

This document has been electronically signed and sealed using a Digital Signature. Printed copies without an original signature must be verified using the original electronic version.



COA #0 278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

Alpine, an ITW Company  
155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025  
Phone: (800)755-6001  
www.alpineitw.com

Site Information:	Page 1:
Customer: W. B. Howland Company, Inc.	Job Number: 22-7417
Job Description: Jim Dahm	
Address:	

Job Engineering Criteria:			
Design Code: FBC 7th Ed. 2020 Res.		IntelliVIEW Version: 21.02.01	
		JRef #: 1XHT2150009	
Wind Standard: ASCE 7-16	Wind Speed (mph): 130	Design Loading (psf): 40.00	
Building Type: Open Clear			

This package contains general notes pages, 16 truss drawing(s) and 5 detail(s).

Item	Drawing Number	Truss
1	216.22.1529.08900	A01
3	216.22.1529.18307	A03
5	216.22.1529.27617	A05
7	216.22.1529.32620	B02
9	216.22.1529.47173	C01
11	216.22.1529.53507	V01
13	216.22.1529.57200	V03
15	216.22.1529.59833	V05
17	A14015ENC160118	
19	BRCLBSUB0119	
21	VALTN160118	

Item	Drawing Number	Truss
2	216.22.1529.10653	A02
4	216.22.1529.24203	A04
6	216.22.1529.31030	B01
8	216.22.1529.44060	B03
10	216.22.1529.50190	C02
12	216.22.1529.55083	V02
14	216.22.1529.58600	V04
16	216.22.1530.02623	V06
18	GBLLETIN0118	
20	VAL180160118	

## **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.

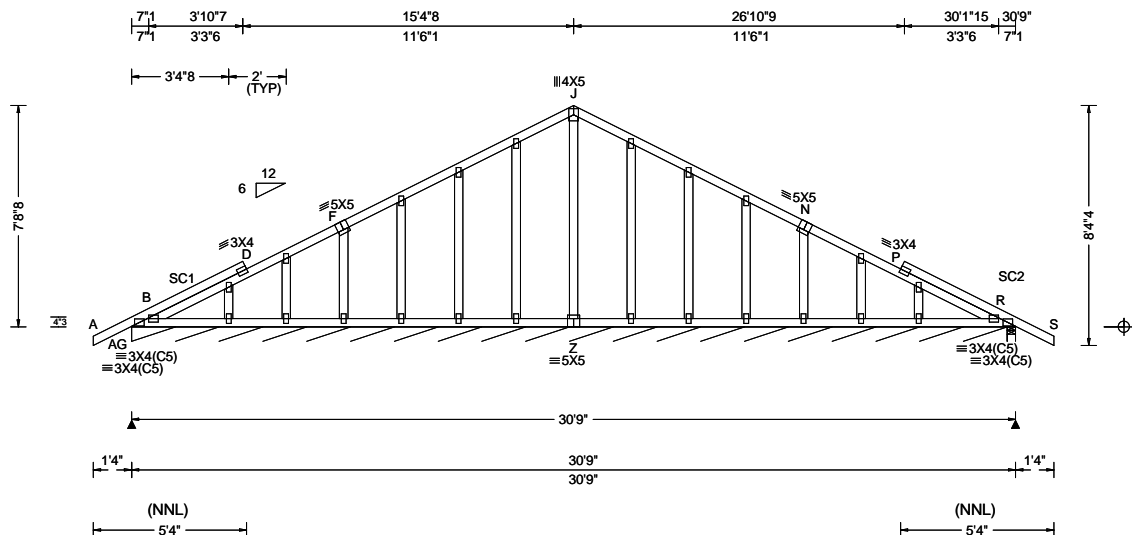
Refer to ASCE-7 for Wind and Seismic abbreviations.

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.: 155 Harlem Ave, North Building, 4th Floor, Glenview, IL 60025; [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.sbcacomponents.com](http://www.sbcacomponents.com).

SEQN: 109258 FROM:	GABL Qty: 1	Ply: 1 Qty: 1	Job Number: 22-7417 Jim Dahm Truss Label: A01	Cust: R 215 JRef: 1XHT2150009 T18 DrwNo: 216.22.1529.08900 KD / DF 08/04/2022
-----------------------	----------------	------------------	---	---



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or * = PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.08 ft Loc. from endwall: Any GCpi: 0.00 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: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.002 P 999 240 VERT(CL): 0.005 P 999 180 HORZ(LL): -0.005 P - - HORZ(TL): 0.007 P - - Creep Factor: 2.0 Max TC CSI: 0.230 Max BC CSI: 0.053 Max Web CSI: 0.114  VIEW Ver: 21.02.01.1216.15	Gravity Loc R+ / R- / Rh / Rw / U / RL AG*80 - / - / /66 /5 /9 R 271 - / - /218 /17 /- Non-Gravity Wind reactions based on MWFRS AG Brg Wid = 365 Min Req = - R Brg Wid = 3.5 Min Req = 1.5 (Truss) Bearings AG & R are a rigid surface. Members not listed have forces less than 375#

#### Lumber

Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;  
Stack Chord: SC1 2x4 SP #2;  
Stack Chord: SC2 2x4 SP #2;

#### Plating Notes

All plates are 2X4 except as noted.

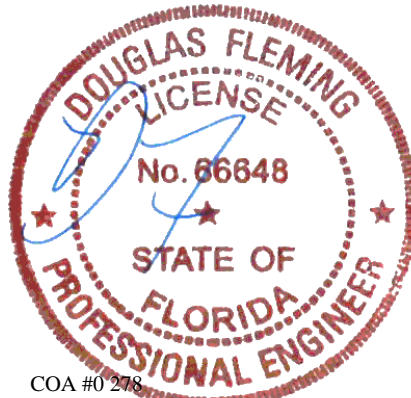
#### Wind

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

#### Additional Notes

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

Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in noticable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in noticable area using 3x6.



COA #0 278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

**\*\*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 SBCA) 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-Z for standard plate positions. Refer to job's General Notes page for additional information.

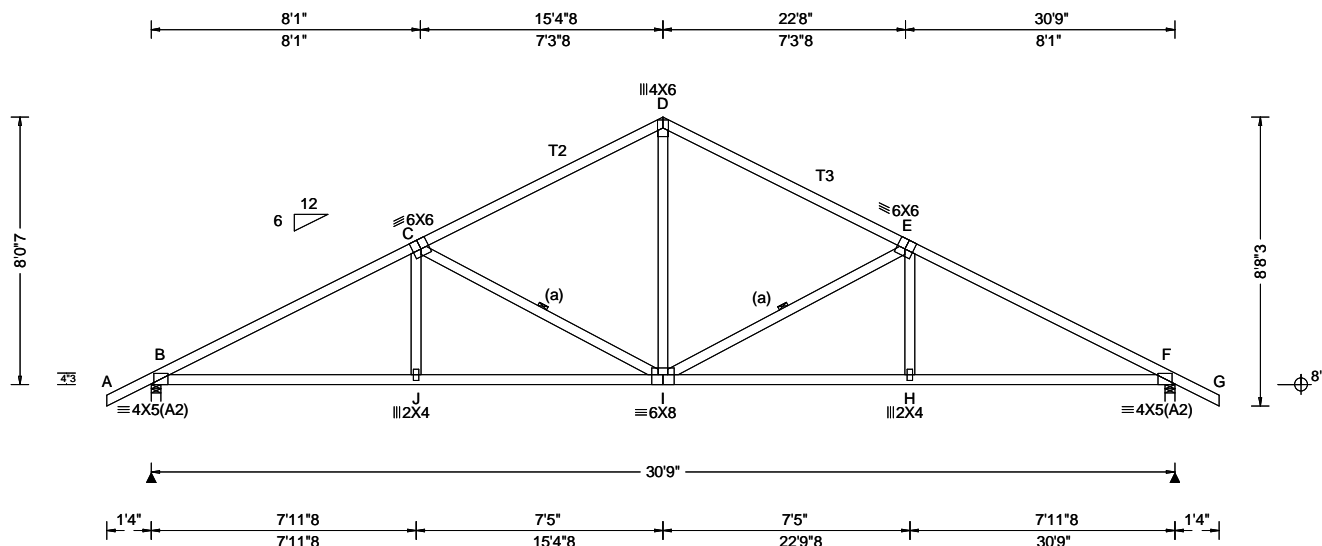
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, 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); SBCA: [sbcacompnents.com](http://sbcacompnents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)



155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 109259 FROM:	COMN Ply: 1 Qty: 14	Job Number: 22-7417 Jim Dahm Truss Label: A02	Cust: R 215 JRef: 1XHT2150009 T10 DrwNo: 216.22.1529.10653 KD / DF 08/04/2022
-----------------------	---------------------------	---	---



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.08 ft Loc. from endwall: Any GCp: 0.00 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: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.091 I 999 240 VERT(CL): 0.184 I 999 180 HORZ(LL): 0.045 F - - HORZ(TL): 0.090 F - - Creep Factor: 2.0 Max TC CSI: 0.597 Max BC CSI: 0.710 Max Web CSI: 0.314 VIEW Ver: 21.02.01.1216.15	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 1345 - / - / - / 1171 / 83 / 265 F 1345 - / - / - / 1171 / 83 / - Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 2.0 (Truss) F Brg Wid = 3.5 Min Req = 2.0 (Truss) Bearings B & F 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. B - C 257 - 2204 D - E 243 - 1554 C - D 243 - 1554 E - F 257 - 2204

#### Lumber

Top chord: 2x4 SP M-31; T2,T3 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

#### Bracing

(a) Continuous lateral restraint equally spaced on member.

#### Wind

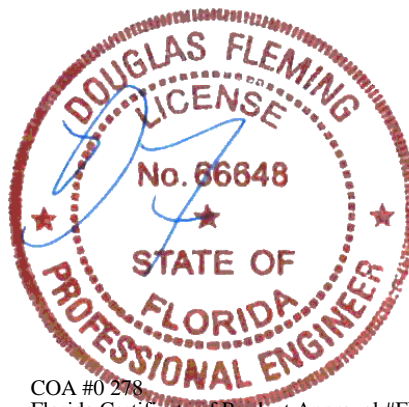
Wind loads based on MWFRS with additional C&C member design.

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

Chords	Tens.Comp.	Chords	Tens. Comp.
B - J	1883 - 132	I - H	1880 - 134
J - I	1880 - 134	H - F	1883 - 132

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

Webs	Tens.Comp.	Webs	Tens. Comp.
C - I	149 - 809	I - E	149 - 812
D - I	918 - 69		



COA #0 278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

**\*\*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 SBCA) 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-Z for standard plate positions. Refer to job's General Notes page for additional information.

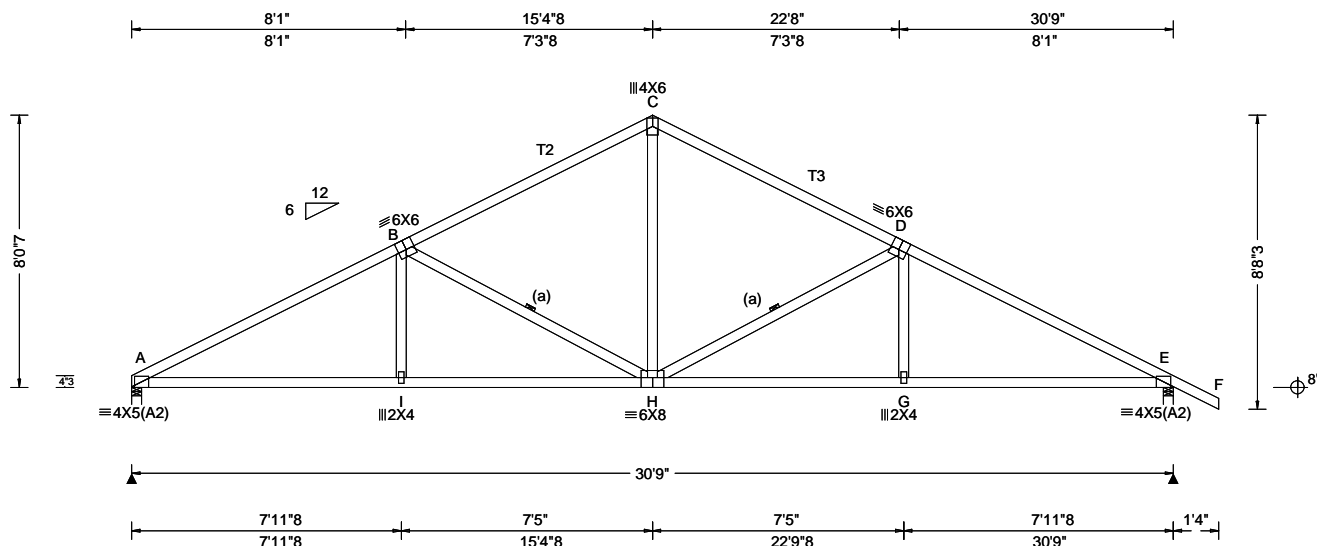
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, 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); SBCA: [sbcacompnents.com](http://sbcacompnents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)



155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 109260 FROM:	COMN Ply: 1 Qty: 5	Job Number: 22-7417 Jim Dahm Truss Label: A03	Cust: R 215 JRef: 1XHT2150009 T6 DrwNo: 216.22.1529.18307 KD / DF 08/04/2022
-----------------------	--------------------------	---	--



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.08 ft Loc. from endwall: not in 9.00 ft GCp: 0.00 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: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.090 H 999 240 VERT(CL): 0.183 H 999 180 HORZ(LL): 0.044 E - - HORZ(TL): 0.090 E - - Creep Factor: 2.0 Max TC CSI: 0.612 Max BC CSI: 0.719 Max Web CSI: 0.316 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL A 1260 - / - / /1087 - / /269 E 1348 - / - / /1172 - / - Wind reactions based on MWFRS A Brg Wid = 3.5 Min Req = 1.9 (Truss) E Brg Wid = 3.5 Min Req = 2.0 (Truss) Bearings A & E 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. A - B 263 -2219 C - D 245 -1559 B - C 245 -1559 D - E 259 -2209

#### Lumber

Top chord: 2x4 SP M-31; T2, T3 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

#### Bracing

(a) Continuous lateral restraint equally spaced on member.

#### Wind

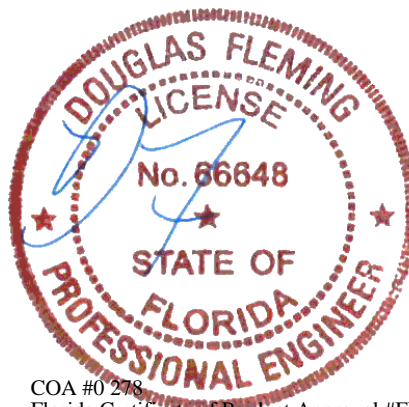
Wind loads based on MWFRS with additional C&C member design.

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

Chords	Tens.Comp.	Chords	Tens. Comp.
A - I	1900 -138	H - G	1885 -135
I - H	1897 -140	G - E	1888 -134

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

Webs	Tens.Comp.	Webs	Tens. Comp.
B - H	154 -824	H - D	149 -812
C - H	924 -71		



COA #0 278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

**\*\*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 SBCA) 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-Z for standard plate positions. Refer to job's General Notes page for additional information.

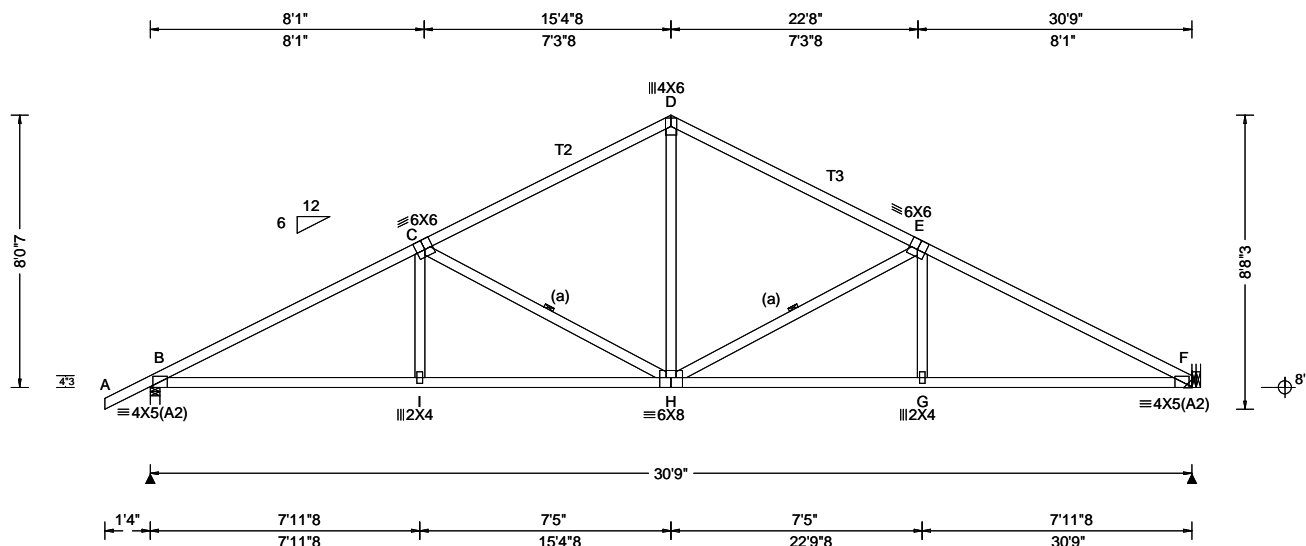
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, 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); SBCA: [sbcacomponents.com](http://sbcacomponents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)



155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 109261 FROM:	COMN Ply: 1 Qty: 8	Job Number: 22-7417 Jim Dahm Truss Label: A04	Cust: R 215 JRRef: 1XHT2150009 T4 DrwNo: 216.22.1529.24203 KD / DF 08/04/2022
-----------------------	--------------------------	---	---



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.08 ft Loc. from endwall: Any GCp: 0.00 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: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.090 H 999 240 VERT(CL): 0.184 H 999 180 HORZ(LL): 0.045 F - - HORZ(TL): 0.091 F - - Creep Factor: 2.0 Max TC CSI: 0.617 Max BC CSI: 0.727 Max Web CSI: 0.317 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 1348 -/- /- /1172 /84 /269 F 1259 -/- /- /1086 /64 -/ Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 2.0 (Truss) F Brg Wid = - Min Req = - Bearing B 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. B - C 259 -2211 D - E 245 -1561 C - D 245 -1560 E - F 263 -2226

#### Lumber

Top chord: 2x4 SP M-31; T2,T3 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

#### Bracing

(a) Continuous lateral restraint equally spaced on member.

#### Hangers / Ties

Simpson Construction Hardware is specified based on the most current information provided by Simpson Strong-Tie. Please refer to the most recent Simpson Strong-Tie catalog for additional information.

Recommended hanger connections are based on manufacturer tested capacities and calculations. Conditions may exist that require different connections than indicated. Refer to manufacturer publication for additional information.

Hanger specified assumes connection to supporting chord is located a minimum of five times the depth of the supporting chord from any unsupported end, unless unsupported chord end has 85% plating coverage.

Bearing at location x=30'6" uses the following support conditions: 30'6"

Bearing F (30'6", 8') HUS26

Supporting Member: (2)2x6 SP 2400f-2.0E

(14) 0.148"x3" nails into supporting

member,

(4) 0.148"x3" nails into supported

member.

#### Wind

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

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

Chords Tens.Comp. Chords Tens. Comp.

B - I 1890 -154 H - G 1903 -160

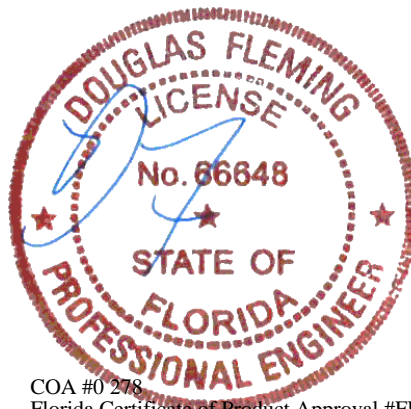
I - H 1886 -155 G - F 1906 -159

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

Webs Tens.Comp. Webs Tens. Comp.

C - H 149 -809 H - E 154 -831

D - H 926 -71



COA #0 278

Florida Certificate of Product Approval #FL1999

08/04/2022

**\*\*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 SBCA) 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-Z 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.

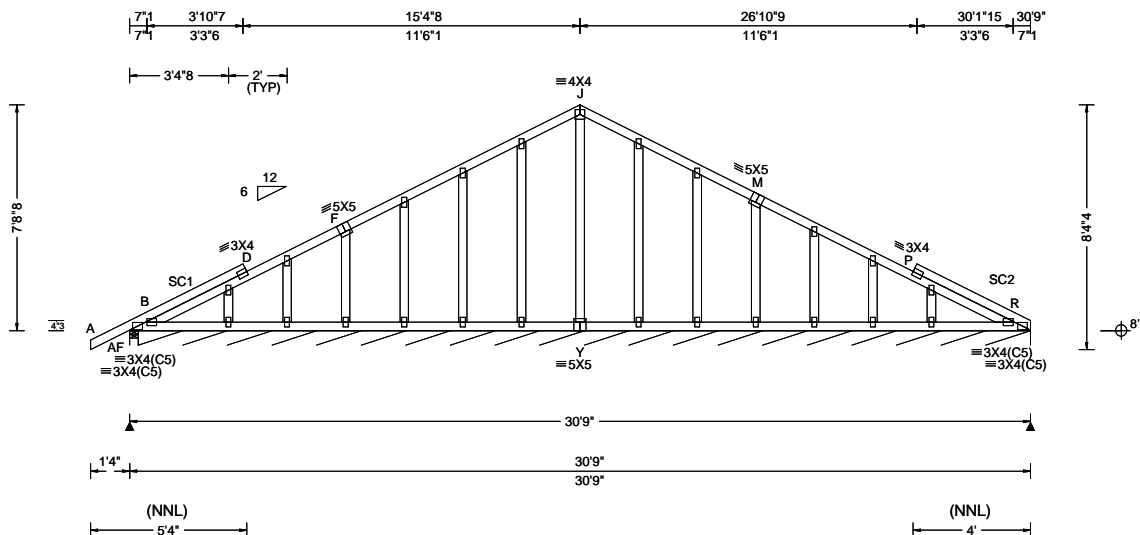
For more information see these web sites: Alpine: [alpineitw.com](http://alpineitw.com); TPI: [tpinst.org](http://tpinst.org); SBCA: [sbcacomponents.com](http://sbcacomponents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)



155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025



SEQN: 109262 FROM:	GABL Ply: 1 Qty: 1	Job Number: 22-7417 Jim Dahm Truss Label: A05	Cust: R 215 JRef: 1XHT2150009 T9 DrwNo: 216.22.1529.27617 KD / DF 08/04/2022
-----------------------	--------------------------	---	--



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.08 ft Loc. from endwall: Any GCpi: 0.00 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: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.005 P 999 240 VERT(CL): 0.011 P 999 180 HORZ(LL): -0.010 P - - HORZ(TL): 0.013 P - - Creep Factor: 2.0 Max TC CSI: 0.398 Max BC CSI: 0.054 Max Web CSI: 0.153  VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL AF 271 -/- /214 /34 /401 R* 77 -/- /77 /7 -/ Wind reactions based on MWFRS AF Brg Wid = 3.5 Min Req = 1.5 (Truss) R Brg Wid = 365 Min Req = - Bearings AF & AF are a rigid surface. Members not listed have forces less than 375#

#### Lumber

Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;  
Stack Chord: SC1 2x4 SP #2;  
Stack Chord: SC2 2x4 SP #2;

#### Plating Notes

All plates are 2X4 except as noted.

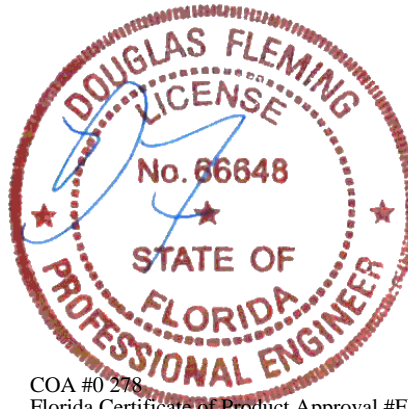
#### Wind

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

#### Additional Notes

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

Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in noticable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in noticable area using 3x6.



COA #0 278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

**\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS DRAWING!**  
**\*\*IMPORTANT\*\* FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS**

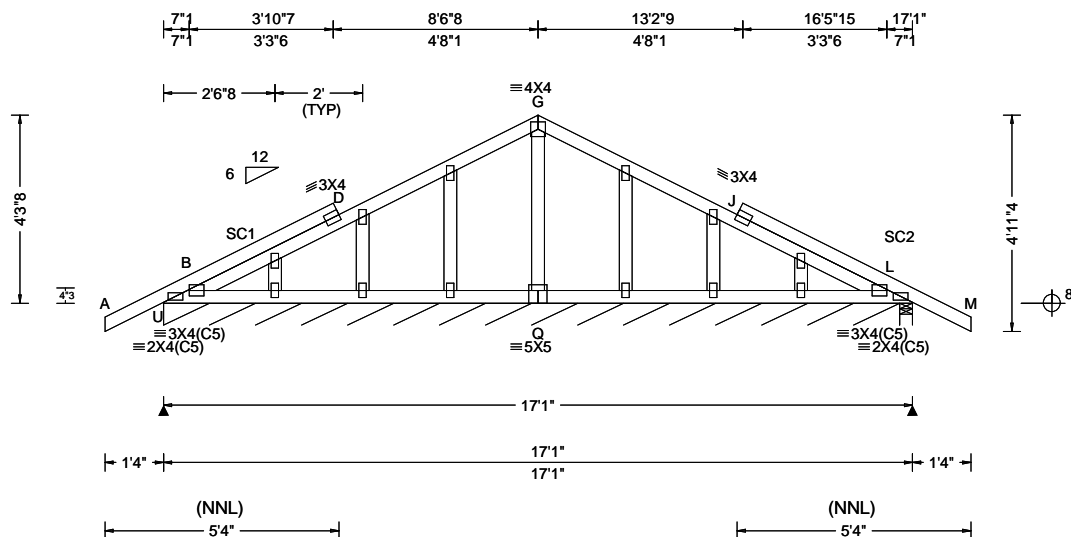
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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-Z 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); SBCA: [sbcacomponents.com](http://sbcacomponents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)

**ALPINE**  
AN ITW COMPANY  
155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 109263 FROM:	GABL Ply: 1 Qty: 1	Job Number: 22-7417 Jim Dahm Truss Label: B01	Cust: R 215 JRef: 1XHT2150009 T5 DrwNo: 216.22.1529.31030 KD / DF 08/04/2022
-----------------------	--------------------------	---	--



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.00 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: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.001 J 999 240 VERT(CL): 0.002 J 999 180 HORZ(LL): -0.002 J - - HORZ(TL): 0.003 J - - Creep Factor: 2.0 Max TC CSI: 0.231 Max BC CSI: 0.033 Max Web CSI: 0.036 VIEW Ver: 21.02.01.1216.15	Gravity Loc R+ / R- / Rh / Rw / U / RL U* 78 /- /- /64 /4 /9 L 263 /- /- /238 /36 /- Non-Gravity Wind reactions based on MWFRS U Brg Wid = 201 Min Req = - L Brg Wid = 3.5 Min Req = 1.5 (Truss) Bearings U & L are a rigid surface. Members not listed have forces less than 375#

#### Lumber

Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;  
Stack Chord: SC1 2x4 SP #2;  
Stack Chord: SC2 2x4 SP #2;

#### Plating Notes

All plates are 2X4 except as noted.

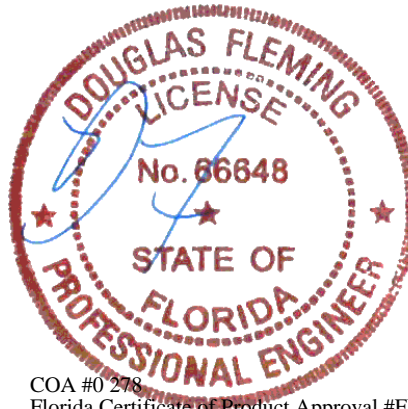
#### Wind

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

#### Additional Notes

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

Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in notchable area using 3x6.



COA #0 278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

**\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS DRAWING!**  
**\*\*IMPORTANT\*\* FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS**

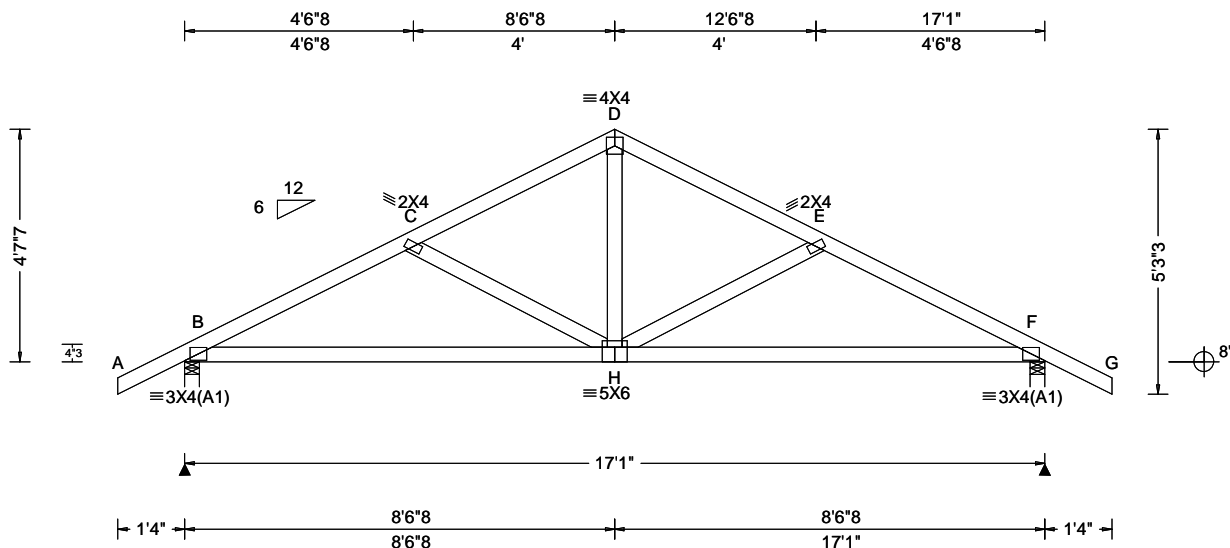
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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-Z 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); SBCA: [sbcacomponents.com](http://sbcacomponents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)

**ALPINE**  
AN ITW COMPANY  
155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 109264 FROM:	COMN Ply: 1 Qty: 4	Job Number: 22-7417 Jim Dahm Truss Label: B02	Cust: R 215 JRef: 1XHT2150009 T8 DrwNo: 216.22.1529.32620 KD / DF 08/04/2022
-----------------------	--------------------------	---	--



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.00 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: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.029 H 999 240 VERT(CL): 0.057 H 999 180 HORZ(LL): 0.012 F - - HORZ(TL): 0.025 F - - Creep Factor: 2.0 Max TC CSI: 0.202 Max BC CSI: 0.653 Max Web CSI: 0.188 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 787 -/- /- /687 /54 /156 F 787 -/- /- /687 /54 -/ Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 1.5 (Truss) F Brg Wid = 3.5 Min Req = 1.5 (Truss) Bearings B & F 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. B - C 155 - 1115 D - E 115 - 860 C - D 115 - 860 E - F 155 - 1115

#### Lumber

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

#### Wind

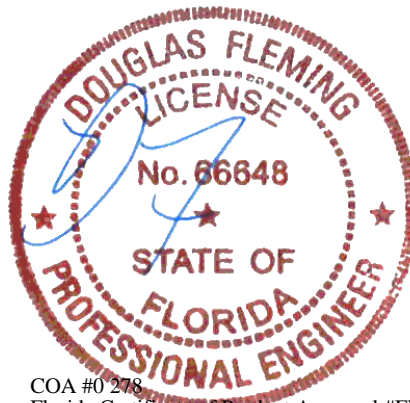
Wind loads based on MWFRS with additional C&C member design.

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

Chords	Tens.Comp.	Chords	Tens. Comp.
B - H	951 - 71	H - F	951 - 71

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

Webs	Tens.Comp.
D - H	506 - 15



COA #0 278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

**\*\*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 SBCA) 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-Z for standard plate positions. Refer to job's General Notes page for additional information.

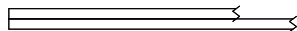
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, 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); SBCA: [sbcacomponents.com](http://sbcacomponents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)

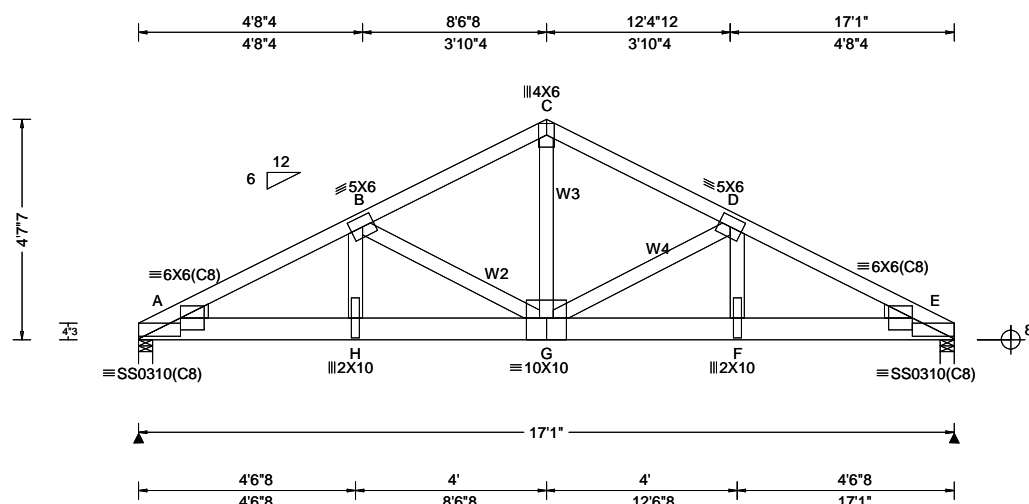


155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 109273 FROM:	COMN Ply: 2 Qty: 1	Job Number: 22-7417 Jim Dahm Truss Label: B03	Cust: R 215 JRRef: 1XHT2150009 T7 DrwNo: 216.22.1529.44060 KD / DF 08/04/2022
-----------------------	--------------------------	---	---



2 Complete Trusses Required



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 0.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: not in 9.00 ft GCp: 0.00 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): 18SS, WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.089 G 999 240 VERT(CL): 0.175 G 999 180 HORZ(LL): 0.028 E - - HORZ(TL): 0.055 E - - Creep Factor: 2.0 Max TC CSI: 0.299 Max BC CSI: 0.511 Max Web CSI: 0.530 VIEW Ver: 21.02.01.1216.15	Gravity Loc R+ / R- / Rh / Rw / U / RL A 5902 -/- /- /- /347 -/ E 5408 -/- /- /- /322 -/ Wind reactions based on MWFRS A Brg Wid = 3.5 Min Req = 3.1 (Truss) E Brg Wid = 3.5 Min Req = 2.9 (Truss) Bearings A & E 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. A - B 295 -4974 C - D 206 -3435 B - C 206 -3436 D - E 295 -4965

#### Lumber

Top chord: 2x4 SP M-31;  
Bot chord: 2x6 SP 2400f-2.0E;  
Webs: 2x4 SP #2; W2,W4 2x4 SP #3;  
W3 2x4 SP M-31;  
Lt Wedge: 2x4 SP #3;Rt Wedge: 2x4 SP #3;

#### Nailnote

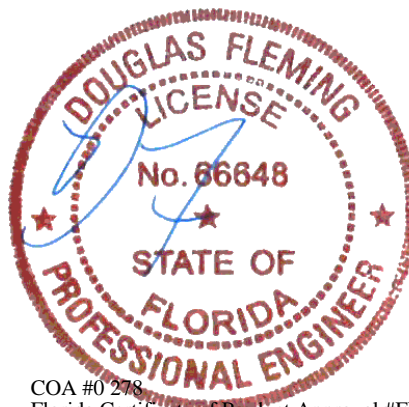
Nail Schedule:0.131"x3", min. nails  
Top Chord: 1 Row @12.00" o.c.  
Bot Chord: 2 Rows @ 5.50" o.c. (Each Row)  
Webs : 1 Row @ 4" o.c.  
Use equal spacing between rows and stagger nails  
in each row to avoid splitting.

#### Special Loads

----- (Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)  
TC: From 62 plf at 0.00 to 62 plf at 17.08  
BC: From 10 plf at 0.00 to 10 plf at 17.08  
BC: 1259 lb Conc. Load at 1.15, 3.15, 5.15, 7.15  
9.15,11.15,13.15,15.02

#### Wind

Wind loads and reactions based on MWFRS.



COA #0 278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

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

Chords	Tens.Comp.	Chords	Tens. Comp.
A - H	4437 -260	G - F	4378 -257
H - G	4389 -258	F - E	4425 -259

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

Webs	Tens.Comp.	Webs	Tens. Comp.
H - B	1327 -56	G - D	91 -1531
B - G	92 -1544	D - F	1326 -56
C - G	2906 -150		

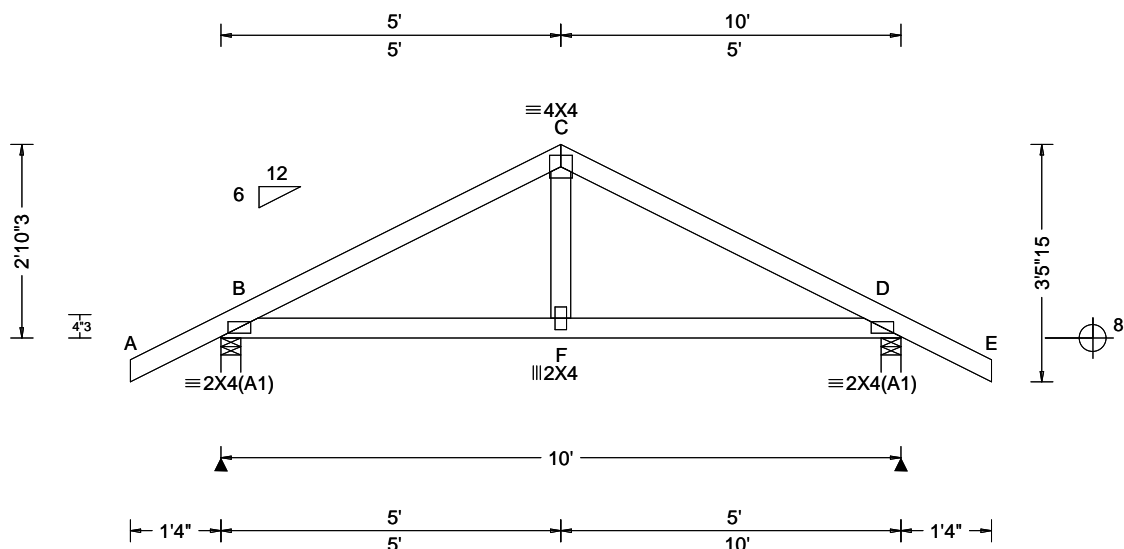
**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS DRAWING!  
**\*\*IMPORTANT\*\*** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS  
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) 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-Z 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); SBCA: [sbcacomponents.com](http://sbcacomponents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)

**ALPINE**  
AN ITW COMPANY  
155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or * =PLF
TCLL: 20.00	Wind Std: ASCE 7-16	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#	Gravity Non-Gravity
TCDL: 10.00	Speed: 130 mph	Pf: NA Ce: NA	VERT(LL): 0.003 F 999 240	Loc R+ / R- / Rh / Rw / U / RL
BCLL: 0.00	Enclosure: Open Clear	Lu: NA Cs: NA	VERT(CL): 0.007 F 999 180	M 255 /- /- /160 /52 /94
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): -0.002 F - -	H* 76 /- /- /39 /6 /-
Des Ld: 40.00	EXP: C Kzt: NA		HORZ(TL): 0.003 F - -	Wind reactions based on MWFRS
NCBCLL: 10.00	Mean Height: 15.00 ft	Building Code:	Creep Factor: 2.0	M Brg Wid = 3.5 Min Req = 1.5 (Truss)
Soffit: 0.00	TCDL: 5.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.265	H Brg Wid = 116 Min Req = -
Load Duration: 1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.041	Bearings M & M are a rigid surface.
Spacing: 24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: Yes	Max Web CSI: 0.036	Members not listed have forces less than 375#
	C&C Dist a: 3.00 ft	FT/RT:(20(0)/10(0)		
	Loc. from endwall: Any	Plate Type(s):		
	GCpi: 0.00			
	Wind Duration: 1.60	WAVE	VIEW Ver: 21.02.01.1216.15	

155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 109266 FROM:	COMN Ply: 1 Qty: 2	Job Number: 22-7417 Jim Dahm Truss Label: C02	Cust: R 215 JRef: 1XHT2150009 T12 DrwNo: 216.22.1529.50190 KD / DF 08/04/2022
-----------------------	--------------------------	---	---



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.00 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: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.007 F 999 240 VERT(CL): 0.013 F 999 180 HORZ(LL): 0.003 D - - HORZ(TL): 0.006 D - - Creep Factor: 2.0 Max TC CSI: 0.205 Max BC CSI: 0.245 Max Web CSI: 0.081 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 495 -/- /- /283 /59 /97 D 495 -/- /- /283 /59 /- Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 1.5 (Truss) D Brg Wid = 3.5 Min Req = 1.5 (Truss) Bearings B & D 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. B - C 316 -523 C - D 316 -523

#### Lumber

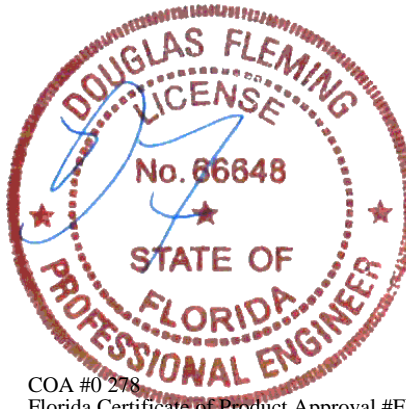
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

#### Wind

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

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

Chords	Tens.Comp.	Chords	Tens. Comp.
B - F	415 -121	F - D	415 -121



COA #0 278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

#### \*\*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 SBCA) 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-Z for standard plate positions. Refer to job's General Notes page for additional information.

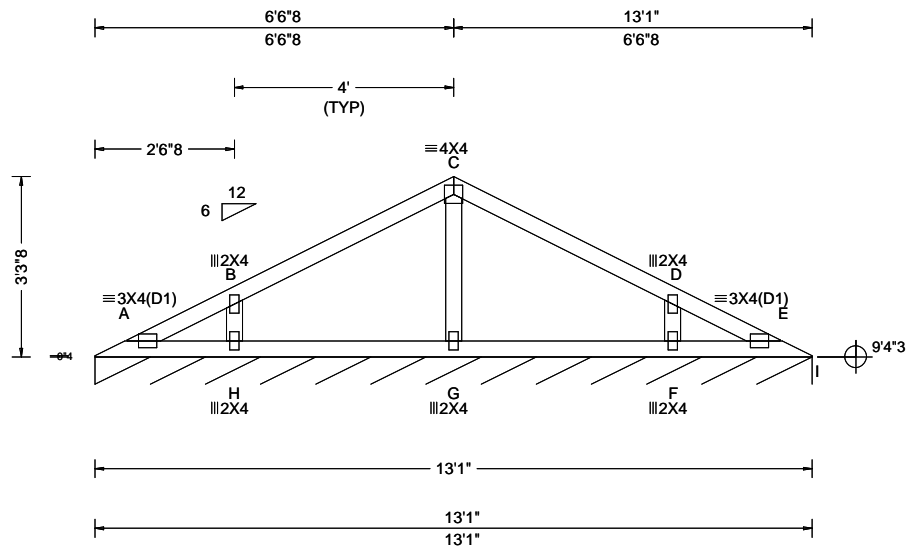
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, 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; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org

**ALPINE**  
AN ITW COMPANY  
155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025



SEQN: 109267 FROM:	VAL	Ply: 1 Qty: 1	Job Number: 22-7417 Jim Dahm Truss Label: V01	Cust: R 215 JRef: 1XHT2150009 T21 DrwNo: 216.22.1529.53507 KD / DF 08/04/2022
-----------------------	-----	------------------	---	---



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: not in 9.00 ft GCpi: 0.00 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: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.000 C 999 240 VERT(CL): 0.001 C 999 180 HORZ(LL): -0.000 B - - HORZ(TL): 0.001 B - - Creep Factor: 2.0 Max TC CSI: 0.200 Max BC CSI: 0.114 Max Web CSI: 0.067 VIEW Ver: 21.02.01.1216.15	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity Loc R+ / R- / Rh / Rw / U / RL I* 82 /- /- /35 /5 /6 Wind reactions based on MWFRS I Brg Wid = 156 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375#

#### Lumber

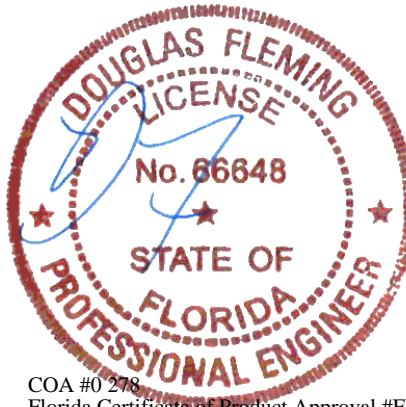
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

#### Wind

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

#### Additional Notes

See DWGS VALTN160118 and VAL180160118 for valley details.



COA #0 278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

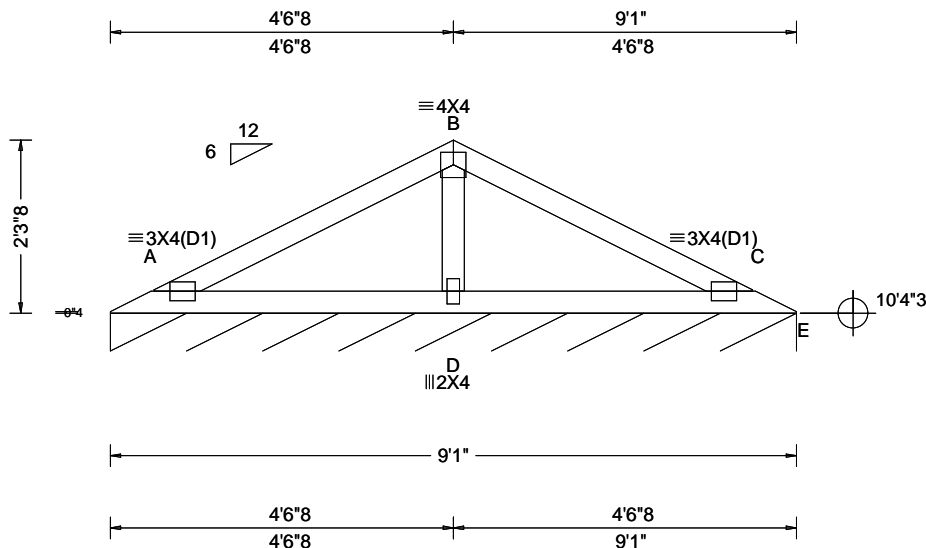
#### \*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS DRAWING!

**\*\*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 SBCA) 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-Z 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); SBCA: [sbcacomponents.com](http://sbcacomponents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)

**ALPINE**  
AN ITW COMPANY  
155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 109268 FROM:	VAL Qty: 1	Ply: 1 Job Number: 22-7417 Jim Dahm Truss Label: V02	Cust: R 215 JRef: 1XHT2150009 T20 DrwNo: 216.22.1529.55083 KD / DF 08/04/2022
-----------------------	---------------	---	---



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: not in 9.00 ft GCpi: 0.00 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: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.011 A 999 240 VERT(CL): 0.022 A 999 180 HORZ(LL): -0.004 C - - HORZ(TL): 0.009 C - - Creep Factor: 2.0 Max TC CSI: 0.257 Max BC CSI: 0.226 Max Web CSI: 0.086 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL E* 82 /- /- /34 /5 /5 Wind reactions based on MWFRS E Brg Wid = 108 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375# <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. B - D 290 -434

#### Lumber

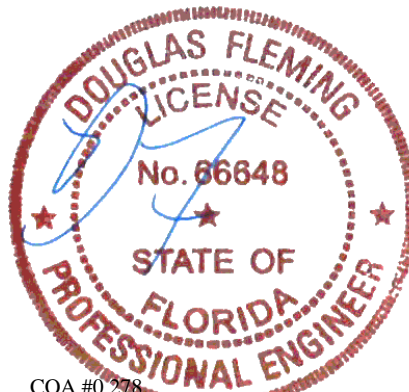
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

#### Wind

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

#### Additional Notes

See DWGS VALTN160118 and VAL180160118 for valley details.



COA #0278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

#### \*\*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 SBCA) 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-Z 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.

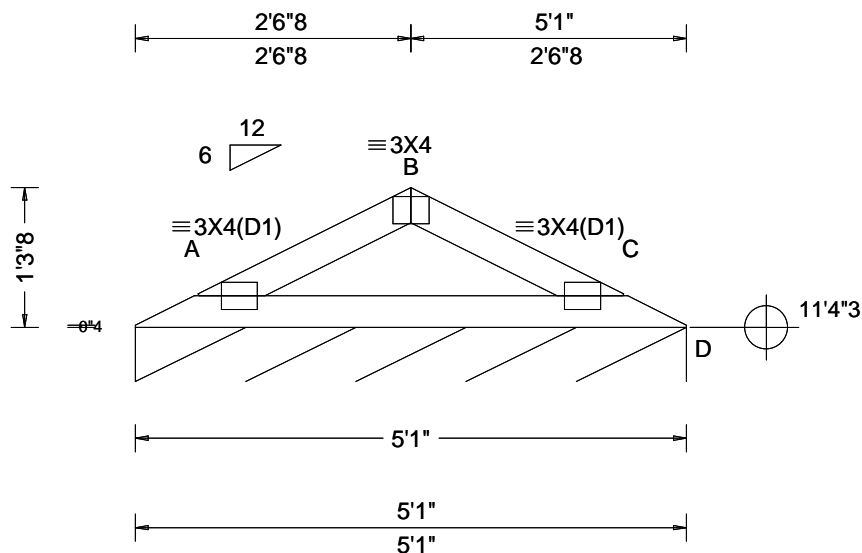
For more information see these web sites: Alpine: [alpineitw.com](http://alpineitw.com); TPI: [tpinst.org](http://tpinst.org); SBCA: [sbccomponents.com](http://sbccomponents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)



155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025



SEQN: 109269 FROM:	VAL	Ply: 1 Qty: 1	Job Number: 22-7417 Jim Dahm Truss Label: V03	Cust: R 215 JRef: 1XHT2150009 T14 DrwNo: 216.22.1529.57200 KD / DF 08/04/2022
-----------------------	-----	------------------	---	---



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h to 2h C&C Dist a: 3.00 ft Loc. from endwall: not in 9.00 ft GCp: 0.00 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: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.008 A 999 240 VERT(CL): 0.015 A 999 180 HORZ(LL): -0.003 A - - HORZ(TL): 0.005 A - - Creep Factor: 2.0 Max TC CSI: 0.126 Max BC CSI: 0.154 Max Web CSI: 0.000 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL D* 82 /- /- /33 /- /5 Wind reactions based on MWFRS D Brg Wid = 61.0 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375#

#### Lumber

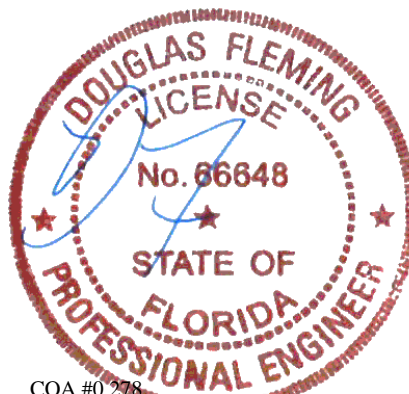
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;

#### Wind

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

#### Additional Notes

See DWGS VALTN160118 and VAL180160118 for valley details.



COA #0278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

**\*\*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 SBCA) 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-Z for standard plate positions. Refer to job's General Notes page for additional information.

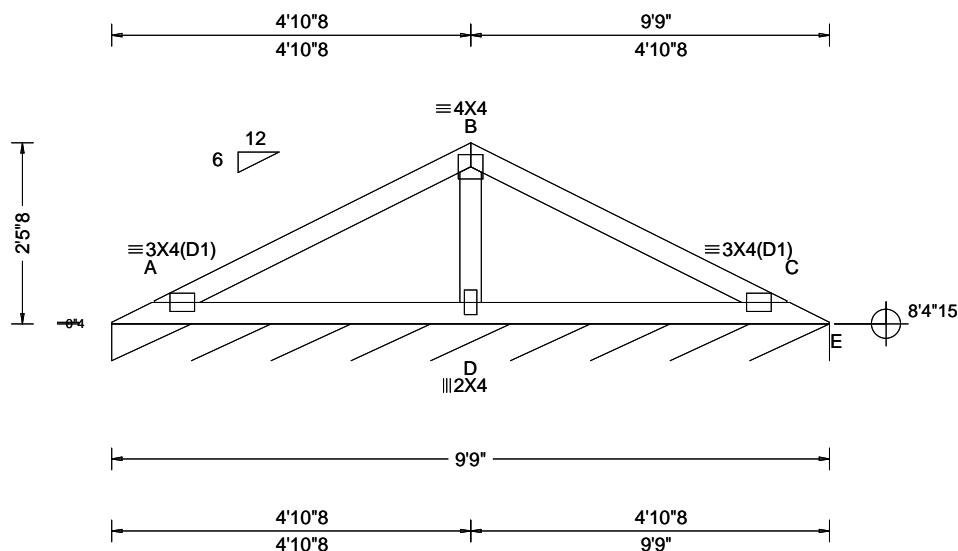
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, 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); SBCA: [sbcacomponents.com](http://sbcacomponents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)



155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 109270 FROM:	VAL Qty: 1	Ply: 1 Qty: 1	Job Number: 22-7417 Jim Dahm Truss Label: V04	Cust: R 215 JRef: 1XHT2150009 T15 DrwNo: 216.22.1529.58600 KD / DF 08/04/2022
-----------------------	---------------	------------------	---	---



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: not in 4.50 ft GCp: 0.00 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: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.013 C 999 240 VERT(CL): 0.027 C 999 180 HORZ(LL): -0.005 C - - HORZ(TL): 0.011 C - - Creep Factor: 2.0 Max TC CSI: 0.304 Max BC CSI: 0.265 Max Web CSI: 0.097 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL E* 82 /- /- /34 /5 /5 Wind reactions based on MWFRS E Brg Wid = 117 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375# <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. B - D 312 -488

#### Lumber

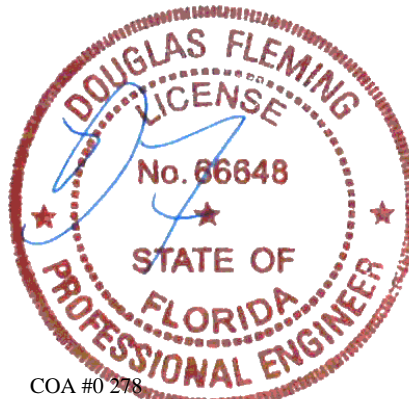
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

#### Wind

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

#### Additional Notes

See DWGS VALTN160118 and VAL180160118 for valley details.



COA #0 278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

#### **\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS DRAWING!** **\*\*IMPORTANT\*\* FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS**

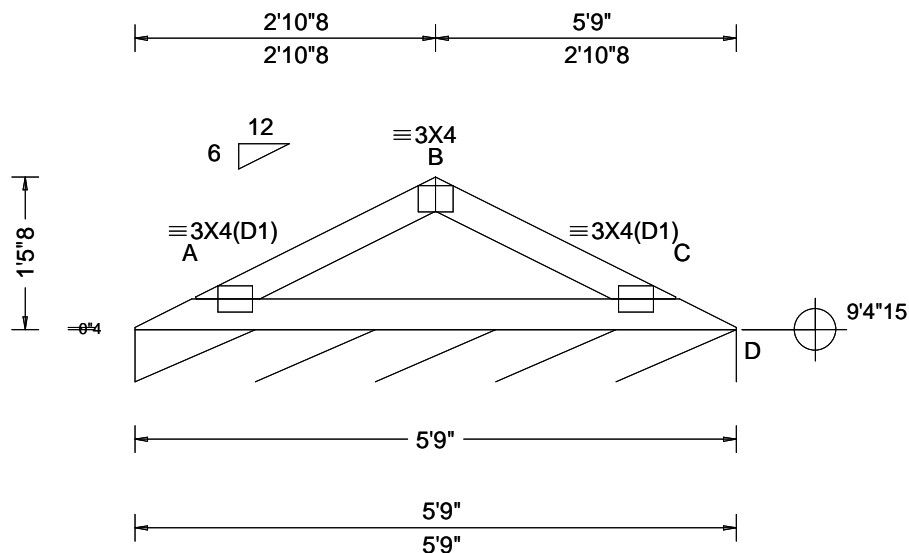
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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-Z 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); SBCA: [sbcacompoments.com](http://sbcacompoments.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)

**ALPINE**  
AN ITW COMPANY  
155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 109271 FROM:	VAL Ply: 1 Qty: 1	Job Number: 22-7417 Jim Dahm Truss Label: V05	Cust: R 215 JRef: 1XHT2150009 T16 DrwNo: 216.22.1529.59833 KD / DF 08/04/2022
-----------------------	-------------------------	---	---



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or * = PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: not in 9.00 ft GCpi: 0.00 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: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.011 A 999 240 VERT(CL): 0.020 A 999 180 HORZ(LL): -0.004 C - - HORZ(TL): 0.008 C - - Creep Factor: 2.0 Max TC CSI: 0.160 Max BC CSI: 0.190 Max Web CSI: 0.000 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL D* 82 /- /- /33 /3 /5 Wind reactions based on MWFRS D Brg Wid = 69.0 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375#

#### Lumber

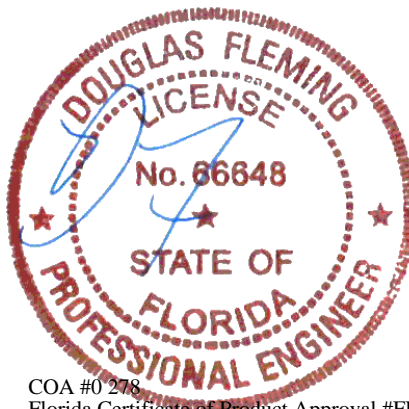
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;

#### Wind

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

#### Additional Notes

See DWGS VALTN160118 and VAL180160118 for valley details.



COA #0 278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

**\*\*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 SBCA) 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-Z for standard plate positions. Refer to job's General Notes page for additional information.

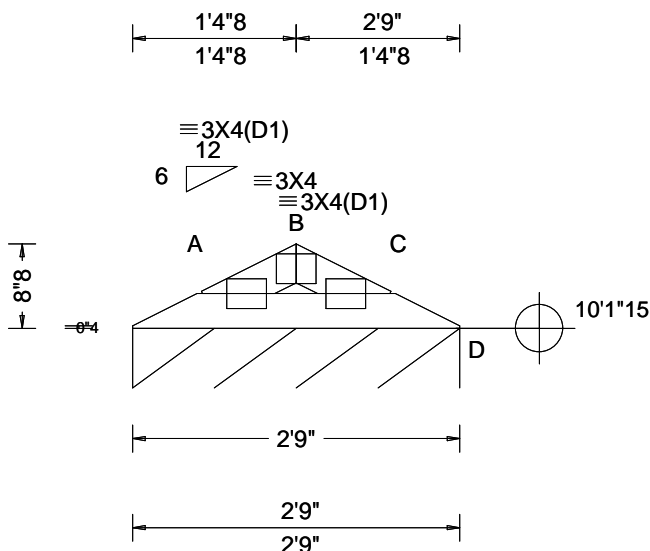
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, 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); SBCA: [sbcacomponents.com](http://sbcacomponents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)



155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 109272 FROM:	VAL Ply: 1 Qty: 1	Job Number: 22-7417 Jim Dahm Truss Label: V06	Cust: R 215 JRef: 1XHT2150009 T1 DrwNo: 216.22.1530.02623 KD / DF 08/04/2022
-----------------------	-------------------------	---	--



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Open Clear Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: not in 9.00 ft GCpi: 0.00 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: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.001 A 999 240 VERT(CL): 0.003 A 999 180 HORZ(LL): -0.001 A - - HORZ(TL): 0.001 A - - Creep Factor: 2.0 Max TC CSI: 0.030 Max BC CSI: 0.052 Max Web CSI: 0.000 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL D* 81 /- /- /30 /- /3 Wind reactions based on MWFRS D Brg Wid = 33.0 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375#

#### Lumber

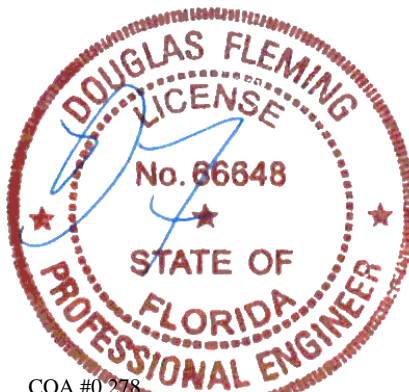
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;

#### Wind

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

#### Additional Notes

See DWGS VALTN160118 and VAL180160118 for valley details.



COA #0 278  
Florida Certificate of Product Approval #FL1999  
08/04/2022

#### \*\*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 SBCA) 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-Z 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); SBCA: [sbcacomponents.com](http://sbcacomponents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)

**ALPINE**  
AN ITW COMPANY  
155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

# 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 Grade	No Braces	(1) 1x4 'L' Brace *		(1) 2x4 'L' Brace *		(2) 2x4 'L' Brace **		(1) 2x6 'L' Brace *		(2) 2x6 'L' Brace **	
	Spacing	Species			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	#1	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	#1	4' 6"	5' 8"	6' 0"	7' 7"	8' 1"	10' 1"	10' 6"	11' 10"	12' 8"	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"
			#3	4' 2"	6' 0"	6' 4"	7' 11"	8' 6"	10' 2"	10' 7"	12' 5"	13' 4"	14' 0"	14' 0"
	SP DFL	Stud	#1	4' 2"	6' 0"	6' 4"	7' 11"	8' 6"	10' 2"	10' 7"	12' 5"	13' 4"	14' 0"	14' 0"
			#2	4' 0"	5' 3"	5' 7"	7' 0"	7' 6"	10' 2"	10' 7"	11' 10"	14' 0"	14' 0"	14' 0"
			Standard	4' 0"	5' 3"	5' 7"	7' 0"	7' 6"	10' 2"	10' 7"	11' 10"	14' 0"	14' 0"	14' 0"
		#1 / #2	#1	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	#1	4' 8"	6' 11"	7' 5"	9' 3"	9' 11"	12' 1"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
			#2	4' 8"	6' 11"	7' 5"	9' 3"	9' 11"	12' 1"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
			Stud	4' 8"	6' 11"	7' 5"	9' 3"	9' 11"	12' 1"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
	SP DFL	#1	#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"
			#3	4' 9"	7' 4"	7' 9"	9' 9"	10' 3"	11' 8"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
12" O.C.	SPF	Stud	#1	4' 9"	7' 4"	7' 9"	9' 9"	10' 2"	11' 8"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
			#2	4' 8"	6' 5"	6' 10"	8' 7"	9' 2"	11' 7"	12' 1"	13' 6"	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"
	SP DFL	#1 / #2	#1	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"
	SP	#1	#1	5' 1"	8' 0"	8' 6"	10' 8"	11' 1"	12' 9"	13' 3"	14' 0"	14' 0"	14' 0"	14' 0"
			#2	5' 1"	8' 0"	8' 6"	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	#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"
			#3	5' 3"	8' 5"	9' 0"	10' 9"	11' 2"	12' 10"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"
	SP DFL	Stud	#1	5' 3"	8' 5"	9' 0"	10' 9"	11' 2"	12' 10"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"
			#2	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

Group B:			
Hem-Fir			
#1 & Btr	#1		
Douglas Fir-Larch		Southern Pine***	
#1	#2	#1	#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 55 plf over continuous bearing (5 psf TC Dead Load).

Gable end supports load from 4' 0" outlookers 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"	1X4 or 2X3
Greater than 4' 0"	3X4

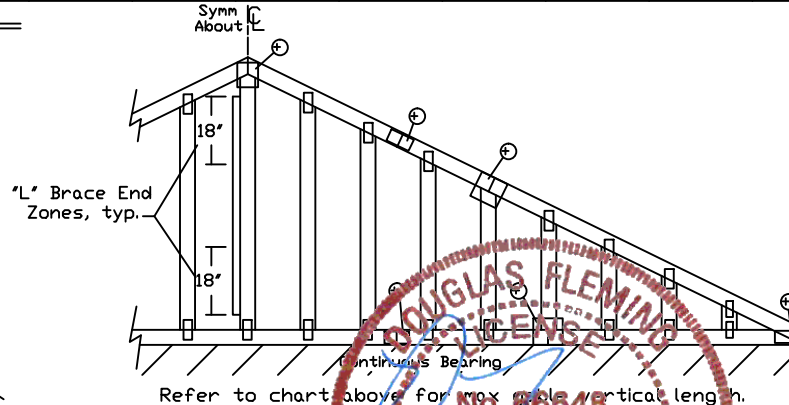
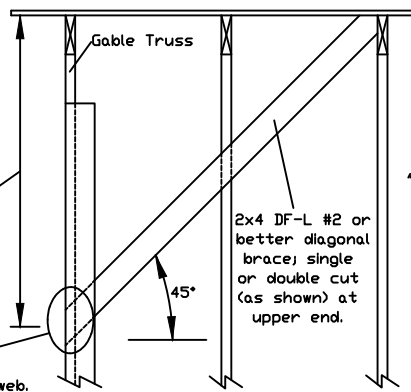
+ Refer to common truss design for peak, splice, and heel plates.

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

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.



Refer to chart above for max gable vertical length.

\*\*\*WARNING\*\*\* READ AND FOLLOW ALL NOTES ON THIS DRAWING  
\*\*\*IMPORTANT\*\*\* FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLER

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) 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 trusses 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-Z for standard plate positions.

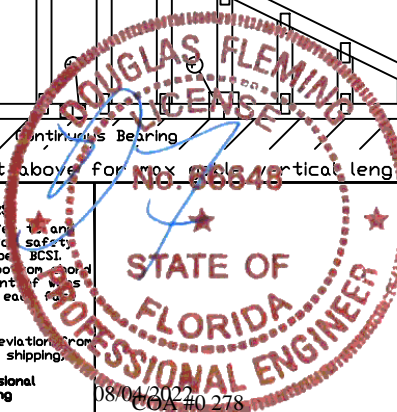
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

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.tpinst.org; SBCA: www.sbcacomponents.com; ICC: www.iccsafe.org



155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025



REF ASCE7-16-GAB14015

DATE 01/26/2018

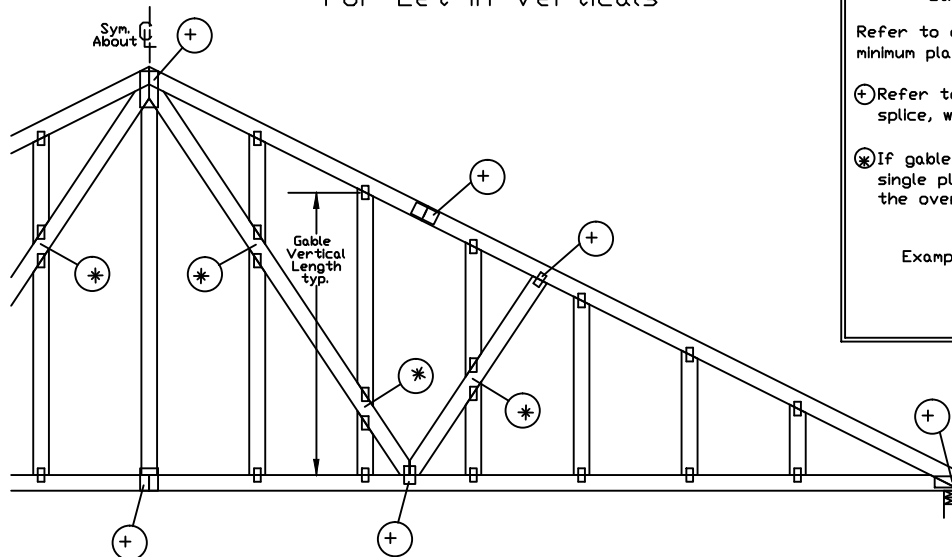
DRWG A14015ENC160118

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"



# Gable Detail For Let-in Verticals



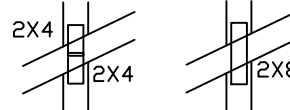
## Gable Truss Plate Sizes

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

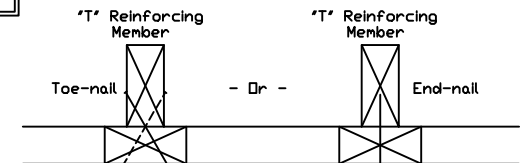
⊕ Refer to Engineered truss design for peak, splice, web, and heel plates.

⊗ 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"x3",min) Nails at 4' o.c. plus

(4) nails in the top and bottom chords.

Toenailed Nails:

10d Common (0.148"x3",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.

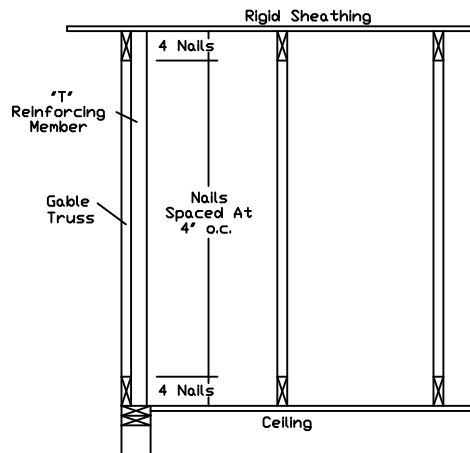
## ASCE 7-05 Gable Detail Drawings

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 reinforced gable vertical length.



\*\*\*WARNING\*\*\* READ AND FOLLOW ALL NOTES ON THIS DRAWING  
\*\*\*IMPORTANT\*\*\* FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLER

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 SBCA) 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 truss shall have bracing installed per BCSI sections B3, B7 or B10, 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](http://www.alpineitw.com); TPI: [www.tpinet.org](http://www.tpinet.org); SBCA: [www.sbcacomponents.com](http://www.sbcacomponents.com); ICC: [www.iccsafe.org](http://www.iccsafe.org)

**ALPINE**  
AN ITW COMPANY

155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

No. 66848

STATE OF

FLORIDA

PROFESSIONAL ENGINEER

08/04/2022  
CON #9,278

REF LET-IN VERT

DATE 01/02/2018

DRWG GBLLETIN0118

MAX. TOT. LD. 60 PSF

DUR. FAC. ANY

MAX. SPACING 24.0"

# 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.

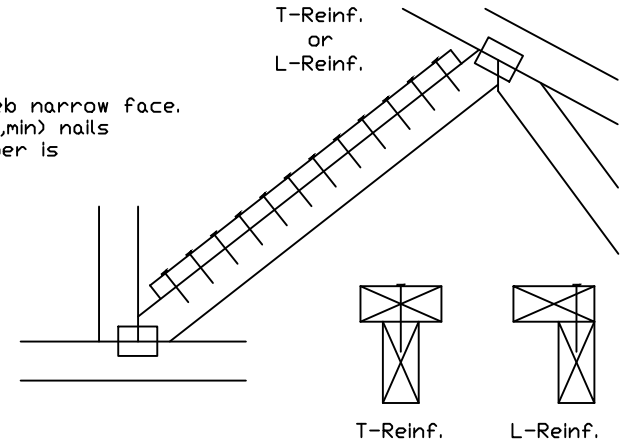
Web Member Size	Specified CLR Restraint	Alternative Reinforcement T- or L- Reinf.	Scab Reinf.
2x3 or 2x4	1 row	2x4	1-2x4
2x3 or 2x4	2 rows	2x6	2-2x4
2x6	1 row	2x4	1-2x6
2x6	2 rows	2x6	2-2x4(*)
2x8	1 row	2x6	1-2x8
2x8	2 rows	2x6	2-2x6(*)

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.

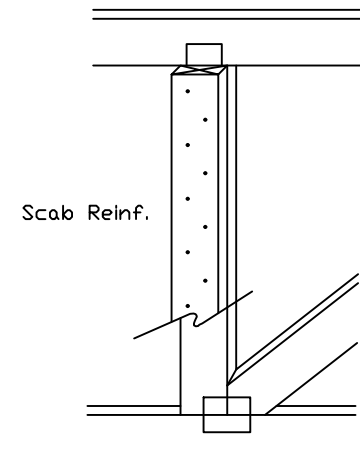
## T-Reinforcement or L-Reinforcement:

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.



155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

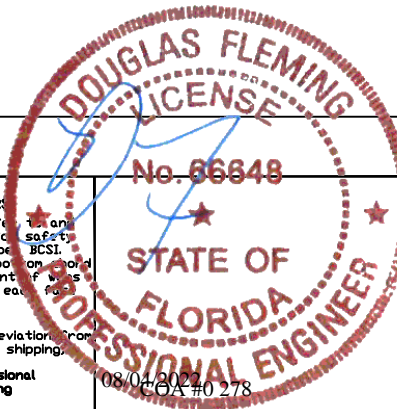
**WARNING: READ AND FOLLOW ALL NOTES ON THIS DRAWING**  
**IMPORTANT: FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLER**

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 SBCA) 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-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.tpinst.org](http://www.tpinst.org); SBCA: [www.sbcacomponents.com](http://www.sbcacomponents.com); ICC: [www.iccsafe.org](http://www.iccsafe.org)



TC 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		

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

Top Chord 2x4 SP #2N, SPF #1/#2, DF-L #2 or better.  
 Bot Chord 2x4 SP #2N or SPF #1/#2 or better.  
 Webs 2x4 SP #3, SPF #1/#2, DF-L #2 or better.

**\*\* Attach each valley to every supporting truss with:**  
 535# connection or with (1) Simpson H2.5A or  
 equivalent connector for  
 ASCE 7-16 180 mph. 30' Mean Height, Part. Enc.  
 Building, Exp. C, Wind TC DL=5 psf, Kzt = 1.00  
 Or  
 ASCE 7-16 160 mph. 30' Mean Height, Part. Enc.  
 Building, Exp. D, Wind TC DL=5 psf, Kzt = 1.00

Bottom chord may be square or pitched cut  
 as shown.

Valleys short enough to be cut as solid triangular  
 members from a single 2x6, or larger as required,  
 shall be permitted in lieu of fabricating from  
 separate 2x4 members.

All plates shown are Alpine Wave Plates.

Unless specified otherwise on engineer's sealed design, for vertical  
 valley webs taller than 7'-9" apply 2x4 "T" reinforcement, 80% length of  
 web, same species and grade or better, attached with 10d box  
 (0.128" x 3.0") nails at 6" o.c. In lieu of "T" reinforcement, 2x4 Continuous  
 Lateral Restraint applied at mid-length of web is permitted with diagonal  
 bracing as shown in DRWG BRCLBANC1014.

Top chord of truss beneath valley set must be braced with:  
 properly attached, rated sheathing applied prior to valley truss  
 installation.

Or

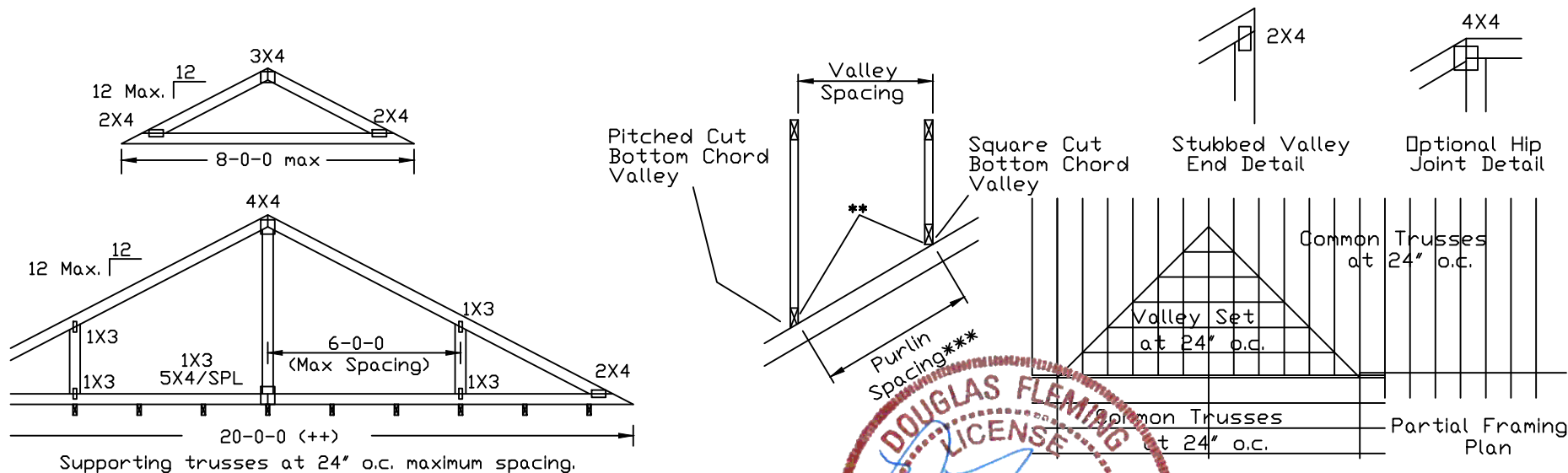
Purlins at 24" o.c. or as otherwise specified on engineer's sealed design

Or

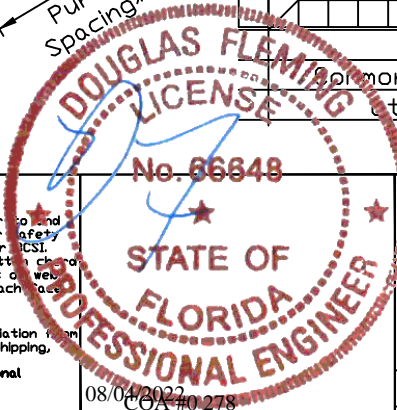
By valley trusses used in lieu of purlin spacing as specified on  
 Engineer's sealed design.

**\*\*\* Note that the purlin spacing for bracing the top chord of the truss  
 beneath the valley is measured along the slope of the top chord.**

**++ Larger spans may be built as long as the vertical height does  
 not exceed 14'-0".**



**\*\*\*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 SBCA) 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 web  
 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-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.tpinet.org](http://www.tpinet.org); SBCA: [www.sbcacomponents.com](http://www.sbcacomponents.com); ICC: [www.iccsafe.org](http://www.iccsafe.org)



BC LL	30	30	40PSF	REF	VALLEY DETAIL
BC DL	20	15	7PSF	DATE	01/26/2018
BC DL	10	10	10 PSF	DRWG	VAL180160118
BC LL	0	0	0PSF		
TOT. LD.	60	55	57PSF		
DUR.FAC.	1.25/1.33	1.15	1.15		
SPACING	24.0"				



Valley Detail - ASCE 7-16: 30' Mean Height, Enclosed, Exp. C,  $K_{zt}=1.00$ 

Top Chord 2x4 SP #2N, SPF #1/#2, DF-L #2 or better.  
Bot Chord 2x4 SP #2N or SPF #1/#2 or better.  
Webs 2x4 SP #3, SPF #1/#2, DF-L #2 or better.

\*\* Attach each valley to every supporting truss with:  
 (2) 16d box (0.135" x 3.5") nails toe-nailed for  
 ASCE 7-16, 30' Mean Height, Enclosed Building, Exp. C,  
 Wind TC DL=5 psf, Kzt = 1.00, Max. Wind Speed based on  
 supporting truss material at connection location:  
 170 mph for SP (G = 0.55, min.),  
 155 mph for DF-L (G = 0.50, min.), or  
 120 mph for HF & SPF (G = 0.42, min.).

Maximum top chord pitch is 10/12 for supporting trusses below valley trusses.

Bottom chord of valley trusses may be square or pitched cut as shown.

Valleys short enough to be cut as solid triangular members from a single 2x6, or larger as required, shall be permitted in lieu of fabricating from separate 2x4 members.

All plates shown are Alpine Wave Plates.

Unless specified otherwise on engineer's sealed design, for vertical valley webs taller than 7'-9" apply 2x4 "T" reinforcement, 80% length of web, same species and grade or better, attached with 10d box (0.128" x 3.0") nails at 6" o.c. In lieu of "T" reinforcement, 2x4 Continuous Lateral Restraint applied at mid-length of web is permitted with diagonal bracing as shown in DRWG BRCLBANC1014.

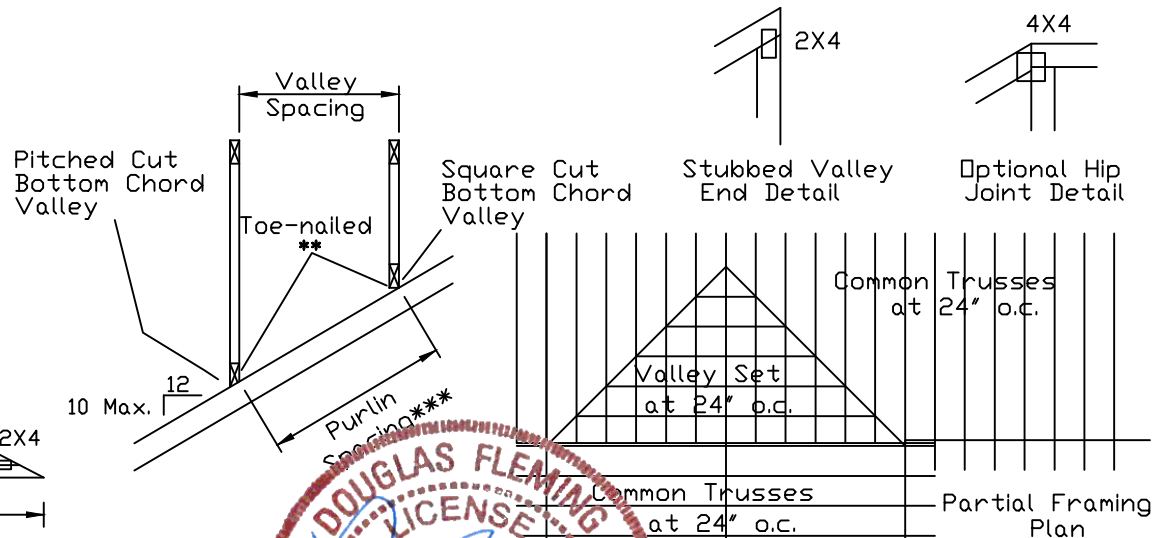
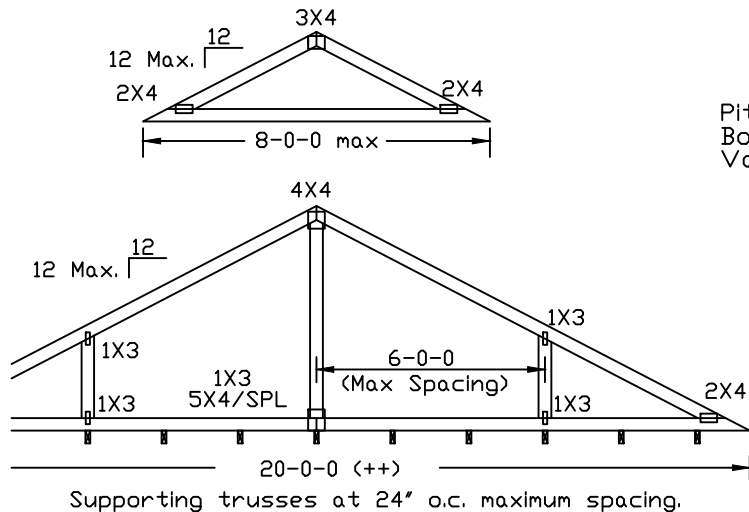
Top chord of truss beneath valley set must be braced with properly attached, rated sheathing applied prior to valley truss installation.

Or  
Purlins at 24" o.c. or as otherwise specified on engineer's sealed design

By valley trusses used in lieu of purlin spacing as specified on Engineer's sealed design.

\*\*\* Note that the purlin spacing for bracing the top chord of the truss beneath the valley is measured along the slope of the top chord.

++ Larger spans may be built as long as the vertical height does not exceed 14'-0".



155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

WARNING READ AND FOLLOW ALL NOTES ON THIS DRAWING  
IMPORTANT FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLER

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety Information by TPI and SBCA) 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 the truss shall have bracing installed per BCSI sections B3, B7 or B10, 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,

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.tpinst.org](http://www.tpinst.org); SBCA: [www.sbcacomponents.com](http://www.sbcacomponents.com); ICC: [www.iccsafe.org](http://www.iccsafe.org)

No. 66648

STATE OF

50

FLORIDA

## SIGNA F

COA #0 278

TC LL	30	30	40PSF	REF VALLEY DETAIL
TC DL	20	15	7PSF	DATE 01/26/2018
BC DL	10	10	10 PSF	DRWG VALTN160118
BC LL	0	0	0 PSF	
TOT. LD.	60	55	57PSF	
DUR.FAC.1.25/1.33	1.15	1.15		
SPACING	24.0"			