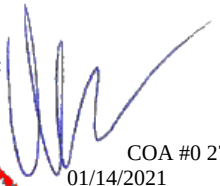
This document has been electronically signed using a Digital Signature. Printed copies without an original signature must be verified using the original electronic version.



COA #0 278
01/14/2021

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

Site Information:	Page 1:
Customer: W. B. Howland Company, Inc.	*Job Number:* 20-4541
Job Description: Sparks Residence	
Address: FL	

Job Engineering Criteria:	
Design Code: FBC 7th Ed. 2020 Res	*IntelliVIEW Version:* 20.02.01A *JRef #:* 1X212150007
Wind Standard: ASCE 7-16 *Wind Speed (mph):* 130 *Building Type:* Closed	*Design Loading (psf):* 40.00

This package contains general notes pages, 42 truss drawing(s) and 6 detail(s).

Item	Drawing Number	Truss
1	014.21.0945.26180	A01
3	014.21.0945.29157	A03
5	014.21.0945.31697	B01
7	014.21.0945.38383	B03
9	014.21.0945.42637	C01
11	014.21.0946.03637	C03
13	014.21.0946.38160	C05
15	014.21.0946.40737	C06
17	014.21.0946.55870	C07
19	014.21.0946.58177	C09
21	014.21.0947.00230	C11
23	014.21.0947.02530	D02
25	014.21.0947.04640	M01
27	014.21.0947.06727	J01
29	014.21.0947.08493	J03
31	014.21.0947.10203	J05HJ
33	014.21.0947.53440	FT02
35	014.21.0949.46710	FT04
37	014.21.0947.23683	PB02
39	014.21.0947.39750	V02
41	014.21.0947.41577	V04
43	BRCLBSUB0119	
45	GBLLETIN0118	
47	VAL180160118	

Item	Drawing Number	Truss
2	014.21.0945.27813	A02
4	014.21.0945.30327	A04
6	014.21.0945.37070	B02
8	014.21.0945.41207	B04
10	014.21.0946.02200	C02
12	014.21.0946.26297	C04
14	014.21.0946.39567	C05A
16	014.21.0946.54530	C06A
18	014.21.0946.56977	C08
20	014.21.0946.59190	C10
22	014.21.0947.01333	D01
24	014.21.0947.03517	E01
26	014.21.0947.05760	M02
28	014.21.0947.07667	J02
30	014.21.0947.09350	J04
32	014.21.0947.48707	FT01
34	014.21.0949.37310	FT03
36	014.21.0947.21910	PB01
38	014.21.0947.37930	V01
40	014.21.0947.40707	V03
42	014.21.0947.42610	V05
44	A14015ENC160118	
46	PB160160118	
48	VALTN160118	

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.

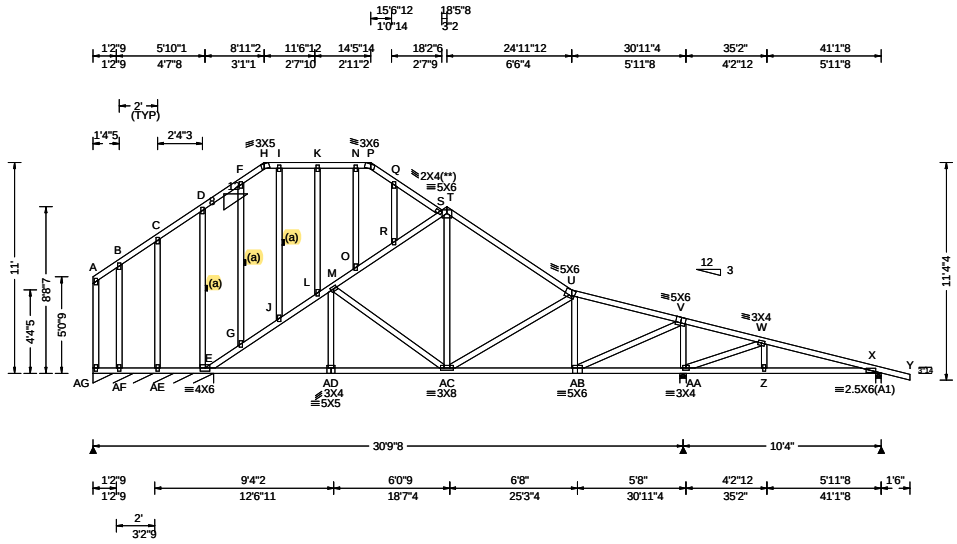
BCDL = Bottom Chord standard design Dead Load in pounds per square foot.
BCLL = Bottom Chord standard design Live Load in pounds per square foot.
CL = Certified lumber.
Des Ld = total of TCLL, TCDL, BCLL and BCDL Design Load in pounds per square foot.
FRT = Fire Retardant Treated lumber.
FRT-DB = D-Blaze 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: 334786 SPEC FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** A01	Cust: R 215 JRef:1X212150007 T32 DrwNo: 014.21.0945.26180 SSB / WHK 01/14/2021	



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: > 2h
C&C Dist a: 4.11 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 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): 0.079	H	999	240
VERT(CL): 0.164	H	999	180
HORZ(LL): -0.055	A	-	-
HORZ(TL): 0.114	A	-	-

Creep Factor: 2.0
Max TC CSI: 0.423
Max BC CSI: 0.455
Max Web CSI: 0.572

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs), or *=PLF

Loc	Gravity R+	Gravity / R-	Gravity / Rh	Non-Gravity / Rw	Non-Gravity / U	Non-Gravity / RL
AG	*238	/-	/-	/126	/2	/45
AA	1672	/-	/-	/910	/19	/-
X	388	/-	/-	/178	/95	/-

Wind reactions based on MWFRS
AG Brg Width = 75.5 Min Req = -
AA Brg Width = 4.0 Min Req = 1.6
X Brg Width = 3.5 Min Req = 1.5
Bearings AG, AA, & X 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.
E - G	147	-1368	R - S	106	-832
G - J	150	-1360	S - T	89	-775
J - L	150	-1328	T - U	77	-972
L - M	112	-1204	U - V	41	-971
M - O	137	-967	V - W	700	0
O - R	125	-887			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
E -AD	1117	0	AC-AB	942	0
AD-AC	1115	0	AB-AA	39	-523

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
M -AC	31	-501	AB- V	1502	0
T -AC	576	0	V -AA	50	-1314
U -AB	65	-537	AA- W	56	-760

Lumber

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

Bracing

(a) Continuous lateral restraint equally spaced on member.

Plating Notes

All plates are 2X4 except as noted.

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

Purlins

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

Wind

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

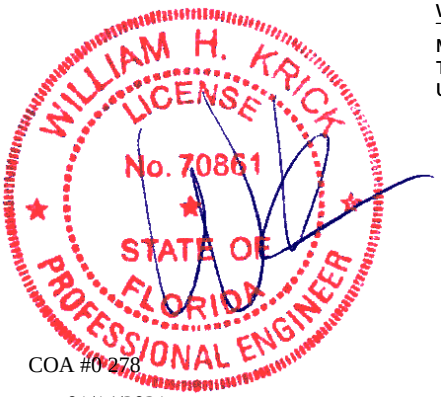
Left end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 11-0-0.

Laterally brace chord above/ below filler at 24" OC (or as designed) including a lateral brace on chord directly below both ends of filler (if no rigid diaphragm exists at that point)



COA #0278

01/14/2021

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

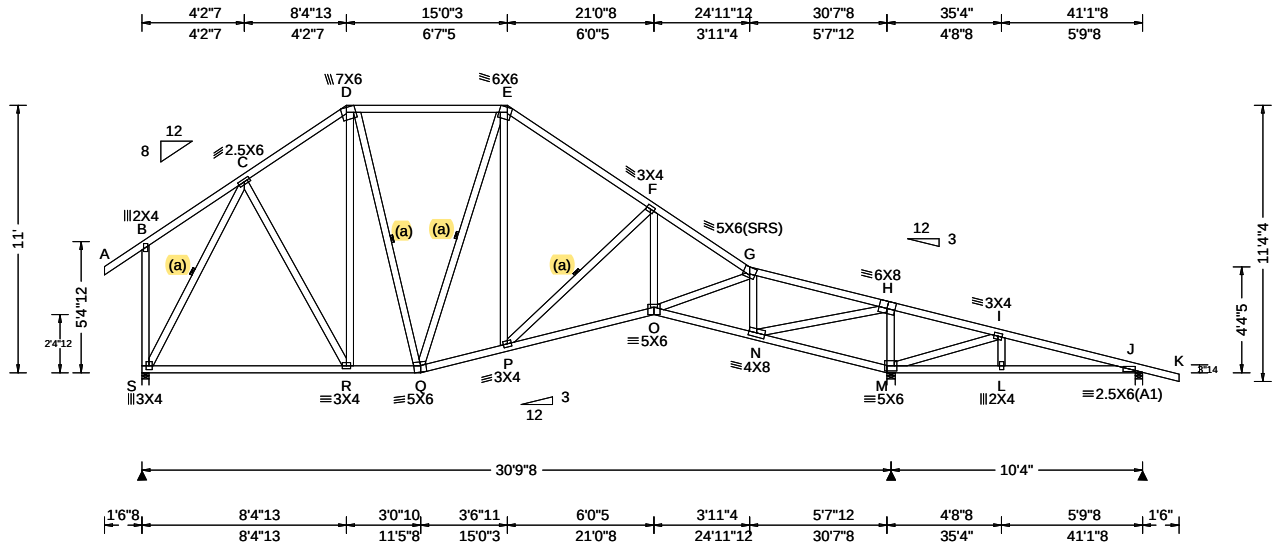
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI.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

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

SEQN: 334787 COMN FROM: CDM	Ply: 1 Qty: 4	**Job Number:** 20-4541 Sparks Residence **Truss Label:** A02	Cust: R 215 JRef:1X212150007 T36 DrwNo: 014.21.0945.27813 SSB / WHK 01/14/2021	



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: > 2h
C&C Dist a: 4.11 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 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): 0.093	O	999	240
VERT(CL): 0.190	O	999	180
HORZ(LL): 0.047	M	-	-
HORZ(TL): 0.097	M	-	-

Creep Factor: 2.0
Max TC CSI: 0.601
Max BC CSI: 0.875
Max Web CSI: 0.934

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

Loc	Gravity R+	/ R-	/ Rh	Non-Gravity / Rw	/ U	/ RL
S	1414	/-	/-	/726	/44	/318
M	2173	/-	/-	/1188	/28	/-
J	308	/-62	/-	/88	/107	/-

Wind reactions based on MWFRS
S Brg Width = 3.5 Min Req = 1.7
M Brg Width = 4.0 Min Req = 2.6
J Brg Width = 3.5 Min Req = 1.5
Bearings S, M, & J 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.
C - D	115	- 937	G - H	46	- 1262
D - E	127	- 755	H - I	1383	0
E - F	126	- 1169	I - J	819	- 4
F - G	65	- 1887			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
S - R	552	- 69	O - N	1336	0
R - Q	723	0	N - M	45	- 1385
Q - P	930	0	M - L	18	- 788
P - O	1568	0	L - J	21	- 779

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
S - C	18	- 1185	G - N	51	- 1104
Q - E	49	- 420	N - H	2452	0
E - P	581	0	M - H	63	- 1483
P - F	61	- 866	M - I	54	- 828
F - O	702	0			

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

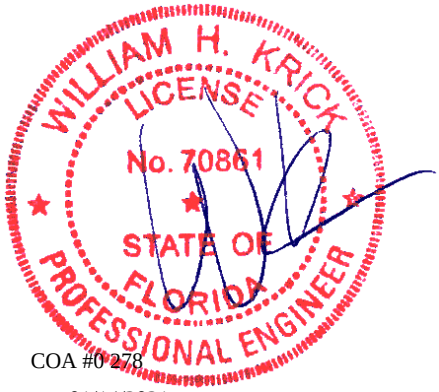
Bracing
(a) Continuous lateral restraint equally spaced on member.

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

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

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

Additional Notes
The overall height of this truss excluding overhang is 11-0-0.



COA #0278
01/14/2021

****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
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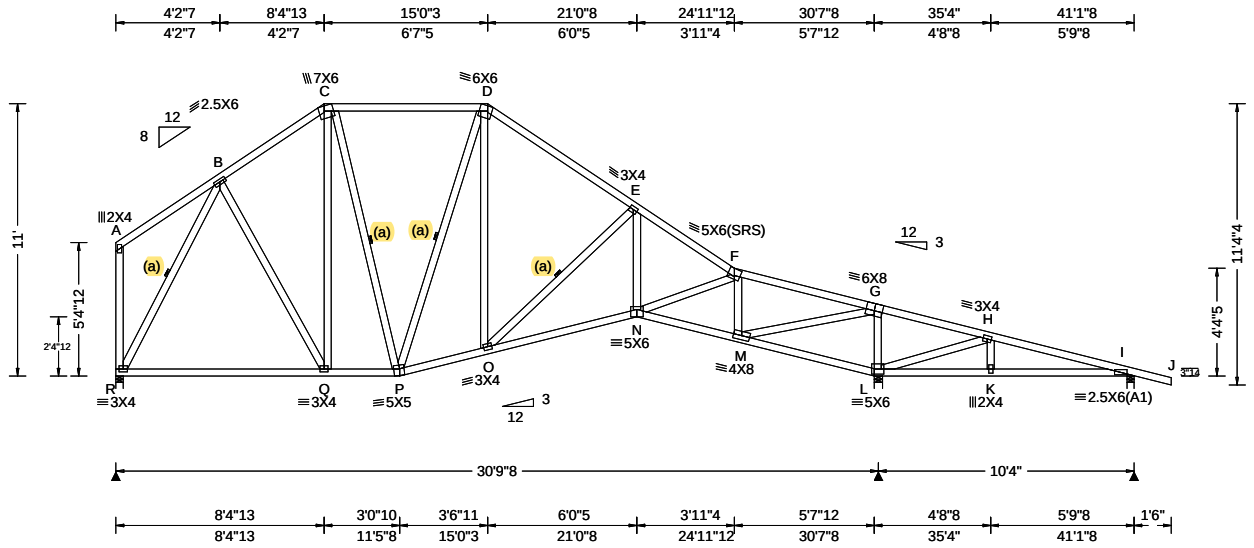
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, 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: 334788 COMN FROM: CDM	Ply: 1 Qty: 6	**Job Number:** 20-4541 Sparks Residence **Truss Label:** A03	Cust: R 215 JRef:1X212150007 T37 DrwNo: 014.21.0945.29157 SSB / WHK 01/14/2021	



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: 4.11 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 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): 0.093	N	999	240
VERT(CL): 0.190	N	999	180
HORZ(LL): 0.047	L	-	-
HORZ(TL): 0.097	L	-	-

Creep Factor: 2.0
Max TC CSI: 0.602
Max BC CSI: 0.877
Max Web CSI: 0.936

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

Loc	Gravity R+	/ R-	/ Rh	Non-Gravity / Rw	/ U	/ RL
R	1305	/-	/-	/637	/26	/281
L	2176	/-	/-	/1192	/23	/-
I	308	/-63	/-	/87	/107	/-

Wind reactions based on MWFRS
R Brg Width = 3.5 Min Req = 1.5
L Brg Width = 4.0 Min Req = 2.6
I Brg Width = 3.5 Min Req = 1.5
Bearings R, L, & I 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	107	- 946	F - G	40	- 1265
C - D	120	- 759	G - H	1386	0
D - E	119	- 1174	H - I	822	- 1
E - F	56	- 1893			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
R - Q	563	- 60	N - M	1340	0
Q - P	728	0	M - L	42	- 1388
P - O	934	0	L - K	15	- 791
O - N	1573	0	K - I	19	- 781

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
R - B	56	- 1209	F - M	47	- 1107
P - D	52	- 418	M - G	2458	0
D - O	581	0	L - G	59	- 1486
O - E	58	- 867	L - H	54	- 828
E - N	703	0			

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

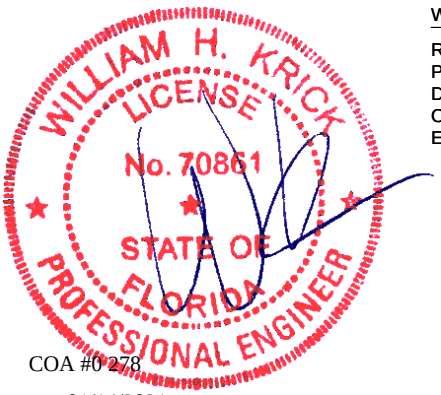
Bracing
(a) Continuous lateral restraint equally spaced on member.

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

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

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

Additional Notes
The overall height of this truss excluding overhang is 11-0-0.



COA #0278
01/14/2021

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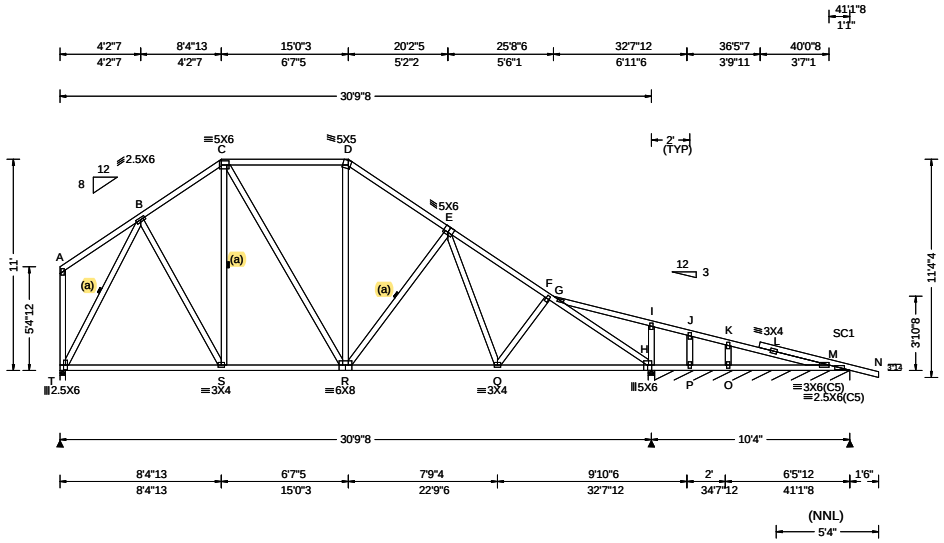
ALPINE AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334789 COMN FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** A04	Cust: R 215 JRef:1X212150007 T21 DrwNo: 014.21.0945.30327 SSB / WHK 01/14/2021	



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: 4.11 ft
Loc. from endwall: not in 6.50 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): 0.051	E	999	240
VERT(CL): 0.104	E	999	180
HORZ(LL): 0.023	C	-	-
HORZ(TL): 0.048	C	-	-

Creep Factor: 2.0
Max TC CSI: 0.482
Max BC CSI: 0.724
Max Web CSI: 0.505

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
T	1242	/-	/-	/674	/219	/254
H	1630	/-	/-	/902	/192	/-
M*	70	/-	/-	/32	/-	/-
P		/-125				

Wind reactions based on MWFRS
T Brg Width = 3.5 Min Req = 1.5
H Brg Width = 4.0 Min Req = 1.9
M Brg Width = 122 Min Req = -
Bearings T, H, & 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	285	-942	G - H	292	-1974
C - D	315	-886	G - I	398	-9
D - E	322	-1154	I - J	381	-27
E - F	311	-1552	K - L	380	-23
F - G	281	-1573	L - M	479	-92

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
T - S	561	-76	R - Q	1146	-92
S - R	725	0	Q - H	1268	-170

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
T - B	218	-1203	R - E	189	-437

Lumber

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

Bracing

(a) Continuous lateral restraint equally spaced on member.

Plating Notes

All plates are 2X4 except as noted.

Purlins

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

Wind

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

Left end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

Stacked top chord must NOT be notched or cut in area (NNL). 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 11-0-0.

COA #0278

01/14/2021

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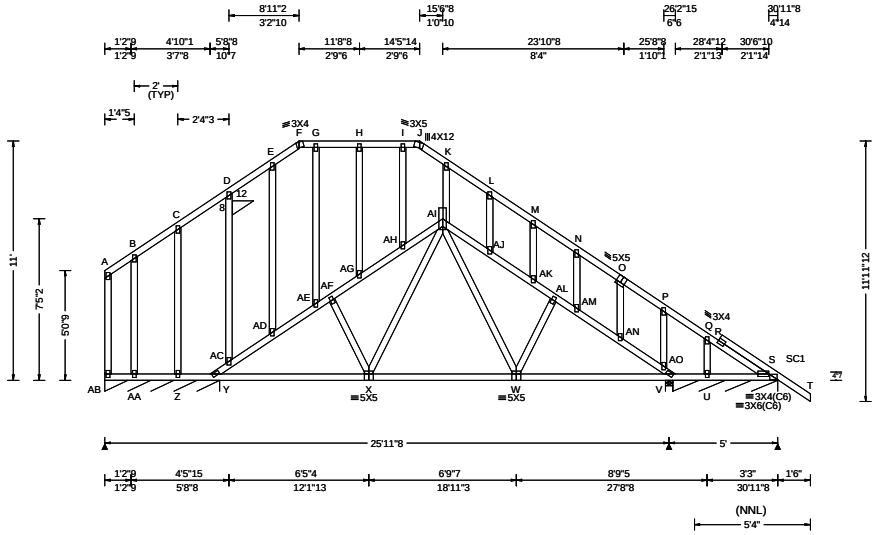
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334790 SPEC FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** B01	Cust: R 215 JRef:1X212150007 T24 DrwNo: 014.21.0945.31697 SSB / WHK 01/14/2021	



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): 0.044 I 999 240
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.093 I 999 180
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): -0.032 A - -
Des Ld: 40.00	EXP: C Kzt: NA		HORZ(TL): 0.069 A - -
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: 0.249
Load Duration: 1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.450
Spacing: 24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: Yes	Max Web CSI: 0.238
	C&C Dist a: 3.10 ft	FT/RT:20(0)/10(0)	
	Loc. from endwall: not in 4.50 ft	Plate Type(s):	
	GCpi: 0.18	WAVE	VIEW Ver: 20.02.01A.1209.11
	Wind Duration: 1.60		

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
AB*	248	/-	/-	/148	/8	/36
V	991	/-	/-	/560	/-	/-
S*	84	/-	/-	/45	/37	/-

Wind reactions based on MWFRS
AB Brg Width = 63.5 Min Req = -
V Brg Width = 4.0 Min Req = 1.5
S Brg Width = 58.0 Min Req = -
Bearings AB, V, & V are a rigid surface.
Members not listed have forces less than 375#

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
Y - X	969	0	W - V	941	0
X - W	646	0			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
Y -AC	0	-1300	AI-AJ	0	-966
AC-AD	0	-1184	AI- W	415	-8
AD-AE	0	-1165	AJ-AK	0	-970
AE-AF	0	-1048	AK-AL	0	-1047
AF-AG	0	-1088	AL-AM	0	-1011
AG-AH	0	-1022	AM-AN	5	-1090
X -AI	447	0	AN-AO	9	-1112
AH-AI	0	-1008	AO- V	12	-1232

Lumber

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

Plating Notes

All plates are 2X4 except as noted.

Purlins

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

Wind

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

Left end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Blocking

Blocking reinforcement required to prevent buckling of members over the bearings:
Bearing 2 located at 25.8' (blocking >= 5.50" if used)

Additional Notes

Stacked top chord must NOT be notched or cut in area (NNL). 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 11-0-0.

Laterally brace chord above/ below filler at 24" OC (or as designed) including a lateral brace on chord directly below both ends of filler (if no rigid diaphragm exists at that point)

COA #0278

01/14/2021

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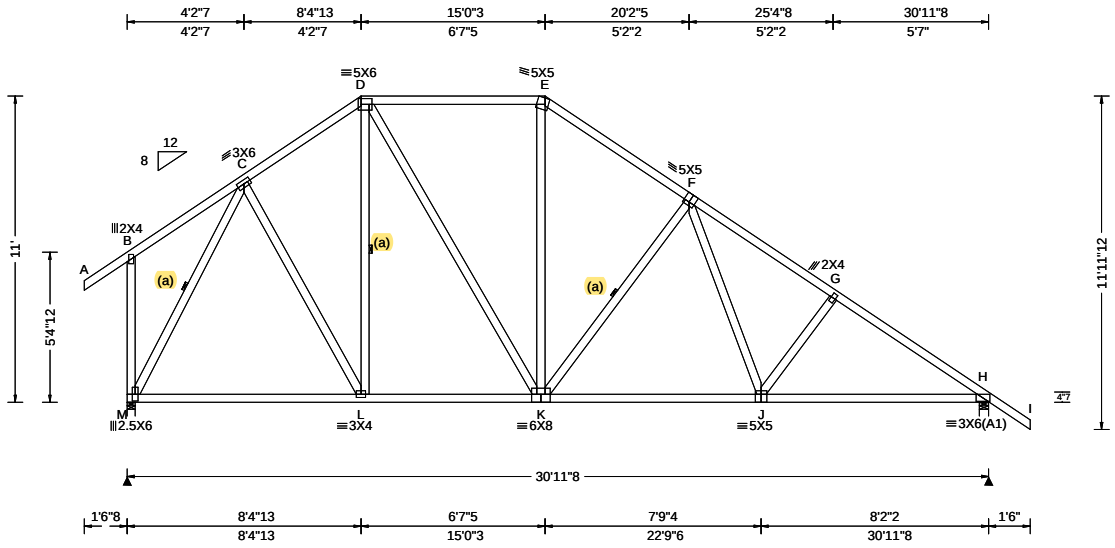
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334791 COMN FROM: CDM	Ply: 1 Qty: 3	**Job Number:** 20-4541 Sparks Residence **Truss Label:** B02		Cust: R 215 JRef:1X212150007 T38 DrwNo: 014.21.0945.37070 SSB / WHK 01/14/2021	



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: 3.10 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): 0.078	J	999	240
VERT(CL): 0.141	J	999	180
HORZ(LL): 0.037	J	-	-
HORZ(TL): 0.066	J	-	-

Creep Factor: 2.0
Max TC CSI: 0.532
Max BC CSI: 0.910
Max Web CSI: 0.628

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

Loc	Gravity R+	/ R-	/ Rh	Non-Gravity / Rw	/ U	/ RL
M	1691	/-	/-	/770	/248	/340
H	1574	/-	/-	/889	/225	/-

Wind reactions based on MWFRS
M Brg Width = 3.5 Min Req = 2.0
H Brg Width = 4.0 Min Req = 1.9
Bearings M & 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.
C - D	301	- 1198	F - G	361	- 2052
D - E	330	- 1136	G - H	332	- 2245
E - F	340	- 1450			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
M - L	697	- 134	K - J	1474	- 50
L - K	941	- 43	J - H	1783	- 167

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
M - C	190	- 1496	K - F	205	- 569
C - L	509	- 24	F - J	483	- 55
D - K	377	- 118			

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

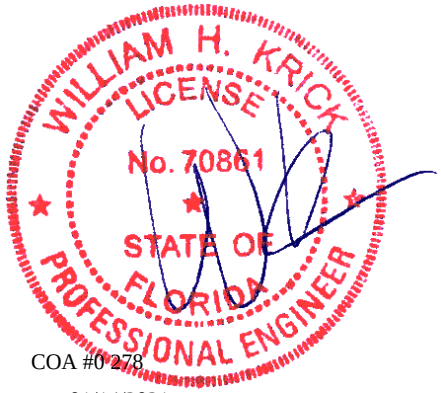
Bracing
(a) Continuous lateral restraint equally spaced on member.

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

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

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

Additional Notes
The overall height of this truss excluding overhang is 11-0-0.



COA #0 278

01/14/2021

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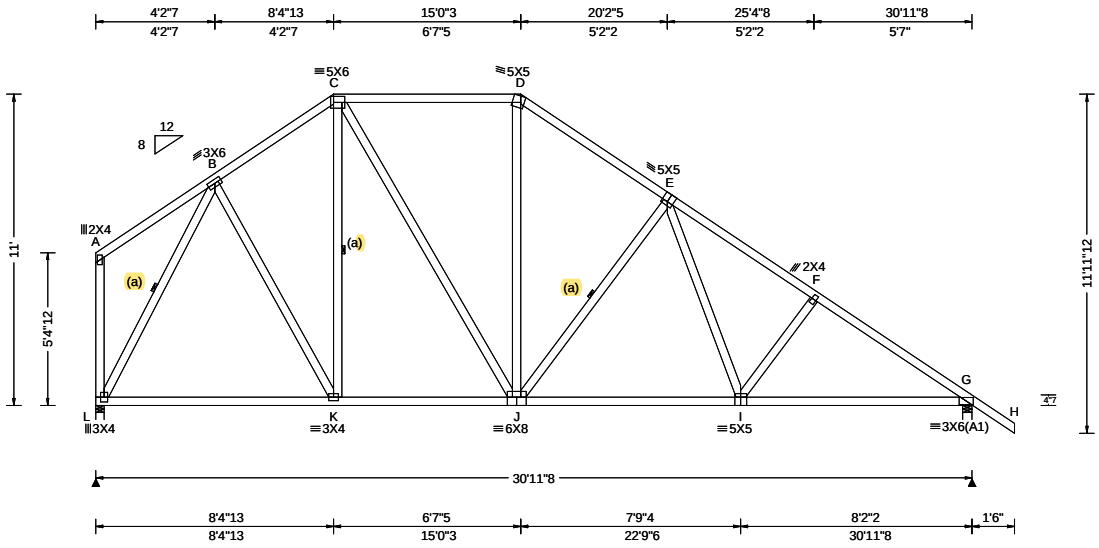
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334792 COMN FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4541 Sparks Residence **Truss Label:** B03	Cust: R 215 JRef:1X212150007 T41 DrwNo: 014.21.0945.38383 SSB / WHK 01/14/2021	



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: 3.10 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):	0.079 I	999	240
VERT(CL):	0.142 I	999	180
HORZ(LL):	0.037 I	-	-
HORZ(TL):	0.067 I	-	-

Creep Factor: 2.0
Max TC CSI: 0.538
Max BC CSI: 0.913
Max Web CSI: 0.639

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
L	1582	/-	/-	/684	/40	/305
G	1577	/-	/-	/892	/53	/-

Wind reactions based on MWFRS
L Brg Width = 3.5 Min Req = 1.9
G Brg Width = 4.0 Min Req = 1.9
Bearings L & 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	123	-1207	E - F	130	-2057
C - D	159	-1140	F - G	99	-2250
D - E	153	-1455			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
L - K	709	-125	J - I	1478	0
K - J	947	-37	I - G	1787	-1

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
L - B	71	-1521	J - E	121	-568
B - K	496	-21	E - I	483	-10
C - J	375	-113			

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

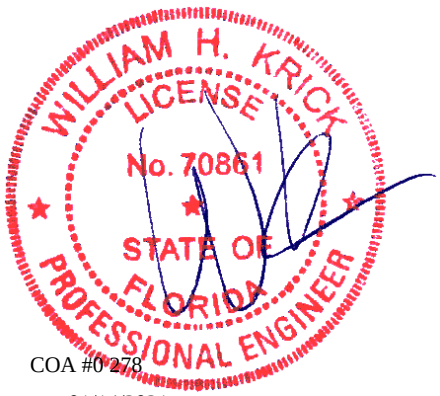
Bracing
(a) Continuous lateral restraint equally spaced on member.

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

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

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

Additional Notes
The overall height of this truss excluding overhang is 11-0-0.



COA #0278
01/14/2021

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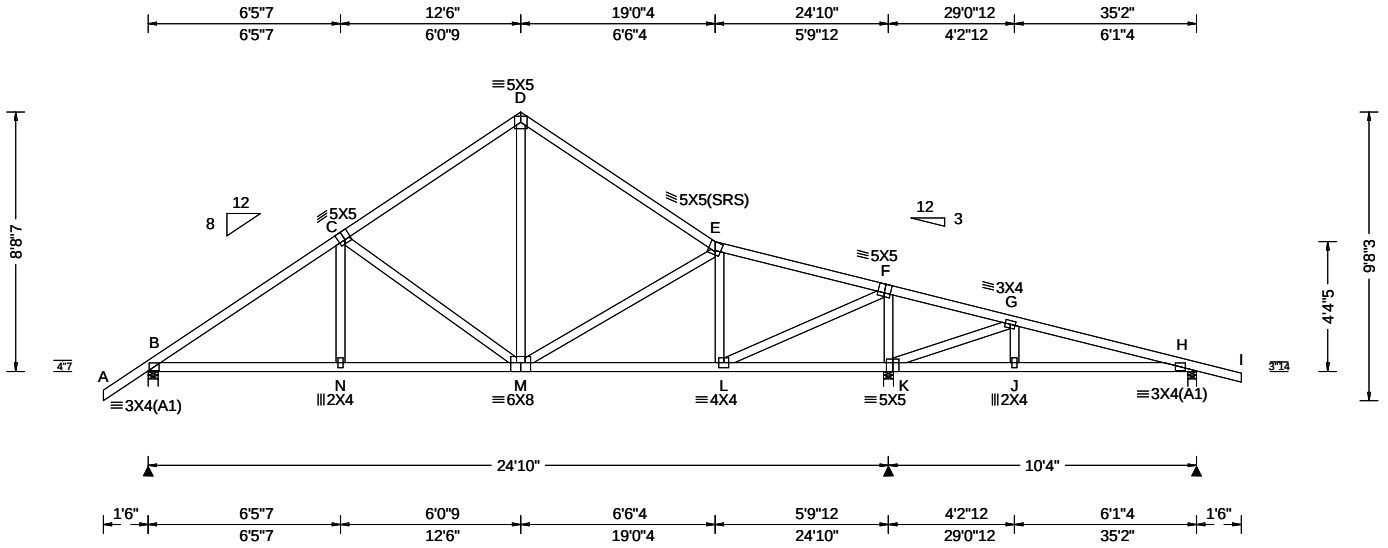
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334793 COMN FROM: CDM	Ply: 1 Qty: 5	**Job Number:** 20-4541 Sparks Residence **Truss Label:** B04	Cust: R 215 JRef:1X212150007 T34 DrwNo: 014.21.0945.41207 SSB / WHK 01/14/2021	



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: 3.52 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): 0.041	M	999	240
VERT(CL): 0.085	M	999	180
HORZ(LL): 0.016	C	-	-
HORZ(TL): 0.034	C	-	-

Creep Factor: 2.0
Max TC CSI: 0.419
Max BC CSI: 0.438
Max Web CSI: 0.567

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1106	/-	/-	/687	/12	/261
K	1662	/-	/-	/878	/67	/-
H	391	/-	/-	/190	/97	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
K Brg Width = 4.0 Min Req = 2.0
H Brg Width = 3.5 Min Req = 1.5
Bearings B, K, & 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	41	-1409	E - F	48	-981
C - D	91	-965	F - G	677	0
D - E	86	-972			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - N	1083	-40	M - L	950	0
N - M	1081	-40	L - K	54	-502

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - M	113	-455	L - F	1488	0
D - M	548	-13	F - K	85	-1306
E - L	64	-528	K - G	71	-760

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.

Additional Notes

The overall height of this truss excluding overhang is 8-8-7.

COA #0 278

01/14/2021

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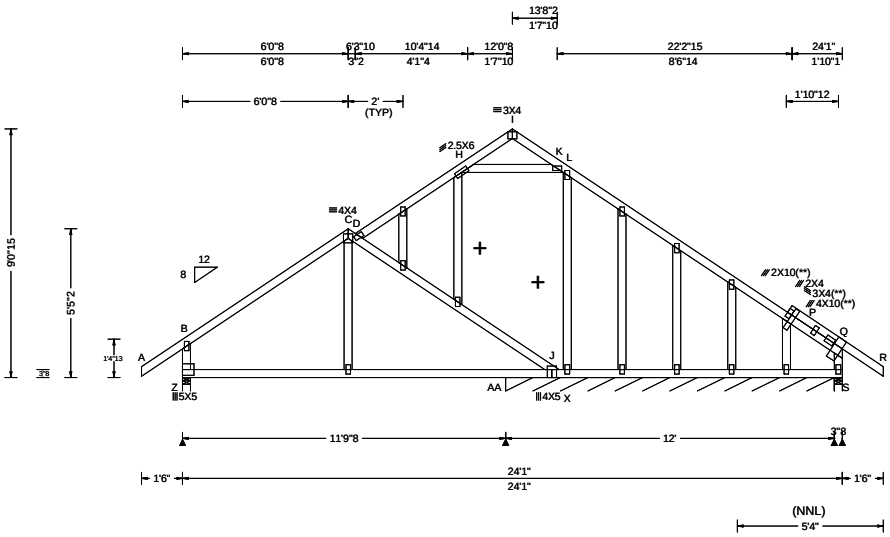
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334972 GABL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** C01		Cust: R 215 JRef:1X212150007 T3 DrwNo: 014.21.0945.42637 SSB / WHK 01/14/2021	



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): 0.181 H 783 240
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.371 H 381 180
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): -0.143 B - -
Des Ld: 40.00	EXP: C Kzt: NA		HORZ(TL): 0.297 B - -
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: 0.560
Load Duration: 1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.436
Spacing: 24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: Yes	Max Web CSI: 0.563
	C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)	
	Loc. from endwall: Any	Plate Type(s):	VIEW Ver: 20.02.01A.1209.11
	GCpi: 0.18	WAVE	
	Wind Duration: 1.60		

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
Z	585	/-	/-	/401	/94	/252
AA*	129	/-	/-	/73	/-	/-
S	144	/-14	/-	/55	/154	/-

Wind reactions based on MWFRS
Z Brg Width = 3.5 Min Req = 1.5
AA Brg Width = 144 Min Req = -
S Brg Width = 3.5 Min Req = 1.5
Bearings Z, AA, & S 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	101	-439	D - J	164	-493

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.
Z - J	621	-404

Maximum Gable Forces Per Ply (lbs)

Gables	Tens.	Comp.	Gables	Tens.	Comp.
Z - B	125	-506	X - L	0	-517

Lumber

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

Plating Notes

All plates are 2X4 except as noted.

(**) 3 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

Loading

Gable end supports 8" max rake overhang. Top chord must not be cut or notched.

Wind

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

End verticals not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

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

The overall height of this truss excluding overhang is 9-0-15.

Laterally brace chord above/ below filler at 24" OC (or as designed) including a lateral brace on chord directly below both ends of filler (if no rigid diaphragm exists at that point)

+ Member to be laterally braced for out of plane wind loads

COA #0 278

01/14/2021

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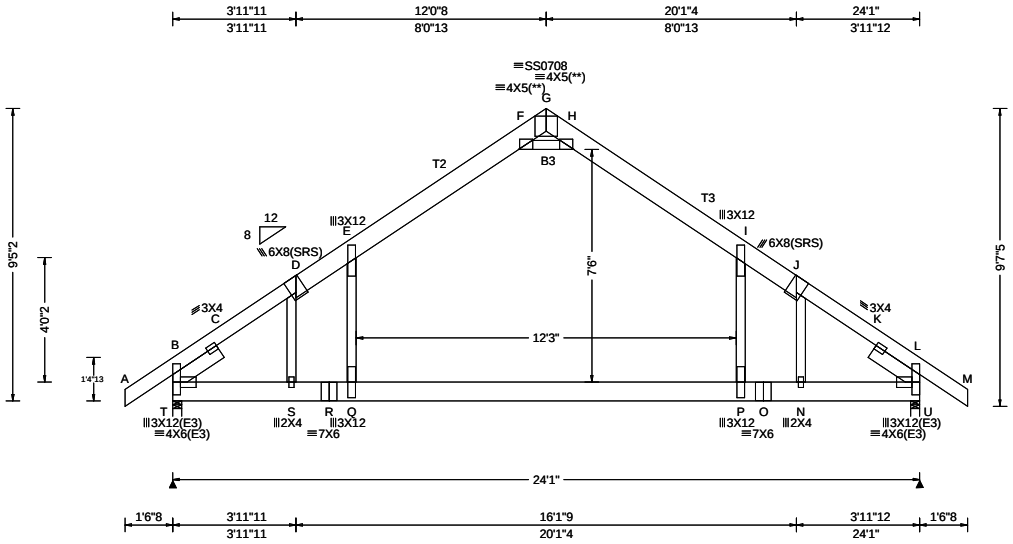
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334795 ATIC FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4541 Sparks Residence **Truss Label:** C02	Cust: R 215 JRef:1X212150007 T5 DrwNo: 014.21.0946.02200 SSB / WHK 01/14/2021	



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, 18SS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.220	P	999	240
VERT(CL): 0.452	P	640	180
HORZ(LL): -0.157	I	-	-
HORZ(TL): 0.327	I	-	-

Creep Factor: 2.0
Max TC CSI: 0.565
Max BC CSI: 0.517
Max Web CSI: 0.751

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
T	1979	/-	/-	/680	/181	/275
U	1979	/-	/-	/680	/181	/-

Wind reactions based on MWFRS
T Brg Width = 3.5 Min Req = 1.6
U Brg Width = 3.5 Min Req = 1.6
Bearings T & U 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	112	- 2246	G - H	1569	- 182
C - D	126	- 2179	H - I	265	- 1771
D - E	213	- 2670	I - J	213	- 2670
E - F	265	- 1771	J - K	126	- 2179
F - G	1568	- 182	K - L	112	- 2245

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - S	1655	- 27	P - O	1680	- 19
S - R	1680	- 23	O - N	1680	- 19
R - Q	1680	- 23	N - L	1655	- 19
Q - P	1742	- 16			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
S - D	127	- 1038	P - I	1661	0
E - Q	1660	0	J - N	127	- 1039
F - H	538	- 3627			

Lumber

Top chord: 2x6 SP 2400f-2.0E; T2,
T3 2x8 SP 2400f-2.0E;
Bot chord: 2x8 SP 2400f-2.0E; B3 2x4 SP #2;
Webs: 2x4 SP #3;
Lt Slider: 2x6 SP 2400f-2.0E; block length = 1.825'
Rt Slider: 2x6 SP 2400f-2.0E; block length = 1.825'

Plating Notes

(**) 2 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

Loading

Attic room loading from 5-11-0 to 18-2-0: Live Load: 40 PSF. Dead Load: 10 PSF Ceiling: 10 PSF, Kneewalls: 10 PSF

Purlins

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

Wind

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

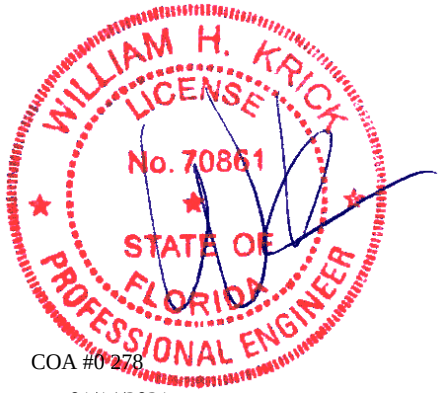
Wind loading based on both gable and hip roof types.

Blocking

Blocking reinforcement required to
prevent buckling of members over the bearings:
Bearing 1 located at 0.0' (blocking >= 3.50" if used)
Bearing 2 located at 23.8' (blocking >= 3.50" if used)

Additional Notes

The overall height of this truss excluding overhang is 9-5-2.



COA #0 278

01/14/2021

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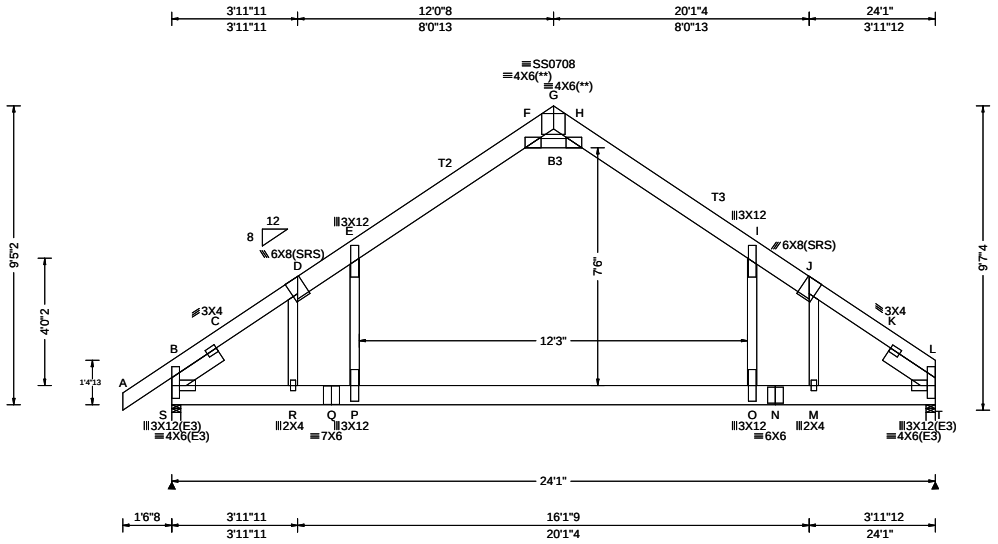
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334796 ATIC FROM: CDM	Ply: 1 Qty: 8	**Job Number:** 20-4541 Sparks Residence **Truss Label:** C03	Cust: R 215 JRef:1X212150007 T43 DrwNo: 014.21.0946.03637 SSB / WHK 01/14/2021	



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 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, 18SS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.224	O	999	240
VERT(CL): 0.459	O	629	180
HORZ(LL): -0.160	I	-	-
HORZ(TL): 0.333	I	-	-

Creep Factor: 2.0
Max TC CSI: 0.567
Max BC CSI: 0.517
Max Web CSI: 0.754

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
S	1982	/-	/-	/681	/181	/255
T	1869	/-	/-	/588	/155	/-

Wind reactions based on MWFRS
S Brg Width = 3.5 Min Req = 1.6
T Brg Width = 3.5 Min Req = 1.5
Bearings S & T 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	111	-2254	G - H	1580	-181
C - D	125	-2187	H - I	265	-1776
D - E	213	-2679	I - J	213	-2682
E - F	265	-1778	J - K	123	-2174
F - G	1579	-181	K - L	110	-2241

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - R	1662	-45	O - N	1687	-46
R - Q	1687	-46	N - M	1687	-46
Q - P	1687	-46	M - L	1661	-45
P - O	1749	-45			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
R - D	127	-1041	O - I	1667	0
E - P	1667	0	J - M	131	-1067
F - H	536	-3648			

Lumber

Top chord: 2x6 SP 2400f-2.0E; T2,
T3 2x8 SP 2400f-2.0E;
Bot chord: 2x8 SP 2400f-2.0E; B3 2x4 SP #2;
Webs: 2x4 SP #3;
Lt Slider: 2x6 SP 2400f-2.0E; block length = 1.825'
Rt Slider: 2x6 SP 2400f-2.0E; block length = 1.825'

Plating Notes

(**) 2 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

Loading

Attic room loading from 5-11-0 to 18-2-0: Live Load: 40 PSF. Dead Load: 10 PSF Ceiling: 10 PSF, Kneewalls: 10 PSF

Purlins

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

Wind

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

Wind loading based on both gable and hip roof types.

Blocking

Blocking reinforcement required to
prevent buckling of members over the bearings:
Bearing 1 located at 0.0' (blocking >= 3.50" if used)
Bearing 2 located at 23.8' (blocking >= 3.50" if used)

Additional Notes

The overall height of this truss excluding overhang is 9-5-2.

COA #0 278

01/14/2021

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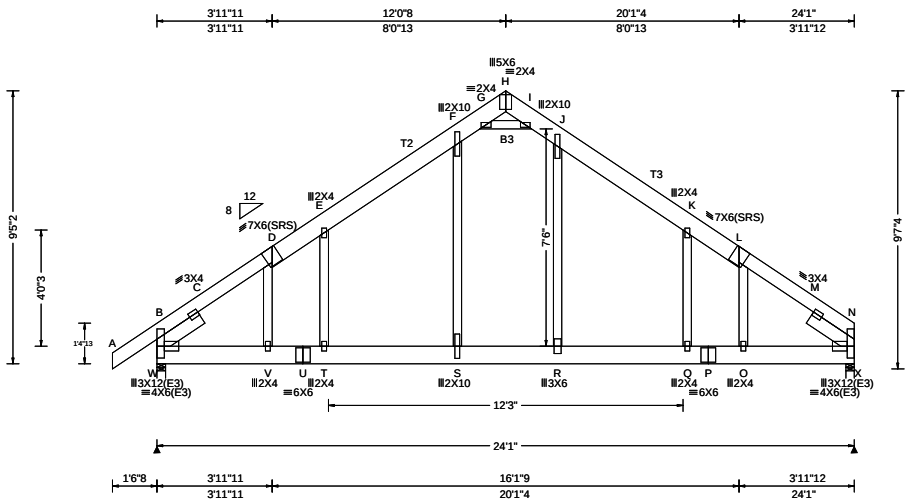
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334827 ATIC FROM: CDM	Ply: 2 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** C04	Cust: R 215 JRef:1X212150007 T35 DrwNo: 014.21.0946.26297 SSB / WHK 01/14/2021		

2 Complete Trusses Required



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):	0.048 Q	999	240	
BCLL:	0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL):	0.103 Q	999	180	
BCDL:	10.00	Risk Category: II	Snow Duration: NA	HORZ(LL):	0.027 E	-	-	
Des Ld:	40.00	EXP: C Kzt: NA		HORZ(TL):	0.061 K	-	-	
NCBCLL:	0.00	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:	0.177			
Load Duration:	1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI:	0.142			
Spacing:	24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: Varies by Ld Case	Max Web CSI:	0.262			
		C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)					
		Loc. from endwall: not in 9.00 ft	Plate Type(s):					
		GCpi: 0.18	WAVE	VIEW Ver: 20.02.01A.1209.11				
		Wind Duration: 1.60						

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
W	2619	/-	/-	/-	/352	/-
X	2510	/-	/-	/-	/312	/-

Wind reactions based on MWFRS
W Brg Width = 3.5 Min Req = 1.5
X Brg Width = 3.5 Min Req = 1.5
Bearings W & X 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	217	-1728	I - J	139	-1158
C - D	205	-1691	J - K	204	-1621
D - E	195	-1620	K - L	196	-1623
E - F	204	-1620	L - M	203	-1685
F - G	137	-1135	M - N	214	-1722
G - H	378	-44			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - V	1316	-158	R - Q	1307	-155
V - U	1309	-157	Q - P	1309	-157
U - T	1309	-157	P - O	1309	-157
T - S	1307	-155	O - N	1317	-158
S - R	1322	-157			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
F - S	688	-65	R - J	654	-62
G - I	209	-1765			

Lumber

Top chord: 2x6 SP 2400f-2.0E; T2,
T3 2x8 SP 2400f-2.0E;
Bot chord: 2x8 SP 2400f-2.0E; B3 2x4 SP #2;
Webs: 2x4 SP #3;
Lt Slider: 2x6 SP 2400f-2.0E; block length = 1.825'
Rt Slider: 2x6 SP 2400f-2.0E; block length = 1.824'

Nailnote

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

Purlins

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

Wind

Wind loads and reactions based on MWFRS.

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 9-5-2.

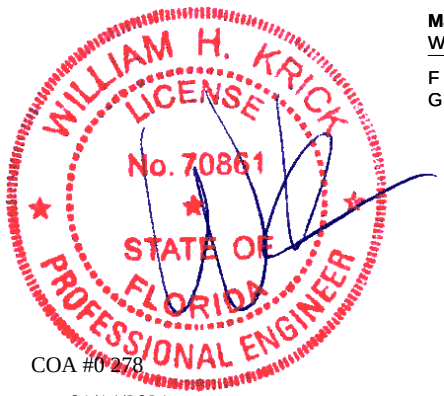
It is the responsibility of the Building Designer and Truss Fabricator to review this drawing prior to cutting lumber to verify that all data,including dimensions and loads, conform to the architectural plans/specifications and fabricators truss layout.

Special loads

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

TC: From	64 plf at	-1.54 to	64 plf at	24.08	
PLT: From	24 plf at	5.92 to	24 plf at	11.15	
PLT: From	20 plf at	11.15 to	20 plf at	12.93	
PLT: From	24 plf at	12.93 to	24 plf at	18.17	
PLT: From	100 plf at	5.92 to	100 plf at	18.17	
BC: From	5 plf at	-1.54 to	5 plf at	0.00	
BC: From	20 plf at	0.00 to	20 plf at	24.08	

BC: 80 lb Conc. Load at 5.92,18.17
BC: 647 lb Conc. Load at 10.46
BC: 630 lb Conc. Load at 13.75



COA #0 278
01/14/2021

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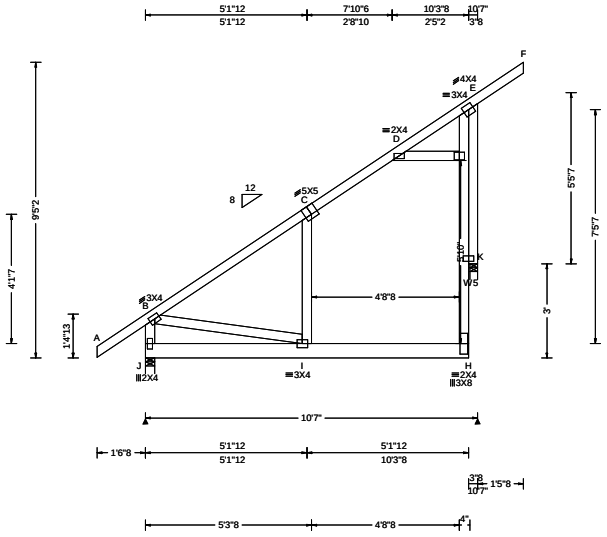
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334797 MONO FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4541 Sparks Residence **Truss Label:** C05	Cust: R 215 JRef:1X212150007 T23 DrwNo: 014.21.0946.38160 SSB / WHK 01/14/2021	



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): 0.240	C	522	240
VERT(CL): 0.419	C	299	180
HORZ(LL): 0.206	C	-	-
HORZ(TL): 0.359	C	-	-

Creep Factor: 2.0
Max TC CSI: 0.526
Max BC CSI: 0.341
Max Web CSI: 0.698

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
J	594	/-	/-	/339	/-	/226
K	684	/-	/-	/431	/145	/-

Wind reactions based on MWFRS
J Brg Width = 3.5 Min Req = 1.5
K Brg Width = 3.0 Min Req = 1.5
Bearings J & K are a rigid surface.
Members not listed have forces less than 375#

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.
E - K	181	-849

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x6 SP 2400f-2.0E;
Webs: 2x4 SP #3; W5 2x4 SP #2;
Rt Bearing Leg: 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.

End verticals not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

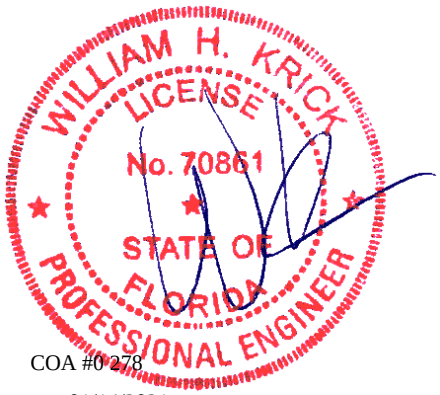
The overall height of this truss excluding overhang is 9-5-2.

Collar-Tie braced with continuous lateral bracing @24" OC, or rigid sheathing

Special loads

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

TC: From	64 plf at	-1.54 to	64 plf at	12.04
PLB: From	40 plf at	5.29 to	40 plf at	10.00
BC: From	5 plf at	-1.54 to	5 plf at	0.00
BC: From	20 plf at	0.00 to	20 plf at	10.29
BC: From	5 plf at	10.58 to	5 plf at	12.04



COA #0 278

01/14/2021

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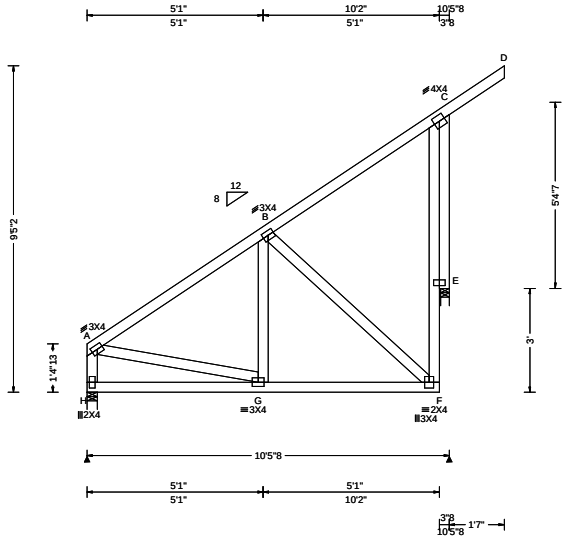
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334798 MONO FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4541 Sparks Residence **Truss Label:** C05A		Cust: R 215 JRef:1X212150007 T39 DrwNo: 014.21.0946.39567 SSB / WHK 01/14/2021	



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): 0.006	G	999	240
VERT(CL): 0.013	G	999	180
HORZ(LL): -0.004	C	-	-
HORZ(TL): 0.005	C	-	-

Creep Factor: 2.0
Max TC CSI: 0.339
Max BC CSI: 0.274
Max Web CSI: 0.315

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
H	423	/-	/-	/239	/-	/206
E	559	/-	/-	/439	/149	/-

Wind reactions based on MWFRS
H Brg Width = 3.5 Min Req = 1.5
E Brg Width = 3.0 Min Req = 1.5
Bearings H & E are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.
A - B	0	-421

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
A - H	0	-384	C - E	406	-481

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;
Rt Bearing Leg: 2x4 SP #3;

Wind

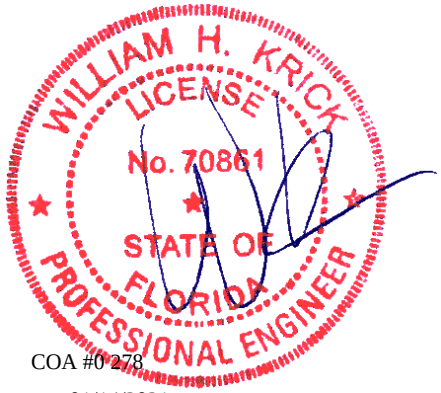
Wind loads based on MWFRS with additional C&C member design.

End verticals not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 9-5-2.



COA #0 278

01/14/2021

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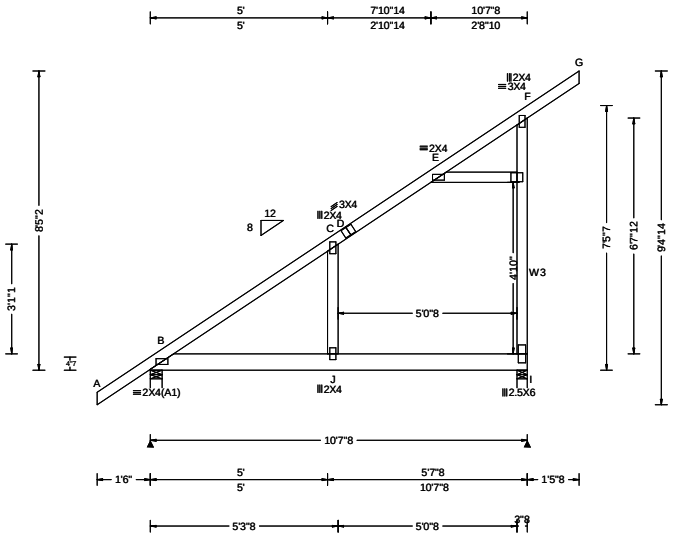
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334799 MONO FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4541 Sparks Residence **Truss Label:** C06		Cust: R 215 JRef:1X212150007 T13 DrwNo: 014.21.0946.40737 SSB / WHK 01/14/2021	



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):	0.259	J	486	240	Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
BCLL:	0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL):	0.457	J	275	180	B	600	/-	/-	/364	/-	/226
BCDL:	10.00	Risk Category: II	Snow Duration: NA	HORZ(LL):	0.173	C	-	-	I	674	/-	/-	/412	/119	/-
Des Ld:	40.00	EXP: C Kzt: NA		HORZ(TL):	0.306	C	-	-	Wind reactions based on MWFRS						
NCBCLL:	10.00	Mean Height: 15.00 ft	Building Code:	Creep Factor: 2.0					B Brg Width = 4.0 Min Req = 1.5						
Soffit:	2.00	TCDL: 5.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI:	0.482				I Brg Width = 3.5 Min Req = 1.5						
Load Duration: 1.25		BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI:	0.411				Bearings B & I are a rigid surface.						
Spacing: 24.0 "		MWFRS Parallel Dist: h to 2h	Rep Fac: Yes	Max Web CSI:	0.889				Members not listed have forces less than 375#						
		C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)												
		Loc. from endwall: not in 9.00 ft	Plate Type(s):												
		GCpi: 0.18	WAVE												
		Wind Duration: 1.60		VIEW Ver: 20.02.01A.1209.11											

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x6 SP 2400f-2.0E;
Webs: 2x4 SP #3; W3 2x4 SP #2;

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.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

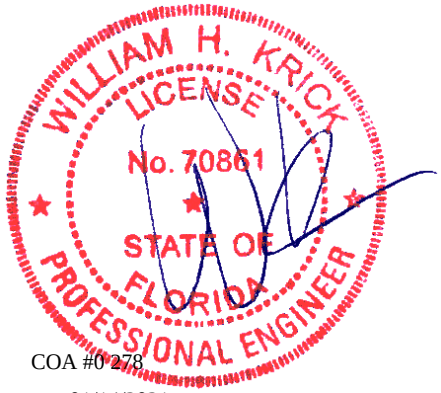
The overall height of this truss excluding overhang is 8-5-2.

Special loads

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

TC: From	64 plf at	-1.50 to	64 plf at	12.08
PLB: From	40 plf at	5.91 to	40 plf at	10.33
BC: From	5 plf at	-1.50 to	5 plf at	0.00
BC: From	20 plf at	0.00 to	20 plf at	10.62
BC: From	5 plf at	10.62 to	5 plf at	12.08

Collar-Tie braced with continuous lateral bracing @24" OC, or rigid sheathing



COA #0 278

01/14/2021

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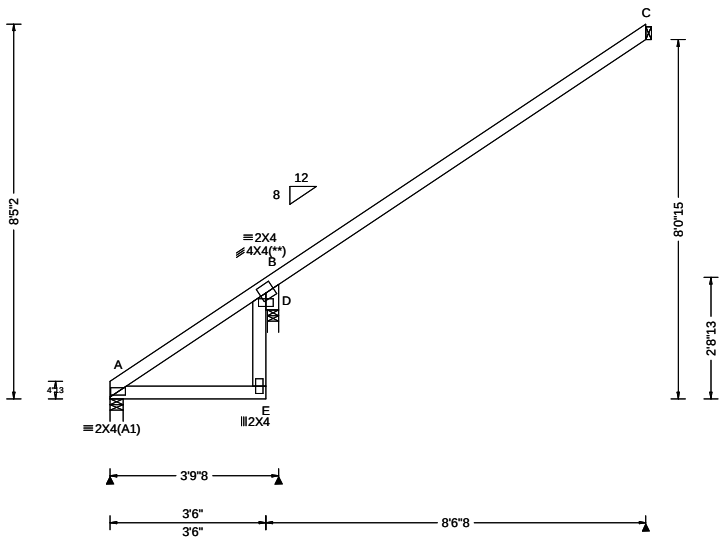
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334970 MONO FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4541 Sparks Residence **Truss Label:** C06A	Cust: R 215 JRef:1X212150007 T6 DrwNo: 014.21.0946.54530 SSB / WHK 01/14/2021	



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): 0.004	B	999	240
VERT(CL): 0.007	B	999	180
HORZ(LL): 0.003	B	-	-
HORZ(TL): 0.005	B	-	-

Creep Factor: 2.0
Max TC CSI: 0.446
Max BC CSI: 0.094
Max Web CSI: 0.596

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A	105	/-51	/-	/172	/78	/206
D	607	/-	/-	/453	/218	/-
C	213	/-	/-	/153	/84	/-

Wind reactions based on MWFRS
A Brg Width = 3.5 Min Req = 1.5
D Brg Width = 3.0 Min Req = 1.5
C Brg Width = 1.5 Min Req = -
Bearings A & D are a rigid surface.
Members not listed have forces less than 375#

Maximum Web Forces Per Ply (lbs)

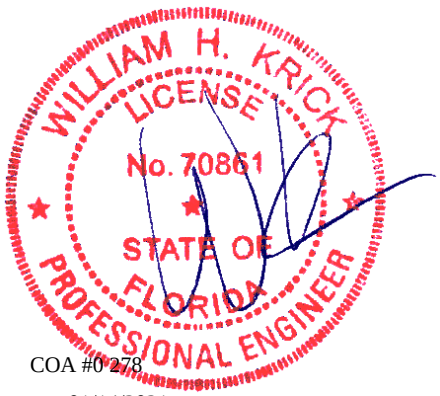
Webs	Tens.	Comp.
B - D	607	- 175

Lumber
Top chord: 2x4 SP M-31;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;
Rt Bearing Leg: 2x4 SP #3;

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

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 8-5-2.



COA #0278
01/14/2021

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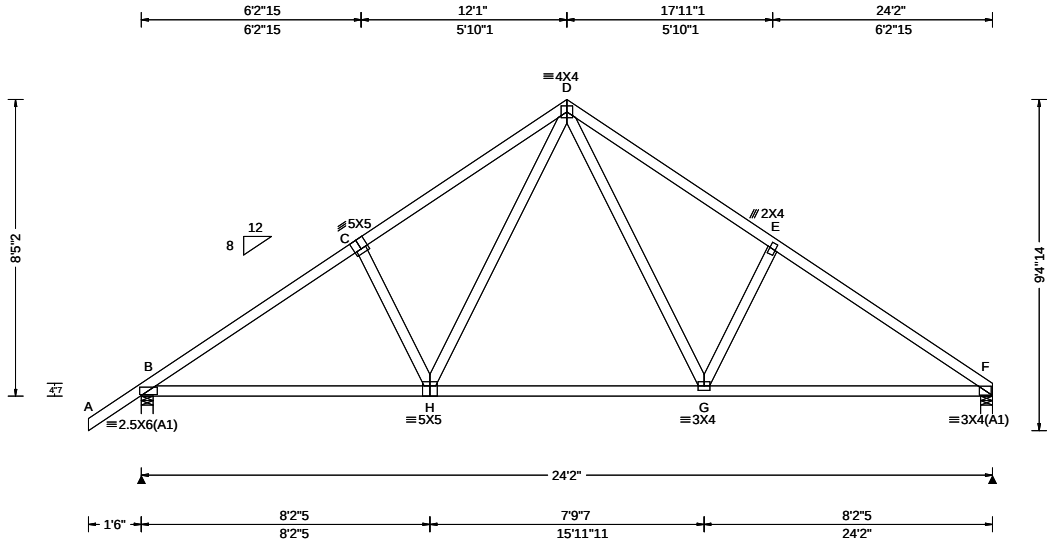
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334801 COMN FROM: CDM	Ply: 1 Qty: 7	**Job Number:** 20-4541 Sparks Residence **Truss Label:** C07	Cust: R 215 JRef:1X212150007 T9 DrwNo: 014.21.0946.55870 SSB / WHK 01/14/2021	



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): 0.050	H	999	240
VERT(CL): 0.097	H	999	180
HORZ(LL): 0.022	G	-	-
HORZ(TL): 0.042	G	-	-

Creep Factor: 2.0
Max TC CSI: 0.388
Max BC CSI: 0.678
Max Web CSI: 0.235

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1202	/-	/-	/688	/12	/257
F	1091	/-	/-	/597	/6	/-

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	50	-1584	D - E	105	-1435
C - D	104	-1419	E - F	51	-1598

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - H	1232	-65	G - F	1249	0
H - G	837	0			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
H - D	592	-57	D - G	618	-61

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.

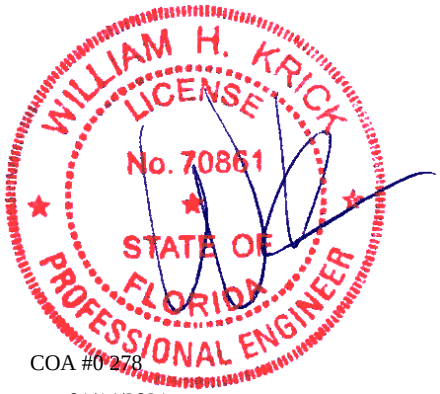
Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 8-5-2.



COA #0278

01/14/2021

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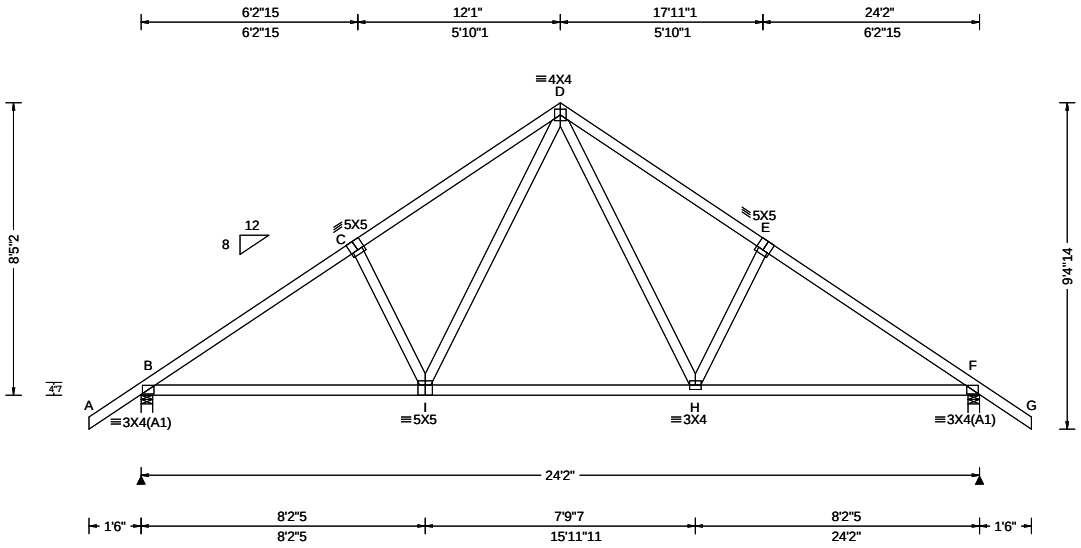
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334802 COMN FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** C08		Cust: R 215 JRef:1X212150007 T12 DrwNo: 014.21.0946.56977 SSB / WHK 01/14/2021	



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): 0.040	H	999	240
VERT(CL): 0.083	H	999	180
HORZ(LL): 0.018	H	-	-
HORZ(TL): 0.037	H	-	-

Creep Factor: 2.0
Max TC CSI: 0.365
Max BC CSI: 0.620
Max Web CSI: 0.191

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1119	/-	/-	/688	/184	/276
F	1119	/-	/-	/688	/184	/-

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	257	- 1422	D - E	323	- 1259
C - D	324	- 1259	E - F	257	- 1423

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - I	1101	- 103	H - F	1101	- 97
I - H	742	- 17			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
I - D	501	- 113	D - H	503	- 112

Lumber

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

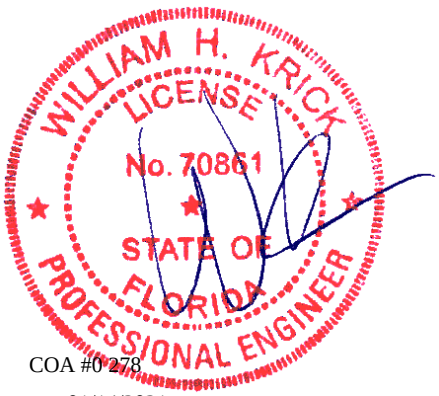
Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 8-5-2.



COA #0 278

01/14/2021

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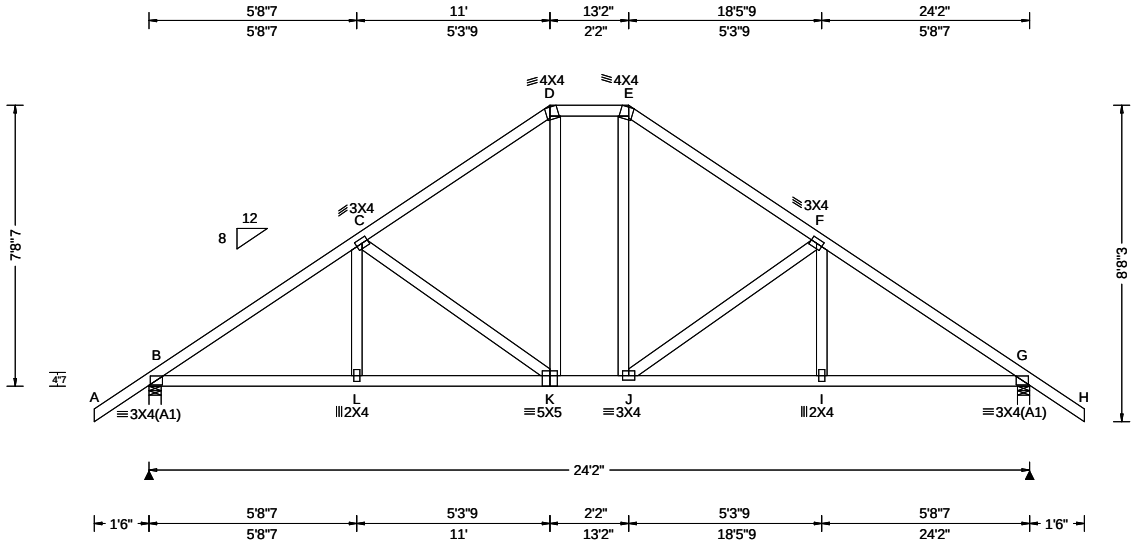
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334803 HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** C09		Cust: R 215 JRef:1X212150007 T11 DrwNo: 014.21.0946.58177 SSB / WHK 01/14/2021	



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): 0.041	J	999	240
VERT(CL): 0.106	J	999	180
HORZ(LL): 0.021	I	-	-
HORZ(TL): 0.043	D	-	-

Creep Factor: 2.0
Max TC CSI: 0.346
Max BC CSI: 0.402
Max Web CSI: 0.374

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

Loc	Gravity R+	/ R-	/ Rh	Non-Gravity / Rw	/ U	/ RL
B	1119	/-	/-	/689	/186	/256
G	1119	/-	/-	/689	/186	/-

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	251	-1457	E - F	265	-1071
C - D	265	-1071	F - G	251	-1457
D - E	262	-806			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - L	1132	-99	J - I	1130	-100
L - K	1130	-100	I - G	1132	-99
K - J	806	-2			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - K	155	-442	J - F	155	-443

Lumber

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

Purlins

In lieu of structural panels use purlins to brace all flat 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.

Additional Notes

The overall height of this truss excluding overhang is 7-8-7.

COA #0278

01/14/2021

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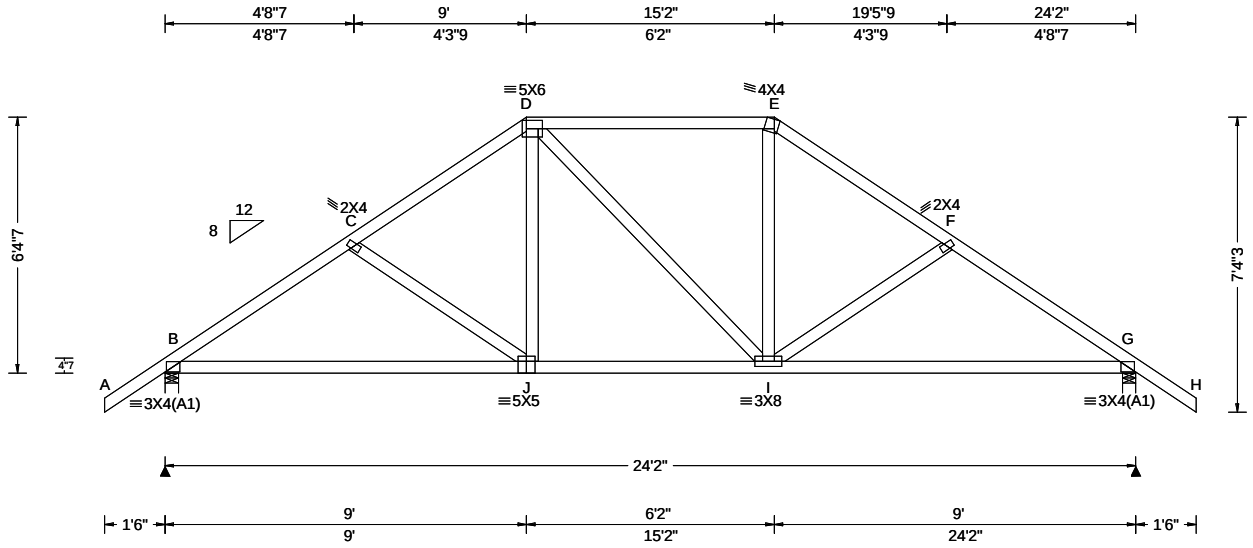
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334804 HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** C10		Cust: R 215 JRef:1X212150007 T10 DrwNo: 014.21.0946.59190 SSB / WHK 01/14/2021	



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): 0.039	J	999	240
VERT(CL): 0.080	J	999	180
HORZ(LL): 0.020	I	-	-
HORZ(TL): 0.041	I	-	-

Creep Factor: 2.0
Max TC CSI: 0.456
Max BC CSI: 0.693
Max Web CSI: 0.139

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1119	/-	/-	/685	/190	/219
G	1119	/-	/-	/685	/190	/-

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	285	-1439	E - F	262	-1201
C - D	264	-1205	F - G	285	-1439
D - E	259	-947			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - J	1131	-137	I - G	1131	-137
J - I	944	-21			

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

Purlins
In lieu of structural panels use purlins to brace all flat 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.

Additional Notes
The overall height of this truss excluding overhang is 6-4-7.

COA #0278
01/14/2021

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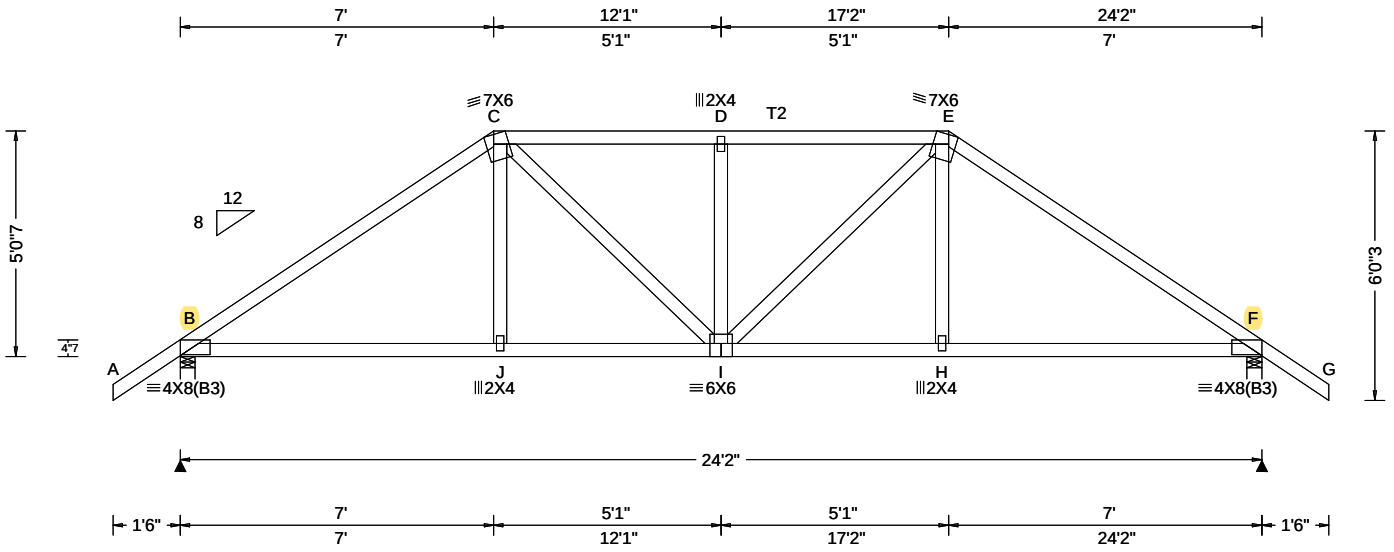
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334824 HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** C11		Cust: R 215 JRef:1X212150007 T14 DrwNo: 014.21.0947.00230 SSB / WHK 01/14/2021	



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): 0.120	D	999	240
VERT(CL): 0.242	D	999	180
HORZ(LL): 0.046	H	-	-
HORZ(TL): 0.092	H	-	-

Creep Factor: 2.0
Max TC CSI: 0.845
Max BC CSI: 0.433
Max Web CSI: 0.383

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	2460	/-	/-	/-	/643	/-
F	2460	/-	/-	/-	/643	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 2.0
F Brg Width = 4.0 Min Req = 2.0
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	1018	- 3738	D - E	1032	- 3756
C - D	1032	- 3756	E - F	1018	- 3738

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - J	3000	- 808	I - H	3019	- 808
J - I	3019	- 808	H - F	3000	- 808

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - J	629	- 9	D - I	479	- 845
C - I	1005	- 306	H - E	629	- 9
I - E	1005	- 306			

Lumber

Top chord: 2x4 SP #2; T2 2x4 SP M-31;
Bot chord: 2x4 SP M-31;
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	7.00
TC: From	32 plf at	7.00 to	32 plf at	17.17
TC: From	64 plf at	17.17 to	64 plf at	25.67
BC: From	5 plf at	-1.50 to	5 plf at	0.00
BC: From	20 plf at	0.00 to	20 plf at	7.03
BC: From	10 plf at	7.03 to	10 plf at	17.14
BC: From	20 plf at	17.14 to	20 plf at	24.17
BC: From	5 plf at	24.17 to	5 plf at	25.67

TC: 275 lb Conc. Load at 7.03,17.14
TC: 193 lb Conc. Load at 9.06,11.06,12.08,13.10 15.10
BC: 472 lb Conc. Load at 7.03,17.14
BC: 131 lb Conc. Load at 9.06,11.06,12.08,13.10 15.10

Purlins

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

Wind

Wind loads and reactions based on MWFRS.

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 5-0-7.

COA #0278

01/14/2021

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

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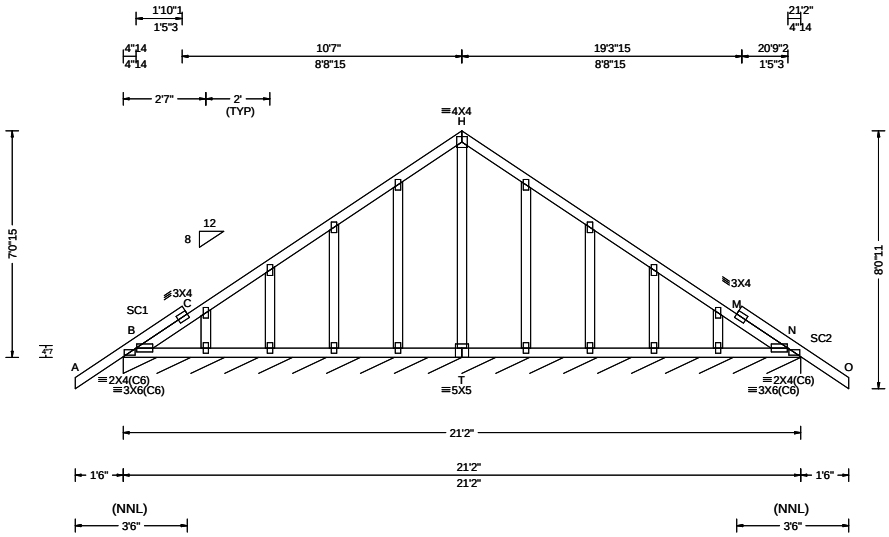
For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcindustry.com; ICC: iccsafe.org; AWC: awc.org

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

SEQN: 334805 GABL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** D01	Cust: R 215 JRef:1X212150007 T2 DrwNo: 014.21.0947.01333 SSB / WHK 01/14/2021	



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): 0.001 X 999 240 VERT(CL): 0.003 X 999 180 HORZ(LL): -0.000 D - - HORZ(TL): 0.001 D - - Creep Factor: 2.0 Max TC CSI: 0.189 Max BC CSI: 0.078 Max Web CSI: 0.106 VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
N*	94	/-	/-	/49	/-	/4

Wind reactions based on MWFRS
N Brg Width = 254 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;
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.

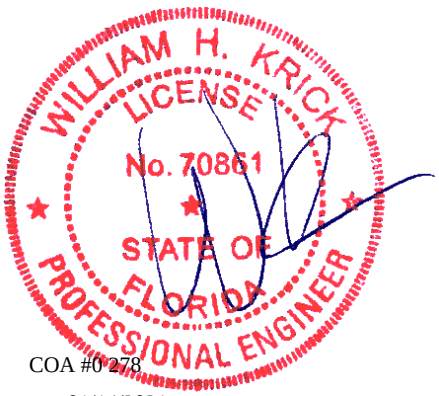
Wind loading based on both gable and hip roof types.

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.

The overall height of this truss excluding overhang is 7-0-15.



COA #0 278

01/14/2021

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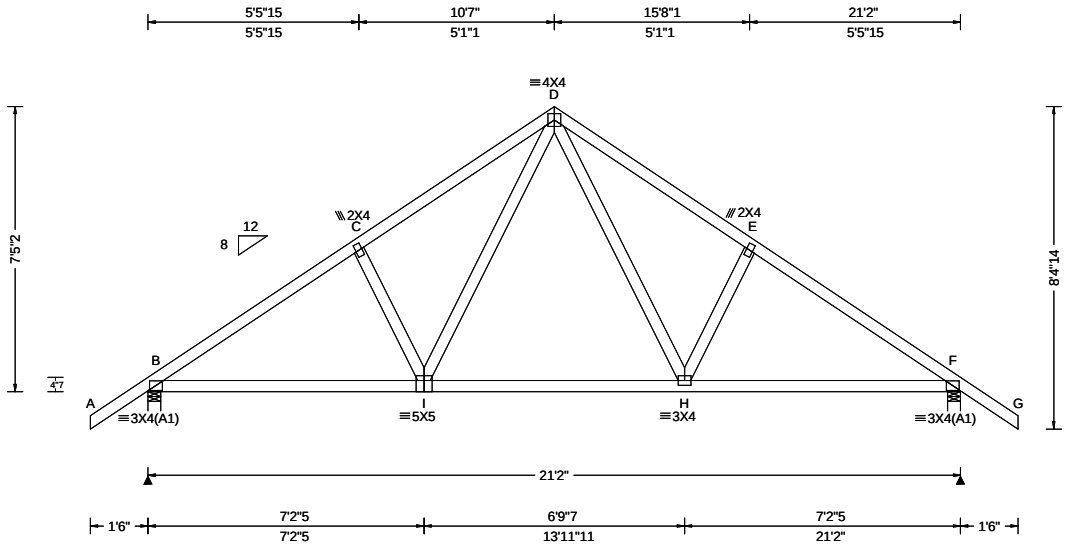
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334806 COMN FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4541 Sparks Residence **Truss Label:** D02	Cust: R 215 JRef:1X212150007 T1 DrwNo: 014.21.0947.02530 SSB / WHK 01/14/2021	



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): 0.038	H	999	240
VERT(CL): 0.074	H	999	180
HORZ(LL): 0.016	H	-	-
HORZ(TL): 0.032	H	-	-

Creep Factor: 2.0
Max TC CSI: 0.296
Max BC CSI: 0.519
Max Web CSI: 0.191

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1052	/-	/-	/614	/164	/248
F	1052	/-	/-	/614	/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	223	-1346	D - E	281	-1204
C - D	281	-1203	E - F	223	-1348

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - I	1044	-96	H - F	1044	-79
I - H	710	-20			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
I - D	498	-98	D - H	501	-97

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.

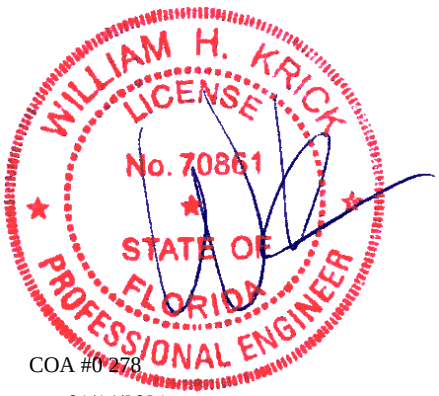
Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 7-5-2.



COA #0 278

01/14/2021

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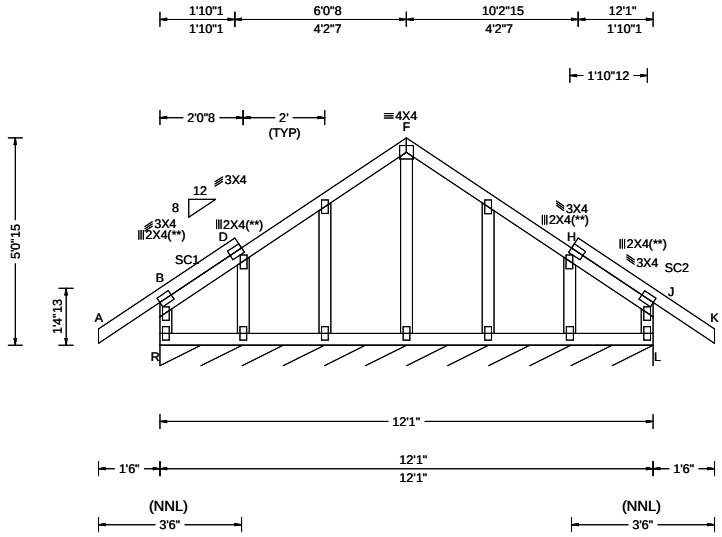
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334807 GABL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** E01	Cust: R 215 JRef:1X212150007 T4 DrwNo: 014.21.0947.03517 SSB / WHK 01/14/2021	



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): 0.001	B	999	240
VERT(CL): 0.002	B	999	180
HORZ(LL): 0.009	B	-	-
HORZ(TL): 0.018	B	-	-

Creep Factor: 2.0
Max TC CSI: 0.183
Max BC CSI: 0.038
Max Web CSI: 0.051

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
L*	101	/-	/-	/52	/-	/7

Wind reactions based on MWFRS
L Brg Width = 145 Min Req = -
Bearing R 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;
Stack Chord: SC1 2x4 SP #2;
Stack Chord: SC2 2x4 SP #2;

Bracing

Fasten rated sheathing to one face of this frame.

Plating Notes

All plates are 2X4 except as noted.

(**) 4 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

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.

End verticals not exposed to wind pressure.

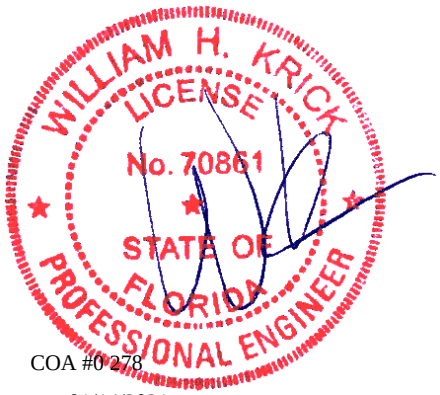
Wind loading based on both gable and hip roof types.

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.

The overall height of this truss excluding overhang is 5-0-15.



COA #0 278

01/14/2021

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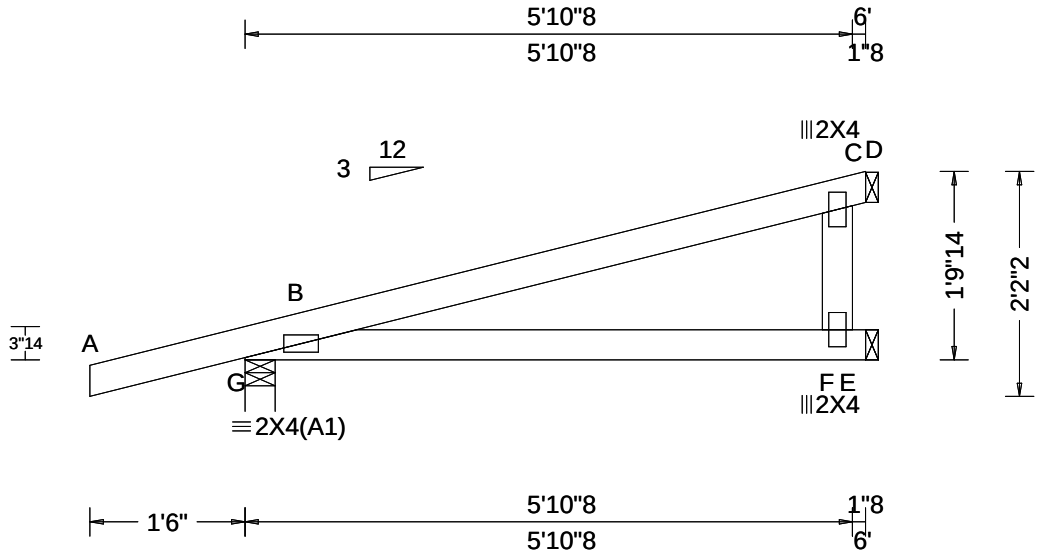
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334808 MONO FROM: CDM	Ply: 1 Qty: 16	**Job Number:** 20-4541 Sparks Residence **Truss Label:** M01	Cust: R 215 JRef:1X212150007 T20 DrwNo: 014.21.0947.04640 SSB / WHK 01/14/2021	



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):	0.008 F	-	-
HORZ(TL):	0.015 F	-	-

Creep Factor: 2.0
Max TC CSI: 0.388
Max BC CSI: 0.299
Max Web CSI: 0.123

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
G	360	/-	/-	/198	/91	/64
E	264	/-	/-	/67	/162	/-
D	154	/-43	/-	/115	/-	/-

Wind reactions based on MWFRS
G Brg Width = 3.5 Min Req = 1.5
E Brg Width = 1.5 Min Req = -
D Brg Width = 1.5 Min Req = -
Bearing G 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;

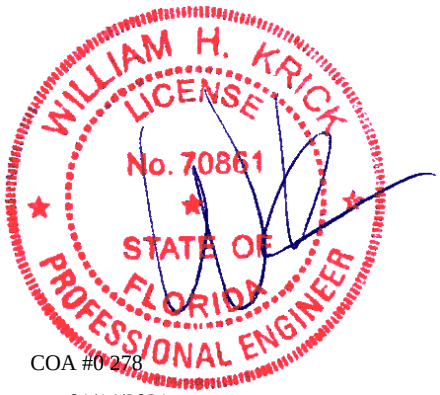
Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 1-9-14.



COA #0 278

01/14/2021

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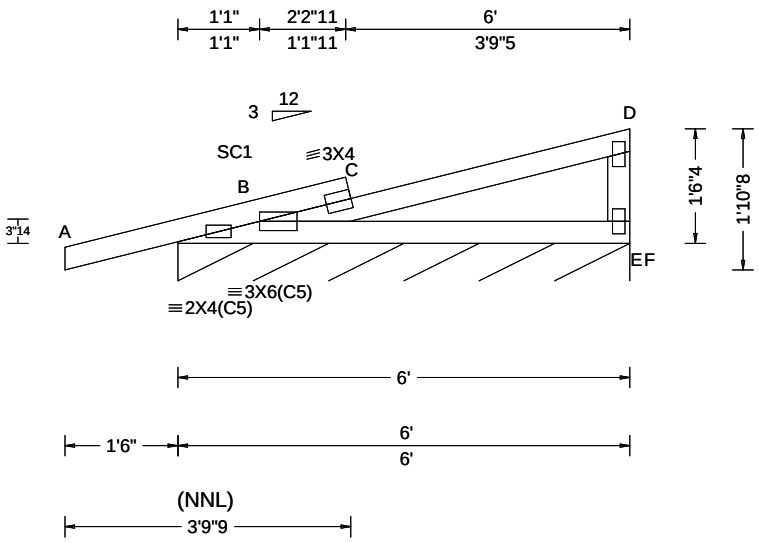
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334809 GABL FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4541 Sparks Residence **Truss Label:** M02	Cust: R 215 JRef:1X212150007 T22 DrwNo: 014.21.0947.05760 SSB / WHK 01/14/2021	



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): 0.050 C 999 240 VERT(CL): 0.097 C 703 180 HORZ(LL): -0.007 D - - HORZ(TL): 0.014 D - - Creep Factor: 2.0 Max TC CSI: 0.364 Max BC CSI: 0.316 Max Web CSI: 0.089 VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
F*	97	/-	/-	/51	/0	/6

Wind reactions based on MWFRS
F Brg Width = 72.0 Min Req = -
Bearing B is a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.
B - C	349	-388

Lumber

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

Right end vertical not exposed to wind pressure.

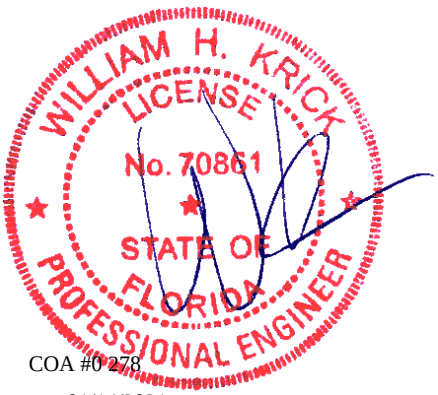
Wind loading based on both gable and hip roof types.

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.

The overall height of this truss excluding overhang is 1-6-4.



COA #0278

01/14/2021

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

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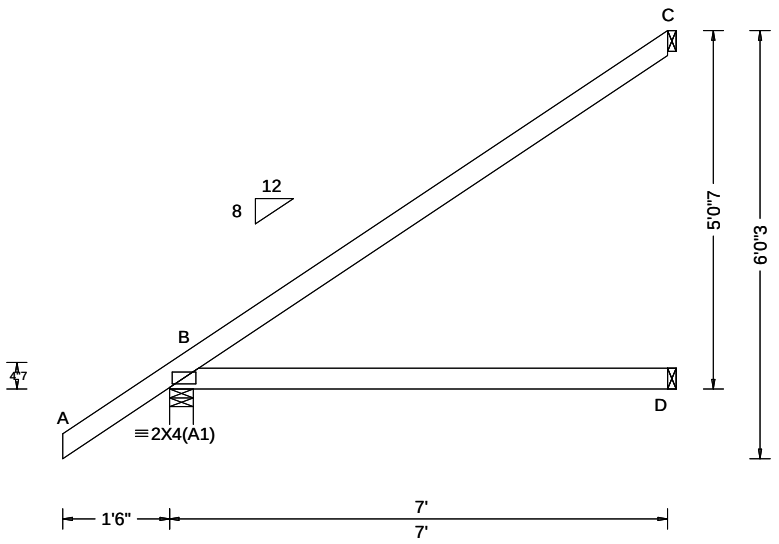
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334810 EJAC FROM: CDM	Ply: 1 Qty: 7	**Job Number:** 20-4541 Sparks Residence **Truss Label:** J01	Cust: R 215 JRef:1X212150007 T18 DrwNo: 014.21.0947.06727 SSB / WHK 01/14/2021



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 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):	0.013 D	-	-
HORZ(TL):	0.027 D	-	-

Creep Factor: 2.0
Max TC CSI: 0.747
Max BC CSI: 0.527
Max Web CSI: 0.000

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	417	/-	/-	/287	/18	/192
D	131	/-	/-	/75	/-	/-
C	193	/-	/-	/140	/113	/-

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;

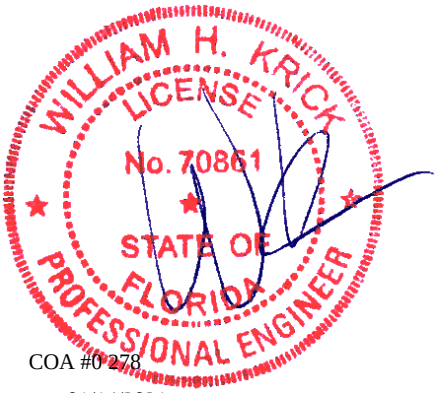
Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 5-0-7.



COA #0278

01/14/2021

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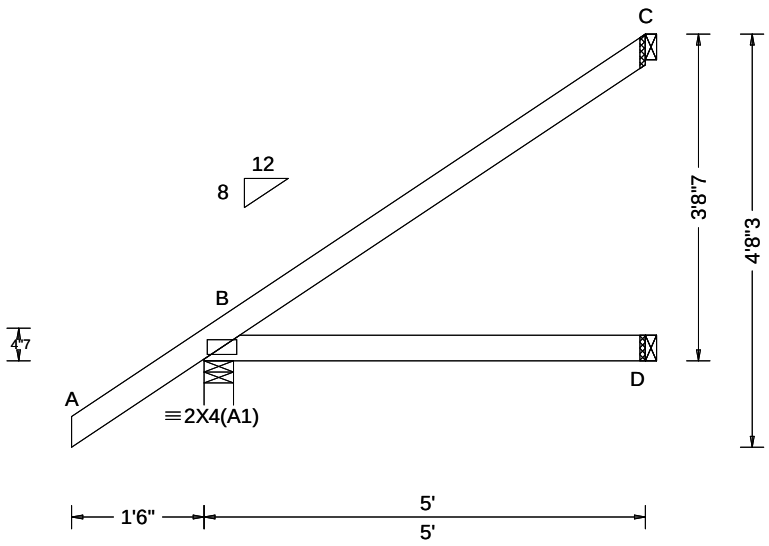
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334811 JACK FROM: CDM	Ply: 1 Qty: 4	**Job Number:** 20-4541 Sparks Residence **Truss Label:** J02	Cust: R 215 JRef:1X212150007 T15 DrwNo: 014.21.0947.07667 SSB / WHK 01/14/2021	



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): 0.004 D - -
Des Ld: 40.00	EXP: C Kzt: NA		HORZ(TL): 0.008 D - -
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: 0.327
Load Duration: 1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.242
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	
	Wind Duration: 1.60		VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	339	/-	/-	/240	/22	/145
D	91	/-	/-	/52	/-	/-
C	131	/-	/-	/94	/79	/-

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.

Additional Notes

The overall height of this truss excluding overhang is 3-8-7.

COA #0 278

01/14/2021

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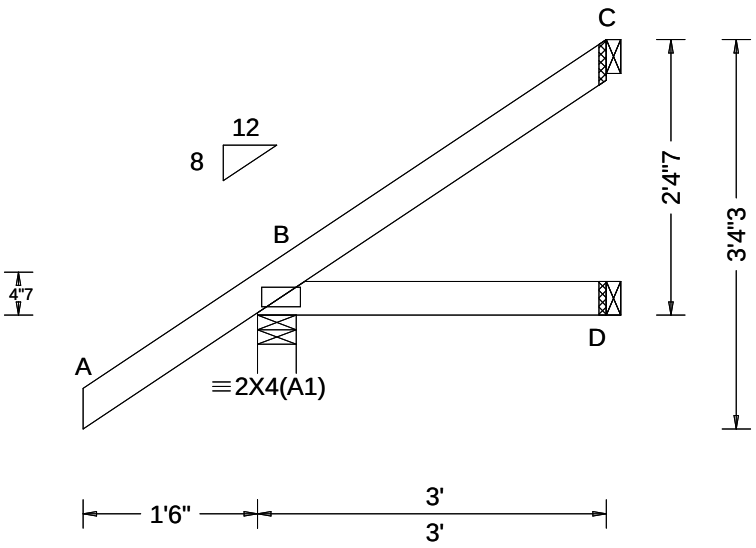
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334812 JACK FROM: CDM	Ply: 1 Qty: 4	**Job Number:** 20-4541 Sparks Residence **Truss Label:** J03		Cust: R 215 JRef:1X212150007 T16 DrwNo: 014.21.0947.08493 SSB / WHK 01/14/2021	



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 D - -
Des Ld: 40.00	EXP: C Kzt: NA		HORZ(TL): 0.001 D - -
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: 0.167
Load Duration: 1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.067
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: 20.02.01A.1209.11
	Wind Duration: 1.60		

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	268	/-	/-	/200	/29	/98
D	50	/-	/-	/32	/-	/-
C	64	/-	/-	/43	/43	/-

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.

Additional Notes

The overall height of this truss excluding overhang is 2-4-7.

COA #0 278

01/14/2021

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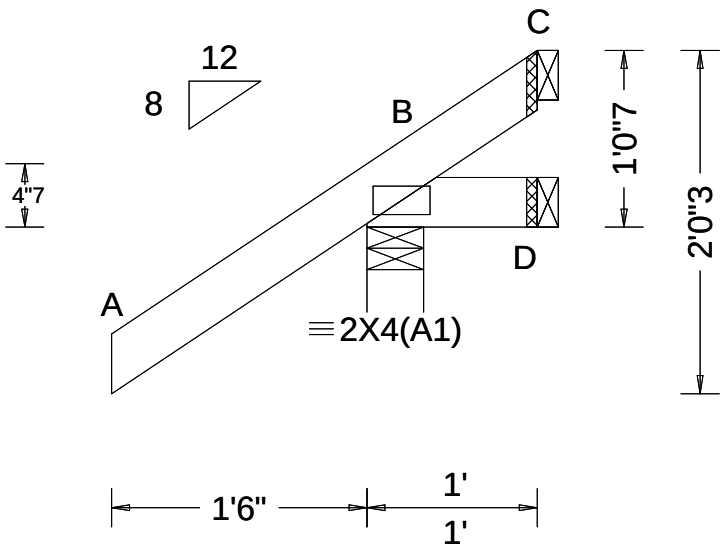
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334813 JACK FROM: CDM	Ply: 1 Qty: 4	**Job Number:** 20-4541 Sparks Residence **Truss Label:** J04	Cust: R 215 JRef:1X212150007 T17 DrwNo: 014.21.0947.09350 SSB / WHK 01/14/2021



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: 0.167 Max BC CSI: 0.025 Max Web CSI: 0.000 VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	261	/-	/-	/221	/63	/50
D	5	/-16	/-	/15	/17	/-
C	-	/-57	/-	/37	/68	/-

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.

Additional Notes

The overall height of this truss excluding overhang is 1-0-7.

COA #0278

01/14/2021

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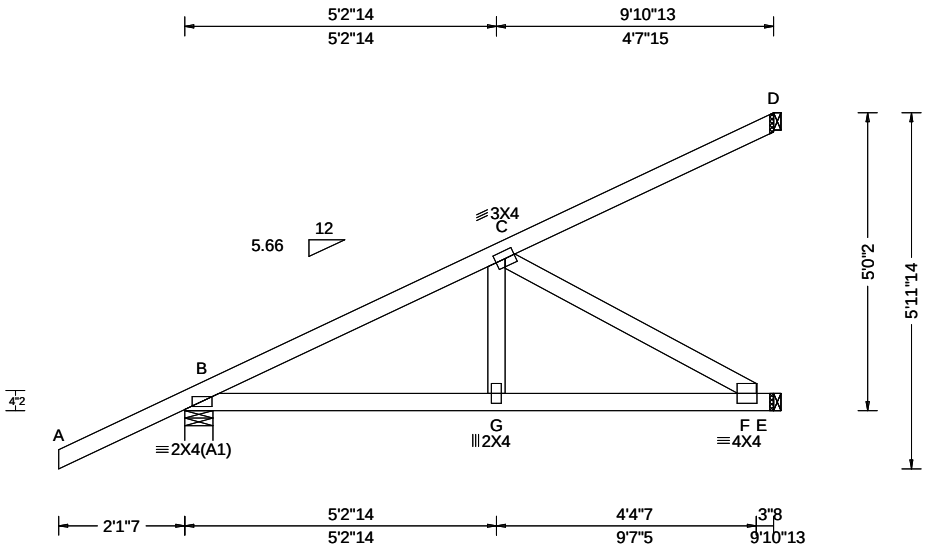
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334821 HIP_ FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4541 Sparks Residence **Truss Label:** J05HJ	Cust: R 215 JRef:1X212150007 T19 DrwNo: 014.21.0947.10203 SSB / WHK 01/14/2021	



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): 0.018	G	999	240
VERT(CL): 0.035	G	999	180
HORZ(LL): 0.004	F	-	-
HORZ(TL): 0.009	F	-	-

Creep Factor: 2.0
Max TC CSI: 0.607
Max BC CSI: 0.642
Max Web CSI: 0.306

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	375	/-	/-	/-	/245	/-
E	342	/-	/-	/-	/104	/-
D	82	/-	/-	/-	/34	/-

Wind reactions based on MWFRS
B Brg Width = 5.7 Min Req = 1.5
E Brg Width = 1.5 Min Req = -
D Brg Width = 1.5 Min Req = -
Bearing B is a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.
B - C	278	-567

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - G	521	-211	G - F	513	-211

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.
C - F	245	-597

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

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

TC: From	-0 plf at	-2.12 to	62 plf at	0.00
TC: From	2 plf at	0.00 to	2 plf at	9.90
BC: From	0 plf at	-2.12 to	4 plf at	0.00
BC: From	2 plf at	0.00 to	2 plf at	9.90

TC: -48 lb Conc. Load at 1.48
TC: 128 lb Conc. Load at 4.31
TC: 263 lb Conc. Load at 7.13
BC: 10 lb Conc. Load at 1.48
BC: 100 lb Conc. Load at 4.31
BC: 182 lb Conc. Load at 7.13

Wind
Wind loads and reactions based on MWFRS.
Wind loading based on both gable and hip roof types.

Additional Notes
The overall height of this truss excluding overhang is 5-0-2.

COA #0278
01/14/2021

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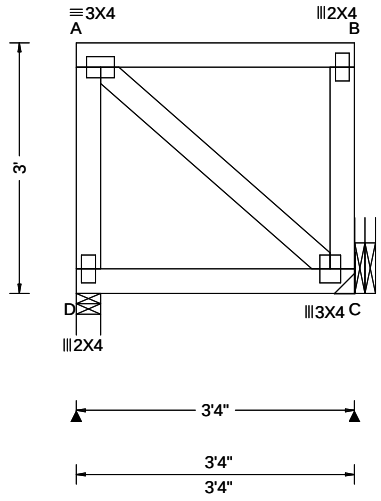
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334825 FLAT FROM: CDM	Ply: 2 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** FT01	Cust: R 215 JRef:1X212150007 T7 DrwNo: 014.21.0947.48707 SSB / WHK 01/14/2021	

2 Complete Trusses Required



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	0.00
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 10.50 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: No
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.001	B	999	240
VERT(CL): 0.001	B	999	180
HORZ(LL): -0.001	B	-	-
HORZ(TL): 0.001	B	-	-

Creep Factor: 2.0
Max TC CSI: 0.515
Max BC CSI: 0.032
Max Web CSI: 0.102

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
D	616	/-	/-	/-	/115	/-
C	647	/-	/-	/-	/138	/-

Wind reactions based on MWFRS
D Brg Width = 3.5 Min Req = 1.5
C Brg Width = - Min Req = -
Bearing D 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;

Nailnote

Nail Schedule:0.131"x3", min. nails
Top Chord: 1 Row @ 4.50" o.c.
Bot Chord: 1 Row @12.00" o.c.
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 2 plf at 0.00 to 2 plf at 3.33
BC: From 20 plf at 0.00 to 20 plf at 3.33
TC: 630 lb Conc. Load at 0.77
TC: 559 lb Conc. Load at 2.77

Hangers / Ties

(J) Hanger Support Required, by others

Purlins

The TC of this truss shall be braced with attached spans at 24" oc in lieu of structural sheathing.

Wind

Wind loads and reactions based on MWFRS.

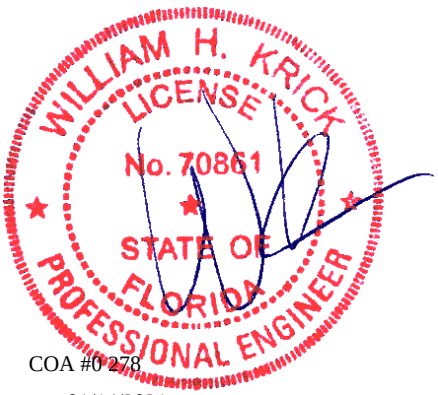
End verticals not exposed to wind pressure.

Additional Notes

Truss must be installed as shown with top chord up.

The overall height of this truss excluding overhang is 3-0-0.

It is the responsibility of the Building Designer and Truss Fabricator to review this drawing prior to cutting lumber to verify that all data,including dimensions and loads, conform to the architectural plans/specifications and fabricators truss layout.



COA #0278

01/14/2021

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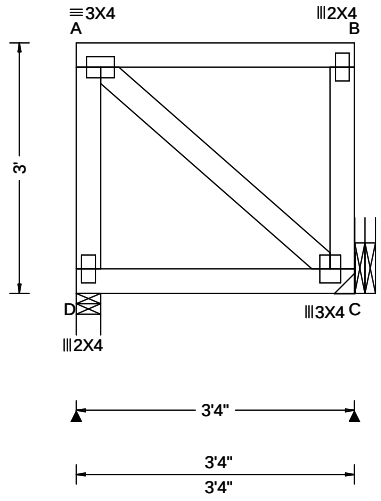
For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcindustry.com; ICC: iccsafe.org; AWC: awc.org

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

SEQN: 334822 FLAT FROM: CDM	Ply: 2 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** FT02	Cust: R 215 JRef:1X212150007 T8 DrwNo: 014.21.0947.53440 SSB / WHK 01/14/2021

2 Complete Trusses Required



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): 0.001 B 999 240
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.001 B 999 180
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): -0.000 B - -
Des Ld: 40.00	EXP: C Kzt: NA		HORZ(TL): 0.001 B - -
NCBCLL: 0.00	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: 0.465
Load Duration: 1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.032
Spacing: 24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: No	Max Web CSI: 0.093
	C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)	
	Loc. from endwall: not in 10.50 ft	Plate Type(s):	
	GCpi: 0.18	WAVE	VIEW Ver: 20.02.01A.1209.11
	Wind Duration: 1.60		

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
D	560	/-	/-	/-	/122	/-
C	630	/-	/-	/-	/140	/-

Wind reactions based on MWFRS
D Brg Width = 3.5 Min Req = 1.5
C Brg Width = - Min Req = -
Bearing D 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;

Nailnote

Nail Schedule:0.131"x3", min. nails
Top Chord: 1 Row @ 4.75" o.c.
Bot Chord: 1 Row @12.00" o.c.
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 2 plf at 0.00 to 2 plf at 3.33
BC: From 20 plf at 0.00 to 20 plf at 3.33
TC: 559 lb Conc. Load at 0.77, 2.77

Hangers / Ties

(J) Hanger Support Required, by others

Purlins

The TC of this truss shall be braced with attached spans at 24" oc in lieu of structural sheathing.

Wind

Wind loads and reactions based on MWFRS.

End verticals not exposed to wind pressure.

Additional Notes

Truss must be installed as shown with top chord up.

The overall height of this truss excluding overhang is 3-0-0.

It is the responsibility of the Building Designer and Truss Fabricator to review this drawing prior to cutting lumber to verify that all data,including dimensions and loads, conform to the architectural plans/specifications and fabricators truss layout.

COA #0278

01/14/2021

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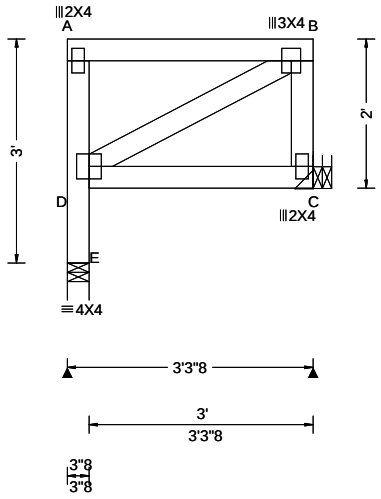
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334823 FLAT FROM: CDM	Ply: 2 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** FT03	Cust: R 215 JRef:1X212150007 T40 DrwNo: 014.21.0949.37310 SSB / WHK 01/14/2021	

2 Complete Trusses Required



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	0.00
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 21.00 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: No
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.001 A	999	240
VERT(CL):	0.002 A	844	180
HORZ(LL):	-0.004 A	-	-
HORZ(TL):	0.009 A	-	-

Creep Factor: 2.0
Max TC CSI: 0.484
Max BC CSI: 0.030
Max Web CSI: 0.099

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

		Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
E	635	/-	/-	/-	/200	/-
C	645	/-	/-	/-	/202	/-

Wind reactions based on MWFRS
E Brg Width = 3.5 Min Req = 1.5
C Brg Width = - Min Req = -
Bearing E 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;

Nailnote

Nail Schedule:0.131"x3", min. nails
Top Chord: 1 Row @ 4.25" o.c.
Bot Chord: 1 Row @12.00" o.c.
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 2 plf at 0.00 to 2 plf at 3.29
BC: From 20 plf at 0.29 to 20 plf at 3.29
TC: 607 lb Conc. Load at 0.73, 2.73

Hangers / Ties

(J) Hanger Support Required, by others

Wind

Wind loads and reactions based on MWFRS.

End verticals not exposed to wind pressure.

It is the responsibility of the Building Designer and Truss Fabricator to review this drawing prior to cutting lumber to verify that all data,including dimensions and loads, conform to the architectural plans/specifications and fabricators truss layout.

Additional Notes

Truss must be installed as shown with top chord up.

The overall height of this truss excluding overhang is 2-0-0.

Drop leg is not designed to resist any lateral loading from wind pressure on the wall. End vertical does not provide support for wall.

COA #0278

01/14/2021

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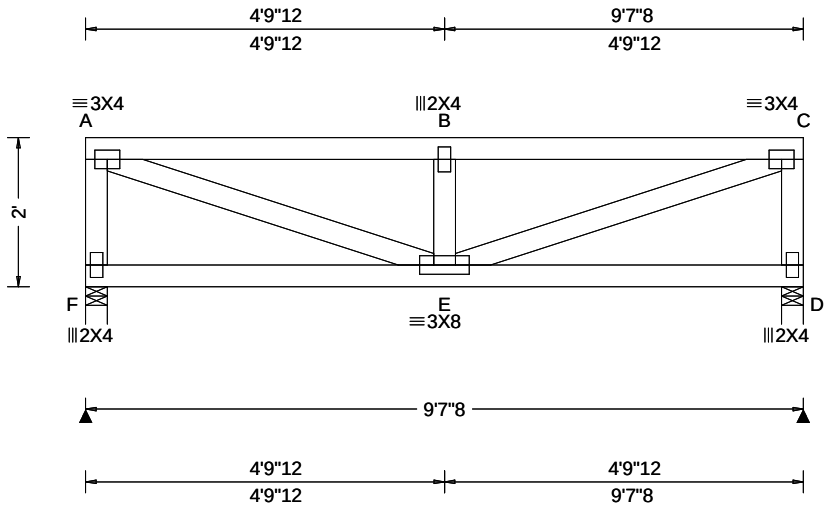
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334826 FLAT FROM: CDM	Ply: 2 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** FT04	Cust: R 215 JRef:1X212150007 T31 DrwNo: 014.21.0949.46710 SSB / 01/14/2021	

2 Complete Trusses Required



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	0.00
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 21.00 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: No
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.019	B	999	240
VERT(CL): 0.038	B	999	180
HORZ(LL): 0.003	A	-	-
HORZ(TL): 0.006	A	-	-

Creep Factor: 2.0
Max TC CSI: 0.152
Max BC CSI: 0.555
Max Web CSI: 0.292

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
F	785	/-	/-	/-	/199	/-
D	631	/-	/-	/-	/151	/-

Wind reactions based on MWFRS
F Brg Width = 3.5 Min Req = 1.5
D Brg Width = 3.5 Min Req = 1.5
Bearings F & 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.
A - B	188	- 726	B - C	188	- 726

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
A - E	750	- 194	E - C	766	- 199

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

It is the responsibility of the Building Designer and Truss Fabricator to review this drawing prior to cutting lumber to verify that all data,including dimensions and loads, conform to the architectural plans/specifications and fabricators truss layout.

Nailnote
Nail Schedule:0.131"x3", min. nails
Top Chord: 1 Row @12.00" o.c.
Bot Chord: 1 Row @12.00" o.c.
Webs : 1 Row @ 4" o.c.
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 60 plf at 0.00 to 60 plf at 9.63
BC: From 20 plf at 0.00 to 20 plf at 9.63
BC: 645 lb Conc. Load at 3.67

Wind
Wind loads and reactions based on MWFRS.
End verticals not exposed to wind pressure.

Additional Notes
Truss must be installed as shown with top chord up.
The overall height of this truss excluding overhang is 2-0-0.

COA #0 278

01/14/2021

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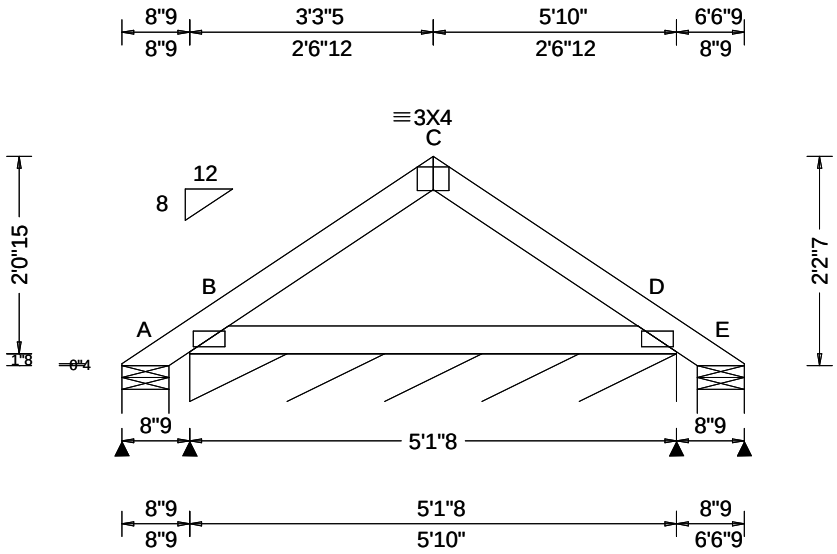
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334814 SPEC FROM: CDM	Ply: 1 Qty: 16	**Job Number:** 20-4541 Sparks Residence **Truss Label:** PB01	Cust: R 215 JRef:1X212150007 T25 DrwNo: 014.21.0947.21910 SSB / WHK 01/14/2021	



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: 21.21 ft
TCDL: 5.0 psf
BCDL: 2.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.00 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 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): 0.000		999	240
VERT(CL): 0.002		999	180
HORZ(LL): -0.000		-	-
HORZ(TL): 0.001		-	-

Creep Factor: 2.0
Max TC CSI: 0.017
Max BC CSI: 0.057
Max Web CSI: 0.000

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A	-	/-3	/-	/-	/16	/-
B*	6	/-	/-	/30	/-	/-
E	-	/-3	/-	/-	/16	/-

Wind reactions based on MWFRS
A Brg Width = 5.9 Min Req = 1.5
B Brg Width = 61.5 Min Req = -
E Brg Width = 5.9 Min Req = 1.5
Bearings A, B, & E are a rigid surface.
Members not listed have forces less than 375#

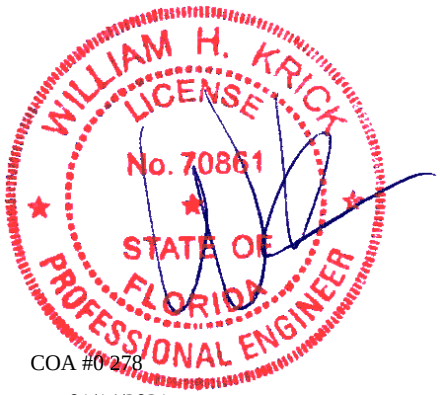
Lumber
Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;

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

Purlins
In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

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

Additional Notes
Refer to DWG PB160160118 for piggyback details.
The overall height of this truss excluding overhang is 2-2-7.



COA #0 278
01/14/2021

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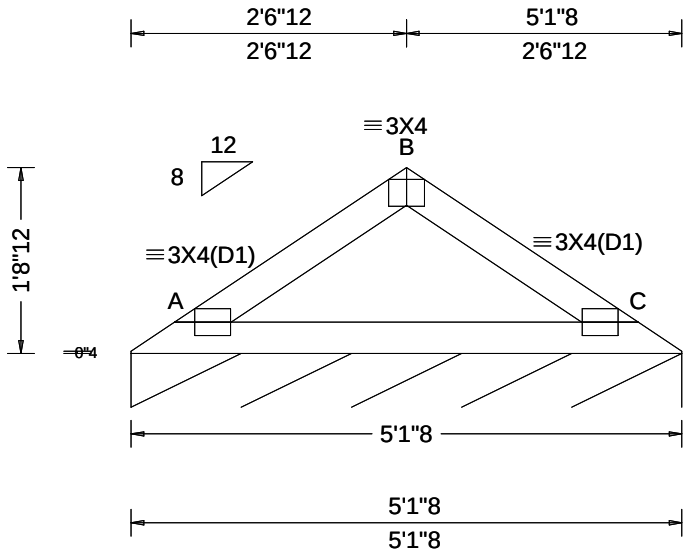
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334815 SPEC FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 20-4541 Sparks Residence **Truss Label:** PB02	Cust: R 215 JRef:1X212150007 T26 DrwNo: 014.21.0947.23683 SSB / WHK 01/14/2021	



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): 0.000 999 240
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.004 999 180
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): -0.000 - -
Des Ld: 40.00	EXP: C Kzt: NA		HORZ(TL): 0.001 - -
NCBCLL: 10.00	Mean Height: 21.23 ft	Building Code:	Creep Factor: 2.0
Soffit: 2.00	TCDL: 5.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.038
Load Duration: 1.25	BCDL: 2.0 psf	TPI Std: 2014	Max BC CSI: 0.048
Spacing: 24.0 "	MWFRS Parallel Dist: h to 2h	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 13.00 ft	Plate Type(s):	
	GCpi: 0.18	WAVE	VIEW Ver: 20.02.01A.1209.11
	Wind Duration: 1.60		

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A*	4	/-	/-	/20	/-	/-

Wind reactions based on MWFRS
A Brg Width = 61.5 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;

Purlins

In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

Wind

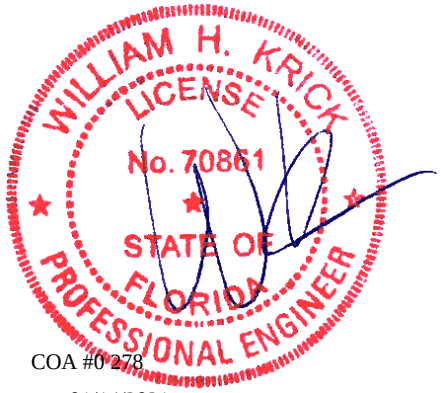
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

Additional Notes

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 1-10-4.



COA #0 278

01/14/2021

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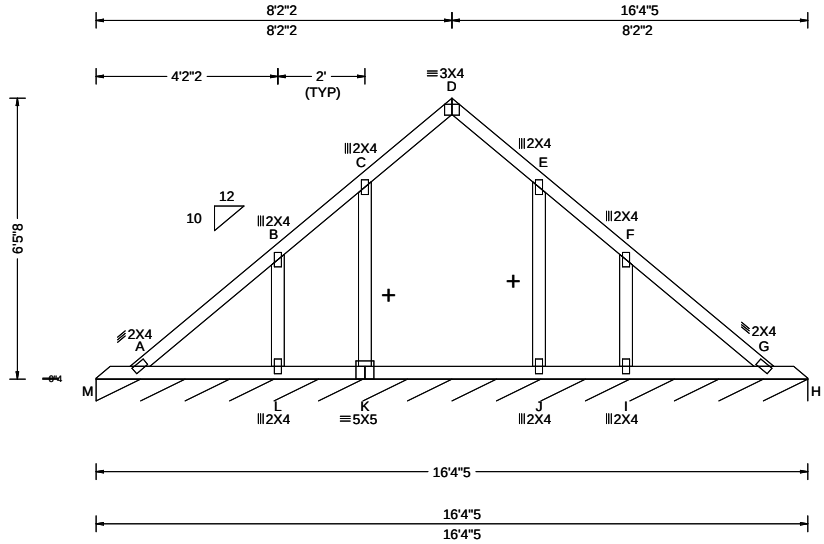
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334816 VAL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** V01	Cust: R 215 JRef:1X212150007 T27 DrwNo: 014.21.0947.37930 SSB / WHK 01/14/2021



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: 17.95 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): 0.002	D	999	240
VERT(CL): 0.004	D	999	180
HORZ(LL): 0.003	F	-	-
HORZ(TL): 0.004	F	-	-

Creep Factor: 2.0
Max TC CSI: 0.115
Max BC CSI: 0.097
Max Web CSI: 0.051

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
H*	84	/-	/-	/45	/13	/11

Wind reactions based on MWFRS
H Brg Width = 196 Min Req = -
Bearing M 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.

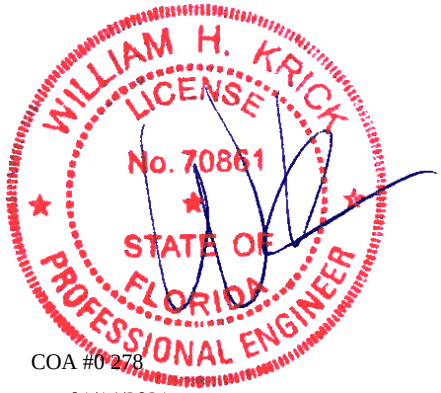
Wind loading based on both gable and hip roof types.

Additional Notes

See DWGS VALTN160118 and VAL180160118 for valley details.

The overall height of this truss excluding overhang is 6-5-8.

+ Member to be laterally braced for out of plane wind loads



COA #0 278

01/14/2021

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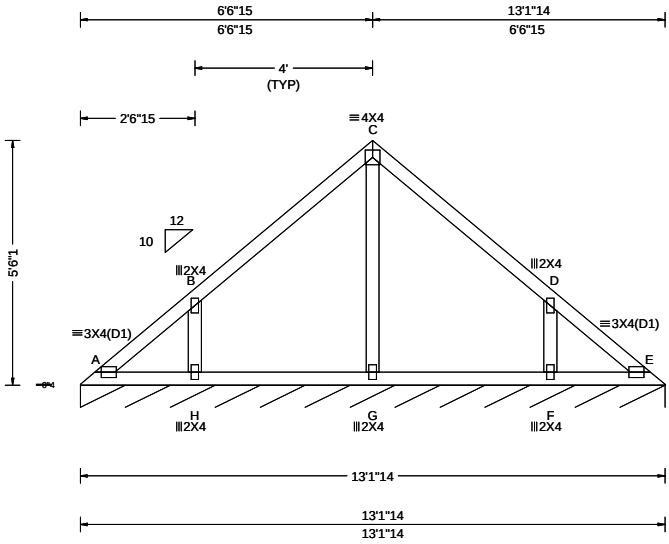
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334817 VAL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** V02	Cust: R 215 JRef:1X212150007 T28 DrwNo: 014.21.0947.39750 SSB / WHK 01/14/2021



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: 18.81 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): 0.001	C	999	240
VERT(CL): 0.002	C	999	180
HORZ(LL): -0.002	B	-	-
HORZ(TL): 0.002	B	-	-

Creep Factor: 2.0
Max TC CSI: 0.220
Max BC CSI: 0.114
Max Web CSI: 0.092

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
E*	86	/-	/-	/47	/11	/12

Wind reactions based on MWFRS
E Brg Width = 157 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

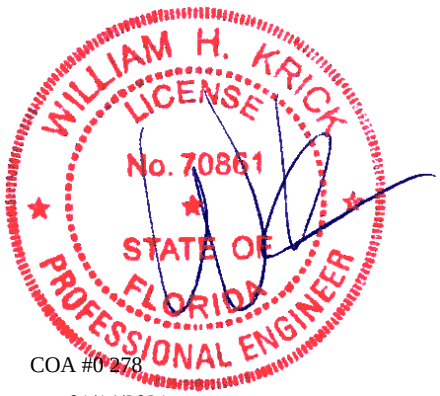
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWGS VALTN160118 and VAL180160118 for valley details.

The overall height of this truss excluding overhang is 5-6-1.



COA #0 278

01/14/2021

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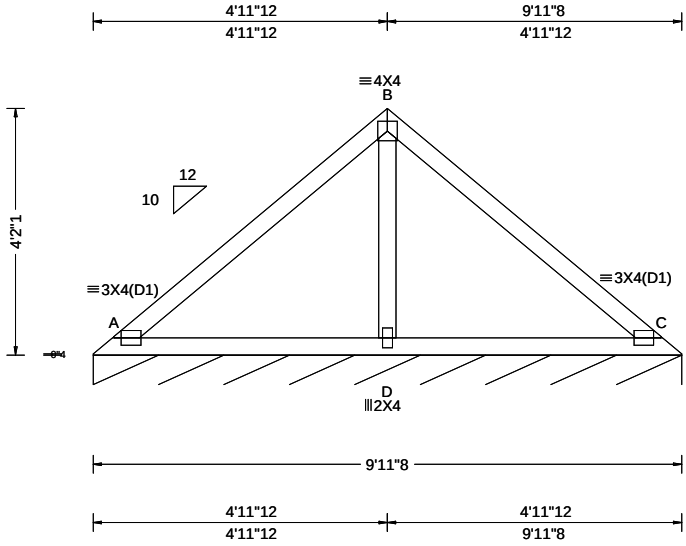
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334818 VAL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** V03	Cust: R 215 JRef:1X212150007 T29 DrwNo: 014.21.0947.40707 SSB / WHK 01/14/2021



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): 0.011 D 999 240
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.023 D 999 180
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): -0.006 D - -
Des Ld: 40.00	EXP: C Kzt: NA		HORZ(TL): 0.014 D - -
NCBCLL: 10.00	Mean Height: 19.48 ft	Building Code:	Creep Factor: 2.0
Soffit: 2.00	TCDL: 5.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.359
Load Duration: 1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.302
Spacing: 24.0 "	MWFRS Parallel Dist: h/2 to h	Rep Fac: Yes	Max Web CSI: 0.170
	C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)	
	Loc. from endwall: not in 9.00 ft	Plate Type(s):	
	GCpi: 0.18	WAVE	VIEW Ver: 20.02.01A.1209.11
	Wind Duration: 1.60		

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
C*	86	/-	/-	/46	/10	/12

Wind reactions based on MWFRS
C Brg Width = 119 Min Req = -
Bearing A is a rigid surface.
Members not listed have forces less than 375#

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.
B - D	176	-542

Lumber

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

Wind

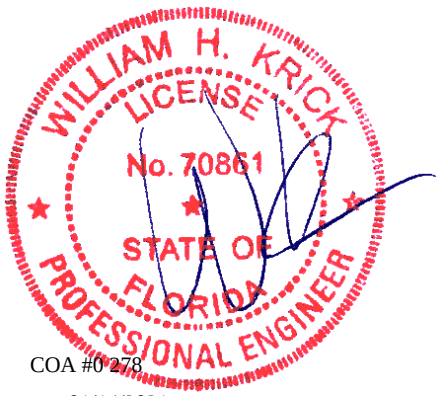
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWGS VALTN160118 and VAL180160118 for valley details.

The overall height of this truss excluding overhang is 4-2-1.



COA #0278

01/14/2021

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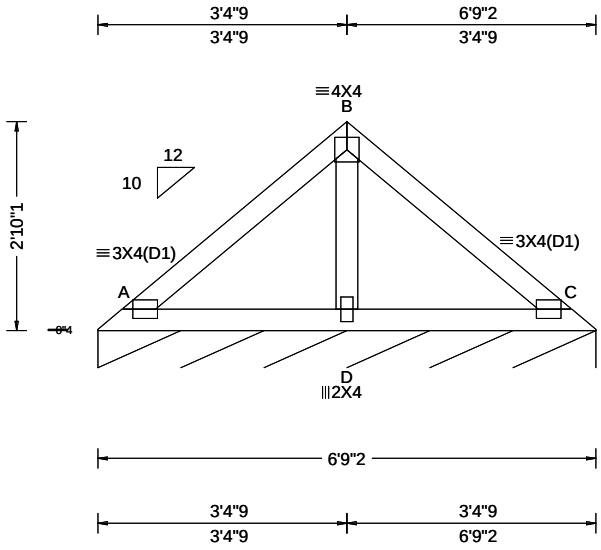
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334819 VAL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** V04	Cust: R 215 JRef:1X212150007 T30 DrwNo: 014.21.0947.41577 SSB / WHK 01/14/2021



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: 20.15 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): 0.003	D	999	240
VERT(CL): 0.007	D	999	180
HORZ(LL): -0.002	D	-	-
HORZ(TL): 0.004	D	-	-

Creep Factor: 2.0
Max TC CSI: 0.146
Max BC CSI: 0.125
Max Web CSI: 0.062

VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
C*	85	/-	/-	/45	/9	/11

Wind reactions based on MWFRS
C Brg Width = 81.1 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.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWGS VALTN160118 and VAL180160118 for valley details.

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

COA #0 278

01/14/2021

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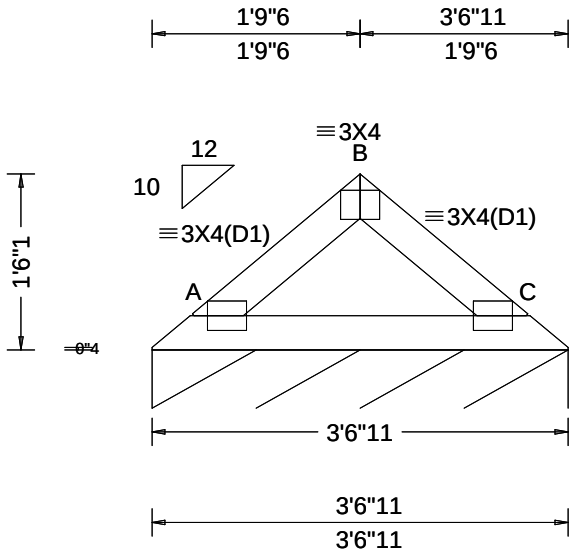
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 334820 VAL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 20-4541 Sparks Residence **Truss Label:** V05		Cust: R 215 JRef:1X212150007 T33 DrwNo: 014.21.0947.42610 SSB / WHK 01/14/2021	



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: 20.81 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	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): 0.002 999 240 VERT(CL): 0.004 999 180 HORZ(LL): -0.001 - - HORZ(TL): 0.002 - - Creep Factor: 2.0 Max TC CSI: 0.054 Max BC CSI: 0.074 Max Web CSI: 0.000 VIEW Ver: 20.02.01A.1209.11

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
C*	85	/-	/-	/43	/6	/10

Wind reactions based on MWFRS
C Brg Width = 42.7 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

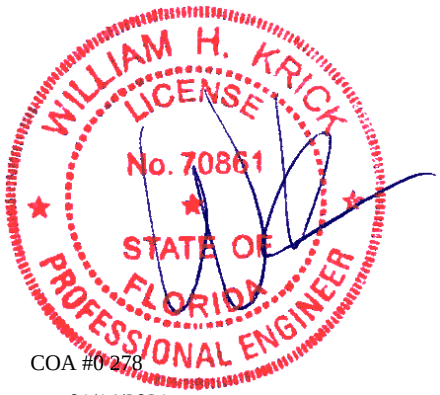
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWGS VALTN160118 and VAL180160118 for valley details.

The overall height of this truss excluding overhang is 1-6-1.



COA #0 278

01/14/2021

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

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-reinforecement 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.

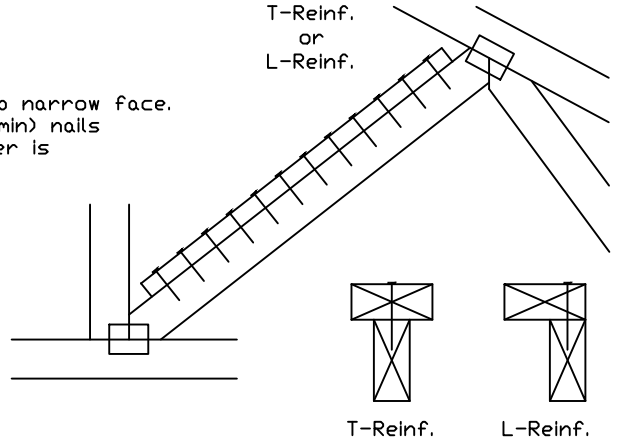
Web Member Size	Specified CLR Restraint	Alternative Reinforecement T- or L- Reinf.	Alternative Reinforecement Scab Reinf.
2x3 or 2x4	1 row	2x4	1-2x4
2x3 or 2x4	2 rows	2x6	2-2x4
2x6	1 row	2x4	1-2x6
2x6	2 rows	2x6	2-2x4(*)
2x8	1 row	2x6	1-2x8
2x8	2 rows	2x6	2-2x6(*)

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.

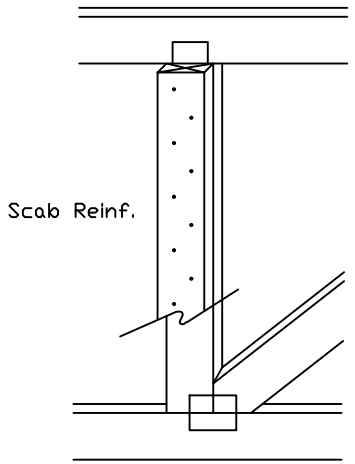
T-Reinforcement or L-Reinforcement:

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.



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

01/14/2021

COA #0278

ALPINE AN ITW COMPANY
514 Earth City Expressway
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~~TC~~ LL		PSF
TC DL		PSF
BC DL		PSF
BC LL		PSF
TOT. LD.		PSF
DUR. FAC.		
SPACING		

REF	CLR Subst.
DATE	01/02/19
DRWG	BRCLBSUB0119

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 *		(1) 2x4 "L" Brace *		(2) 2x4 "L" Brace **		(1) 2x6 "L" Brace *		(2) 2x6 "L" Brace **	
				Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B	Group A	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.

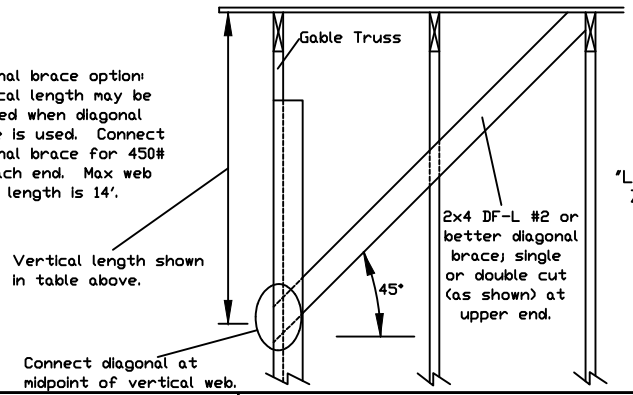
Attach "L" braces with 10d (0.128"x3.0" min) nails.

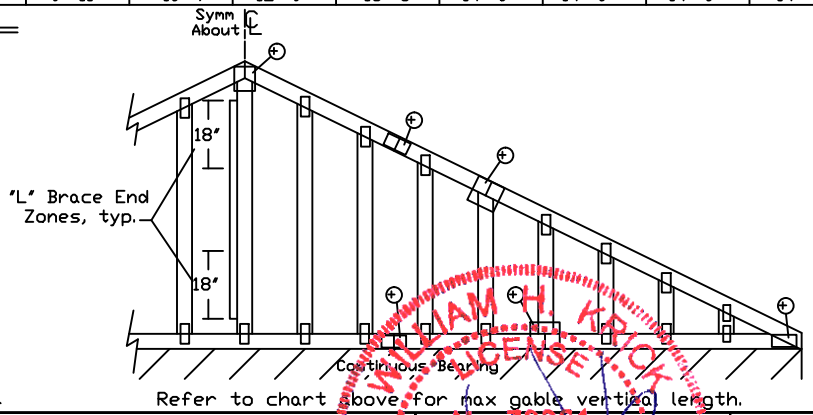
* For (1) "L" brace: space nails at 2" o.c. in 18" end zones and 4" o.c. between zones.

** 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.

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'.





Refer to chart above for max gable vertical length.

Gable Vertical Plate Sizes

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

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

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

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Earth City, MO 63045

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.

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

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

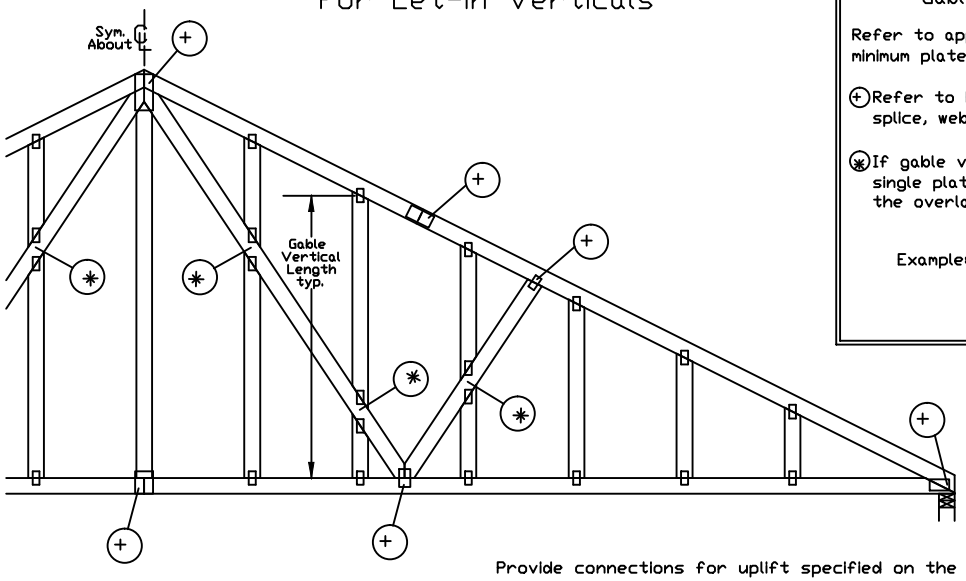
COA #0 278 01/14/2021

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



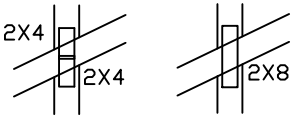
Gable Truss Plate Sizes

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

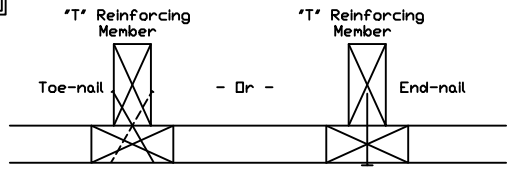
⊕ Refer to Engineered truss design for peak, splice, web, and heel plates.

⊛ 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



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.

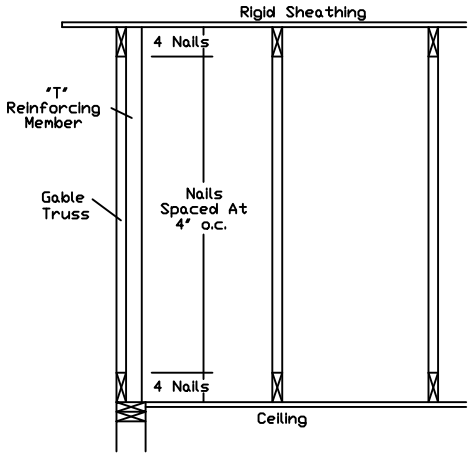
Toenailed Nails:
10d Common (0.148"x3",min) Toenails at 4" o.c. plus
(4) toenails in the top and bottom chords.

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.



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"

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Suite 242
Earth City, MO 63045

WILLIAM T. TRUCK LICENSE No. 70861 STATE OF FLORIDA PROFESSIONAL ENGINEER

COA #0278 01/14/2021

MAX. TOT. LD. 60 PSF
DUR. FAC. ANY
MAX. SPACING 24.0"

REF	LET-IN VERT
DATE	01/02/2018
DRWG	GBLLETIN0118

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

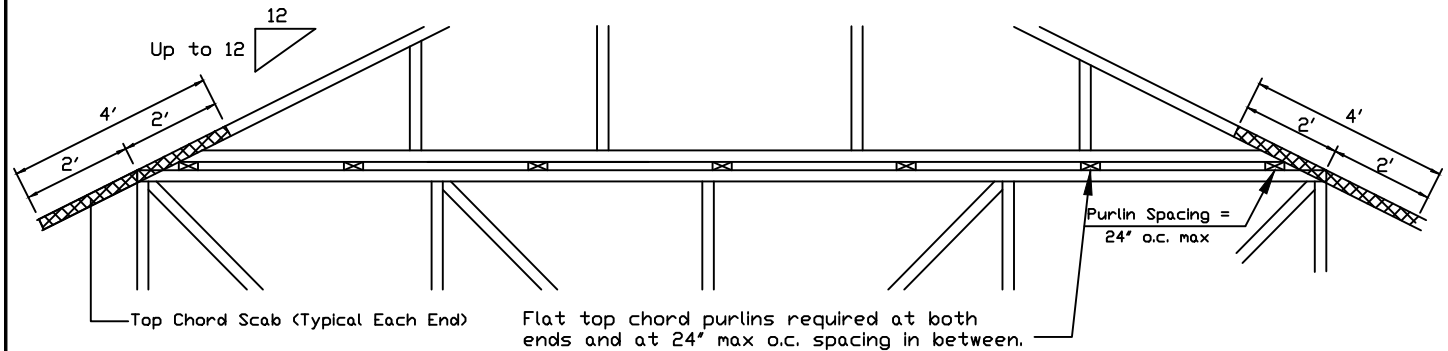
160 mph Wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp C, Wind DL= 5.0 psf (min), Kzt=1.0.
Or 140 mph wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp D, wind DL= 5.0 psf (min), Kzt=1.0.

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

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

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

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



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

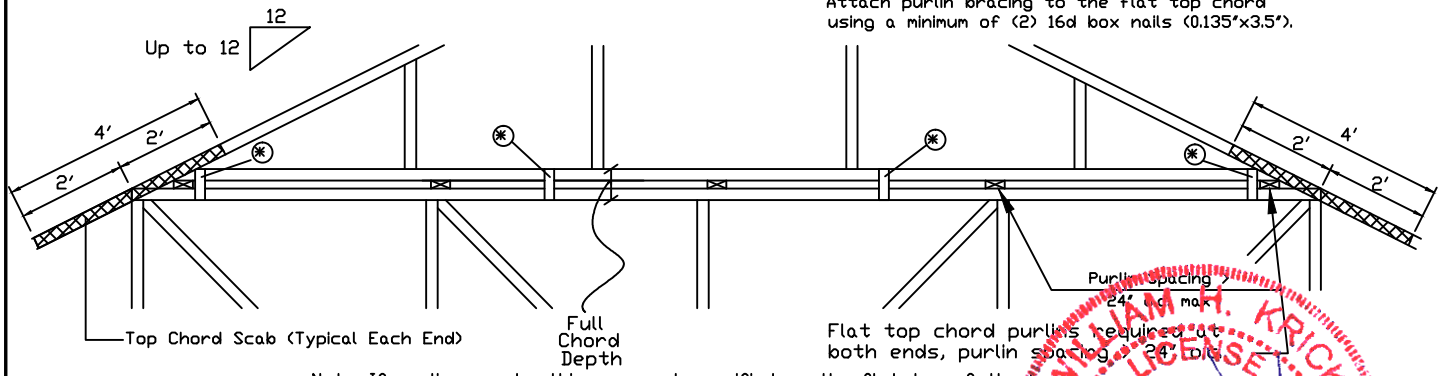
Attach purlin bracing to the flat top chord using (2) 16d box nails (0.135"x3.5").

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

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

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

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



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

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

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

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

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

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

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AN ITW COMPANY
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Maryland Heights, MO 63043

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

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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 01/14/2021

REF	PIGGYBACK
DATE	01/02/2018
DRWG	PB160160118
SPACING	24.0"

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.

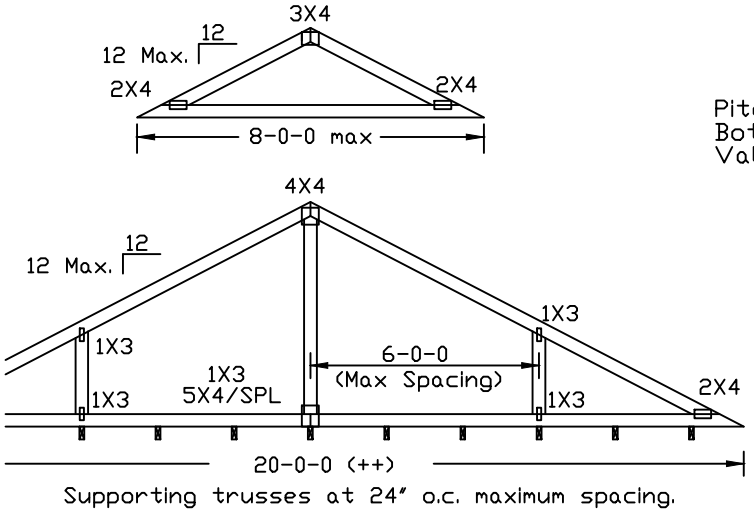
All plates shown are Alpine Wave Plates.

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.

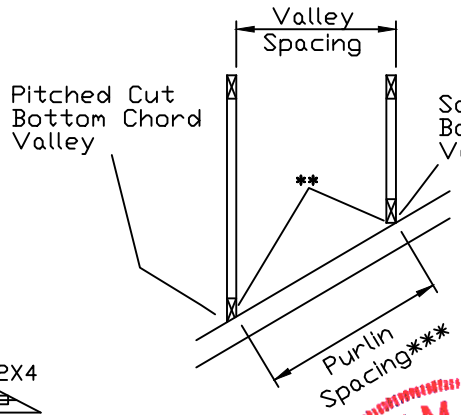
Top chord of truss beneath valley set must be braced with:
properly attached, rated sheathing applied prior to valley truss installation.
Or
Purlins at 24" o.c. or as otherwise specified on engineer's sealed design
Or
By valley trusses used in lieu of purlin spacing as specified on Engineer's sealed design.

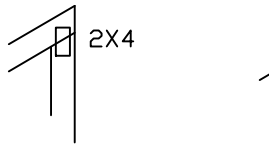
*** Note that the purlin spacing for bracing the top chord of the truss beneath the valley is measured along the slope of the top chord.

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

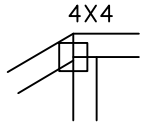


Supporting trusses at 24" o.c. maximum spacing.

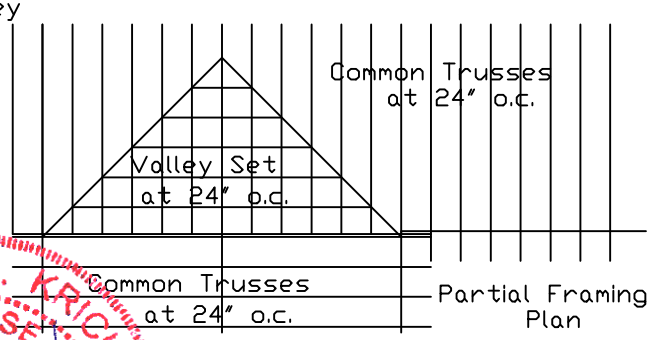




Square Cut Bottom Chord Valley
Stubbed Valley End Detail



Optional Hip Joint Detail



Partial Framing Plan

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 01/14/2021

TC LL	30	30	40	PSF
TC DL	20	15	7	PSF
BC DL	10	10	10	PSF
BC LL	0	0	0	PSF
TOT. LD.	60	55	57	PSF
DUR.FAC.	1.25/1.33	1.15	1.15	
SPACING		24.0"		

REF	VALLEY DETAIL
DATE	01/26/2018
DRWG	VAL180160118

Valley Detail - ASCE 7-16: 30' Mean Height, 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:
(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.

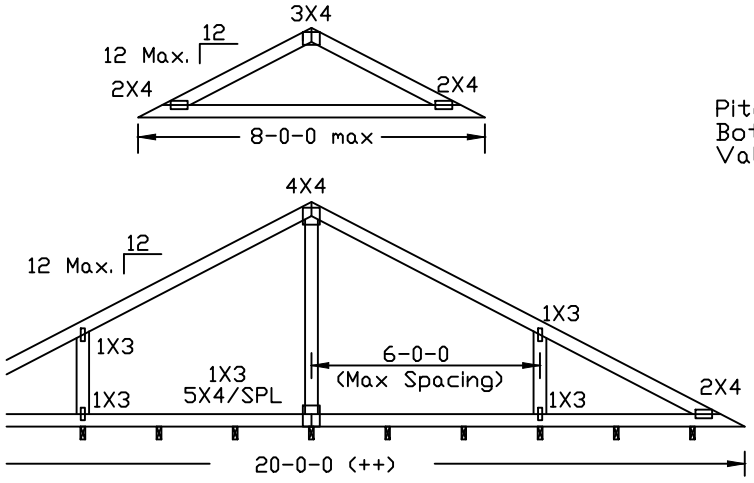
All plates shown are Alpine Wave Plates.

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.

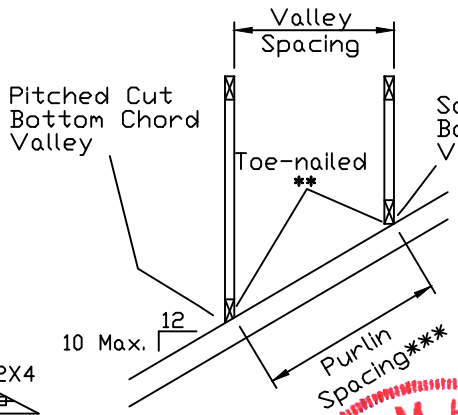
Top chord of truss beneath valley set must be braced with:
properly attached, rated sheathing applied prior to valley truss installation.
Or
Purlins at 24" o.c. or as otherwise specified on engineer's sealed design
Or
By valley trusses used in lieu of purlin spacing as specified on Engineer's sealed design.

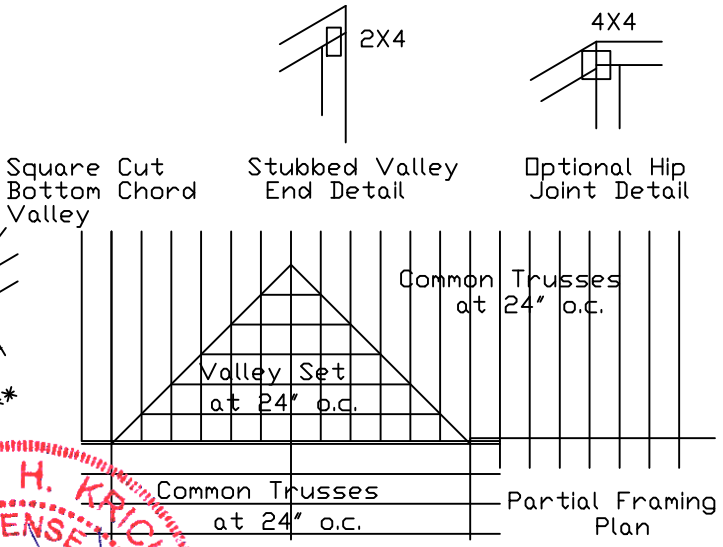
*** Note that the purlin spacing for bracing the top chord of the truss beneath the valley is measured along the slope of the top chord.

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



Supporting trusses at 24" o.c. maximum spacing.





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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; TPI: www.tpinst.org; SBCA: www.sbcindustry.org; ICC: www.iccsafe.org

WILLIAM H. KRICK LICENSE No. 70861 STATE OF FLORIDA PROFESSIONAL ENGINEER
COA #0278 01/14/2021

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DUR.FAC.	1.25/1.33	1.15	1.15
SPACING		24.0"	

REF	VALLEY DETAIL
DATE	01/26/2018
DRWG	VALTN160118