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COA #0 278
11/04/2020

WILLIAM H. KRICK LICENSE No. 70861 STATE OF FLORIDA PROFESSIONAL ENGINEER

ALPINE AN ITW COMPANY

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

Columbia County Building Department — Plans Reviewed for Code Compliance — State of Florida

Site Information:	Page 1:
Customer: W. B. Howland Company, Inc.	*Job Number:* 20-4687
Job Description: Patterson Accessory Building	
Address: FL	

Job Engineering Criteria:	
Design Code: FBC 7th Ed. 2020 Res	*IntelliVIEW Version:* 20.01.01A *JRef #:* 1X032150002
Wind Standard: ASCE 7-16 *Wind Speed (mph):* 130 *Building Type:* Closed	*Design Loading (psf):* 40.00

This package contains general notes pages, 14 truss drawing(s) and 2 detail(s).

Item	Drawing Number	Truss
1	309.20.0926.37920	A01
3	309.20.0926.45390	A03
5	309.20.0926.51353	A05
7	309.20.0926.57863	A07
9	309.20.0927.00903	J02
11	309.20.0927.04263	J04
13	309.20.0927.07387	J06
15	A14015ENC160118	

Item	Drawing Number	Truss
2	309.20.0926.40953	A02
4	309.20.0926.47530	A04
6	309.20.0926.54777	A06
8	309.20.0926.59340	J01
10	309.20.0927.02370	J03
12	309.20.0927.05670	J05
14	309.20.0927.18273	JH01
16	GBLLETIN0118	

COLUMBIA COUNTY BUILDING DEPARTMENT — Received for FILE COPY — Code Compliance — PLANS EXAMINER

47736

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.

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.

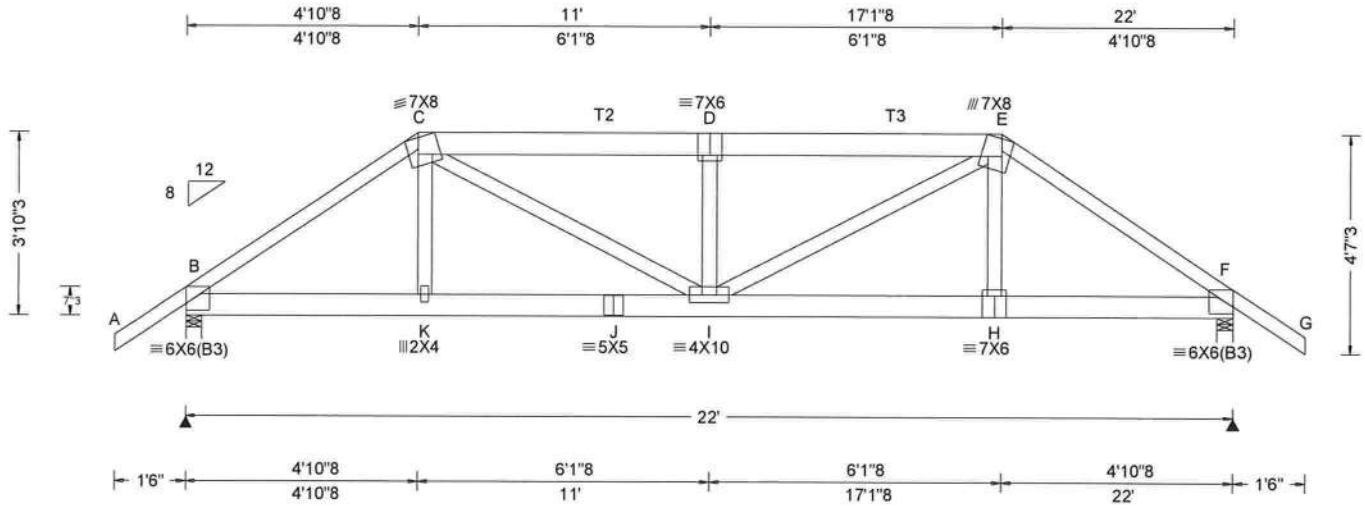
BCDL = Bottom Chord standard design Dead Load in pounds per square foot.
BCLL = Bottom Chord standard design Live Load in pounds per square foot.
CL = Certified lumber.
Des Ld = total of TCLL, TCDL, BCLL and BCDL Design Load in pounds per square foot.
FRT = Fire Retardant Treated lumber.
FRT-DB = D-Blaze 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.
2. ICC: International Code Council; www.iccsafe.org.
3. Alpine, a division of ITW Building Components Group Inc.: 514 Earth City Expressway, Suite 242, Earth City, MO 63045; www.alpineitw.com.
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.sbcindustry.com.

SEQN: 604899 HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** A01	Cust: R 215 JRef: 1X032150002 T7 DrwNo: 309.20.0926.37920 KD / WHK 11/04/2020	



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 7-16
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: 3.00 ft
Loc. from endwall: not in 4.50 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 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.111	D	999	240
VERT(CL): 0.223	D	999	180
HORZ(LL): 0.037	H	-	-
HORZ(TL): 0.075	H	-	-

Creep Factor: 2.0
Max TC CSI: 0.387
Max BC CSI: 0.485
Max Web CSI: 0.773

VIEW Ver: 20.01.01A.0724.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	2681	/-	/-	/-	/567	/-
F	2681	/-	/-	/-	/567	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 2.2
F Brg Width = 4.0 Min Req = 2.2
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	833	-3985	D - E	957	-4540
C - D	957	-4540	E - F	833	-3987

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - K	3224	-665	I - H	3239	-672
K - J	3243	-671	H - F	3226	-665
J - I	3243	-671			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - K	932	-175	D - I	394	-905
C - I	1483	-326	I - E	1786	-325

Lumber

Top chord: 2x4 SP M-31; T2,T3 2x6 SP 2400f-2.0E;
Bot chord: 2x6 SP 2400f-2.0E;
Webs: 2x4 SP #3;

Special Loads

-----(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)

TC: From	64 plf at	-1.50 to	64 plf at	4.88
TC: From	32 plf at	4.88 to	32 plf at	17.12
TC: From	64 plf at	17.12 to	64 plf at	23.50
BC: From	5 plf at	-1.50 to	5 plf at	0.00
BC: From	20 plf at	0.00 to	20 plf at	4.91
BC: From	10 plf at	4.91 to	10 plf at	16.98
BC: From	20 plf at	16.98 to	20 plf at	22.00
BC: From	5 plf at	22.00 to	5 plf at	23.50

TC: 616 lb Conc. Load at 4.91,17.09
TC: 187 lb Conc. Load at 4.94, 6.94, 8.94,11.00 13.06,15.06,17.06
BC: 317 lb Conc. Load at 4.91,17.09
BC: 129 lb Conc. Load at 6.94, 8.94,11.00,13.06 15.06

Wind

Wind loads and reactions based on MWFRS.
Wind loading based on both gable and hip roof types.
Uplifts based on an elevation at or above 1000 ft.

Additional Notes

The overall height of this truss excluding overhang is 3-10-3.

COA #0278

11/04/2020

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

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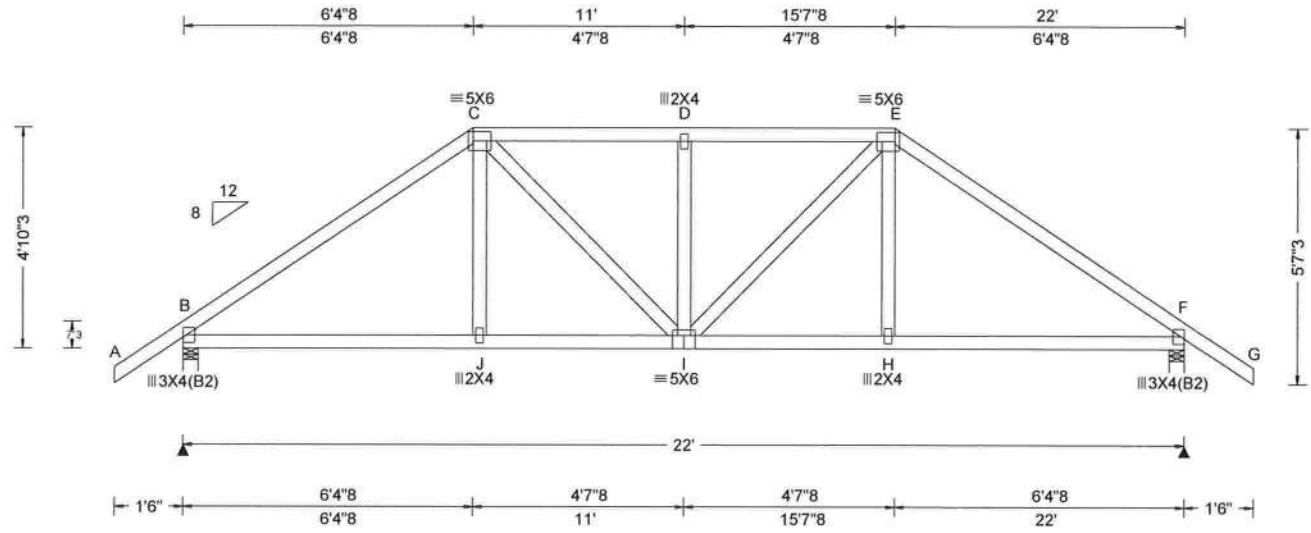
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing,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

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

SEQN: 601759 HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** A02	Cust: R 215 JRef: 1X032150002 T2 DrwNo: 309.20.0926.40953 KD / WHK 11/04/2020	



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 7-16
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/2 to h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

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 7th Ed. 2020 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): 0.043	D	999	240
VERT(CL): 0.088	D	999	180
HORZ(LL): 0.021	H	-	-
HORZ(TL): 0.043	H	-	-

Creep Factor: 2.0
Max TC CSI: 0.487
Max BC CSI: 0.444
Max Web CSI: 0.173

VIEW Ver: 20.01.01A.0724.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1028	/-	/-	/617	/164	/165
F	1028	/-	/-	/617	/164	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
F Brg Width = 4.0 Min Req = 1.5
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	541	- 1246	D - E	643	- 1118
C - D	643	- 1118	E - F	540	- 1246

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - J	934	- 323	I - H	937	- 329
J - I	937	- 321	H - F	934	- 331

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.

Wind loading based on both gable and hip roof types.

Uplifts based on an elevation at or above 1000 ft.

Additional Notes

The overall height of this truss excluding overhang is 4-10-3.

COA #0278

11/04/2020

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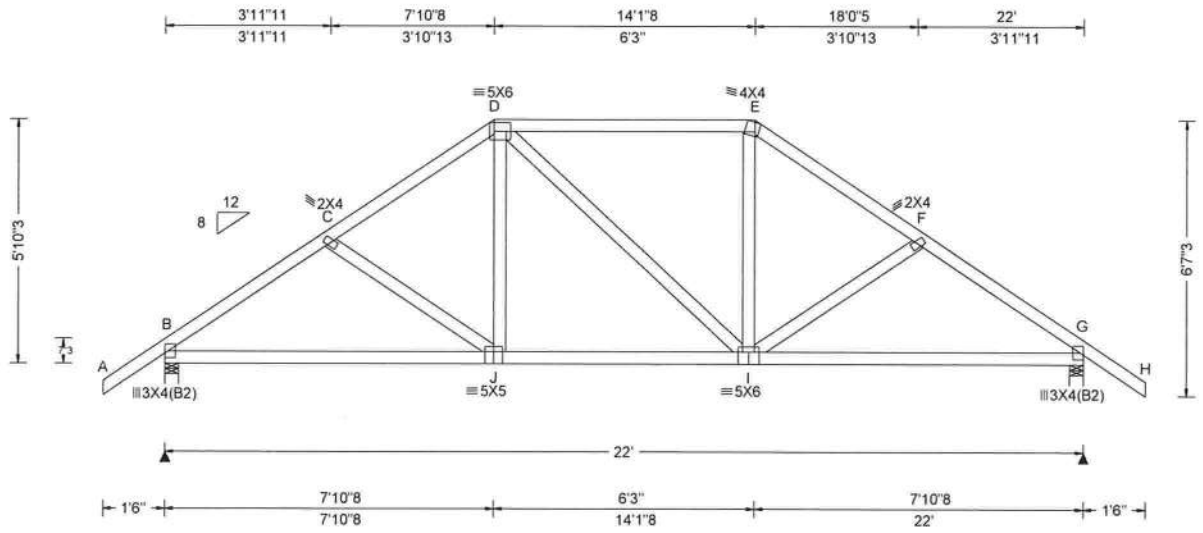
For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcindustry.com; ICC: iccsafe.org; AWC: awc.org

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

SEQN: 601768 HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** A03	Cust: R 215 JRef: 1X032150002 T3 DrwNo: 309.20.0926.45390 KD / WHK 11/04/2020



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 7-16
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/2 to h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

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 7th Ed. 2020 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): 0.042	J	999	240
VERT(CL): 0.086	J	999	180
HORZ(LL): 0.025	I	-	-
HORZ(TL): 0.051	I	-	-

Creep Factor: 2.0
Max TC CSI: 0.435
Max BC CSI: 0.602
Max Web CSI: 0.119

VIEW Ver: 20.01.01A.0724.11

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1028	/-	/-	/626	/162	/193
G	1028	/-	/-	/626	/162	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
G Brg Width = 4.0 Min Req = 1.5
Bearings B & 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.
B - C	455	- 1277	E - F	452	- 1085
C - D	453	- 1088	F - G	455	- 1276
D - E	427	- 864			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - J	981	- 265	I - G	980	- 273
J - I	861	- 206			

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.

Wind loading based on both gable and hip roof types.

Uplifts based on an elevation at or above 1000 ft.

Additional Notes

The overall height of this truss excluding overhang is 5-10-3.

COA #0278

11/04/2020

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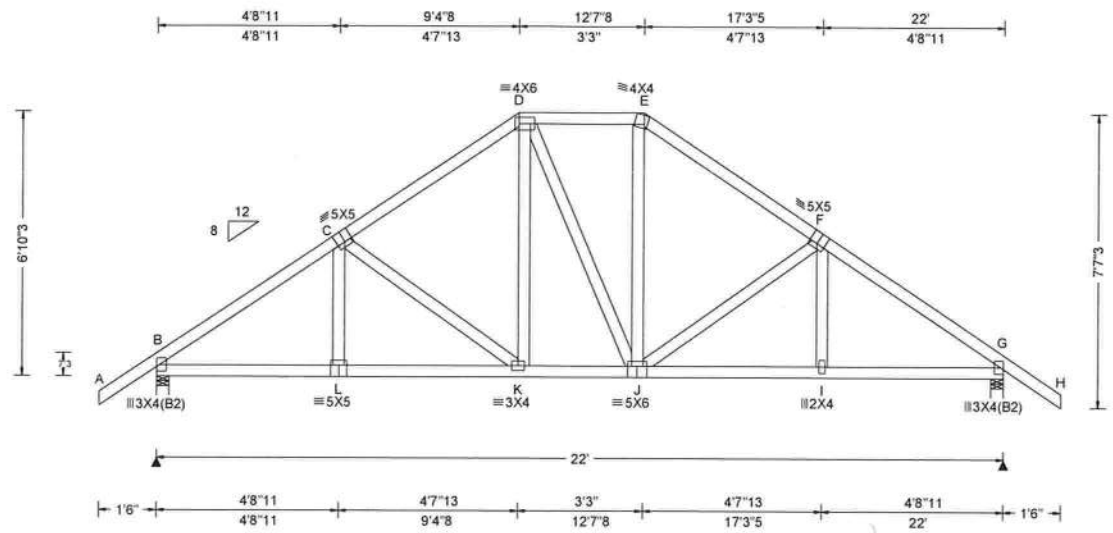
For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcindustry.com; ICC: iccsafe.org; AWC: awc.org

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

SEQN: 601765 HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** A04	Cust: R 215 JRef: 1X032150002 T4 DrwNo: 309.20.0926.47530 KD / WHK 11/04/2020	



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 7-16
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/2 to h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

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 7th Ed. 2020 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):	0.044 K	999	240
VERT(CL):	0.090 K	999	180
HORZ(LL):	0.026 I	-	-
HORZ(TL):	0.054 I	-	-

Creep Factor: 2.0
Max TC CSI: 0.447
Max BC CSI: 0.581
Max Web CSI: 0.188

VIEW Ver: 20.01.01A.0724.11

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1028	/-	/-	/629	/158	/218
G	1028	/-	/-	/629	/158	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
G Brg Width = 4.0 Min Req = 1.5
Bearings B & 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.
B - C	328	- 1287	E - F	353	- 992
C - D	355	- 997	F - G	326	- 1287
D - E	334	- 762			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - L	986	- 158	J - I	985	- 166
L - K	985	- 160	I - G	986	- 165
K - J	760	- 78			

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.

Wind loading based on both gable and hip roof types.

Uplifts based on an elevation at or above 1000 ft.

Additional Notes

The overall height of this truss excluding overhang is 6-10-3.

COA #0278

11/04/2020

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****IMPORTANT**** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

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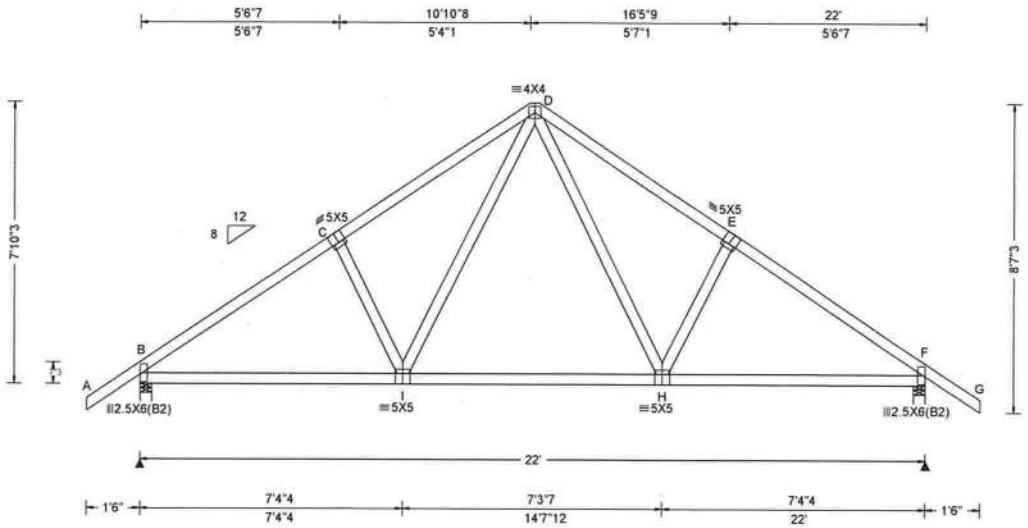
For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcindustry.com; ICC: iccsafe.org; AWC: awc.org

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

SEQN: 601757 HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** A05	Cust: R 215 JRef: 1X032150002 T5 DrwNo: 309.20.0926.51353 KD / WHK 11/04/2020



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 7-16
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: 3.00 ft
Loc. from endwall: not in 9.00 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 7th Ed. 2020 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):	0.055 I	999	240
VERT(CL):	0.106 I	999	180
HORZ(LL):	0.030 H	-	-
HORZ(TL):	0.058 H	-	-

Creep Factor: 2.0
Max TC CSI: 0.510
Max BC CSI: 0.640
Max Web CSI: 0.191

VIEW Ver: 20.01.01A.0724.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1097	/-	/-	/628	/1	/247
F	1097	/-	/-	/628	/1	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
F Brg Width = 4.0 Min Req = 1.5
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	227	- 1402	D - E	288	- 1246
C - D	289	- 1246	E - F	226	- 1402

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - I	1075	- 88	H - F	1075	- 75
I - H	742	- 12			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
I - D	502	- 99	D - H	502	- 98

Lumber

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

Uplifts based on an elevation at or above 1000 ft.

Additional Notes

The overall height of this truss excluding overhang is 7-10-3.

COA #0278

11/04/2020

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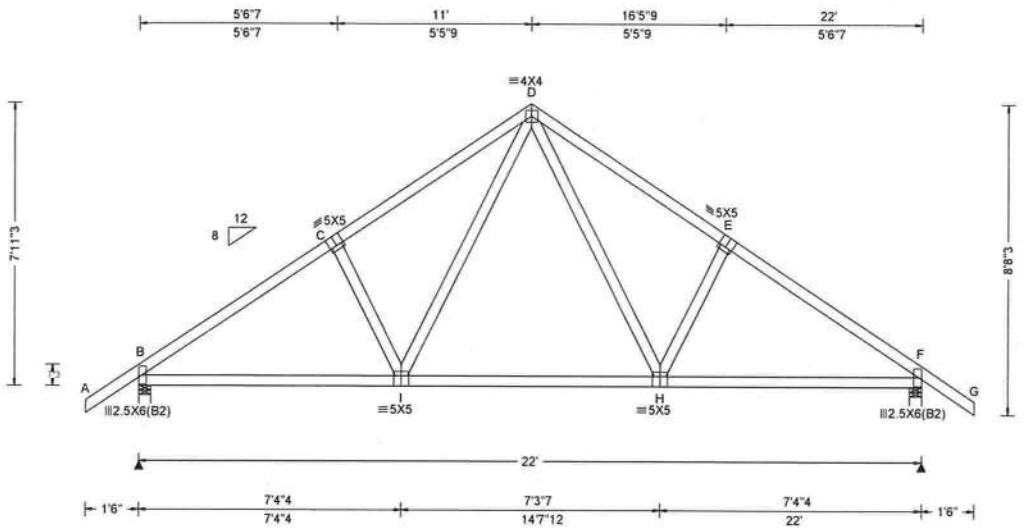
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 601753 COMN FROM: CDM	Ply: 1 Qty: 10	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** A06	Cust: R 215 JRef: 1X032150002 T6 DrwNo: 309.20.0926.54777 KD / WHK 11/04/2020	



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 7-16
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: 3.00 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 7th Ed. 2020 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): 0.055	I	999	240
VERT(CL): 0.106	I	999	180
HORZ(LL): 0.030	H	-	-
HORZ(TL): 0.058	H	-	-

Creep Factor: 2.0
Max TC CSI: 0.510
Max BC CSI: 0.640
Max Web CSI: 0.231

VIEW Ver: 20.01.01A.0724.11

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1097	/-	/-	/629	/154	/247
F	1097	/-	/-	/629	/154	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
F Brg Width = 4.0 Min Req = 1.5
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	389	- 1402	D - E	458	- 1246
C - D	458	- 1246	E - F	389	- 1402

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - I	1075	- 166	H - F	1075	- 180
I - H	742	- 13			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
I - D	502	- 169	D - H	502	- 168

Lumber

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

Uplifts based on an elevation at or above 1000 ft.

Additional Notes

The overall height of this truss excluding overhang is 7-11-3.

COA #0778
11/04/2020

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

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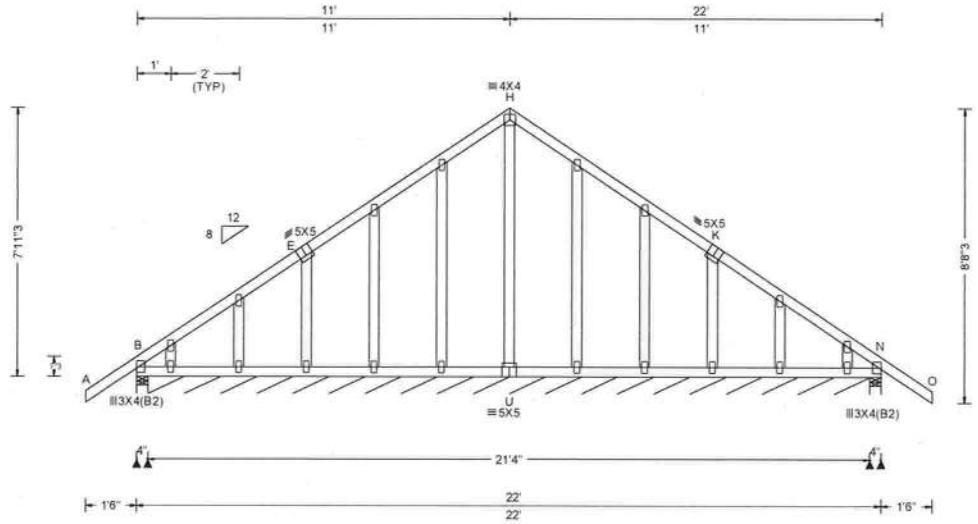
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 601761 GABL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** A07	Cust: R 215 JRef: 1X032150002 T8 DrwNo: 309.20.0926.57863 KD / WHK 11/04/2020



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 7-16
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: 3.00 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 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.003	H	999	240
VERT(CL): 0.004	H	999	180
HORZ(LL): 0.008	K	-	-
HORZ(TL): 0.010	K	-	-

Creep Factor: 2.0
Max TC CSI: 0.446
Max BC CSI: 0.088
Max Web CSI: 0.205

VIEW Ver: 20.01.01A.0724.11

▲ Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	442	/-	/-	/276	/159	/498
B*	142	/-	/-	/69	/44	/-
N	442	/-	/-	/281	/132	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
B Brg Width = 255 Min Req = -
N Brg Width = 4.0 Min Req = 1.5
Bearings B, B, & N are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - E	317	- 396	H - K	484	- 106
E - H	473	- 218			

Maximum Gable Forces Per Ply (lbs)

Gables	Tens.	Comp.
H - U	62	- 387

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

Plating Notes
All plates are 2X4 except as noted.

Loading
Truss designed to support 2-0-0 top chord outlookers and cladding load not to exceed 2.30 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

Wind
Wind loads based on MWFRS with additional C&C member design.
Wind loading based on both gable and hip roof types.
Uplifts based on an elevation at or above 1000 ft.

Additional Notes
See DWGS A14015ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.
The overall height of this truss excluding overhang is 7-11-3.

COA #6278
11/04/2020

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****IMPORTANT**** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

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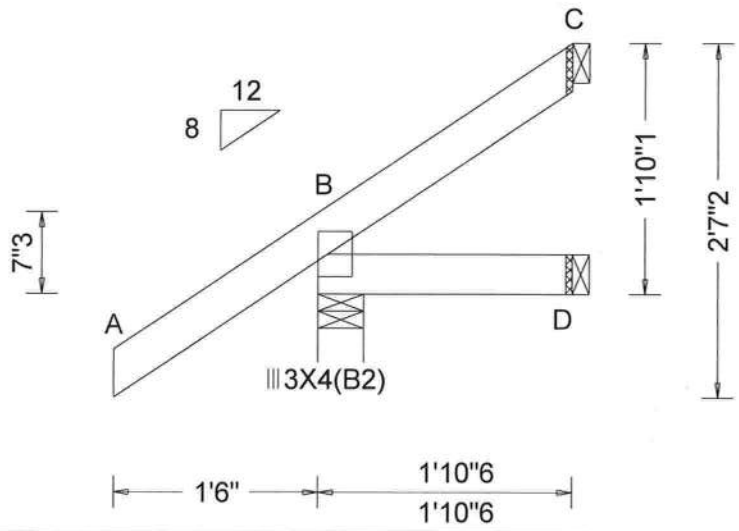
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 601755 JACK FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** J01	Cust: R 215 JRef: 1X032150002 T10 DrwNo: 309.20.0926.59340 KD / WHK 11/04/2020



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 7-16
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: 3.00 ft
Loc. from endwall: not in 4.50 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 7th Ed. 2020 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):	NA		
VERT(CL):	NA		
HORZ(LL):	-0.001 C	-	-
HORZ(TL):	0.002 C	-	-

Creep Factor: 2.0
Max TC CSI: 0.238
Max BC CSI: 0.034
Max Web CSI: 0.000

VIEW Ver: 20.01.01A.0724.11

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	227	/-	/-	/174	/28	/69
D	32	/-	/-	/20	/-	/-
C	22	/-	/-	/27	/25	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B 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.

Wind loading based on both gable and hip roof types.

Uplifts based on an elevation at or above 1000 ft.

Additional Notes

The overall height of this truss excluding overhang is 1-10-1.

COA #0278

11/04/2020

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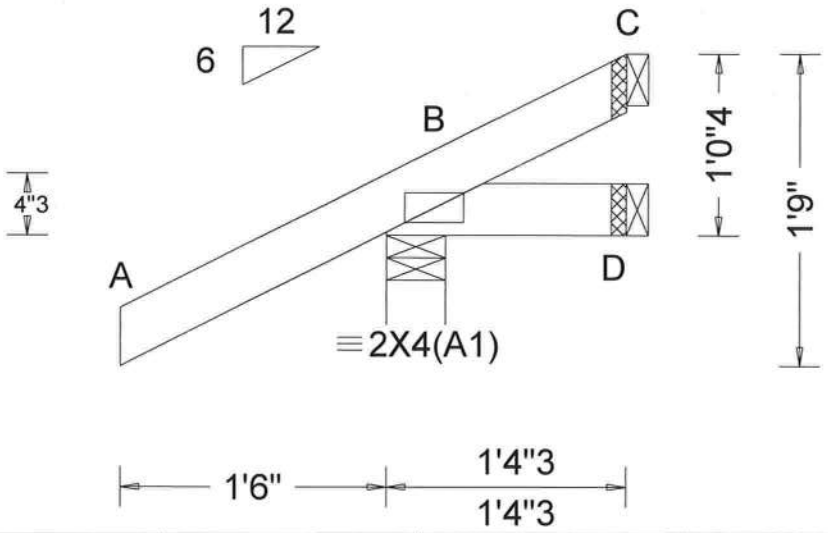
ALPINE AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 601754 JACK FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** J02		Cust: R 215 JRef: 1X032150002 T13 DrwNo: 309.20.0927.00903 KD / WHK 11/04/2020	



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
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 Std: ASCE 7-16 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: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): -0.000 D - - HORZ(TL): 0.001 D - - Creep Factor: 2.0 Max TC CSI: 0.270 Max BC CSI: 0.047 Max Web CSI: 0.000 VIEW Ver: 20.01.01A.0724.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	237	/-	/-	/181	/52	/43
D	13	/-8	/-	/15	/10	/-
C	-	/-18	/-	/25	/28	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B 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.

Wind loading based on both gable and hip roof types.

Uplifts based on an elevation at or above 1000 ft.

Additional Notes

The overall height of this truss excluding overhang is 1-0-4.

COA #0278

11/04/2020

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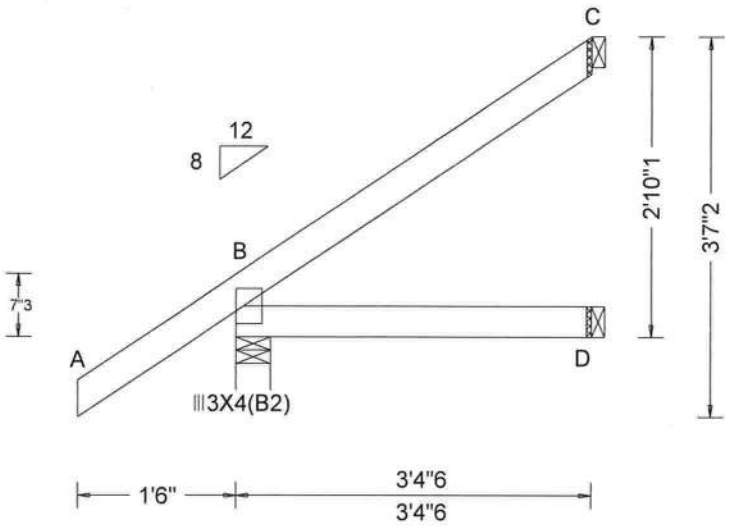
ALPINE AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 601763 JACK FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** J03		Cust: R 215 JRef: 1X032150002 T9 DrwNo: 309.20.0927.02370 KD / WHK 11/04/2020



Loading Criteria (psf)		**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL:	20.00	Wind Std: ASCE 7-16	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
TCDL:	10.00	Speed: 130 mph	Pf: NA Ce: NA	VERT(LL): NA
BCLL:	0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): NA
BCDL:	10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): -0.001 C - -
Des Ld:	40.00	EXP: C Kzt: NA		HORZ(TL): 0.002 C - -
NCBCLL:	10.00	Mean Height: 15.00 ft	Building Code:	Creep Factor: 2.0
Soffit:	2.00	TCDL: 5.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.238
Load Duration:	1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.122
Spacing:	24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: Yes	Max Web CSI: 0.000
		C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)	
		Loc. from endwall: not in 4.50 ft	Plate Type(s):	
		GCpi: 0.18	WAVE	VIEW Ver: 20.01.01A.0724.11
		Wind Duration: 1.60		

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	270	/-	/-	/195	/20	/104
D	63	/-	/-	/35	/-	/-
C	84	/-	/-	/58	/55	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B 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.

Wind loading based on both gable and hip roof types.

Uplifts based on an elevation at or above 1000 ft.

Additional Notes

The overall height of this truss excluding overhang is 2-10-1.

COA #0278

11/04/2020

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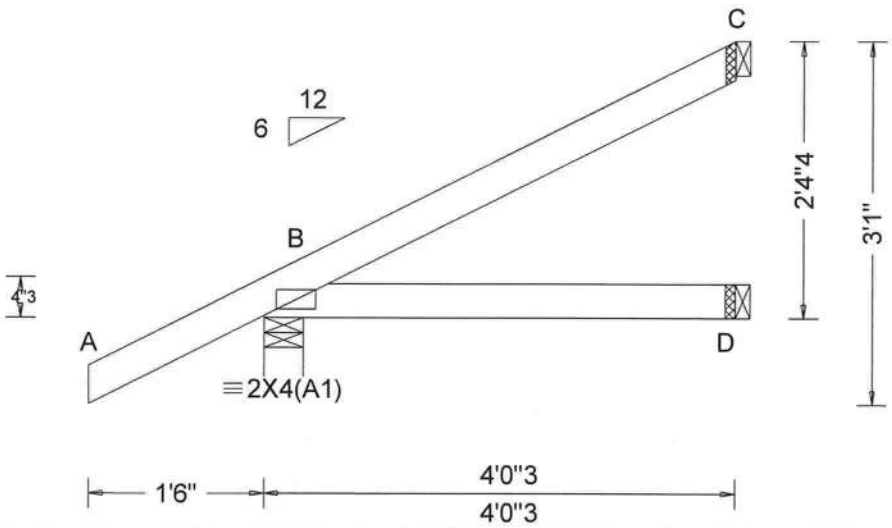
ALPINE AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 601762 JACK FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** J04	Cust: R 215 JRef: 1X032150002 T12 DrwNo: 309.20.0927.04263 KD / WHK 11/04/2020



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 7-16
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: 3.00 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 7th Ed. 2020 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):	NA		
VERT(CL):	NA		
HORZ(LL):	0.002 D	-	-
HORZ(TL):	0.003 D	-	-

Creep Factor: 2.0
Max TC CSI: 0.300
Max BC CSI: 0.151
Max Web CSI: 0.000

VIEW Ver: 20.01.01A.0724.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	295	/-	/-	/206	/38	/88
D	70	/-	/-	/38	/-	/-
C	96	/-	/-	/58	/48	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B 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.

Wind loading based on both gable and hip roof types.

Uplifts based on an elevation at or above 1000 ft.

Additional Notes

The overall height of this truss excluding overhang is 2-4-4.

COA #0278

11/04/2020

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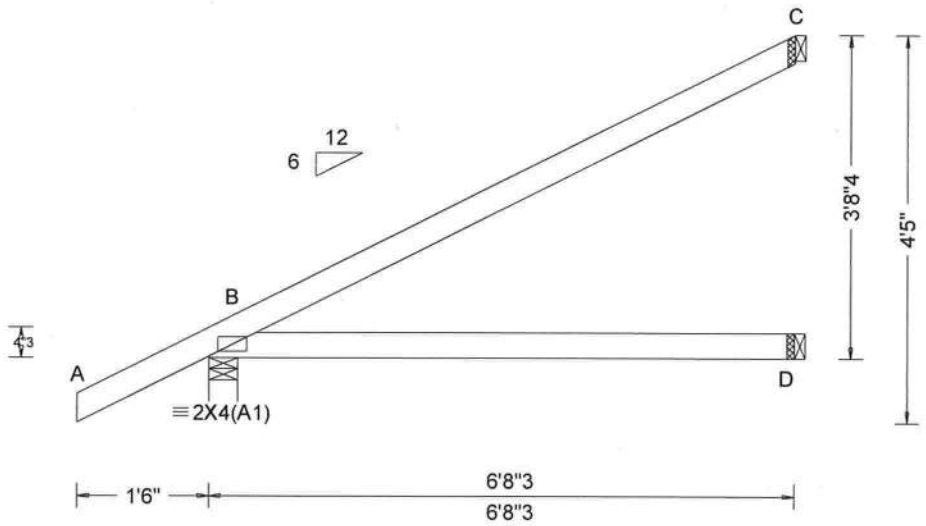
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 601766 JACK FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** J05	Cust: R 215 JRef: 1X032150002 T11 DrwNo: 309.20.0927.05670 KD / WHK 11/04/2020



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 7-16
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: 3.00 ft
Loc. from endwall: not in 4.50 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 7th Ed. 2020 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):	NA		
VERT(CL):	NA		
HORZ(LL):	0.012 D	-	-
HORZ(TL):	0.024 D	-	-

Creep Factor: 2.0
Max TC CSI: 0.638
Max BC CSI: 0.463
Max Web CSI: 0.000

VIEW Ver: 20.01.01A.0724.11

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	395	/-	/-	/267	/41	/134
D	122	/-	/-	/69	/-	/-
C	178	/-	/-	/110	/84	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B 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.

Wind loading based on both gable and hip roof types.

Uplifts based on an elevation at or above 1000 ft.

Additional Notes

The overall height of this truss excluding overhang is 3-8-4.

COA #0278

11/04/2020

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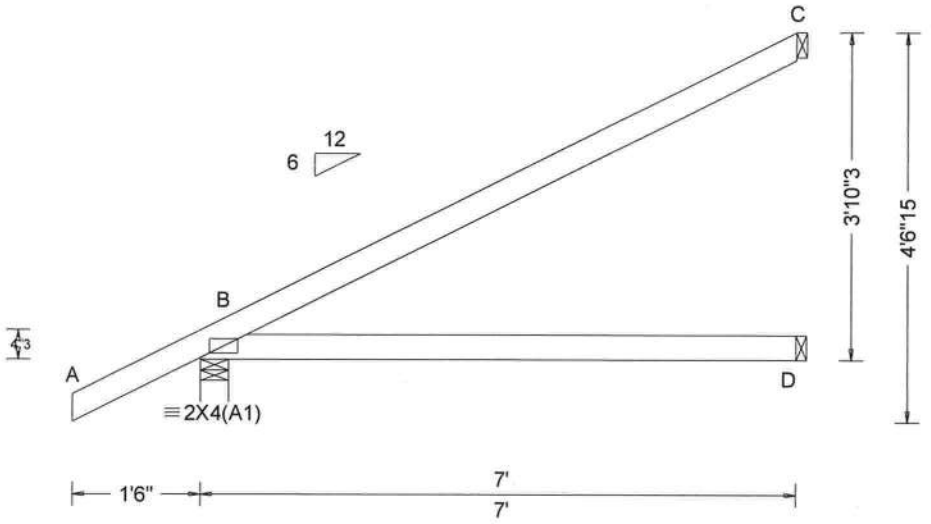
ALPINE AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 601751 EJAC FROM: CDM	Ply: 1 Qty: 7	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** J06	Cust: R 215 JRef: 1X032150002 T14 DrwNo: 309.20.0927.07387 KD / WHK 11/04/2020



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
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 Std: ASCE 7-16 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: 3.00 ft Loc. from endwall: not in 4.50 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): 0.014 D - - HORZ(TL): 0.028 D - - Creep Factor: 2.0 Max TC CSI: 0.713 Max BC CSI: 0.512 Max Web CSI: 0.000 VIEW Ver: 20.01.01A.0724.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	408	/-	/-	/275	/42	/139
D	129	/-	/-	/72	/-	/-
C	187	/-	/-	/116	/89	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B 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.

Wind loading based on both gable and hip roof types.

Uplifts based on an elevation at or above 1000 ft.

Additional Notes

The overall height of this truss excluding overhang is 3-10-3.

COA #0278

11/04/2020

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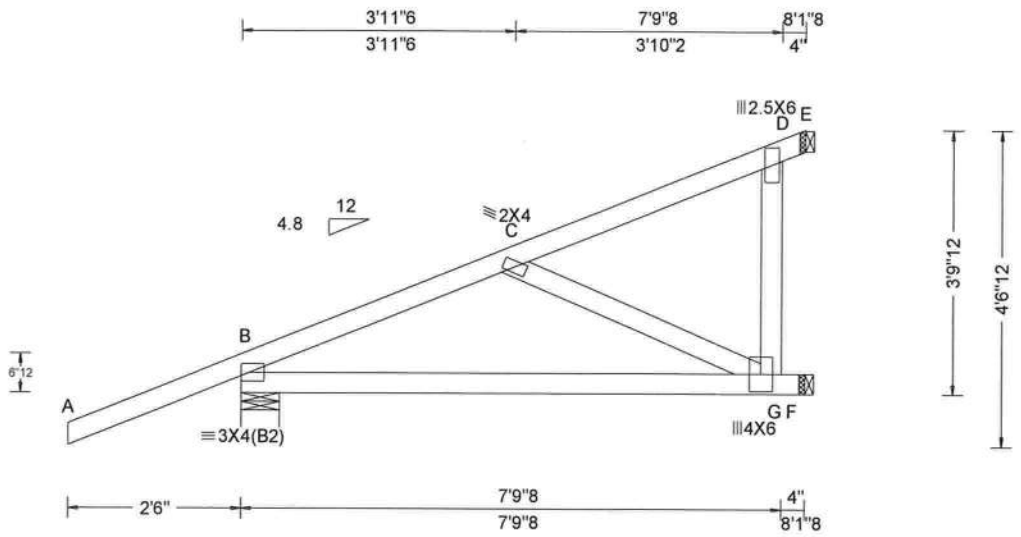
ALPINE AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 604897 HIP_ FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4687 Patterson Accessory Building **Truss Label:** JH01	Cust: R 215 JRef: 1X032150002 T15 DrwNo: 309.20.0927.18273 KD / WHK 11/04/2020



Loading Criteria (psf)		**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**				**▲ Maximum Reactions (lbs)**						
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):	0.021 G	999	240	Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
BCLL:	0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL):	0.041 G	999	180	B	697	/-	/-	/-	/211	/-
BCDL:	10.00	Risk Category: II	Snow Duration: NA	HORZ(LL):	-0.005 E	-	-	F	188	/-156	/-	/-	/299	/-
Des Ld:	40.00	EXP: C Kzt: NA		HORZ(TL):	0.010 E	-	-	E	616	/-	/-	/-	/122	/-
NCBCLL:	10.00	Mean Height: 15.00 ft	Building Code:	Creep Factor: 2.0				Wind reactions based on MWFRS						
Soffit:	2.00	TCDL: 5.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI:	0.681			B Brg Width = 6.7 Min Req = 1.5						
Load Duration:	1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI:	0.394			F Brg Width = 1.5 Min Req = -						
Spacing:	24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: Varies by Ld Case	Max Web CSI:	0.386			E Brg Width = 1.5 Min Req = -						
		C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)					Bearing B is a rigid surface.						
		Loc. from endwall: not in 4.50 ft	Plate Type(s):					Members not listed have forces less than 375#						
		GCpi: 0.18	WAVE	VIEW Ver: 20.01.01A.0724.11				**Maximum Top Chord Forces Per Ply (lbs)**						
		Wind Duration: 1.60						Chords Tens. Comp.						
								B - C 248 -657						

Lumber

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

Special Loads

-----(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)

TC: From	62 plf at	-2.50 to	62 plf at	8.13	
BC: From	4 plf at	-2.50 to	4 plf at	0.00	
BC: From	20 plf at	0.00 to	20 plf at	8.13	
TC:	-6 lb Conc. Load at	1.11			
TC:	22 lb Conc. Load at	3.19			
TC:	96 lb Conc. Load at	4.44			
TC:	84 lb Conc. Load at	5.69			
TC:	178 lb Conc. Load at	7.77			
BC:	13 lb Conc. Load at	1.11			
BC:	32 lb Conc. Load at	3.19			
BC:	70 lb Conc. Load at	4.44			
BC:	63 lb Conc. Load at	5.69			
BC:	122 lb Conc. Load at	7.77			

Wind

Wind loads and reactions based on MWFRS.

Wind loading based on both gable and hip roof types.

Uplifts based on an elevation at or above 1000 ft.

Additional Notes

The overall height of this truss excluding overhang is 3-9-12.

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.
B - G	571	-198

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - G	218	-598	D - G	396	0

COA #0278

11/04/2020

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

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

Bracing Group Species and Grades:

Group A:

Spruce-Pine-Fir	
#1 / #2	Standard
#3	Stud

Hem-Fir	
#2	Stud
#3	Standard

Douglas Fir-Larch
#3
Stud
Standard

Southern Pine***
#3
Stud
Standard

Group B:

Hem-Fir
#1 & Btr
#1

Douglas Fir-Larch
#1
#2

Southern Pine***
#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.

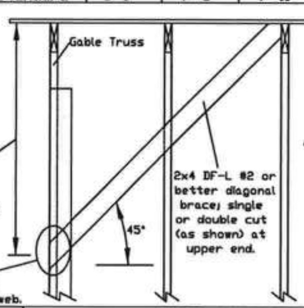
Provide uplift connections for 55 plf over continuous bearing (5 psf TC Dead Load).

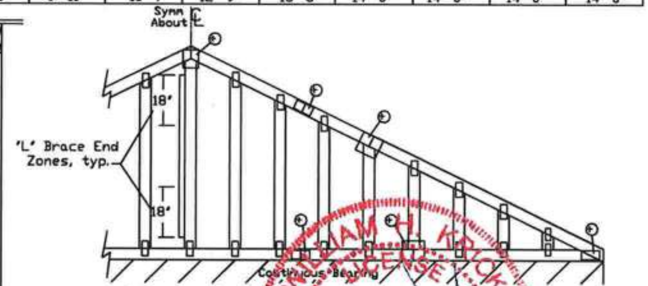
Gable end supports load from 4' 0" outlookers with 2' 0" overhang, or 12" plywood overhang.

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.

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.

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

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

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

For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.org; ICC: www.iccsafe.org

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

WILLIAM H. KRICK
LICENSE
No. 70861
STATE OF FLORIDA
PROFESSIONAL ENGINEER
COA #0 278
11/04/2020

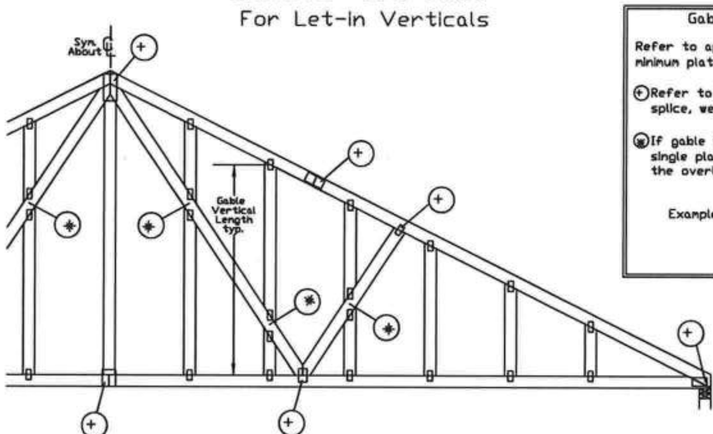
MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"

REF	ASCE7-16-GAB14015
DATE	01/26/2018
DRWG	A14015ENC160118

Gable Detail

For Let-in Verticals



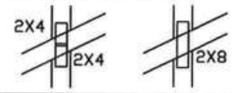
Gable Truss Plate Sizes

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

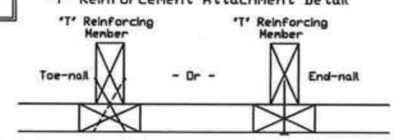
(+) Refer to Engineered truss design for peak, splice, web, and heel plates.

(✱) 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).

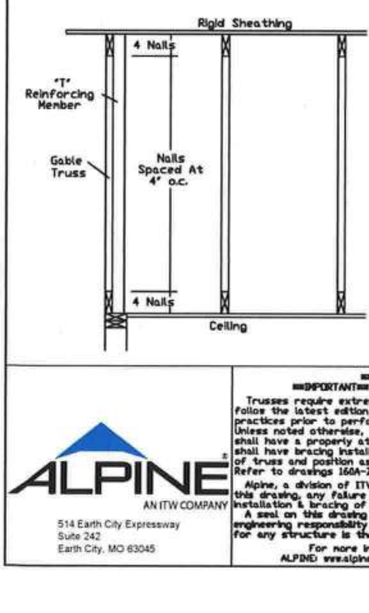
Maximum allowable 'T' reinforced gable vertical length is 14' from top to bottom chord.

'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"x 3",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 unreinforced gable vertical length.

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

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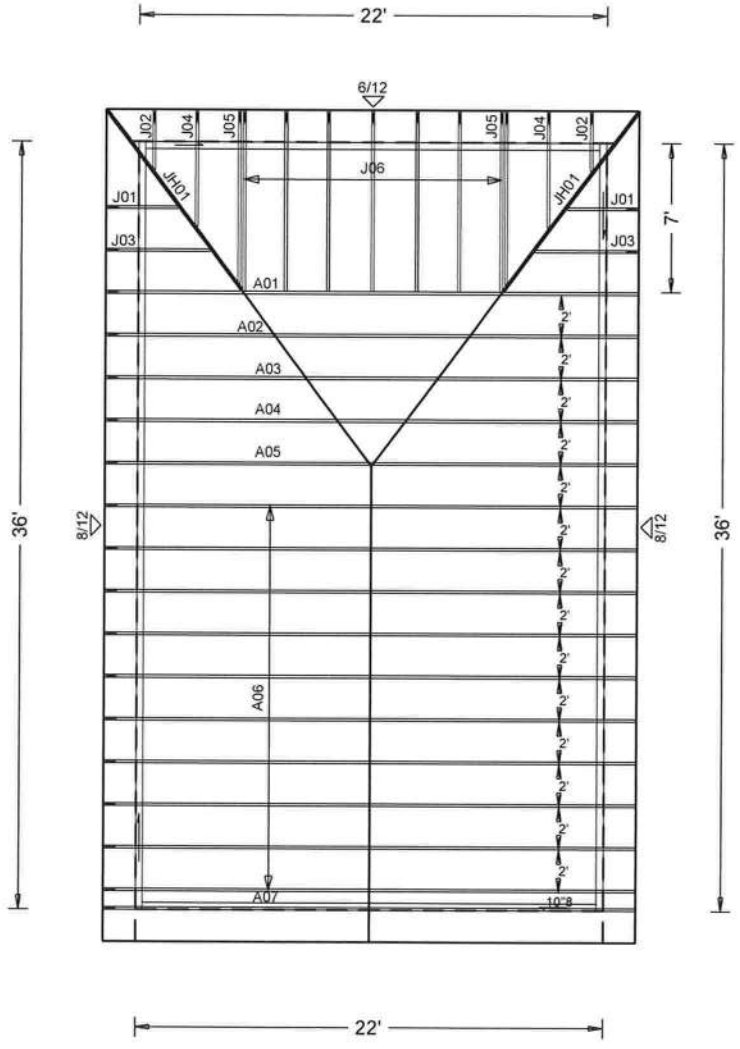
For more information see this job's general notes page and these web sites:
ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.org; ICC: www.iccsafe.org

WILLIAM H. KRICK LICENSE No. 70861 STATE OF FLORIDA PROFESSIONAL ENGINEER
COA #0 278 11/04/2020

MAX. TOT. LD. 60 PSF	REF LET-IN VERT
DUR. FAC. ANY	DATE 01/02/2018
MAX. SPACING 24.0"	DRWG GBLLETIN0118



W.B. Howland Truss Co.
610 11th St. SW
Live Oak, FL 32064
(386) 362-1235
(386) 362-7124 (Fax)
howlandtruss@gmail.com

ROOF PITCH: 6, 8/12
OVERHANG: 18"
CEILING: 9'
EXT. WALLS: 2x4
LOADING: 40psf
WIND LOAD: 130mph
EXPOSURE: C

DATE: 9/30/20

Total Truss Quantity = 37.

JOB #: 20-4687

Job Name: Patterson Accessory Build
Customer: ZECHER CONSTRUCTION
Designer: Kelly Caudill
ADDRESS:
SALESMAN: DB
: <Not Found>

JOB NO:
20-4687

PAGE NO:
1 OF 1