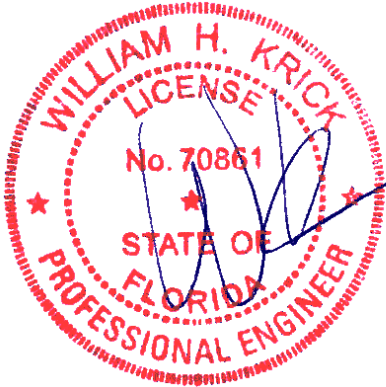




Alpine, an ITW Company
 155 Harlem Ave
 North Building, 4th Floor
 Glenview, IL 60025
 Phone: (800)755-6001
 www.alpineitw.com



This item has been digitally signed by William H. Krick on the date adjacent to the seal.

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

COA #0 278

Florida Certificate of Product Approval #FL 1999

06/19/2025

Site Information:	Page 1:
Customer: W. B. Howland Company, Inc.	Job Number: 25-2799
Job Description: Hunter and Ashley Faulkner	
Address:	

Job Engineering Criteria:	
Design Code: FBC 8th Ed. 2023 Res.	IntelliVIEW Version: 24.02.00D JRef #: 1YaY2150002
Wind Standard: ASCE 7-22 Wind Speed (mph): 130 Building Type: Closed	Design Loading (psf): 40.00

This package contains general notes pages, 3 truss drawing(s) and 0 detail(s).

Item	Drawing Number	Truss
1	169.25.1537.02877	A01
3	169.25.1536.58713	A03

Item	Drawing Number	Truss
2	169.25.1537.00070	A02

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.

Bearing Information:

The bearing area factor, C_b , is considered for the allowable capacity of solid sawn wood bearings supporting trusses that are located a minimum of 3" from the end of the lumber piece.

General Notes (continued)

Coated Lumber:

Coated lumber must be properly re-dried and maintained below 19% or less moisture level through all stages of construction and usage. Coated lumber has no adjustments to lumber properties. Coated lumber may be more brittle than uncoated lumber. Special handling care must be taken to prevent breakage during all handling activities. Refer to manufacturer literature, specifications, and code evaluation reports for restrictions, details, and requirements.

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.

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.

C = Coated lumber.

C-AT = AtTEK coated lumber.

C-FX = FX Lumber Guard coated lumber.

C -TE = TechWood 4400 coated lumber.

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-BF = Boraflame 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-ON = OnWood Fire Retardant Treated lumber.

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

FRT-PR = ProWood 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 all load cases.

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

Max Web CSI = Maximum bending and axial Combined Stress Index for Webs for 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).

General Notes (continued)

Key to Terms (continued):

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.

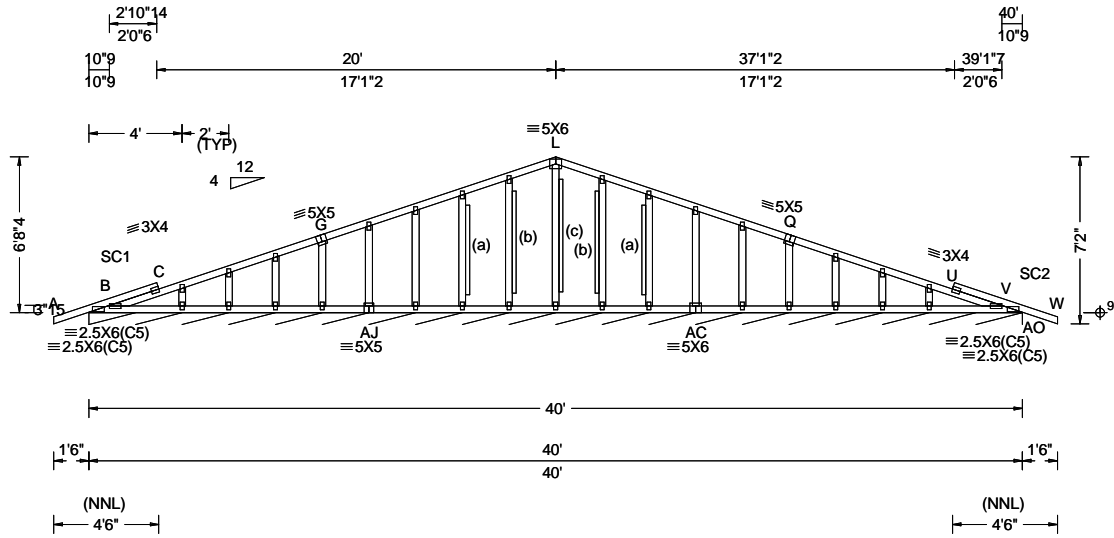
W = Width of non-hanger bearing, in inches.

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 Catoclin Circle SE, Suite 201; Leesburg, VA 20175; www.awc.org.
2. ICC: International Code Council; 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.
4. TPI: Truss Plate Institute, 2670 Crain Highway, Suite 203, Waldorf, MD 20601; www.tpinst.org.
5. SBCA: Wood Truss Council of America, 6300 Enterprise Lane, Madison, WI 53719; www.sbcacomponents.com



Loading Criteria (psf) TCCL: 20.00 TCDL: 10.00 BCCL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Criteria Wind Std: ASCE 7-22 Speed: 130 mph Enclosure: Closed 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: 4.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Snow Criteria (Pg,Pf in PSF) Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	Defl/CSI Criteria PP Deflection in loc L/defl L/# VERT(LL): 0.003 C 999 240 VERT(CL): 0.006 B 999 180 HORZ(LL): -0.001 U - - HORZ(TL): 0.004 Q - - Creep Factor: 2.0 Max TC CSI: 0.224 Max BC CSI: 0.072 Max Web CSI: 0.718 VIEW Ver: 24.02.00D.0611.08	▲ Maximum Reactions (lbs), or *=PLF <table border="1"> <thead> <tr> <th colspan="3">Gravity</th> <th colspan="3">Non-Gravity</th> </tr> <tr> <th>Loc</th> <th>R+</th> <th>/R-</th> <th>/Rh</th> <th>/Rw</th> <th>/U</th> <th>/RL</th> </tr> </thead> <tbody> <tr> <td>AO*86</td> <td>/-</td> <td>/-</td> <td>/43</td> <td>/16</td> <td>/3</td> <td></td> </tr> </tbody> </table> Wind reactions based on MWFRS AO Brg Wid = 480 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#	Gravity			Non-Gravity			Loc	R+	/R-	/Rh	/Rw	/U	/RL	AO*86	/-	/-	/43	/16	/3	
Gravity			Non-Gravity																					
Loc	R+	/R-	/Rh	/Rw	/U	/RL																		
AO*86	/-	/-	/43	/16	/3																			

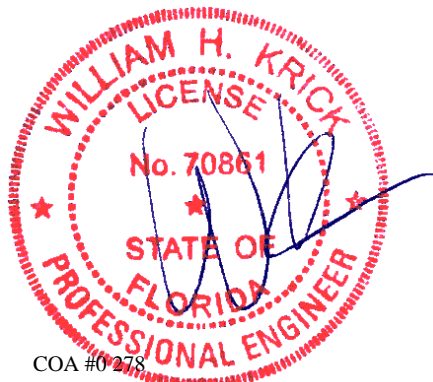
Lumber
 Top chord: 2x4 SP #2;
 Bot chord: 2x4 SP #2;
 Webs: 2x4 SP #3;
 Stack Chord: SC1 2x4 SP #2;
 Stack Chord: SC2 2x4 SP #2;

Plating Notes
 All plates are 2X4 except as noted.

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

Wind
 Wind loads based on MWFRS with additional C&C member design.
 Wind loading based on both gable and hip roof types.
 Gable meets L/120 deflection criteria for wind load applied to face. Calculated deflection ratio is L/290.

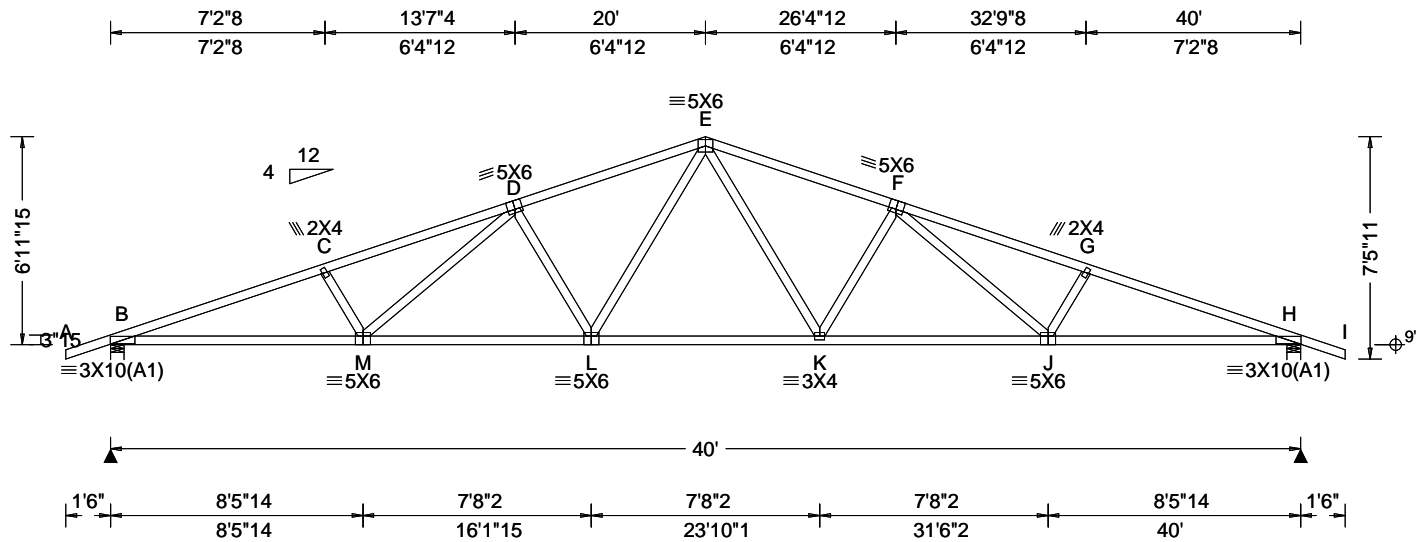
Additional Notes
 Exposed portion of gable face shall be reinforced with sheathing and the wind pressures shall be transferred into lateral diaphragms. Connections and designs for diaphragms is the responsibility of the Building Designer in accordance with ANSI/TPI 1.
 Stacked top chord must NOT be notched 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.
 The overall height of this truss excluding overhang is 6-8-4.



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 Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation 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: sbccomponents.com; ICC: iccsafe.org; AWC: awc.org





Loading Criteria (psf) TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Criteria Wind Std: ASCE 7-22 Speed: 130 mph Enclosure: Closed 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: 4.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Snow Criteria (Pg,Pf in PSF) Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	Defl/CSI Criteria PP Deflection in loc L/defl L/# VERT(LL): 0.340 L 999 240 VERT(CL): 0.656 L 726 180 HORZ(LL): 0.085 H - - HORZ(TL): 0.164 H - - Creep Factor: 2.0 Max TC CSI: 0.842 Max BC CSI: 0.454 Max Web CSI: 0.457 VIEW Ver: 24.02.00D.0611.08	▲ Maximum Reactions (lbs) Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 1779 - / - / /870 /325 /126 H 1779 - / - / /870 /325 - Wind reactions based on MWFRS B Brg Wid = 5.5 Min Req = 1.5 (Truss) H Brg Wid = 5.5 Min Req = 1.5 (Truss) Bearings B & H 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 1991 -4316 E - F 1583 -3240 C - D 1951 -4125 F - G 1951 -4125 D - E 1583 -3238 G - H 1991 -4315
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Lumber

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

Loading

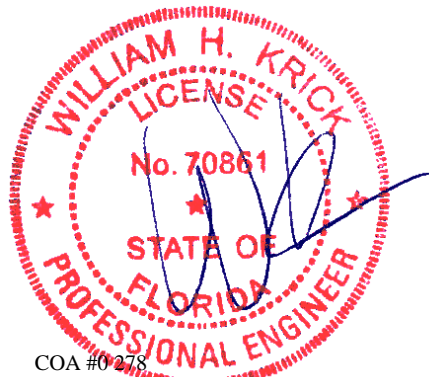
Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.

Wind

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

Additional Notes

The overall height of this truss excluding overhang is 6-11-15.



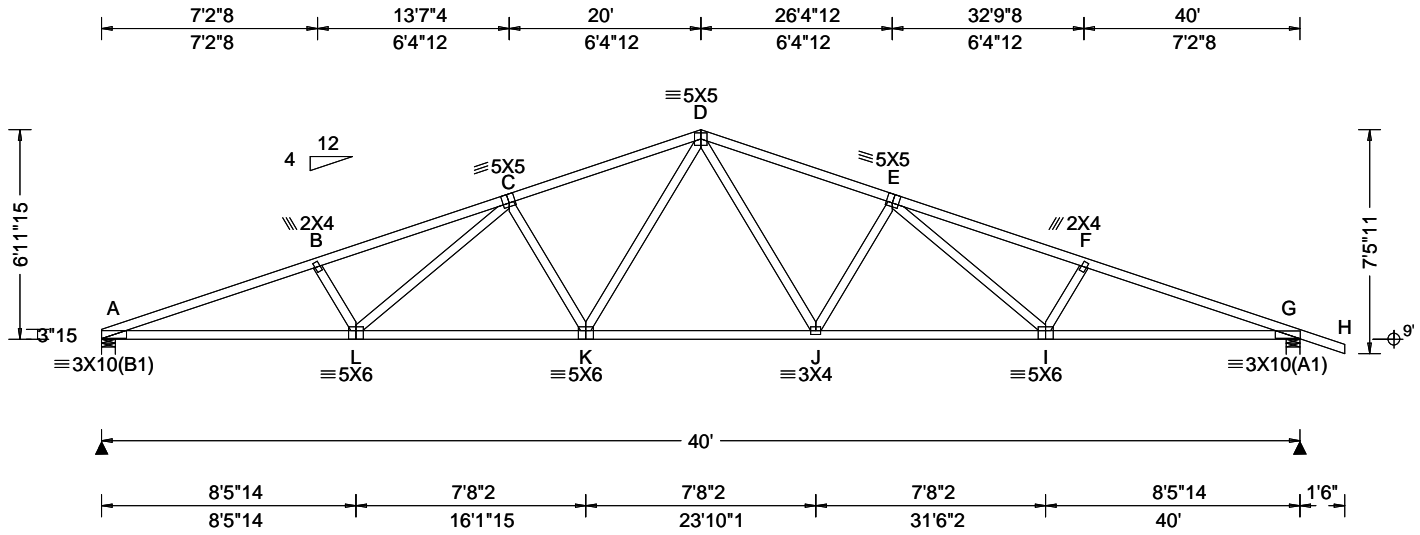
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For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbccomponents.com; ICC: iccsafe.org; AWC: awc.org





Loading Criteria (psf)	
TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00
Load Duration:	1.25
Spacing:	24.0 "

Wind Criteria	
Wind Std:	ASCE 7-22
Speed:	130 mph
Enclosure:	Closed
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:	4.00 ft
Loc. from endwall:	not in 13.00 ft
GCpi:	0.18
Wind Duration:	1.60

Snow Criteria (Pg, Pf in PSF)	
Pg:	NA Ct: NA CAT: NA
Pf:	NA Ce: NA
Lu:	NA Cs: NA
Snow Duration:	NA
Building Code:	
FBC 8th Ed. 2023 Res.	
TPI Std: 2014	
Rep Fac: Yes	
FT/RT: 20(0)/10(0)	
Plate Type(s):	
WAVE	

Defl/CSI Criteria	
PP Deflection in loc L/defl L/#	
VERT(LL):	0.338 J 999 240
VERT(CL):	0.657 J 725 180
HORZ(LL):	0.084 G - -
HORZ(TL):	0.164 G - -
Creep Factor:	2.0
Max TC CSI:	0.908
Max BC CSI:	0.471
Max Web CSI:	0.368
VIEW Ver: 24.02.00D.0611.08	

▲ Maximum Reactions (lbs)					
Gravity			Non-Gravity		
Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL
A	1679	- / -	/ 875	/ 61	/ 138
G	1782	- / -	/ 870	/ 73	- / -
Wind reactions based on MWFRS					
A	Brg Wid = 5.5		Min Req = 1.5 (Truss)		
G	Brg Wid = 5.5		Min Req = 1.5 (Truss)		
Bearings A & G 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	1052	- 4351	D - E	832	- 3247
B - C	1034	- 4159	E - F	965	- 4132
C - D	839	- 3248	F - G	976	- 4322

Maximum Bot Chord Forces Per Ply (lbs)					
Chords		Tens.Comp.		Chords Tens. Comp.	
A - L	4072	- 905	J - I	3350	- 680
L - K	3355	- 663	I - G	4042	- 849
K - J	2555	- 458			
Maximum Web Forces Per Ply (lbs)					
Webs		Tens.Comp.		Webs Tens. Comp.	
B - L	219	- 383	D - J	935	- 180
L - C	715	- 183	J - E	265	- 663
C - K	269	- 672	E - I	688	- 125
K - D	937	- 182			

Lumber

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

Loading

Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.

Wind

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

Additional Notes

The overall height of this truss excluding overhang is 6-11-15.



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