplift connections for 55 psf over continuous bearing (5 psf TC Dead Load).

Gable end supports load from 4' 0" outlookers with 2' 0" overhang, or 12" plywood overhang.

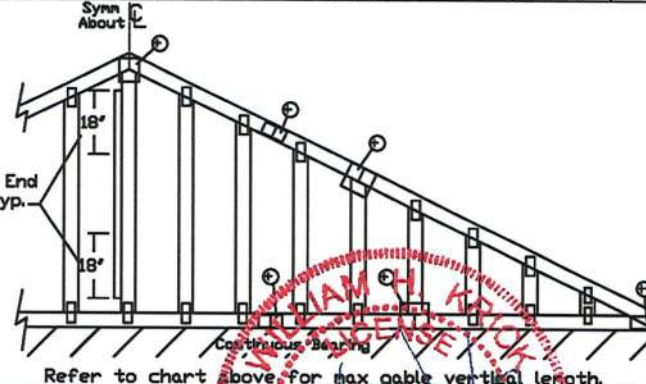
Diagonal brace option: vertical length may be doubled when diagonal brace is used. Connect diagonal brace for 450# at each end. Max web total length is 14'.

Vertical length shown in table above.

Connect diagonal at midpoint of vertical web.



'L' Brace End Zones, typ.



Refer to chart above for max gable vertical length.

Attach 'L' braces with 10d (0.128"x3.0" min) nails.

\* For (1) 'L' brace: space nails at 2' o.c.

In 18" end zones and 4' o.c. between zones.

\* For (2) 'L' braces: space nails at 3' o.c.

In 18" end zones and 6' o.c. between zones.

'L' bracing must be a minimum of 80% of web member length.

## Gable Vertical Plate Sizes

Vertical Length	No Splice
Less than 4' 0"	1X4 or 2X3
Greater than 4' 0"	3X4

+ Refer to common truss design for peak, splice, and heel plates.

Refer to the Building Designer for conditions not addressed by this detail.



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IMPORTANT: READ AND FOLLOW ALL NOTES ON THIS DRAWING. FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of ICC Building Component Safety Information, by TPI and ICCA for safety practices prior to performing these functions. Installers shall provide temporary bracing per ICCA. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 1504-2 for standard plate positions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

For more information see this Job's general notes page and these web sites:  
ALPINE: www.alpine.com TPI: www.tpi.org ICCA: www.icca.org ICC: www.icca.org

No. 70861  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
COA #0278 07/26/2021

REF ASCE7-16-GAB14015

DATE 01/26/2018

DRWG A14015ENC160118

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0'



# Gable Stud Reinforcement Detail

ASCE 7-16: 140 mph Wind Speed, 30' Mean Height, Enclosed, Exposure C, Kzt = 1.00

Or: 120 mph Wind Speed, 30' Mean Height, Partially Enclosed, Exposure C, Kzt = 1.00

Or: 120 mph Wind Speed, 30' Mean Height, Enclosed, Exposure D, Kzt = 1.00

Or: 100 mph wind speed, 30' Mean Height, Partially Enclosed, Exposure D, Kzt = 1.00

Max Gable Vertical Length	2x4 Gable Vertical		Brace	No Braces	(1) 1x4 "L" Brace		(1) 2x4 "L" Brace		(2) 2x4 "L" Brace		(1) 2x6 "L" Brace		(2) 2x6 "L" Brace	
	Spacing	Species	Grade		Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B
24" o.c.	SPF	#1 / #2	4' 1"	6' 11"	7' 2"	8' 2"	8' 6"	9' 9"	10' 2"	12' 10"	13' 4"	14' 0"	14' 0"	
		#3	3' 10"	6' 2"	6' 7"	8' 1"	8' 5"	9' 8"	10' 0"	12' 8"	13' 2"	14' 0"	14' 0"	
		Stud	3' 10"	6' 2"	6' 6"	8' 1"	8' 5"	9' 8"	10' 0"	12' 8"	13' 2"	14' 0"	14' 0"	
		Standard	3' 10"	5' 3"	5' 7"	7' 0"	7' 6"	9' 6"	10' 0"	11' 0"	11' 10"	14' 0"	14' 0"	
	SP	#1	4' 2"	7' 0"	7' 3"	8' 3"	8' 7"	9' 10"	10' 3"	13' 0"	13' 6"	14' 0"	14' 0"	
		#2	4' 1"	6' 11"	7' 2"	8' 2"	8' 6"	9' 9"	10' 2"	12' 10"	13' 4"	14' 0"	14' 0"	
		#3	4' 0"	5' 7"	5' 11"	7' 5"	7' 11"	9' 8"	10' 1"	11' 7"	12' 5"	14' 0"	14' 0"	
		Stud	4' 0"	5' 7"	5' 11"	7' 5"	7' 11"	9' 8"	10' 1"	11' 7"	12' 5"	14' 0"	14' 0"	
	DFL	Standard	3' 9"	4' 11"	5' 13"	6' 6"	7' 0"	8' 10"	9' 6"	10' 3"	11' 0"	13' 11"	14' 0"	
		#1 / #2	4' 8"	7' 11"	8' 3"	9' 4"	9' 9"	11' 2"	11' 7"	14' 0"	14' 0"	14' 0"	14' 0"	
		#3	4' 5"	7' 6"	8' 3"	9' 3"	9' 7"	11' 0"	11' 6"	14' 0"	14' 0"	14' 0"	14' 0"	
		Stud	4' 5"	7' 6"	8' 0"	9' 3"	9' 7"	11' 0"	11' 6"	14' 0"	14' 0"	14' 0"	14' 0"	
16" o.c.	SPF	Standard	4' 5"	6' 5"	6' 10"	8' 7"	9' 2"	11' 0"	11' 6"	13' 6"	14' 0"	14' 0"	14' 0"	
		#1	4' 10"	8' 0"	8' 4"	9' 6"	9' 10"	11' 3"	11' 9"	14' 0"	14' 0"	14' 0"	14' 0"	
		#2	4' 8"	7' 11"	8' 3"	9' 4"	9' 9"	11' 2"	11' 7"	14' 0"	14' 0"	14' 0"	14' 0"	
		#3	4' 7"	6' 10"	7' 3"	9' 1"	9' 8"	11' 1"	11' 6"	14' 0"	14' 0"	14' 0"	14' 0"	
	SP	Stud	4' 7"	6' 10"	7' 3"	9' 1"	9' 8"	11' 1"	11' 6"	14' 0"	14' 0"	14' 0"	14' 0"	
		Standard	4' 5"	6' 0"	6' 5"	8' 0"	8' 7"	10' 10"	11' 6"	12' 7"	13' 15"	14' 0"	14' 0"	
		#1 / #2	5' 2"	8' 9"	9' 1"	10' 4"	10' 9"	11' 2"	12' 9"	14' 0"	14' 0"	14' 0"	14' 0"	
		#3	4' 10"	8' 7"	8' 11"	10' 2"	10' 7"	12' 2"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	
	DFL	Stud	4' 10"	8' 7"	8' 11"	10' 2"	10' 7"	12' 2"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	
		Standard	4' 10"	7' 5"	7' 11"	9' 11"	10' 7"	12' 2"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	
		#1	5' 4"	8' 10"	9' 2"	10' 5"	10' 10"	12' 5"	12' 11"	14' 0"	14' 0"	14' 0"	14' 0"	
		#2	5' 2"	8' 9"	9' 1"	10' 4"	10' 9"	12' 3"	12' 9"	14' 0"	14' 0"	14' 0"	14' 0"	
12" o.c.	SPF	#3	5' 0"	7' 10"	8' 4"	10' 3"	10' 8"	12' 2"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	
		Stud	5' 0"	7' 10"	8' 4"	10' 3"	10' 8"	12' 2"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	
		Standard	4' 10"	6' 11"	7' 4"	9' 3"	9' 10"	12' 2"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	
		#1 / #2	5' 2"	8' 9"	9' 1"	10' 4"	10' 9"	12' 3"	12' 9"	14' 0"	14' 0"	14' 0"	14' 0"	
	SP	#1	5' 4"	8' 10"	9' 2"	10' 5"	10' 10"	12' 5"	12' 11"	14' 0"	14' 0"	14' 0"	14' 0"	
		#2	5' 2"	8' 9"	9' 1"	10' 4"	10' 9"	12' 3"	12' 9"	14' 0"	14' 0"	14' 0"	14' 0"	
		#3	5' 0"	7' 10"	8' 4"	10' 3"	10' 8"	12' 2"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	
		Stud	5' 0"	7' 10"	8' 4"	10' 3"	10' 8"	12' 2"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	
	DFL	Standard	4' 10"	6' 11"	7' 4"	9' 3"	9' 10"	12' 2"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	
		#1 / #2	5' 2"	8' 9"	9' 1"	10' 4"	10' 9"	12' 3"	12' 9"	14' 0"	14' 0"	14' 0"	14' 0"	
		#3	4' 10"	8' 7"	8' 11"	10' 2"	10' 7"	12' 2"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	
		Stud	4' 10"	8' 7"	8' 11"	10' 2"	10' 7"	12' 2"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	

## Bracing Group Species and Grades:

Group A:			
Spruce-Pine-Fir		Hem-Fir	
#1 / #2	Standard	#2	Stud
#3	Stud	#3	Standard
Douglas Fir-Larch		Southern Pine	
#3		#3	
Standard		Standard	

Group B:			
Hem-Fir			
#1 & Btr			
#1			
Douglas Fir-Larch		Southern Pine	
#1		#1	
#2		#2	

1x4 Braces shall be SRB (Stress-Rated Board).

For 1x4 So. Pine use only Industrial 55 or Industrial 45 Stress-Rated Boards. Group B values may be used with these grades.

## Gable Truss Detail Notes:

Wind Load deflection criterion is L/240.

Provide uplift connections for 100 plf over continuous bearing (5 psf TC Dead Load).

Gable end supports load from 4' 0" overhangs with 2' 0" overhang, or 12" plywood overhang.

Attach "L" braces with 10d (0.128"x3.0" min) nails.

\* For (1) "L" brace: space nails at 2' o.c.

In 18" end zones and 4' o.c. between zones.

\* For (2) "L" braces: space nails at 3' o.c.

In 18" end zones and 6' o.c. between zones.

"L" bracing must be a minimum of 80% of web member length.

Gable Vertical Plate Sizes	
Vertical Length	No Splice
Less than 4' 0"	2X4
Greater than 4' 0", but less than 11' 6"	3X4
Greater than 11' 6"	4X4

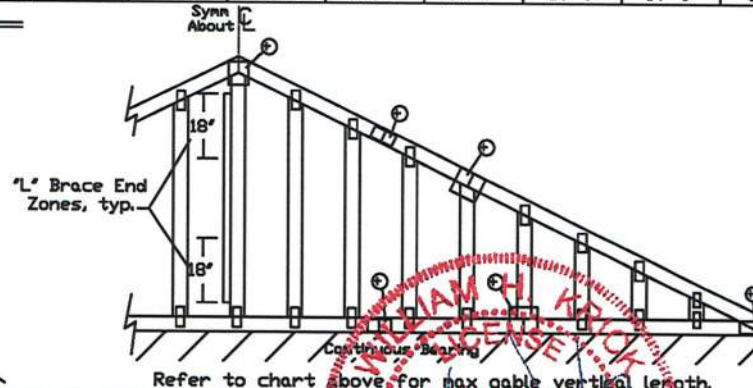
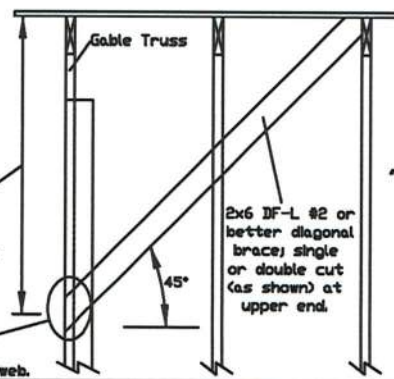
+ Refer to common truss design for peak, splice, and heel plates.

Refer to the Building Designer for conditions not addressed by this detail.

Diagonal brace option: vertical length may be doubled when diagonal brace is used. Connect diagonal brace for 525# at each end. Max web total length is 14'.

Vertical length shown in table above.

Connect diagonal at midpoint of vertical web.



Refer to chart above for max gable vertical length.



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IMPORTANT: READ AND FOLLOW ALL NOTES ON THIS DRAWING. FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of ICC Building Component Safety Information, by TPI and SBCA for safety practices prior to performing these functions. Installers shall provide temporary bracing per ICC Building Component Safety Information, by TPI and SBCA, as applicable. Apply plates to each end of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

For more information see this job's general notes page and these web sites:  
ALPINE: www.alpine.com TPI: www.tpi.org SBCA: www.sbcainstitute.org ICC: www.iccsafe.org

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0'

REF ASCE7-16-GAB14030

DATE 01/26/2018

DRWG A14030ENC160118



# CLR Reinforcing Member Substitution

This detail is to be used when a Continuous Lateral Restraint (CLR) is specified on a truss design but an alternative web reinforcement method is desired.

## Notes:

This detail is only applicable for changing the specified CLR shown on single ply sealed designs to T-reinforcement or L-reinforcement or scab reinforcement.

Alternative reinforcement specified in chart below may be conservative. For minimum alternative reinforcement, re-run design with appropriate reinforcement type.

Use scabs instead of L- or T- reinforcement on webs with intersecting truss joints, such as K-web joints, that may interfere with proper application along the narrow face of the web.

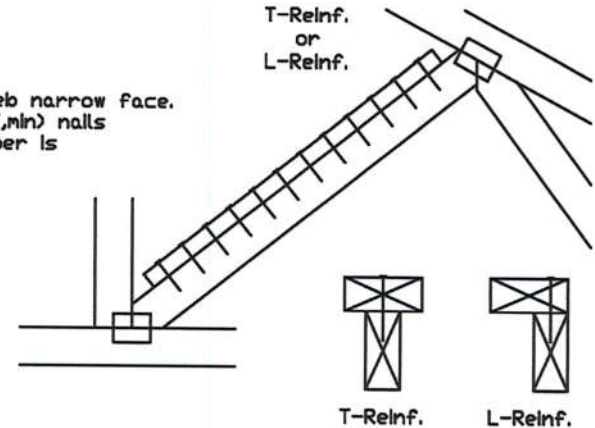
Web Member Size	Specified CLR Restraint	Alternative Reinforcement T- or L- Reinf.	Scab Reinf.
2x3 or 2x4	1 row	2x4	1-2x4
2x3 or 2x4	2 rows	2x6	2-2x4
2x6	1 row	2x4	1-2x6
2x6	2 rows	2x6	2-2x4 <sup>ⓐ</sup>
2x8	1 row	2x6	1-2x8
2x8	2 rows	2x6	2-2x6 <sup>ⓐ</sup>

T-reinforcement, L-reinforcement, or scab reinforcement to be same species and grade or better than web member unless specified otherwise on Engineer's sealed design.

ⓐ Center scab on wide face of web. Apply (1) scab to each face of web.

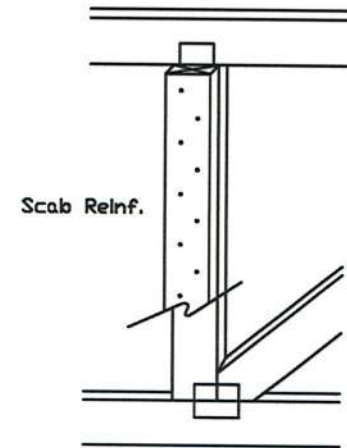
## T-Reinforcement or L-Reinforcement:

Apply to either side of web narrow face. Attach with 10d (0.128"x3.0",min) nails at 6' o.c. Reinforcing member is a minimum 80% of web member length.



## Scab Reinforcement:

Apply scab(s) to wide face of web. No more than (1) scab per face. Attach with 10d (0.128"x3.0",min) nails at 6' o.c. Reinforcing member is a minimum 80% of web member length.

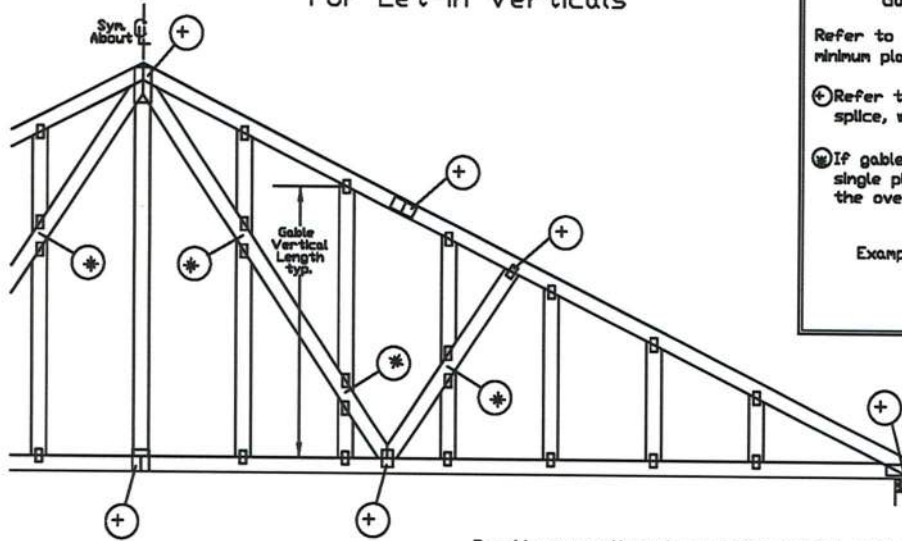


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**IMPORTANT: READ AND FOLLOW ALL NOTES ON THIS DRAWING**  
FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.  
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of ICCI Building Component Safety Information, by TPI and SCA for safety practices prior to performing these functions. Installers shall provide temporary bracing per ICCI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per ICCI sections B3, B7 or B8, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.  
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.  
A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.  
For more information see this job's general notes page and these web sites:  
ALPINE: [www.alpineitw.com](http://www.alpineitw.com) TPI: [www.tpiinc.org](http://www.tpiinc.org) SCA: [www.scaindustry.org](http://www.scaindustry.org) ICCI: [www.iccifair.org](http://www.iccifair.org)

TS LL	PSF	REF	CLR Subst.
TC DL	PSF	DATE	01/02/19
BC DL	PSF	DRWG	BRCLBSUB0119
BC LL	PSF		
TOT. LD.	PSF		
DUR. FAC.			
SPACING			

# Gable Detail For Let-In Verticals



## Gable Truss Plate Sizes

Refer to appropriate Alpine gable detail for minimum plate sizes for vertical studs.

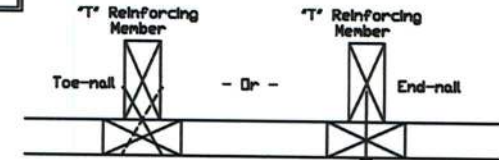
① Refer to Engineered truss design for peak, splice, web, and heel plates.

② If gable vertical plates overlap, use a single plate that covers the total area of the overlapped plates to span the web.

Example:



## "T" Reinforcement Attachment Detail



To convert from "L" to "T" reinforcing members, multiply "T" increase by length (based on appropriate Alpine gable detail).

Maximum allowable "T" reinforced gable vertical length is 14' from top to bottom chord.

"T" reinforcing member material must match size, specie, and grade of the "L" reinforcing member.

Web Length Increase w/ "T" Brace

"T" Reinf. Mbr. Size	"T" Increase
2x4	30 %
2x6	20 %

Example:

ASCE 7-10 Wind Speed = 120 mph

Mean Roof Height = 30 ft, Kzt = 1.00

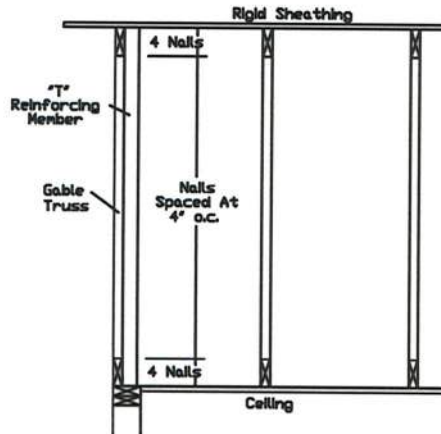
Gable Vertical = 24' o.c. SP #3

"T" Reinforcing Member Size = 2x4

"T" Brace Increase (From Above) = 30% = 1.30

(1) 2x4 "L" Brace Length = 8' 7"

Maximum "T" Reinforced Gable Vertical Length  
1.30 x 8' 7" = 11' 2"



Provide connections for uplift specified on the engineered truss design.

Attach each "T" reinforcing member with

End Driven Nails:

10d Common (0.148"x 3", min) Nails at 4' o.c. plus  
(4) nails in the top and bottom chords.

Toenailed Nails:

10d Common (0.148"x 3", min) Toenails at 4' o.c. plus  
(4) toenails in the top and bottom chords.

This detail to be used with the appropriate Alpine gable detail for ASCE wind load.

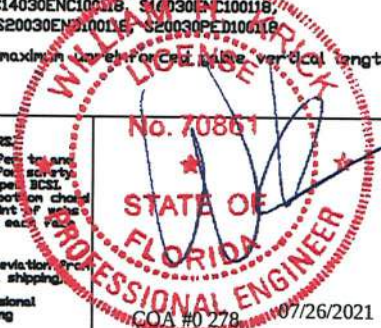
## ASCE 7-05 Gable Detail Drawings

A13015051014, A12015051014, A11015051014, A10015051014, A14015051014,  
A13030051014, A12030051014, A11030051014, A10030051014, A14030051014

## ASCE 7-10 & ASCE 7-16 Gable Detail Drawings

A11515ENC100118, A12015ENC100118, A14015ENC100118, A16015ENC100118,  
A18015ENC100118, A20015ENC100118, A20015END100118, A20015PED100118,  
A11530ENC100118, A12030ENC100118, A14030ENC100118, A16030ENC100118,  
A18030ENC100118, A20030ENC100118, A20030END100118, A20030PED100118,  
S11515ENC100118, S12015ENC100118, S14015ENC100118, S16015ENC100118,  
S18015ENC100118, S20015ENC100118, S20015END100118, S20015PED100118,  
S11530ENC100118, S12030ENC100118, S14030ENC100118, S16030ENC100118,  
S18030ENC100118, S20030ENC100118, S20030END100118, S20030PED100118

See appropriate Alpine gable detail for maximum length for Gable Vertical length.



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Earth City, MO 63045

**IMPORTANT: READ AND FOLLOW ALL NOTES ON THIS DRAWING**  
**IMPORTANT: FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.**

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of ICCI Guiding Component Safety Information, by TPI and SCAI for safety practices prior to performing these functions. Installers shall provide temporary bracing per ICCI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of ends shall have bracing installed per ICCI sections 23, 27 or 33, as applicable. Apply plates to each end of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

For more information see this job's general notes page and these web sites:  
ALPINE: www.alpineitw.com; TPI: www.tpiinc.org; SCAI: www.scaiindustry.org; ICCI: www.iccifa.org

REF LET-IN VERT

DATE 01/02/2018

DRWG GBLLETIN0118

MAX. TOT. LD. 60 PSF

DUR. FAC. ANY

MAX. SPACING 24.0"