

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



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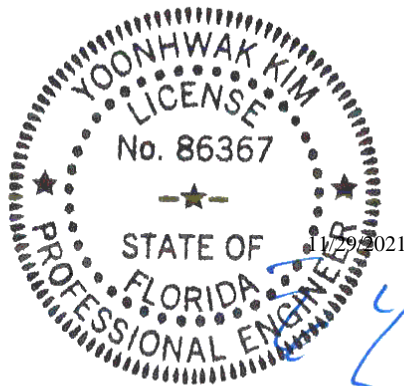
Site Information:	Page 1:
Customer: W. B. Howland Company, Inc.	Job Number: 21-6403
Job Description: Highland Country Model	
Address:	

Job Engineering Criteria:	
Design Code: FBC 7th Ed. 2020 Res.	IntelliVIEW Version: 21.01.01A through 21.02.00 JRef #: 1XaX2150001
Wind Standard: ASCE 7-16      Wind Speed (mph): 130	Design Loading (psf): 40.00, 55.00
Building Type: Closed	

This package contains general notes pages, 67 truss drawing(s) and 10 detail(s).

Item	Drawing Number	Truss
1	333.21.0908.01786	A01
3	333.21.0908.00615	A03
5	333.21.0907.59130	B02
7	333.21.0907.59270	B04
9	333.21.0907.58692	B06
11	333.21.0907.59207	B08
13	333.21.0908.01145	B10
15	333.21.0907.59100	B12
17	333.21.0908.00723	C01
19	333.21.0907.58849	C03
21	333.21.0907.59989	C05
23	333.21.0908.00145	C07
25	333.21.0907.59223	C09
27	333.21.0908.00473	C12
29	333.21.0907.58754	D01
31	333.21.0907.59317	D03
33	333.21.0914.55103	F01
35	333.21.0907.59896	F03
37	333.21.0908.01895	F05
39	333.21.0907.59505	F07
41	333.21.0908.00818	PB01
43	333.21.0908.00551	PB03
45	333.21.0907.59660	PB05
47	333.21.0908.00379	PB07
49	333.21.0908.01942	PB09
51	333.21.0908.00364	PB11

Item	Drawing Number	Truss
2	333.21.0907.58991	A02
4	333.21.0908.01286	B01
6	333.21.0908.00552	B03
8	333.21.0907.59817	B05
10	333.21.0908.00083	B07
12	333.21.0908.01317	B09
14	333.21.0907.59535	B11
16	333.21.0908.00676	B13
18	333.21.0907.59707	C02
20	333.21.0908.01223	C04
22	333.21.0907.59099	C06
24	333.21.0907.58801	C08
26	333.21.0908.01426	C10
28	333.21.0907.58723	C14
30	333.21.0908.00426	D02
32	333.21.0907.59598	D04
34	333.21.0908.00754	F02
36	333.21.0907.59364	F04
38	333.21.0908.00160	F06
40	333.21.0908.01004	F08
42	333.21.0907.58895	PB02
44	333.21.0908.01410	PB04
46	333.21.0908.00224	PB06
48	333.21.0908.01270	PB08
50	333.21.0907.59957	PB10
52	333.21.0907.59177	PB12



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Site Information:	Page 2:
Customer: W. B. Howland Company, Inc.	Job Number: 21-6403
Job Description: Highland Country Model	
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Item	Drawing Number	Truss
53	333.21.0907.59615	SP01
55	333.21.0908.00895	SP03
57	333.21.0907.58630	SP05
59	333.21.0908.01552	SP07
61	333.21.0908.01051	SP09
63	333.21.0908.00020	SP11
65	333.21.0908.00989	V01
67	333.21.0907.59395	V03
69	A14030ENC160118	
71	CNNAILSP1014	
73	GBLLETIN0118	
75	STRBRIBR1014	
77	VALTN160118	

Item	Drawing Number	Truss
54	333.21.0907.59786	SP02
56	333.21.0908.00864	SP04
58	333.21.0908.01693	SP06
60	333.21.0908.01082	SP08
62	333.21.0908.01520	SP10
64	333.21.0907.58990	SP12
66	333.21.0908.00301	V02
68	A14015ENC160118	
70	BRCLBSUB0119	
72	DEFLCAMB1014	
74	PB160160118	
76	VAL180160118	

## **General Notes**

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

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

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

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

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

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

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

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

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

### **Connector Plate Information:**

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

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

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

## **General Notes** (continued)

### **Key to Terms:**

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

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

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

CL = Certified lumber.

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

FRT = Fire Retardant Treated lumber.

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

FRT-DC = Dricon Fire Retardant Treated lumber.

FRT-FP = FirePRO Fire Retardant Treated lumber.

FRT-FL = FlamePRO Fire Retardant Treated lumber.

FRT-FT = FlameTech Fire Retardant Treated lumber.

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

g = green lumber.

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

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

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

Ic = Incised lumber.

FJ = Finger Jointed lumber.

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

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

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

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

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

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

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

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

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

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

PP = Panel Point.

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

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

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

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

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

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

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

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

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

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

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

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

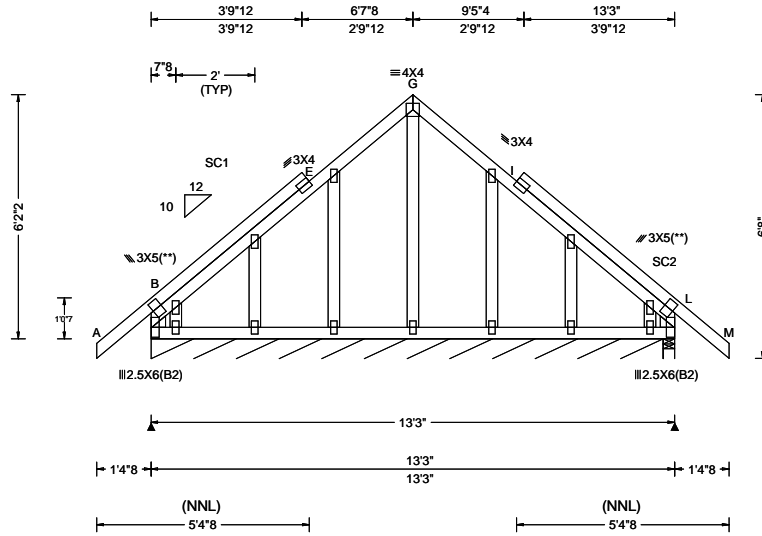
W = Width of non-hanger bearing, in inches.

Refer to ASCE-7 for Wind and Seismic abbreviations.

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

**References:**

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



<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
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: 4.2 psf BCDL: 3.0 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): -0.002 I 999 240 VERT(CL): 0.004 E 999 180 HORZ(LL): 0.003 L - - HORZ(TL): 0.004 L - - Creep Factor: 2.0 Max TC CSI: 0.294 Max BC CSI: 0.029 Max Web CSI: 0.169  VIEW Ver: 21.01.01A.0521.20	<b>Gravity</b> Loc R+ / R- / Rh / Rw / U / RL B* 82 /- /- /49 /3 /12 L 269 /- /- /156 /46 /- <b>Non-Gravity</b> Wind reactions based on MWFRS B Brg Wid = 155 Min Req = - L Brg Wid = 3.5 Min Req = 1.5 Bearings B & N are a rigid surface. Members not listed have forces less than 375#

**Lumber**

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

**Plating Notes**

All plates are 2X4 except as noted.

(\*\*) 2 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.

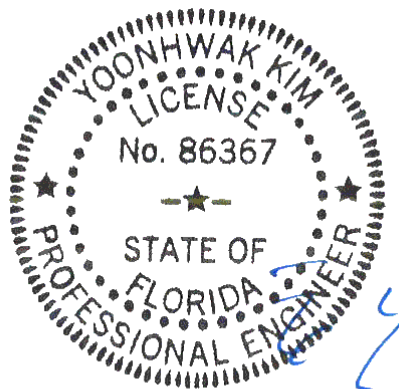
**Wind**

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

**Additional Notes**

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

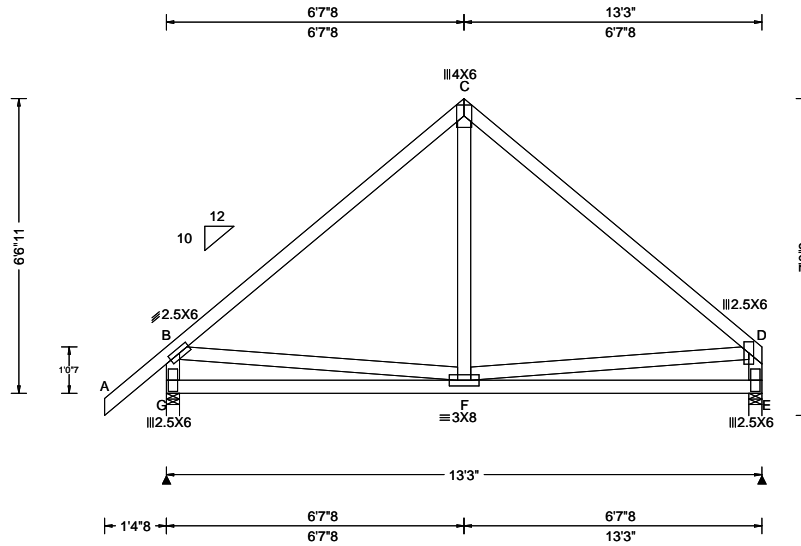
Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice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



FL REG# 278, Yoonhwak Kim, FL PE #86367  
11/29/2021

**\*\*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: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org





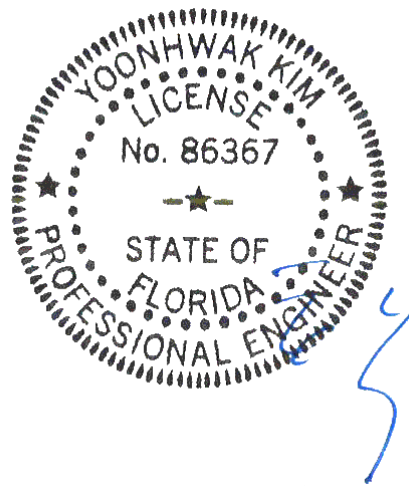
<b>Loading Criteria (psf)</b> TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.007 F 999 240 VERT(CL): 0.013 F 999 180 HORZ(LL): 0.003 C - - HORZ(TL): 0.004 C - - Creep Factor: 2.0 Max TC CSI: 0.668 Max BC CSI: 0.400 Max Web CSI: 0.309  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL G 673 /- /- /418 /144 /206 E 565 /- /- /314 /119 /- Wind reactions based on MWFRS G Brg Wid = 3.5 Min Req = 1.5 E Brg Wid = 3.5 Min Req = 1.5 Bearings G & E are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 325 -591 C - D 319 -586
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**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.  
End verticals not exposed to wind pressure.  
Wind loading based on both gable and hip roof types.

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

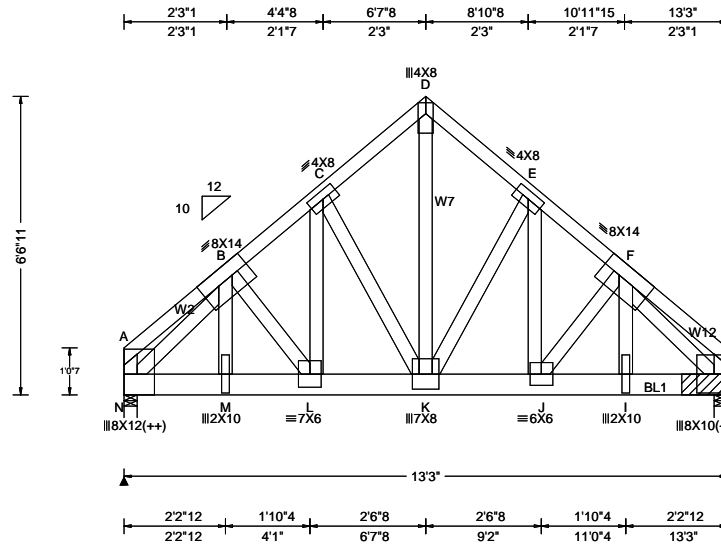
Webs	Tens.Comp.	Webs	Tens. Comp.
B - G	434 -620	D - E	314 -512



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





Uplift

<b>Loading Criteria (psf)</b> 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.072 J 999 240 VERT(CL): 0.143 J 999 180 HORZ(LL): 0.033 B - - HORZ(TL): 0.066 B - - Creep Factor: 2.0 Max TC CSI: 0.535 Max BC CSI: 0.535 Max Web CSI: 0.931  VIEW Ver: 21.02.00.1005.17	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL N 4603 -/- /- /- /932 -/ H 5403 -/- /- /- /1097 -/ Wind reactions based on MWFRS N Brg Wid = 3.5 Min Req = 3.8 (Truss) H Brg Wid = 3.5 Min Req = - Bearings N & H are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 1015 -4966 D - E 810 -3951 C - D 810 -3951 E - F 1028 -5026  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. N - M 3845 -779 K - J 3746 -761 M - L 3891 -787 J - I 4059 -824 L - K 3704 -752 I - H 4002 -813  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. N - B 1137 -5614 D - K 4786 -941 B - M 1165 -205 E - J 1859 -352 L - C 1748 -327 I - F 1452 -267 C - K 286 -1401 F - H 1184 -5826 K - E 305 -1487
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**Lumber**

Top chord: 2x4 SP #2;  
Bot chord: 2x6 SP 2400f-2.0E;  
Webs: 2x4 SP #3; W2,W12 2x4 SP #2;  
W7 2x4 SP M-31;

**Special Loads**

----- (Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)  
TC: From 66 plf at 0.00 to 66 plf at 13.25  
BC: From 20 plf at 0.00 to 20 plf at 2.23  
BC: From 10 plf at 2.23 to 10 plf at 13.25  
BC: 1496 lb Conc. Load at 2.23, 4.23, 6.23, 8.23, 10.23, 12.23

**Plating Notes**

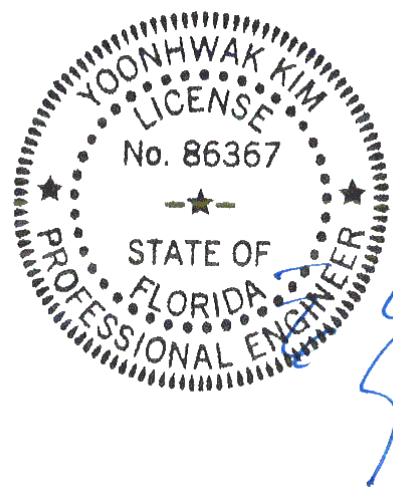
(++) - This plate works for both joints covered.

**Wind**

Wind loads and reactions based on MWFRS.  
End verticals not exposed to wind pressure.  
Wind loading based on both gable and hip roof types.

**Bearing Block(s)**

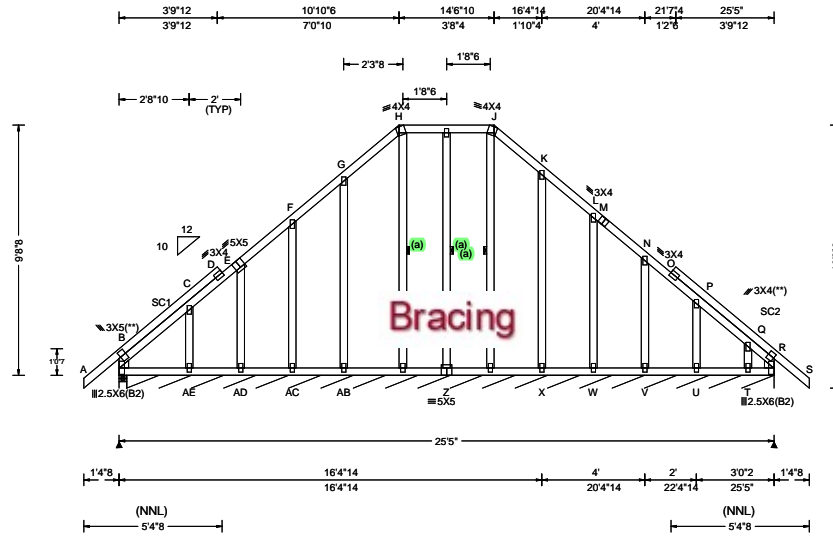
Brg blocks: 0.128"x3", min. nails  
brg x-loc #blocks length/blk #nails/blk wall plate  
2 12.958' 1 12" 10 Rigid Surface  
Brg block to be same size and species as chord.  
Refer to drawing CNNAILSP1014 for more information.



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11/29/2021

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<b>Loading Criteria (psf)</b> TCCL: 20.00 TCCL: 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCCL: 4.2 psf BCDL: 3.0 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	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/defl L/# VERT(LL): 0.003 O 999 240 VERT(CL): 0.006 O 999 180 HORZ(LL): 0.004 O - - HORZ(TL): 0.006 O - - Creep Factor: 2.0 Max TC CSI: 0.268 Max BC CSI: 0.049 Max Web CSI: 0.179 VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs), or *=PLF</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Loc</th> <th colspan="3">Gravity</th> <th colspan="3">Non-Gravity</th> </tr> <tr> <th>R+</th> <th>/R-</th> <th>/Rh</th> <th>/Rw</th> <th>/U</th> <th>/RL</th> </tr> </thead> <tbody> <tr> <td>B</td> <td>287</td> <td>-</td> <td>-</td> <td>/168</td> <td>/46</td> <td>/173</td> </tr> <tr> <td>R*</td> <td>83</td> <td>-</td> <td>-</td> <td>/46</td> <td>-</td> <td>-</td> </tr> </tbody> </table> Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 1.5 R Brg Wid = 301 Min Req = - Bearings B & B are a rigid surface. Members not listed have forces less than 375#	Loc	Gravity			Non-Gravity			R+	/R-	/Rh	/Rw	/U	/RL	B	287	-	-	/168	/46	/173	R*	83	-	-	/46	-	-
Loc	Gravity			Non-Gravity																											
	R+	/R-	/Rh	/Rw	/U	/RL																									
B	287	-	-	/168	/46	/173																									
R*	83	-	-	/46	-	-																									

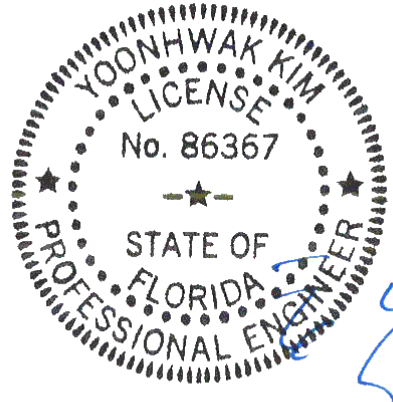
**Lumber**  
 Top chord: 2x4 SP #2;  
 Bot chord: 2x4 SP #2;  
 Webs: 2x4 SP #3;  
 Stack Chord: SC1 2x4 SP #2;  
 Stack Chord: SC2 2x4 SP #2; Lt Wedge: 2x4 SP #3;  
 Rt Wedge: 2x4 SP #3;

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

**Plating Notes**  
 All plates are 2X4 except as noted.  
 (\*\*) 2 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.  
 Right end vertical not exposed to wind pressure.  
 Wind loading based on both gable and hip roof types.

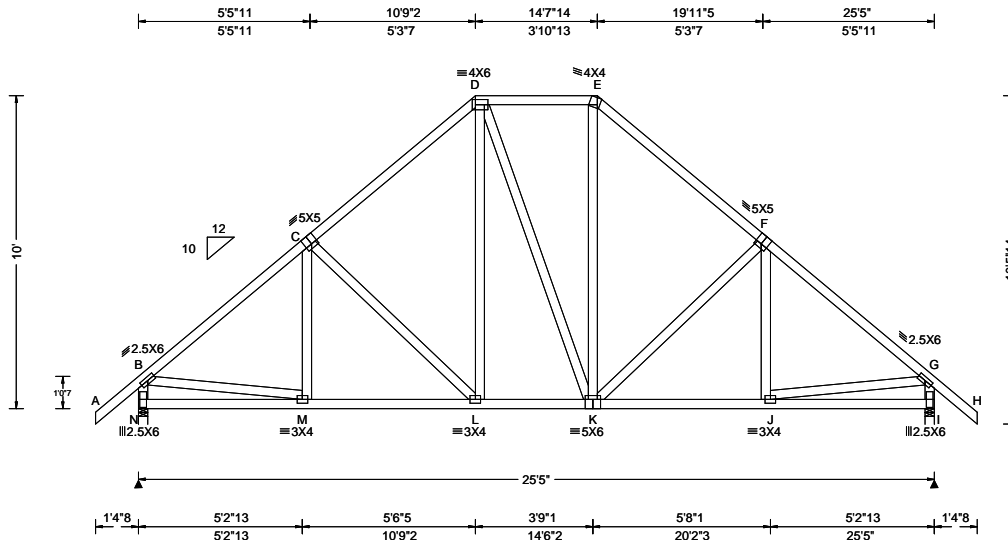
**Additional Notes**  
 See DWGS A14015ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.  
 Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in notchable area using 3x6.



FL REG# 278, Yoonhwak Kim, FL PE #86367  
 11/29/2021

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<b>Loading Criteria (psf)</b> 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/defl L/# VERT(LL): 0.030 L 999 240 VERT(CL): 0.064 L 999 180 HORZ(LL): 0.012 C - - HORZ(TL): 0.025 C - - Creep Factor: 2.0 Max TC CSI: 0.356 Max BC CSI: 0.380 Max Web CSI: 0.337  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL N 1191 /- /- /729 /261 /332 I 1191 /- /- /729 /261 /- Wind reactions based on MWFRS N Brg Wid = 3.5 Min Req = 1.5 I Brg Wid = 3.5 Min Req = 1.5 Bearings N & I are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 523 - 1305 E - F 577 - 1040 C - D 580 - 1045 F - G 523 - 1305 D - E 527 - 708  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. M - L 923 - 236 K - J 922 - 248 L - K 707 - 121  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. B - N 513 - 1147 J - G 884 - 221 B - M 885 - 221 G - I 513 - 1147
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**Lumber**

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

**Purlins**

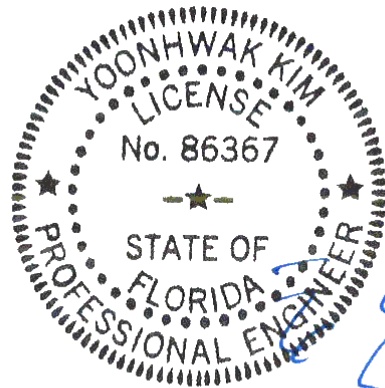
In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

**Wind**

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

End verticals not exposed to wind pressure.

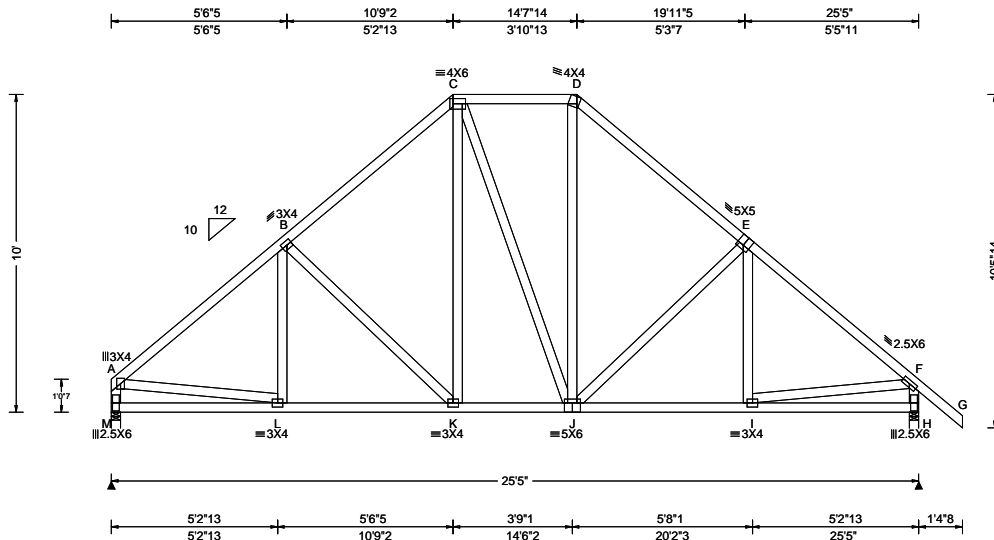
Wind loading based on both gable and hip roof types.



FL REG# 278, Yoonhwak Kim, FL PE #86367  
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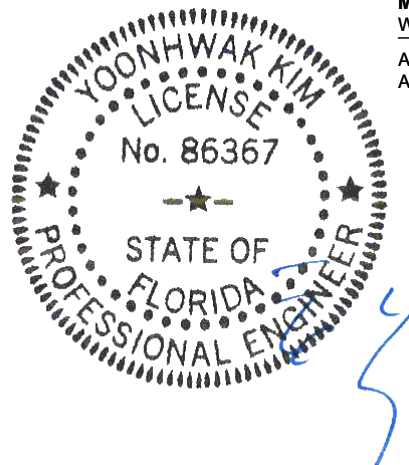
<b>Loading Criteria (psf)</b> TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.030 K 999 240 VERT(CL): 0.065 K 999 180 HORZ(LL): 0.012 B - - HORZ(TL): 0.025 B - - Creep Factor: 2.0 Max TC CSI: 0.403 Max BC CSI: 0.380 Max Web CSI: 0.413  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL M 1091 -/ - /664 /118 /304 H 1194 -/ - /726 /166 -/ Wind reactions based on MWFRS M Brg Wid = 3.5 Min Req = 1.5 H Brg Wid = 3.5 Min Req = 1.5 Bearings M & H are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. A - B 247 -1314 D - E 324 -1044 B - C 287 -1052 E - F 287 -1309 C - D 268 -712  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. L - K 937 -192 J - I 925 -69 K - J 711 -87  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. A - M 221 -1046 I - F 887 -43 A - L 882 -60 F - H 339 -1149
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**Lumber**

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

**Wind**

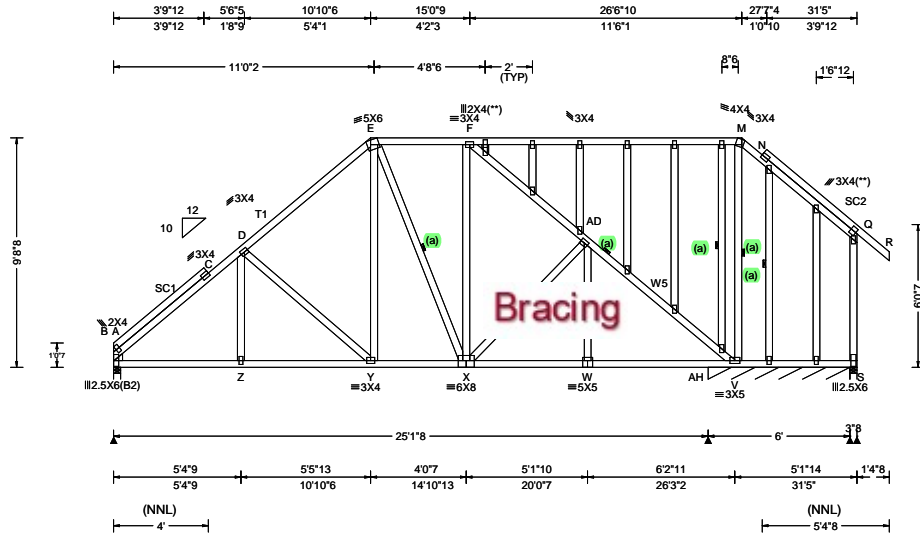
Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.  
Wind loading based on both gable and hip roof types.



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**Lumber**  
Top chord: 2x4 SP #2; T1 2x4 SP M-31;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3; W5 2x4 SP M-31;  
Stack Chord: SC1 2x4 SP #2;  
Stack Chord: SC2 2x4 SP #2; Lt Wedge: 2x4 SP #3;

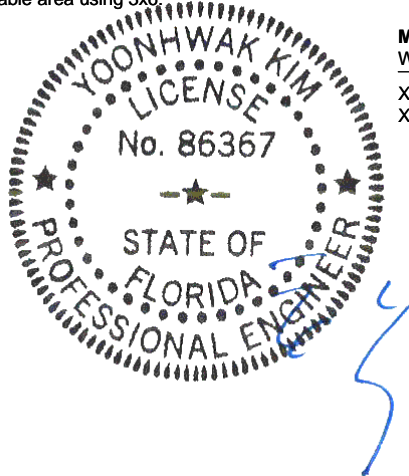
**Bracing**  
(a) Continuous lateral restraint equally spaced on member.

**Plating Notes**  
All plates are 2X4 except as noted.  
(\*\*) 2 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.  
Right end vertical not exposed to wind pressure.  
Wind loading based on both gable and hip roof types.

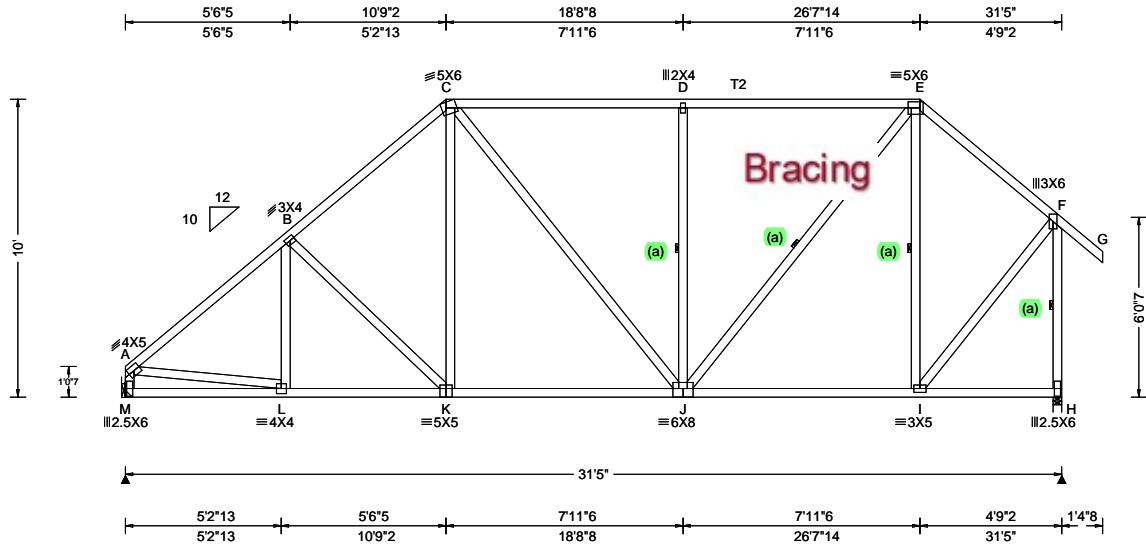
**Additional Notes**  
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Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped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



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**Lumber**

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

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Hangers / Ties**

(J) Hanger Support Required, by others

**Loading**

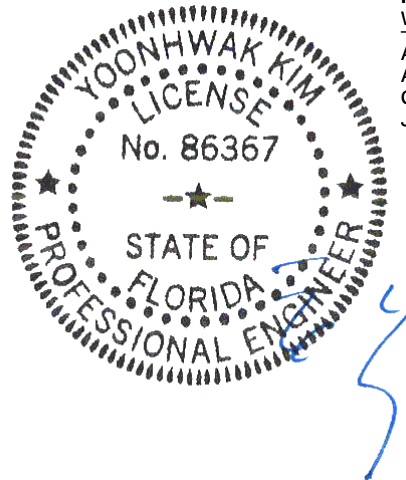
Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.

**Purlins**

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

**Wind**

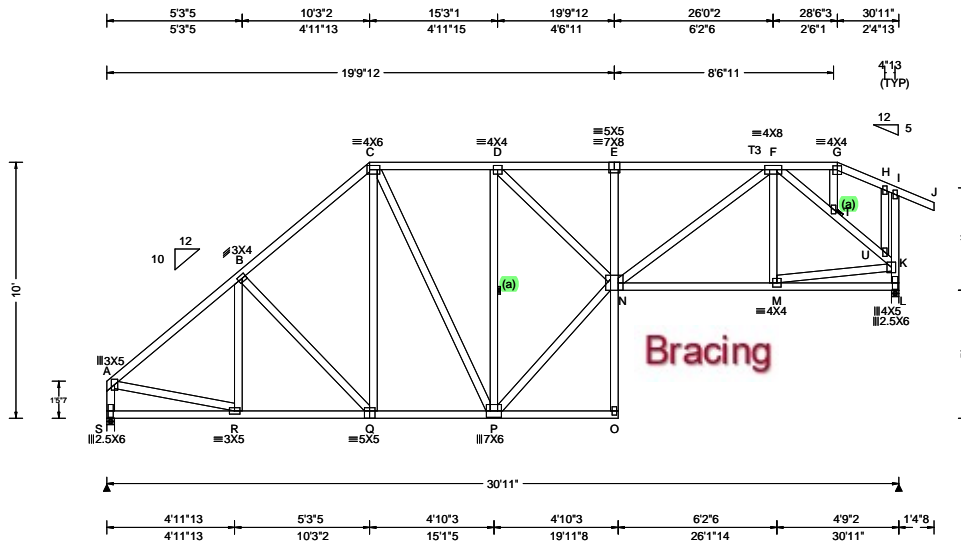
Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.  
Wind loading based on both gable and hip roof types.



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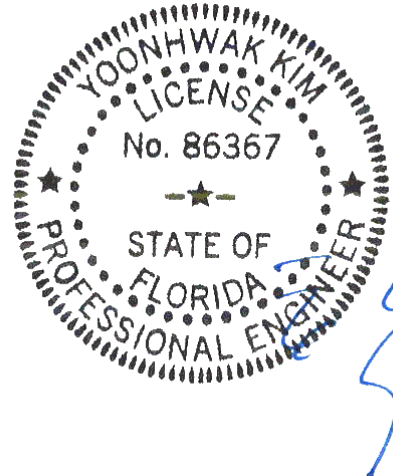
<b>Loading Criteria (psf)</b> TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.09 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.092 E 999 240 VERT(CL): 0.189 E 999 180 HORZ(LL): 0.046 L - - HORZ(TL): 0.094 L - - Creep Factor: 2.0 Max TC CSI: 0.360 Max BC CSI: 0.506 Max Web CSI: 0.857  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs)</b> Gravity Loc R+ / R- / Rh / Rw / U / RL S 1298 - / - / - / 794 / 261 / 249 L 1363 - / - / - / 692 / 382 / - Wind reactions based on MWFRS S Brg Wid = 3.5 Min Req = 1.5 L Brg Wid = 3.5 Min Req = 1.6 Bearings S & L are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. A - B 654 - 1470 D - E 1341 - 2033 B - C 761 - 1319 E - F 1343 - 2039 C - D 727 - 1028  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. R - Q 1063 - 685 N - M 1162 - 694 Q - P 923 - 550  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. A - S 560 - 1255 F - T 882 - 1474 A - R 1049 - 398 M - K 1166 - 692 P - D 864 - 1256 T - U 882 - 1485 P - N 1557 - 937 U - K 837 - 1400 D - N 1386 - 855 K - L 871 - 1328 N - F 1085 - 674
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**Lumber**  
Top chord: 2x4 SP #2; T3 2x4 SP M-31;  
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.

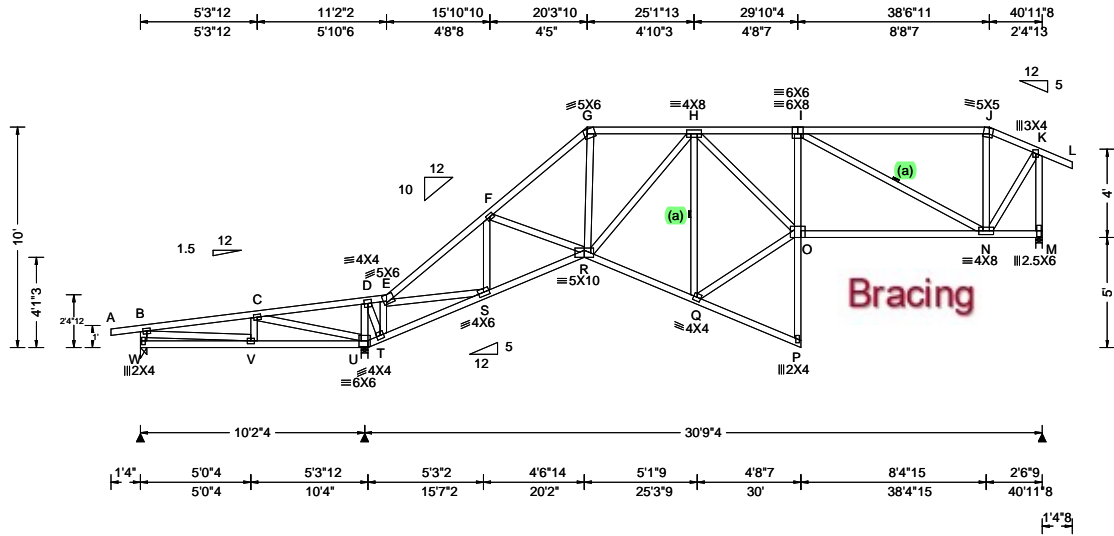
**Wind**  
Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.  
Wind loading based on both gable and hip roof types.



FL REG# 278, Yoonhwak Kim, FL PE #86367  
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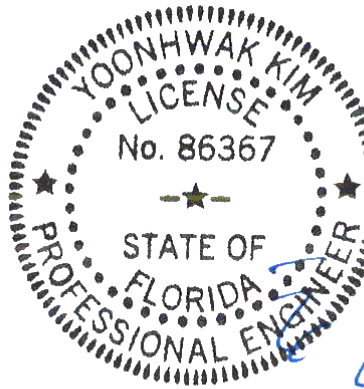
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				B - C 453 -273 G - H 751 -1250 C - D 1323 -793 H - I 1092 -1825 D - E 1013 -649 I - J 438 -640 E - F 586 -1449 J - K 419 -694 F - G 901 -1750					

**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 3X4 except as noted.

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

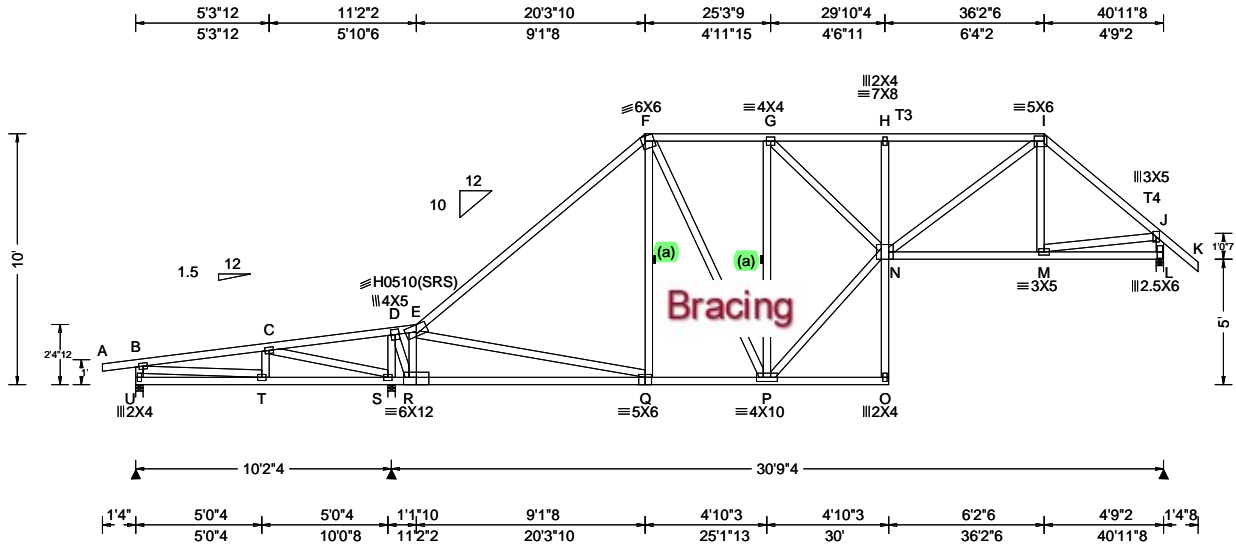


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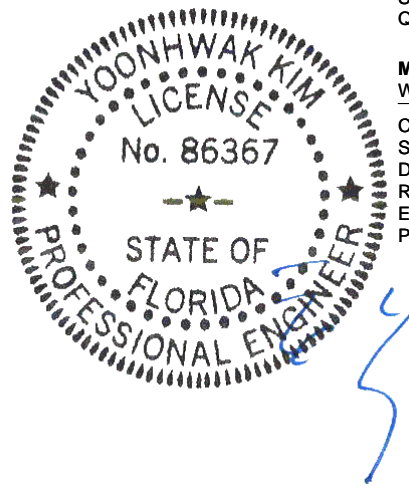


<b>Loading Criteria (psf)</b> TCLL: 20.00 TCCL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCCL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 4.10 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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, HS	<b>Defl/CSI Criteria</b> PP Deflection in loc L/defl L/# VERT(LL): 0.087 H 999 240 VERT(CL): 0.179 H 999 180 HORZ(LL): 0.040 L - - HORZ(TL): 0.082 L - - Creep Factor: 2.0 Max TC CSI: 0.637 Max BC CSI: 0.585 Max Web CSI: 0.674 VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL
				U 372 - / - / 167 / 159 / 276 S 1921 - / - / 1151 / 487 - / - L 1324 - / - / 751 / 321 - / - Wind reactions based on MWFRS U Brg Wid = 3.5 Min Req = 1.5 S Brg Wid = 3.5 Min Req = 1.9 L Brg Wid = 3.5 Min Req = 1.6 Bearings U, S, & L are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp.

<b>Lumber</b> Top chord: 2x4 SP M-31; T3,T4 2x4 SP #2; Bot chord: 2x4 SP #2; Webs: 2x4 SP #3;	B - C 191 -386 G - H 1068 -1896 C - D 855 -495 H - I 1070 -1902 E - F 565 -1285 I - J 715 -1489 F - G 631 -927
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<b>Bracing</b> (a) Continuous lateral restraint equally spaced on member.	<b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. S - R 275 -606 N - M 1074 -410 Q - P 836 -347
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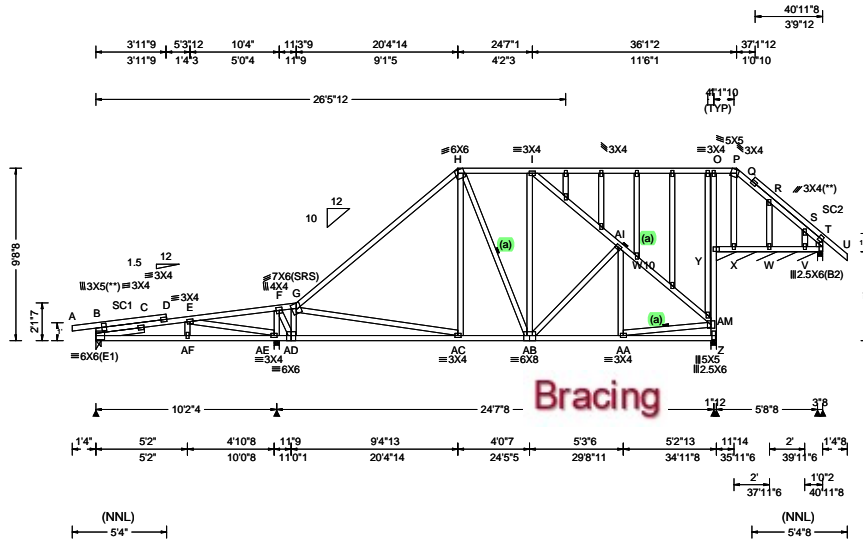
<b>Plating Notes</b> All plates are 3X4 except as noted.	<b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. C - S 490 -991 P - N 1403 -608 S - D 732 -1648 G - N 1339 -611 D - R 1770 -852 N - I 1015 -535 R - E 934 -1548 M - J 1054 -394 E - Q 768 -267 J - L 646 -1290 P - G 595 -1137
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Loc	Gravity			Non-Gravity																																																
	R+	/R-	/Rh	/Rw	/U	/RL																																														
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Y*	114	-	-	/63	/16	-																																														
T	261	-	-	/251	/133	-																																														

**Lumber**  
 Top chord: 2x4 SP #2;  
 Bot chord: 2x4 SP #2;  
 Webs: 2x4 SP #3; W10 2x4 SP #2;  
 Stack Chord: SC1 2x4 SP #2;  
 Stack Chord: SC2 2x4 SP #2;  
 Lt Slider: 2x4 SP #3; block length = 2.754'  
 Rt Wedge: 2x4 SP #3;

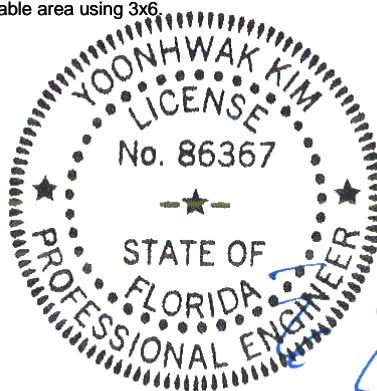
**Bracing**  
 (a) Continuous lateral restraint equally spaced on member.

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



Members not listed have forces less than 375#

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

Chords	Tens.Comp.	Chords	Tens. Comp.
B - C	111 -512	E - F	727 -326
C - D	111 -507	G - H	501 -1023
D - E	110 -494	H - I	533 -602

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

Chords	Tens.Comp.	Chords	Tens. Comp.
B -AF	500 -43	AD-AC	406 -378
AF-AE	490 -46	AC-AB	636 -383
AE-AD	76 -483	AB-AA	780 -577

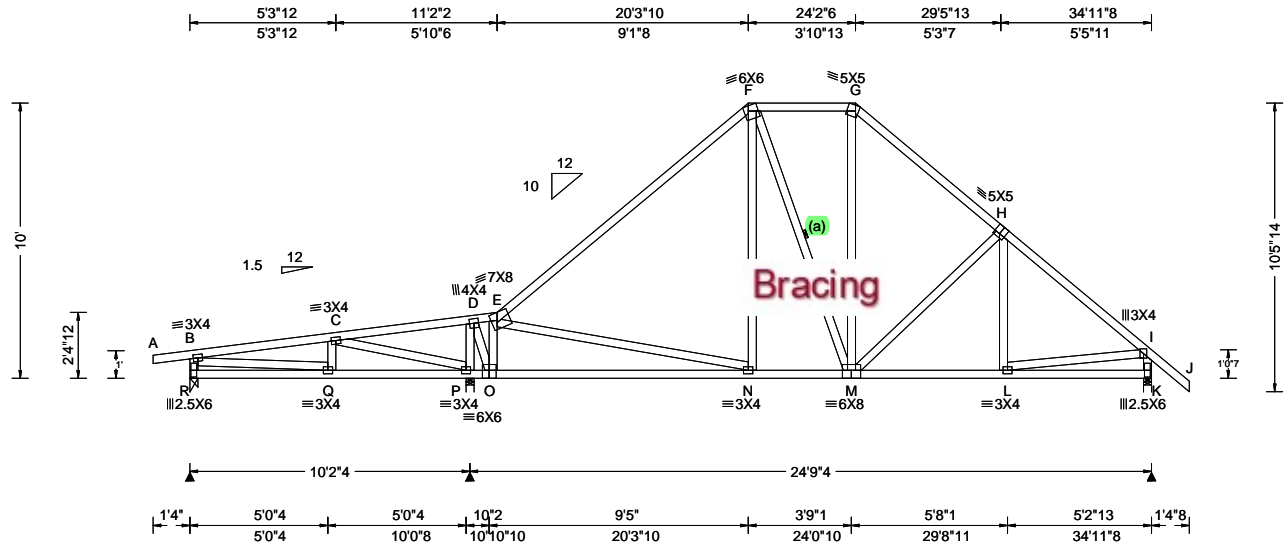
**Maximum Web Forces Per Ply (lbs)**

Webs	Tens.Comp.	Webs	Tens. Comp.
E -AE	184 -1071	I -AI	544 -889
AE - F	365 -1377	AI-AM	718 -1042
F -AD	1499 -830	AA-AM	764 -550
AD - G	868 -1235	AM - Z	588 -640
G -AC	380 -8		

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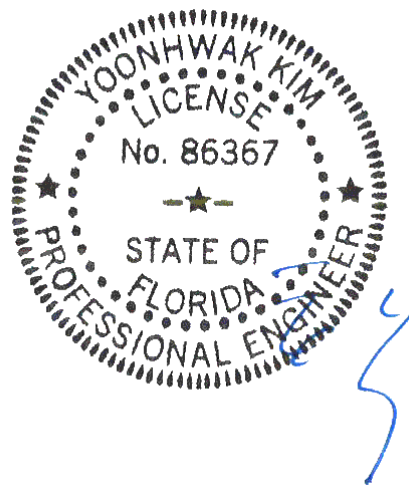


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**Lumber**  
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

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

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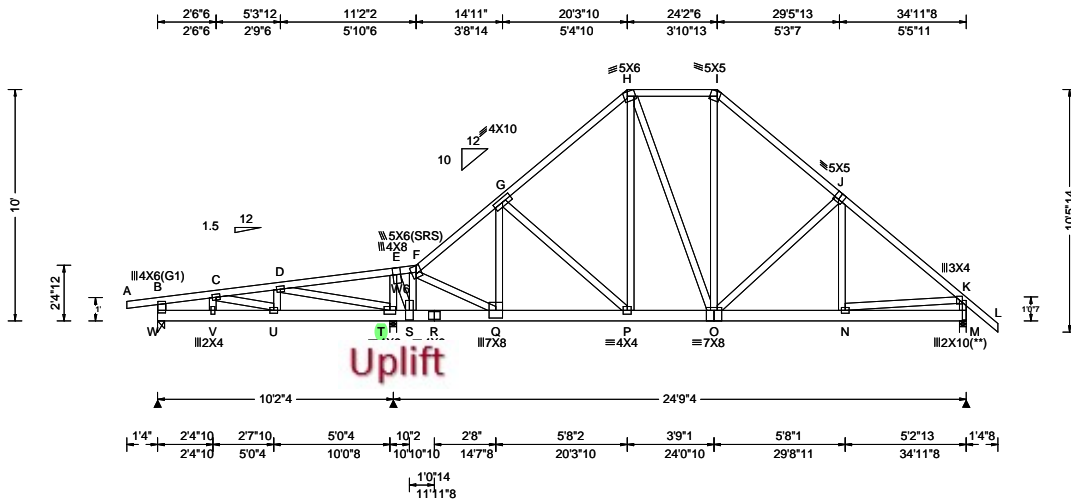


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2 Complete Trusses Required



<b>Loading Criteria (psf)</b> TCCL: 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 0.00 ft TCCL: 4.2 psf BCDL: 2.0 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	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/defl L/# VERT(LL): 0.057 Q 999 240 VERT(CL): 0.117 Q 999 180 HORZ(LL): 0.018 G - - HORZ(TL): 0.037 G - - Creep Factor: 2.0 Max TC CSI: 0.542 Max BC CSI: 0.226 Max Web CSI: 0.864 VIEW Ver: 21.02.00.1005.17	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL W - / -282 / 0 / 8 / - / - T 7865 / - / - / - / 2174 / - M 2079 / - / - / - / 546 / - Wind reactions based on MWFRS W Brg Wid = 3.5 Min Req = 1.5 (Truss) T Brg Wid = 3.5 Min Req = 2.9 (Truss) M Brg Wid = 3.5 Min Req = 1.5 (Truss) Bearings W, T, & M are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp.					
				C - D 881 -223 H - I 232 -866 D - E 1242 -347 I - J 324 -1178 F - G 860 -3008 J - K 333 -1257 G - H 394 -1407					

**Lumber**  
 Top chord: 2x4 SP #2;  
 Bot chord: 2x6 SP 2400f-2.0E;  
 Webs: 2x4 SP #3; W6 2x4 SP #2;  
 Lt Stub Wedge: 2x4 SP #3;

**Nailnote**  
 Nail Schedule: 0.128"x3", min. nails  
 Top Chord: 1 Row @ 12.00" o.c.  
 Bot Chord: 1 Row @ 7.50" o.c.  
 Webs : 1 Row @ 4" o.c.  
 Use equal spacing between rows and stagger nails in each row to avoid splitting.

**Wind**  
 Wind loads and reactions based on MWFRS.  
 Right end vertical not exposed to wind pressure.  
 Wind loading based on both gable and hip roof types.

**Additional Notes**  
 Negative reaction(s) of -282# MAX. from a non-wind load case requires uplift connection. See Maximum Reactions.

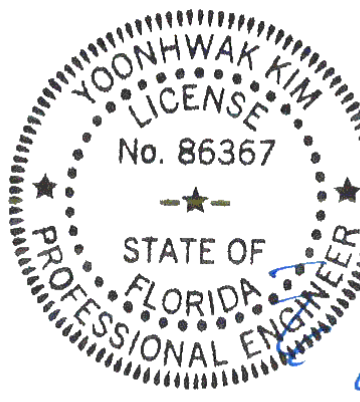
**Maximum Bot Chord Forces Per Ply (lbs)**

Chords	Tens.Comp.	Chords	Tens. Comp.
U - T	217 -893	Q - P	2224 -634
T - S	203 -732	P - O	1034 -284
S - R	646 -152	O - N	928 -242
R - Q	646 -152		

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

TC: From	60 plf at -1.33 to	60 plf at	11.18
TC: From	66 plf at	11.18 to	66 plf at 36.33
BC: From	4 plf at	-1.33 to	4 plf at 0.00
BC: From	20 plf at	0.00 to	20 plf at 11.96
BC: From	10 plf at	11.96 to	10 plf at 14.77
BC: From	20 plf at	14.77 to	20 plf at 34.96
BC: From	5 plf at	34.96 to	5 plf at 36.33
BC: 1236 lb Conc. Load at	12.10,14.10		
BC: 4293 lb Conc. Load at	14.77		

**Plating Notes**  
 All plates are 3X4 except as noted.  
 (\*\*) 1 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.



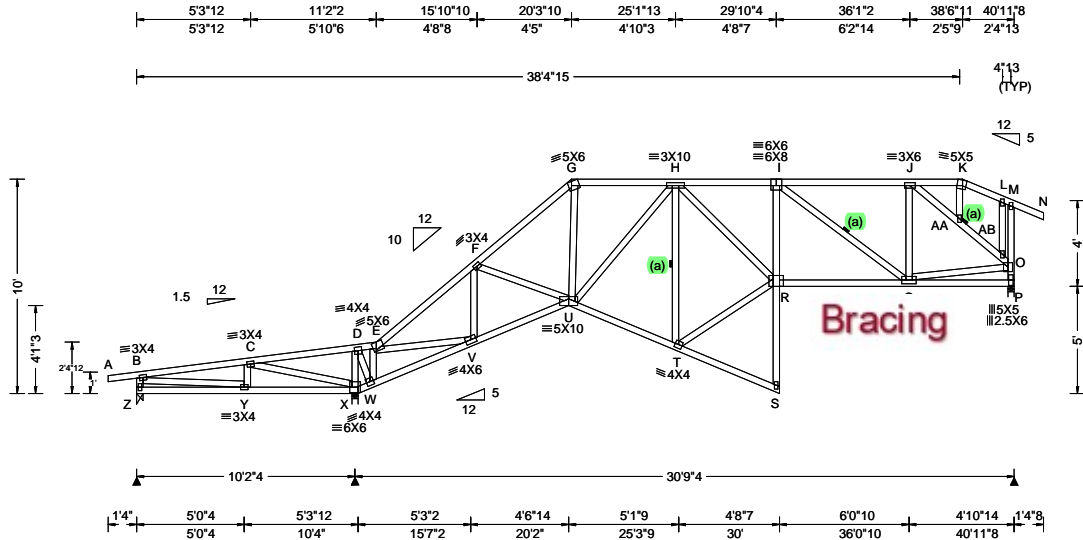
FL REG# 278, Yoonhwak Kim, FL PE #86367  
 11/29/2021

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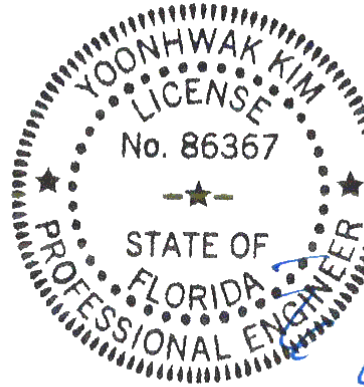
<b>Loading Criteria (psf)</b> TCCL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCCL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 4.10 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/defl L/# VERT(LL): 0.091 R 999 240 VERT(CL): 0.188 R 999 180 HORZ(LL): 0.062 P - - HORZ(TL): 0.128 P - - Creep Factor: 2.0 Max TC CSI: 0.534 Max BC CSI: 0.579 Max Web CSI: 0.703 VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL Z 340 - / - / - /123 /149 /270 X 2053 - / - / - /1242 /495 -/ P 1264 - / - / - /667 /343 -/ Wind reactions based on MWFRS Z Brg Wid = 3.5 Min Req = 1.5 X Brg Wid = 3.5 Min Req = 2.4 P Brg Wid = 3.5 Min Req = 1.5 Bearings Z, X, & P are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp.					
				B - C 434 -277 F - G 905 -1758 C - D 1297 -777 G - H 753 -1254 D - E 985 -632 H - I 1068 -1795 E - F 596 -1465 I - J 665 -1053					

**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.

**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.



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

Chords	Tens.Comp.	Chords	Tens. Comp.
Y - X	242 -459	V - U	1187 -678
X - W	553 -1404	U - T	1227 -650
W - V	354 -947	R - Q	1796 -972

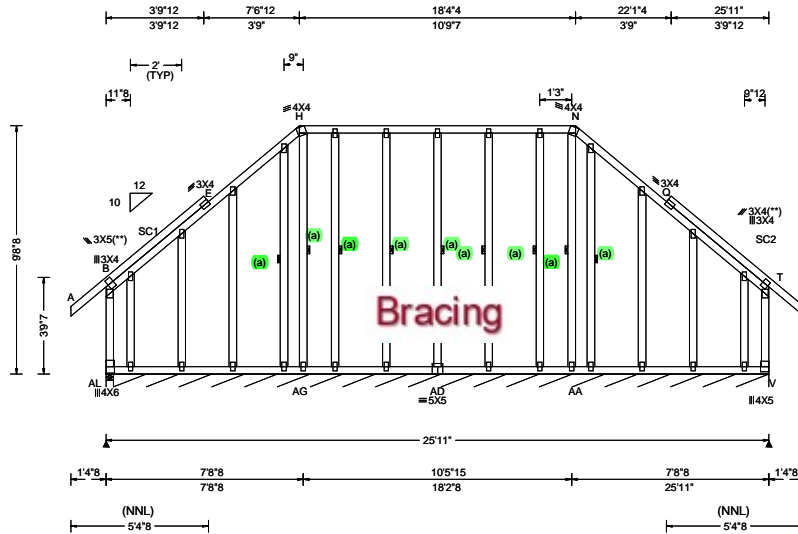
**Maximum Web Forces Per Ply (lbs)**

Webs	Tens.Comp.	Webs	Tens. Comp.
B - Y	282 -435	H - R	952 -527
C - X	592 -1178	T - R	1335 -710
D - X	590 -1106	I - Q	527 -938
D - W	979 -385	Q - J	519 -164
W - E	487 -1104	Q - O	1059 -559
E - V	1846 -926	J - AA	709 -1338
V - F	395 -620	AA-AB	712 -1350
U - G	774 -376	AB-O	675 -1270
H - T	682 -1094	O - P	765 -1227

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<b>Loading Criteria (psf)</b> TCLL: 20.00 TC DL: 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.32 ft TC DL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg, Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/defl L/# VERT(LL): 0.008 S 999 240 VERT(CL): 0.017 C 667 180 HORZ(LL): 0.373 T - - HORZ(TL): 0.577 T - - Creep Factor: 2.0 Max TC CSI: 0.271 Max BC CSI: 0.179 Max Web CSI: 0.423 VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs), or *=PLF</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Loc</th> <th colspan="3">Gravity</th> <th colspan="3">Non-Gravity</th> </tr> <tr> <th>R+</th> <th>/ R-</th> <th>/ Rh</th> <th>/ Rw</th> <th>/ U</th> <th>/ RL</th> </tr> </thead> <tbody> <tr> <td>AL</td> <td>250</td> <td>-</td> <td>-</td> <td>/403</td> <td>/247</td> <td>/160</td> </tr> <tr> <td>V*</td> <td>85</td> <td>-</td> <td>-</td> <td>/57</td> <td>-</td> <td>-</td> </tr> </tbody> </table> Wind reactions based on MWFRS AL Brg Wid = 3.5 Min Req = 1.5 V Brg Wid = 307 Min Req = - Bearings AL & AL are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Chords</th> <th>Tens.Comp.</th> <th>Chords</th> <th>Tens.Comp.</th> </tr> </thead> <tbody> <tr> <td>E - H</td> <td>383 -54</td> <td>N - Q</td> <td>378 -55</td> </tr> </tbody> </table>	Loc	Gravity			Non-Gravity			R+	/ R-	/ Rh	/ Rw	/ U	/ RL	AL	250	-	-	/403	/247	/160	V*	85	-	-	/57	-	-	Chords	Tens.Comp.	Chords	Tens.Comp.	E - H	383 -54	N - Q	378 -55
Loc	Gravity			Non-Gravity																																			
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**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**  
 (a) Continuous lateral restraint equally spaced on member.  
 Fasten rated sheathing to one face of this frame.

**Plating Notes**  
 All plates are 2X4 except as noted.  
 (\*\*) 2 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

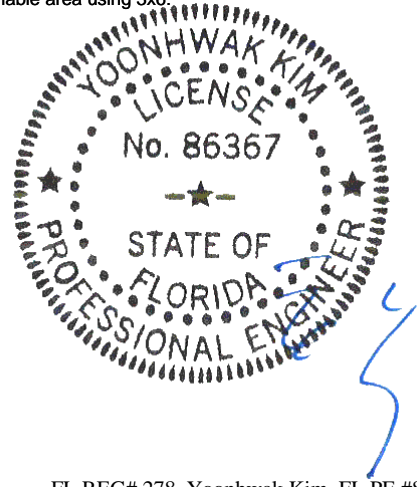
**Purlins**  
 In lieu of structural panels use purlins to brace all sloping TC @ 24" oc; all flat TC @ 0" oc.

**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 A14030ENC160118 & 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.

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

Gables	Tens.Comp.
B - AL	458 -283



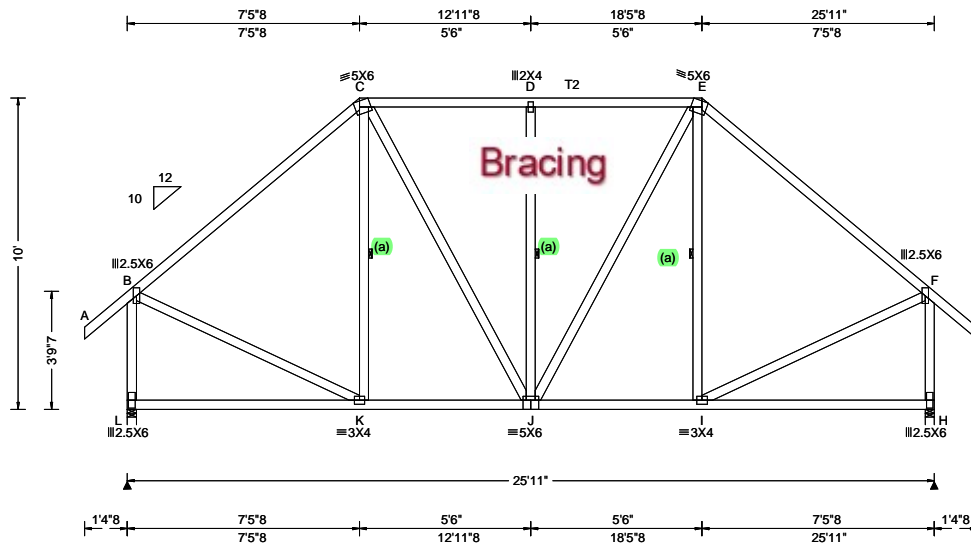
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<b>Loading Criteria (psf)</b> TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.32 ft TCDL: 4.2 psf BCDL: 3.0 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	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.029 D 999 240 VERT(CL): 0.056 D 999 180 HORZ(LL): 0.008 C - - HORZ(TL): 0.015 C - - Creep Factor: 2.0 Max TC CSI: 0.522 Max BC CSI: 0.491 Max Web CSI: 0.409  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL L 1333 - / - / /701 /281 /250 H 1333 - / - /701 /281 - / - Wind reactions based on MWFRS L Brg Wid = 3.5 Min Req = 1.6 H Brg Wid = 3.5 Min Req = 1.6 Bearings L & H are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 561 -1108 D - E 633 -874 C - D 633 -874 E - F 561 -1108  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. K - J 738 -229 J - I 738 -225  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. B - L 625 -1274 I - F 792 -232 B - K 792 -232 F - H 625 -1274
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**Lumber**

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

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Loading**

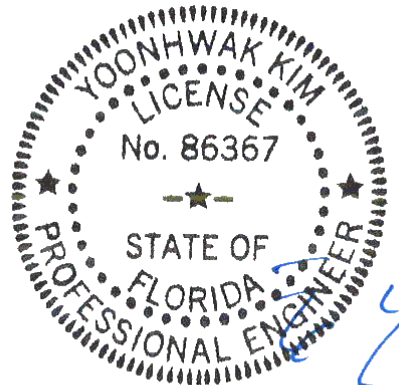
Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.

**Purlins**

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

**Wind**

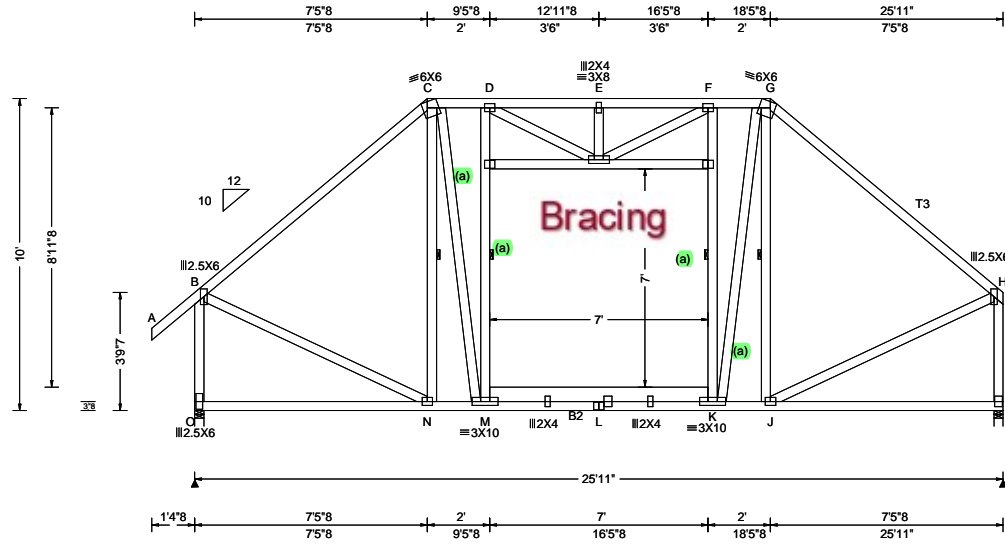
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<b>Loading Criteria (psf)</b> TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.32 ft TCDL: 4.2 psf BCDL: 3.0 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	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/defl L/# VERT(LL): 0.060 M 999 240 VERT(CL): 0.101 Q 999 180 HORZ(LL): 0.092 L - - HORZ(TL): 0.133 L - - Creep Factor: 2.0 Max TC CSI: 0.958 Max BC CSI: 0.519 Max Web CSI: 0.408  VIEW Ver: 21.02.00.1005.17	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL O 1315 - / - / /733 /83 /226 I 1212 - / - / /640 /64 - /- Wind reactions based on MWFRS O Brg Wid = 3.5 Min Req = 1.6 (Truss) I Brg Wid = 3.5 Min Req = 1.5 (Truss) Bearings O & I are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 140 -1087 E - F 172 -1019 C - D 192 -786 F - G 189 -786 D - E 172 -1019 G - H 124 -1085  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. N - M 722 -48 L - K 996 -166 M - L 905 -125 K - J 726 0  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. B - O 211 -1251 K - G 389 -219 B - N 769 0 J - H 773 0 C - M 411 -217 H - I 142 -1148
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**Lumber**  
Top chord: 2x4 SP #2; T3 2x4 SP M-31;  
Bot chord: 2x4 SP #2; B2 2x6 SP 2400f-2.0E;  
Webs: 2x4 SP #3;

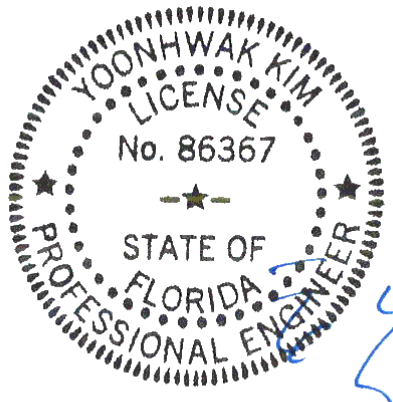
**Bracing**  
(a) Continuous lateral restraint equally spaced on member.

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

**Loading**

Mechanical Unit Loads Supported by this Truss				
At	Truss	Unit	Unit	Supporting
X-Loc	Piece	Lbs.	Width	Trusses
12.96	BC	400.0	0.00	4
12.96	BC	400.0	0.00	4
12.96	BC	400.0	0.00	4
12.96	BC	400.0	0.00	4

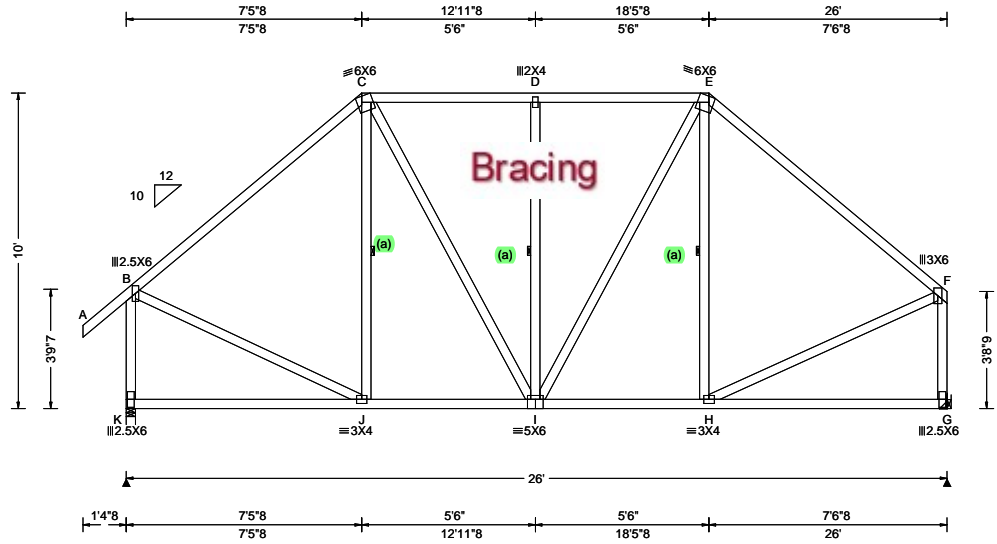
**Wind**  
Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.  
Wind loading based on both gable and hip roof types.



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<b>Loading Criteria (psf)</b> 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.32 ft TCDL: 4.2 psf BCDL: 3.0 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	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.031 D 999 240 VERT(CL): 0.060 D 999 180 HORZ(LL): 0.008 C - - HORZ(TL): 0.015 C - - Creep Factor: 2.0 Max TC CSI: 0.947 Max BC CSI: 0.499 Max Web CSI: 0.455  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL K 1340 /- /- /706 /278 /230 G 1236 /- /- /621 /259 /- Wind reactions based on MWFRS K Brg Wid = 3.5 Min Req = 1.6 G Brg Wid = - Bearing K is a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 558 -1116 D - E 628 -881 C - D 628 -881 E - F 541 -1124  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. J - I 745 -281 I - H 754 -274  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. B - K 622 -1280 H - F 795 -277 B - J 795 -226 F - G 548 -1175
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**Lumber**

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

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Hangers / Ties**

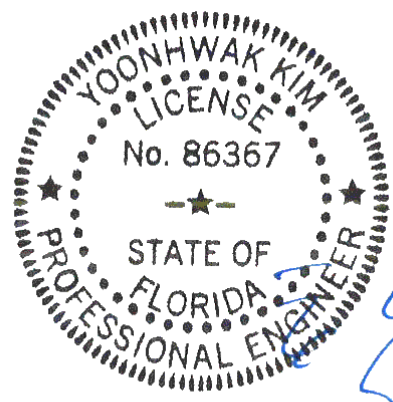
(J) Hanger Support Required, by others

**Loading**

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

**Wind**

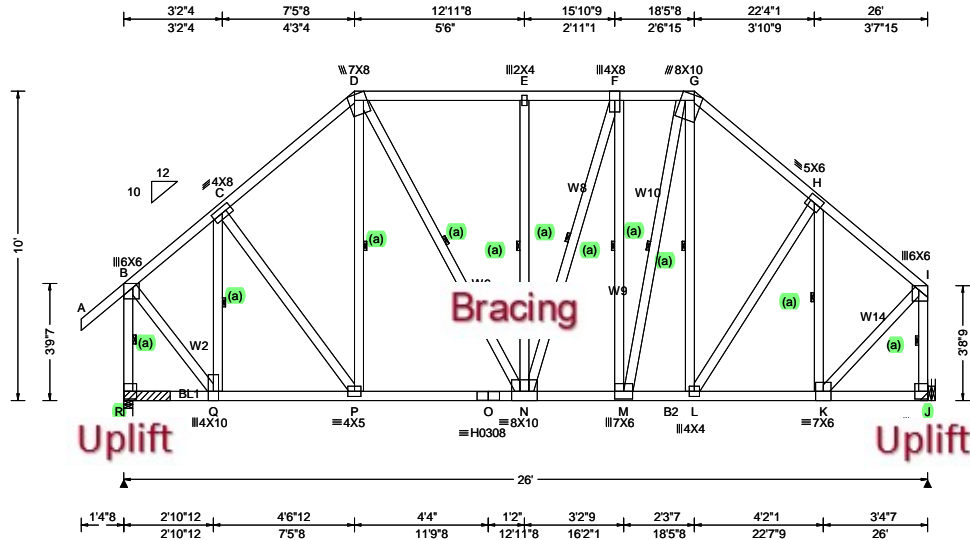
Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.  
Wind loading based on both gable and hip roof types.



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<b>Loading Criteria (psf)</b> TCLL: 20.00 TCCL: 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.32 ft TCCL: 4.2 psf BCDL: 3.0 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	<b>Snow Criteria (Pg,Pf in PSF)</b> 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, HS	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.143 E 999 240 VERT(CL): 0.292 E 999 180 HORZ(LL): 0.053 D - - HORZ(TL): 0.107 D - - Creep Factor: 2.0 Max TC CSI: 0.367 Max BC CSI: 0.788 Max Web CSI: 0.831 VIEW Ver: 21.02.00.1005.17	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL R 4386 - / - / - / - /1463 - J 4293 - / - / - / - /1428 - Wind reactions based on MWFRS R Brg Wid = 3.5 Min Req = - J Brg Wid = - Min Req = - Bearing R is a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp.
				B - C 921 -2743 F - G 1352 -3925 C - D 1395 -4082 G - H 1417 -4137 D - E 1737 -4988 H - I 1015 -3017 E - F 1737 -4987

**Lumber**  
 Top chord: 2x4 SP M-31;  
 Bot chord: 2x4 SP #2; B2 2x4 SP M-31;  
 Webs: 2x4 SP #3; W2,W8,W10,W14 2x4 SP #2; W6, W9 2x4 SP M-31;

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

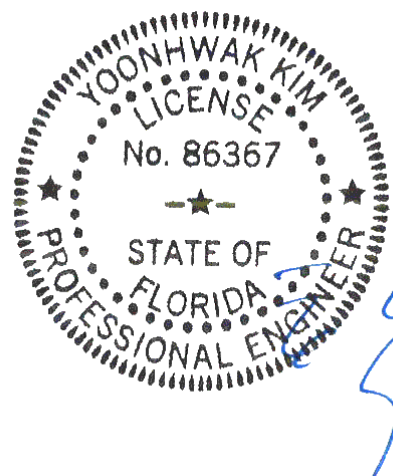
**Special Loads**  
 -----(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)  
 TC: From 66 plf at -1.38 to 66 plf at 26.00  
 BC: From 5 plf at -1.38 to 5 plf at 0.00  
 BC: From 20 plf at 0.00 to 20 plf at 26.00  
 BC: 6345 lb Conc. Load at 13.02

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

**Wind**  
 Wind loads and reactions based on MWFRS.  
 End verticals not exposed to wind pressure.  
 Wind loading based on both gable and hip roof types.

**Bearing Block(s)**  
 Brg blocks: 0.128"x3", min. nails  
 brg x-loc #blocks length/blk #nails/blk wall plate  
 1 0.00' 1 18" 12 Rigid Surface  
 Brg block to be same size and species as chord.  
 Refer to drawing C>NNAILSP1014 for more information.

**Additional Notes**  
 The maximum concentrated load is 6345#

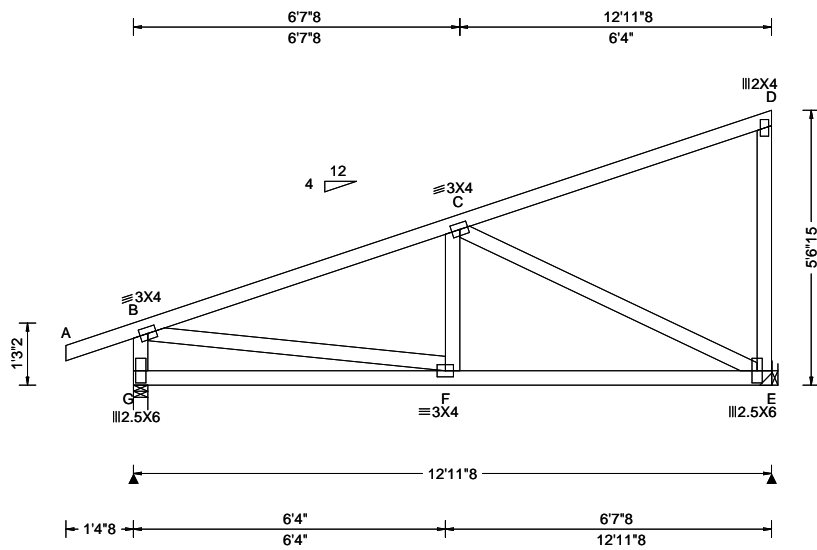


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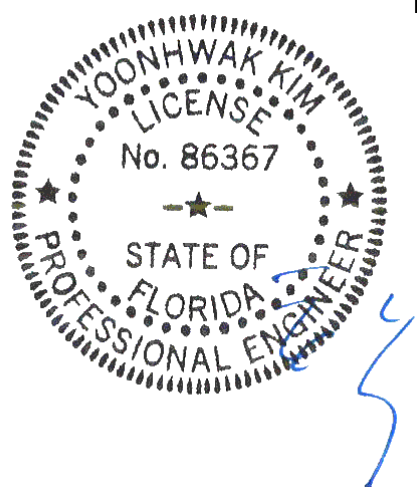
<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs)</b>
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 21.19 ft TCDL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp1: 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/def L/# VERT(LL): 0.017 F 999 240 VERT(CL): 0.033 F 999 180 HORZ(LL): -0.005 D - - HORZ(TL): 0.010 D - - Creep Factor: 2.0 Max TC CSI: 0.803 Max BC CSI: 0.592 Max Web CSI: 0.679  VIEW Ver: 21.01.01A.0521.20	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL G 620 /- /- /349 /177 /204 E 521 /- /- /290 /232 /- Wind reactions based on MWFRS G Brg Wid = 3.5 Min Req = 1.5 E Brg Wid = - Bearing G is a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. B - C 435 -738

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

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

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

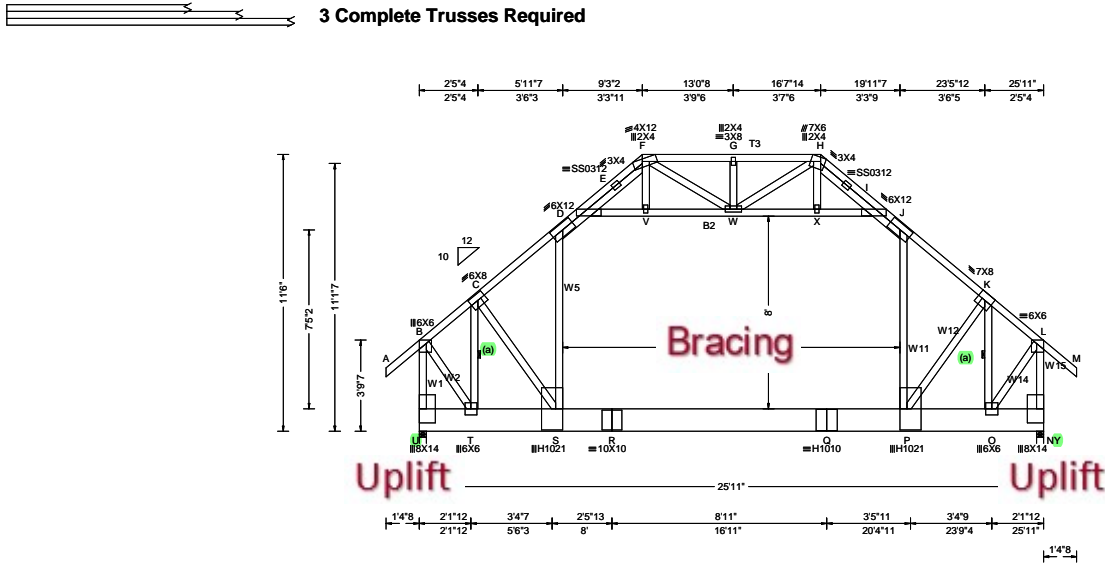
<b>Maximum Bot Chord Forces Per Ply (lbs)</b>			
Chords	Tens.Comp.	Chords	Tens. Comp.
G - F	46 -444	F - E	644 -698
<b>Maximum Web Forces Per Ply (lbs)</b>			
Webs	Tens.Comp.	Webs	Tens. Comp.
B - G	512 -569	C - E	779 -718
B - F	614 -255		



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<b>Loading Criteria (psf)</b> TCCL: 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 16.07 ft TCCL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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, HS, 18SS	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.109 P 999 240 VERT(CL): 0.218 P 999 180 HORZ(LL): -0.069 J - - HORZ(TL): 0.138 J - - Creep Factor: 2.0 Max TC CSI: 0.616 Max BC CSI: 0.992 Max Web CSI: 0.975 VIEW Ver: 21.02.00.1005.17	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL					
				U 12501 /- /- /- /1588 /57 Y 11182 /- /- /- /1691 /- Wind reactions based on MWFRS U Brg Wid = 3.5 Min Req = 3.5 (Truss) Y Brg Wid = 3.5 Min Req = 3.1 (Truss) Bearings U & Y are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp.					

**Lumber**  
 Top chord: 2x4 SP M-31; T3 2x4 SP #2;  
 Bot chord: 2x12 SP 2400f-2.0E; B2 2x4 SP #2;  
 Webs: 2x4 SP #3; W1,W5,W11,W15 2x4 SP M-31; W2, W12,W14 2x4 SP #2;

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

**Nailnote**  
 Nail Schedule: 0.128"x3", min. nails  
 Top Chord: 1 Row @ 12.00" o.c.  
 Bot Chord: 1 Row @ 2.00" o.c.  
 Webs : 1 Row @ 4" o.c.  
 Repeat nailing as each layer is applied. Use equal spacing between rows and stagger nails in each row to avoid splitting.

**Loading**  
 Attic room loading from 5-11-7 to 19-11-7: Live Load: 40 PSF. Dead Load: 10 PSF Ceiling: 10 PSF, Kneewalls: 10 PSF

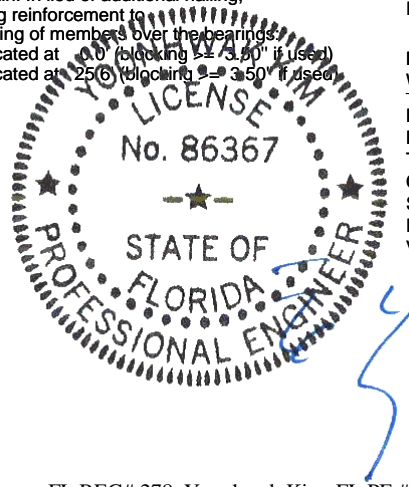
**Purlins**  
 In lieu of rigid ceiling use purlins to brace BC @ 24" oc.  
 Collar-tie braced with continuous lateral bracing at 24" oc. or rigid ceiling.

**Additional Notes**  
 The maximum concentrated load is 7752#

**Wind**  
 Wind loads and reactions based on MWFRS.  
 End verticals not exposed to wind pressure.  
 Wind loading based on both gable and hip roof types.

**Blocking**  
 Apply additional nailing over the following bearings with fasteners at 4" oc both perpendicular and parallel to grain. In lieu of additional nailing, apply blocking reinforcement to prevent buckling of members over the bearings.  
 Bearing 1 located at 0'0" blocking @ 3.50" if used  
 Bearing 2 located at 25'6" blocking @ 3.50" if used

E - F 1945 -1857 I - J 2264 -368 B - C 324 -2272 C - D 707 -4382 D - E 2359 -372	D - E 815 -5100 H - I 1892 -1806 I - J 810 -4999 J - K 713 -4390 K - L 329 -2165
<b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp.	
T - S 1885 -274 S - R 3219 -518 R - Q 3219 -518	Q - P 3219 -518 P - O 1813 -275
<b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp.	
B - U 560 -4019 B - T 3069 -418 T - C 664 -3643 C - S 2558 -466 S - D 2628 -416 E - V 590 -3690 V - W 587 -3669	W - X 587 -3657 X - I 590 -3678 J - P 2648 -408 P - K 2687 -462 K - O 677 -3832 O - L 2928 -437 L - N 590 -3832



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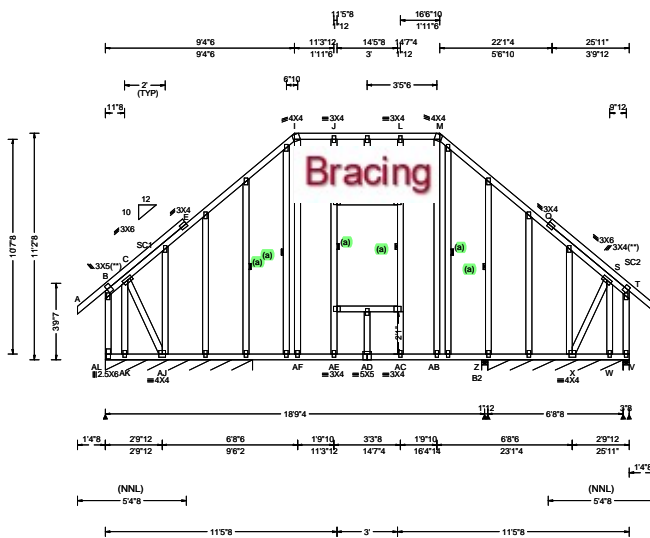
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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load 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: 15.92 ft TCDL: 4.2 psf BCDL: 2.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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): 0.102 K 999 240 VERT(CL): 0.216 K 654 180 HORZ(LL): 0.031 O - - HORZ(TL): 0.065 O - - Creep Factor: 2.0 Max TC CSI: 0.337 Max BC CSI: 0.416 Max Web CSI: 0.481  VIEW Ver: 21.02.00.1005.17	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL AL* 166 /- /- /114 /21 /38 Z 437 /- /- /337 /- /- Z* 69 /- /- /48 /23 /- V 318 /- /- /265 /130 /- AJ /-802 X /-842 Wind reactions based on MWFRS AL Brg Wid = 87.5 Min Req = - Z Brg Wid = 3.5 Min Req = 1.5 (Truss) Z Brg Wid = 80.5 Min Req = - V Brg Wid = 3.5 Min Req = 1.5 (Truss) Bearings AL, Z, Z, & V are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. C - E 76 -665 L - M 51 -474 E - I 22 -669 M - Q 34 -662 I - J 51 -474 Q - S 25 -663 J - L 51 -472  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. AJ-AF 474 -19 AD-AC 472 -18 AF-AE 473 -18 AC-AB 473 -18 AE-AD 472 -18 AB-X 941 -37  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. C - AJ 1078 -130 X - S 1076 -40  <b>Maximum Gable Forces Per Ply (lbs)</b> Gables Tens.Comp. Gables Tens. Comp. AK - C 158 -1267 S - W 50 -1267

**Lumber**  
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2; B2 2x4 SP M-31;  
Webs: 2x4 SP #3;  
Stack Chord: SC1 2x4 SP #2;  
Stack Chord: SC2 2x4 SP #2;

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

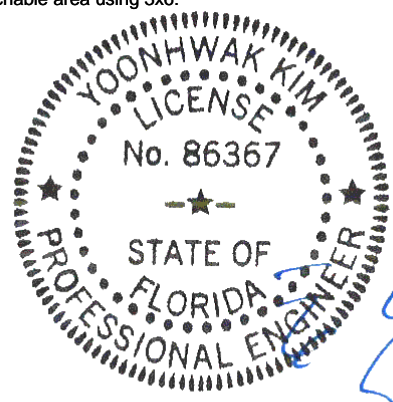
**Plating Notes**  
All plates are 2X4 except as noted.  
(\*\*) 2 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

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

**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.  
End verticals not exposed to wind pressure.  
Wind loading based on both gable and hip roof types.

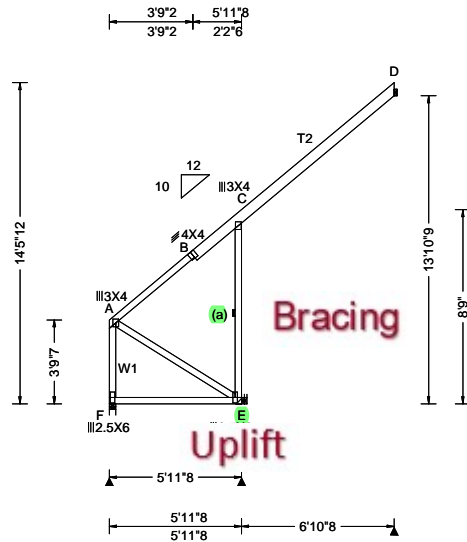
**Additional Notes**  
See DWGS A14030ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.  
Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in notchable area using 3x6.



FL REG# 278, Yoonhwak Kim, FL PE #86367  
11/29/2021

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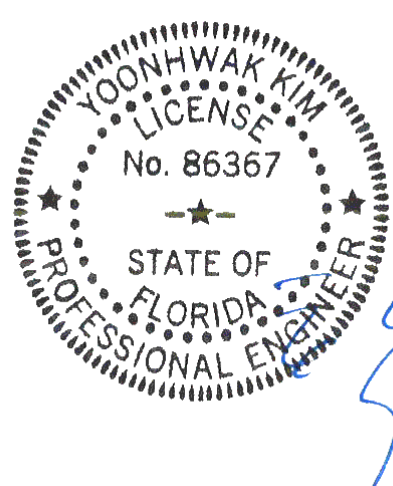
<b>Loading Criteria (psf)</b> TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 18.13 ft TCDL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): -0.005 C 999 240 VERT(CL): 0.008 C 999 180 HORZ(LL): -0.020 C - - HORZ(TL): 0.022 C - - Creep Factor: 2.0 Max TC CSI: 0.199 Max BC CSI: 0.400 Max Web CSI: 0.230  VIEW Ver: 21.02.00.1005.17	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL F 204 /- /- /500 /168 /419 E 608 /- /- /632 /681 /- D 192 /- /- /145 /145 /- Wind reactions based on MWFRS F Brg Wid = 3.5 Min Req = 1.5 (Truss) E Brg Wid = - Min Req = - D Brg Wid = 1.5 Min Req = - Bearing F is a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. A - B 236 -744 B - C 271 -715  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. F - E 198 -670  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. A - F 187 -751 C - E 773 -545 A - E 774 -229
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**Lumber**  
Top chord: 2x4 SP M-31; T2 2x6 SP 2400f-2.0E;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3; W1 2x4 SP #2;

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

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

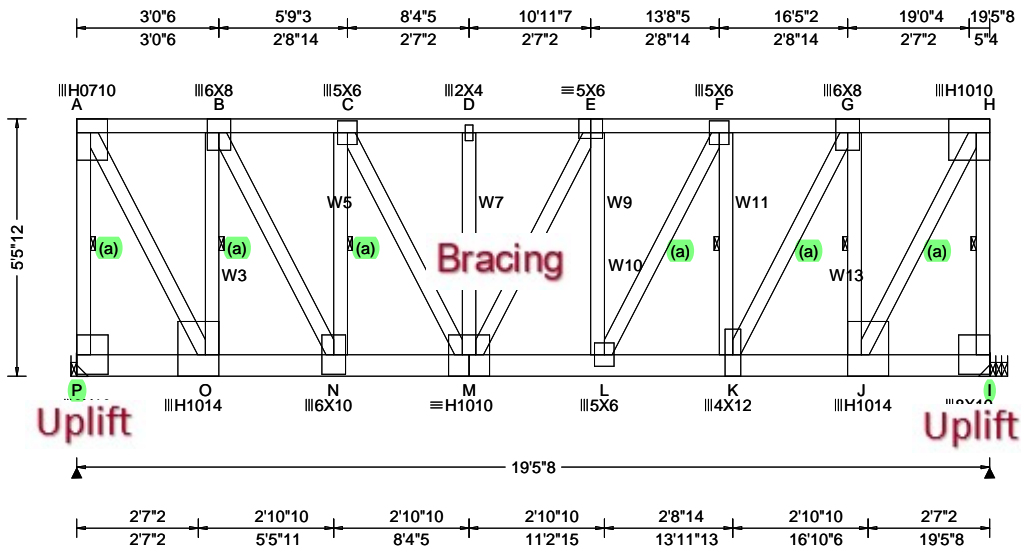
**Wind**  
Wind loads based on MWFRS with additional C&C member design.  
Left end vertical not exposed to wind pressure.  
Wind loading based on both gable and hip roof types.



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<b>Loading Criteria (psf)</b> 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 23.48 ft TCDL: 4.2 psf BCDL: 3.0 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	<b>Snow Criteria (Pg,Pf in PSF)</b> 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): HS, WAVE	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.181 D 999 240 VERT(CL): 0.366 D 638 180 HORZ(LL): 0.048 A - - HORZ(TL): 0.097 A - - Creep Factor: 2.0 Max TC CSI: 0.510 Max BC CSI: 0.543 Max Web CSI: 0.933  VIEW Ver: 21.02.00.1005.17	<b>▲ Maximum Reactions (lbs)</b> Gravity Loc R+ /R- /Rh /Rw /U /RL Non-Gravity P 6345 -/- /- /- /2354 -/ I 7751 -/- /- /- /2835 -/ Wind reactions based on MWFRS P Brg Wid = - Min Req = - I Brg Wid = - Min Req = - Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. A - B 1249 -3380 E - F 2781 -6992 B - C 2260 -5850 F - G 2317 -5799 C - D 2770 -7027 G - H 1399 -3494 D - E 2770 -7027  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. O - N 3696 -1379 L - K 5993 -2394 N - M 6042 -2341 K - J 3823 -1531 M - L 7065 -2808  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. A - P 2370 -6358 E - L 476 -1283 A - O 7150 -2641 L - F 2312 -896 O - B 2286 -5542 F - K 1342 -3403 B - N 4984 -2039 K - G 4571 -1821 N - C 1412 -3351 G - J 2306 -5761 C - M 2176 -949 J - H 7392 -2959 D - M 503 -1239 H - I 2861 -7138
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**Lumber**  
Top chord: 2x4 SP M-31;  
Bot chord: 2x6 SP 2400f-2.0E;  
Webs: 2x4 SP M-31; W3,W10,W13 2x4 SP #2; W5,W6, W7,W8,W9,W11 2x4 SP #3;

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

**Special Loads**  
-----(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)  
TC: From 60 plf at 0.00 to 60 plf at 2.42  
TC: From 500 plf at 2.42 to 500 plf at 19.46  
BC: From 20 plf at 0.00 to 20 plf at 3.23  
BC: From 10 plf at 3.23 to 10 plf at 19.46  
BC: 521 lb Conc. Load at 3.23, 4.25, 5.40, 7.40, 9.40, 11.40, 13.40, 15.40, 17.40, 19.40

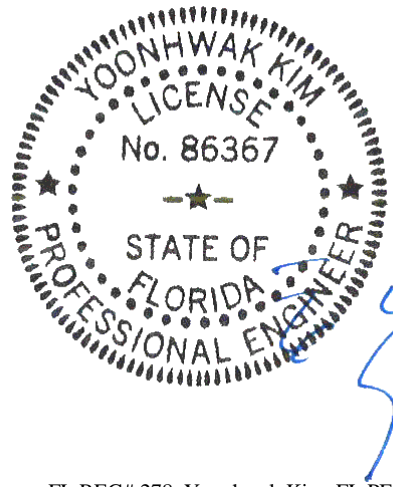
**Hangers / Ties**  
(J) Hanger Support Required, by others

**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.  
WIND LOAD CASE MODIFIED!

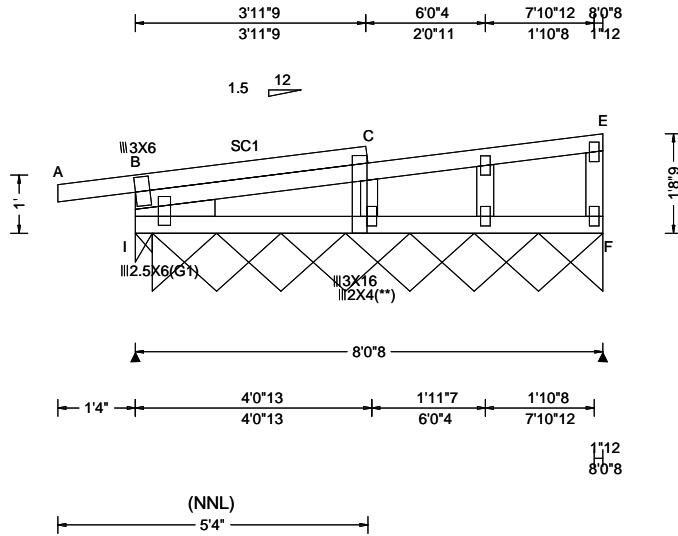
**Deflection**  
Max JT VERT DEFL: LL: 0.18" DL: 0.18". See detail DEFLCAMB1014 for camber recommendations. Provide for adequate drainage of roof.  
  
It is the responsibility of the Building Designer and Truss Fabricator to review this drawing prior to cutting lumber to verify that all data, including dimensions and loads, conform to the architectural plans/specifications and fabricators truss layout.



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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
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: 4.2 psf BCDL: 3.0 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 B 999 240 VERT(CL): 0.001 B 999 180 HORZ(LL): 0.001 B - - HORZ(TL): 0.003 B - - Creep Factor: 2.0 Max TC CSI: 0.330 Max BC CSI: 0.105 Max Web CSI: 0.059  VIEW Ver: 21.01.01A.0521.20	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL I 254 - / - /137 /107 /26 F* 61 - / - /32 - / - Wind reactions based on MWFRS I Brg Wid = 3.5 Min Req = 1.5 F Brg Wid = 93.0 Min Req = - Bearings I & I are a rigid surface. Members not listed have forces less than 375#

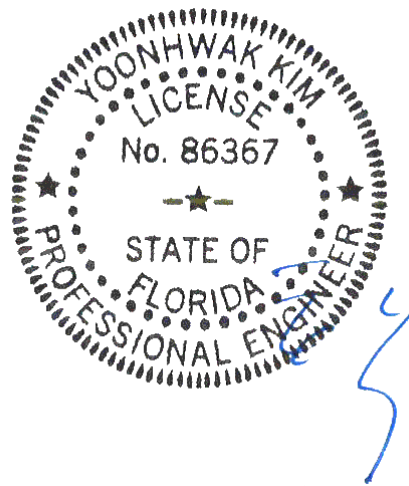
**Lumber**  
 Top chord: 2x4 SP #2;  
 Bot chord: 2x4 SP #2;  
 Webs: 2x4 SP #3;  
 Stack Chord: SC1 2x4 SP #2;  
 Lt Stub Wedge: 2x4 SP #3;

**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 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.

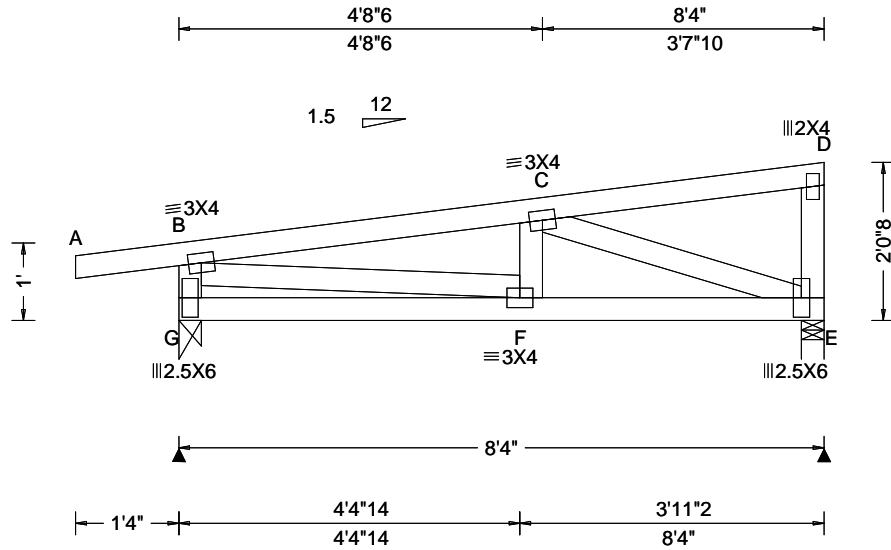
**Additional Notes**  
 See DWGS A14015ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.  
 Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in notchable area using 3x6.



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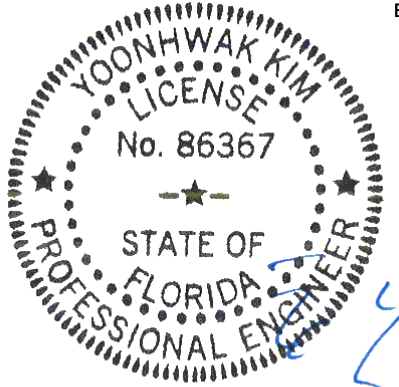
<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs)</b>
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 3.0 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/def L/# VERT(LL): 0.014 F 999 240 VERT(CL): 0.028 F 999 180 HORZ(LL): -0.002 D - - HORZ(TL): 0.005 D - - Creep Factor: 2.0 Max TC CSI: 0.244 Max BC CSI: 0.222 Max Web CSI: 0.218  VIEW Ver: 21.01.01A.0521.20	<b>Gravity</b> Loc R+ / R- / Rh / Rw / U / RL G 426 /- /- /228 /145 /46 E 327 /- /- /170 /91 /- <b>Non-Gravity</b> Wind reactions based on MWFRS G Brg Wid = 3.5 Min Req = 1.5 E Brg Wid = 3.5 Min Req = 1.5 Bearings G & E are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. B - C 579 -612  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. F - E 591 -675  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. B - G 511 -385 C - E 709 -619 B - F 571 -511

**Lumber**

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

**Wind**

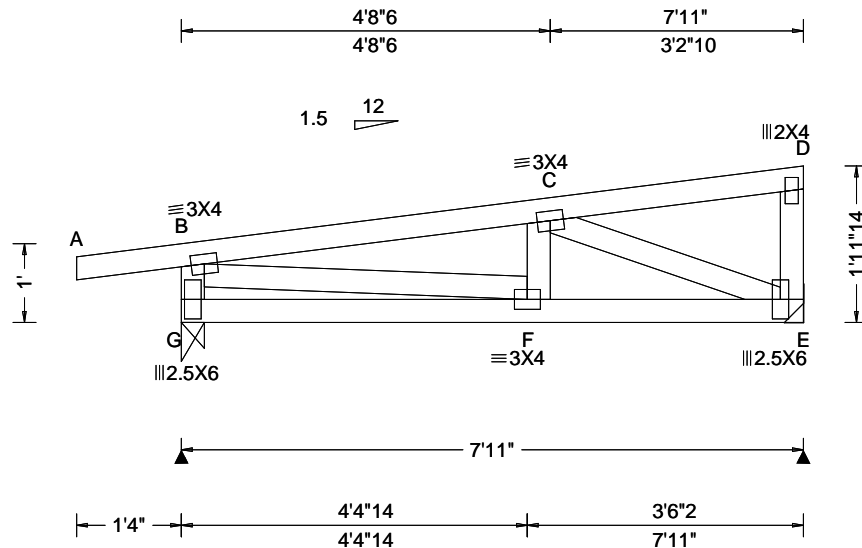
Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.  
Wind loading based on both gable and hip roof types.



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<b>Loading Criteria (psf)</b> 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.011 F 999 240 VERT(CL): 0.022 F 999 180 HORZ(LL): -0.002 D - - HORZ(TL): 0.005 D - - Creep Factor: 2.0 Max TC CSI: 0.250 Max BC CSI: 0.203 Max Web CSI: 0.197  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL G 410 /- /- /220 /141 /44 E 310 /- /- /161 /86 /- Wind reactions based on MWFRS G Brg Wid = 3.5 Min Req = 1.5 E Brg Wid = - Bearing G is a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. B - C 530 -549  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. F - E 527 -620  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. B - G 508 -369 C - E 663 -563 B - F 509 -460
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**Lumber**

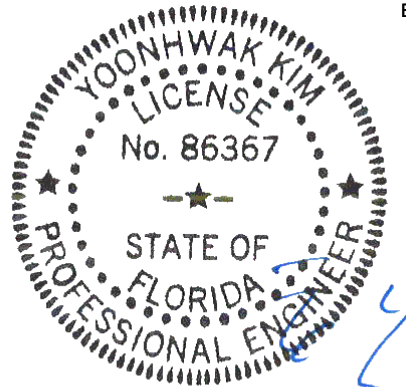
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

**Hangers / Ties**

(J) Hanger Support Required, by others

**Wind**

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

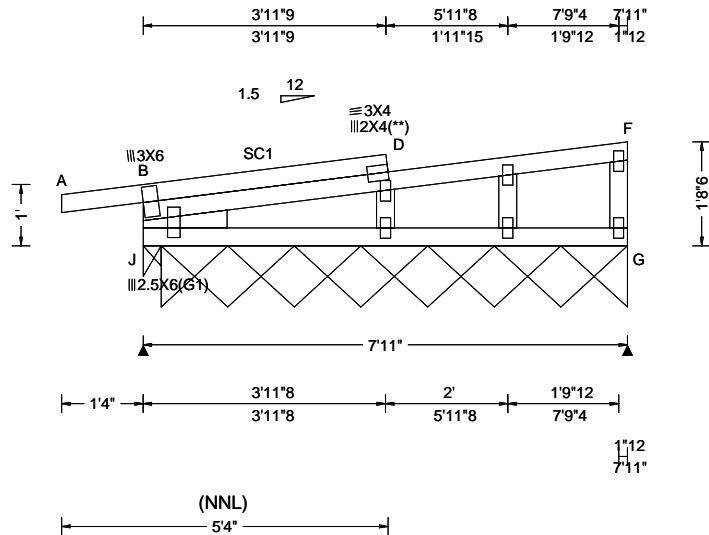


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SEQN: 34216 / FROM:	GABL Ply: 1 Qty: 1	Job Number: 21-6403 Highland Country Model Truss Label: D04	Cust: R 215 JRef: 1XaX2150001 T61 / DrwNo: 333.21.0907.59598 / YK 11/29/2021
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<b>Loading Criteria (psf)</b> 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 3.0 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	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.001 B 999 240 VERT(CL): 0.001 B 999 180 HORZ(LL): 0.001 B - - HORZ(TL): 0.003 B - - Creep Factor: 2.0 Max TC CSI: 0.332 Max BC CSI: 0.102 Max Web CSI: 0.051  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs), or *=PLF</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL J 253 /- /- /136 /107 /26 G* 61 /- /- /32 /- /- Wind reactions based on MWFRS J Brg Wid = 3.5 Min Req = 1.5 G Brg Wid = 91.5 Min Req = - Bearings J & J are a rigid surface. Members not listed have forces less than 375#
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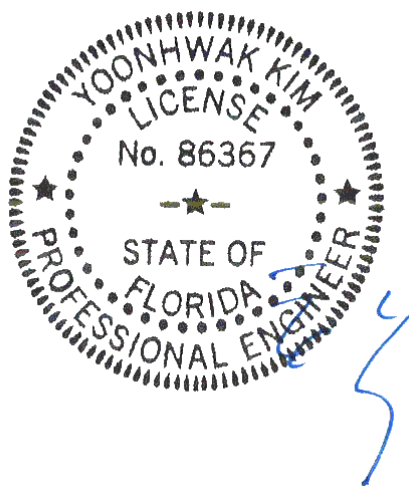
**Lumber**  
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;  
Stack Chord: SC1 2x4 SP #2;  
Lt Stub Wedge: 2x4 SP #3;

**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 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.

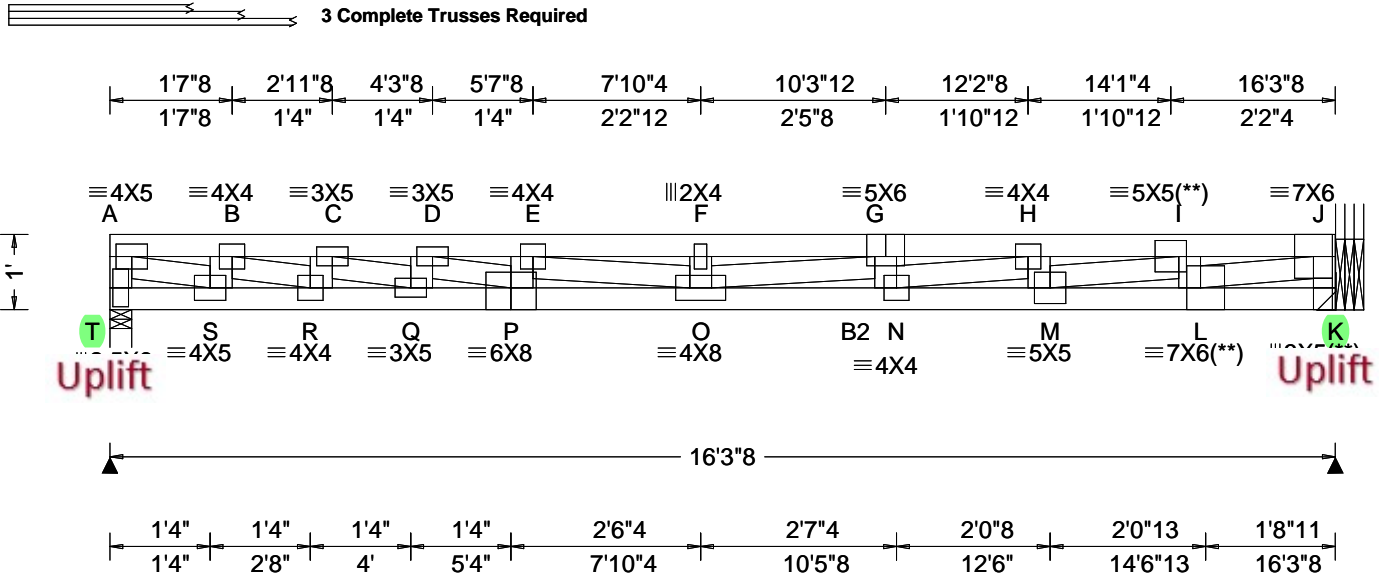
**Additional Notes**  
See DWGS A14015ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.  
Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in notchable area using 3x6.



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<b>Loading Criteria (psf)</b> TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 0.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.357 F 546 240 VERT(CL): 0.492 F 397 180 HORZ(LL): 0.044 A - - HORZ(TL): 0.061 A - - Creep Factor: 2.0 Max TC CSI: 0.312 Max BC CSI: 0.932 Max Web CSI: 0.999  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ /R- /Rh /Rw /U /RL T 1832 -/- /- /- /973 -/ K 2544 -/- /- /- /2004 -/ Wind reactions based on MWFRS T Brg Wid = 3.5 Min Req = 1.5 K Brg Wid = - Bearing T is a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. A - B 558 -1022 F - G 3129 -4871 B - C 1120 -1998 G - H 3394 -4667 C - D 1653 -2860 H - I 2786 -3616 D - E 2218 -3722 I - J 1570 -1966 E - F 3129 -4871  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. S - R 1249 -684 O - N 4708 -3367 R - Q 2202 -1242 N - M 3773 -2874 Q - P 3049 -1771 M - L 2214 -1746 P - O 3900 -2344  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. A - T 313 -586 P - E 330 -468 A - S 1149 -627 E - O 1019 -825 S - B 330 -597 N - H 964 -561 B - R 905 -528 H - M 230 -414 R - C 319 -538 M - I 1517 -1127 C - Q 796 -497 I - L 461 -652 Q - D 311 -495 L - J 2097 -1675 D - P 814 -540 J - K 644 -815
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**Lumber**  
Top chord: 2x4 SP M-31;  
Bot chord: 2x4 SP #2; B2 2x4 SP M-31;  
Webs: 2x4 SP #3;

**Nailnote**  
Nail Schedule: 0.128"x3", min. nails  
Top Chord: 1 Row @ 11.50" o.c.  
Bot Chord: 1 Row @ 7.75" o.c.  
Webs : 1 Row @ 4" o.c.  
Repeat nailing as each layer is applied. Use equal spacing between rows and stagger nails in each row to avoid splitting.

**Special Loads**  
----- (Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00)  
TC: From 100 plf at 0.00 to 100 plf at 7.85  
TC: From 50 plf at 7.85 to 50 plf at 16.29  
BC: From 10 plf at 0.00 to 10 plf at 7.85  
BC: From 5 plf at 7.85 to 5 plf at 16.29  
TC: 618 lb Conc. Load at 7.85  
BC: 608 lb Conc. Load at 8.35,10.35,12.35,14.35

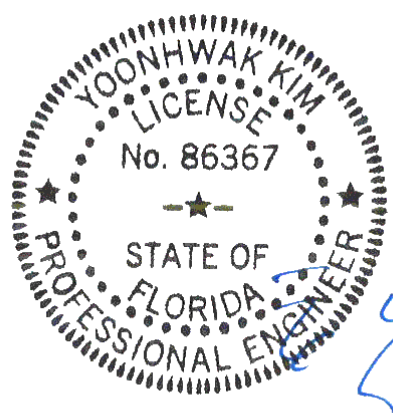
**Plating Notes**  
(\*\*) 3 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

**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 1-0-0.



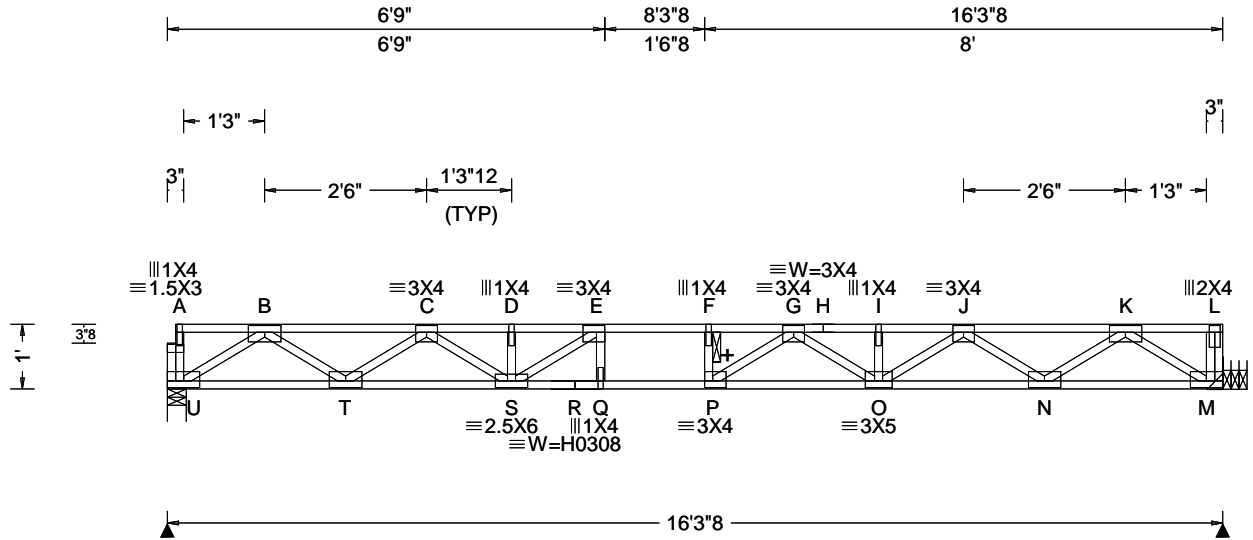
FL REG# 278, Yoonhwak Kim, FL PE #86367  
11/29/2021

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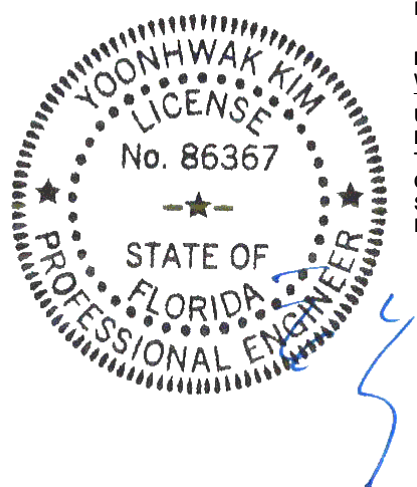
<b>Loading Criteria (psf)</b> TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Kzt: NA Mean Height: NA ft TCDL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	<b>Snow Criteria (Pg,Pf in PSF)</b> 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:12(0)/10(0) Plate Type(s): WAVE, HS	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.326 F 583 480 VERT(CL): 0.449 F 424 360 HORZ(LL): 0.040 B - - HORZ(TL): 0.056 B - - Creep Factor: 2.0 Max TC CSI: 0.662 Max BC CSI: 0.512 Max Web CSI: 0.504  VIEW Ver: 21.02.00.1005.17	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL U 880 /- /- /- /- /- M 900 /- /- /- /- /- U Brg Wid = 3.5 Min Req = 1.5 (Truss) M Brg Wid = - Min Req = - Bearing U is a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 0 -2088 G - H 0 -3418 C - D 0 -3422 H - I 0 -3418 D - E 0 -3422 I - J 0 -3418 E - F 0 -3876 J - K 0 -2040 F - G 0 -3870
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**Lumber**  
Top chord: 4x2 SP #2;  
Bot chord: 4x2 SP M-31;  
Webs: 4x2 SP #3;

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

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

**Additional Notes**  
+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.  
Truss must be installed as shown with top chord up.



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

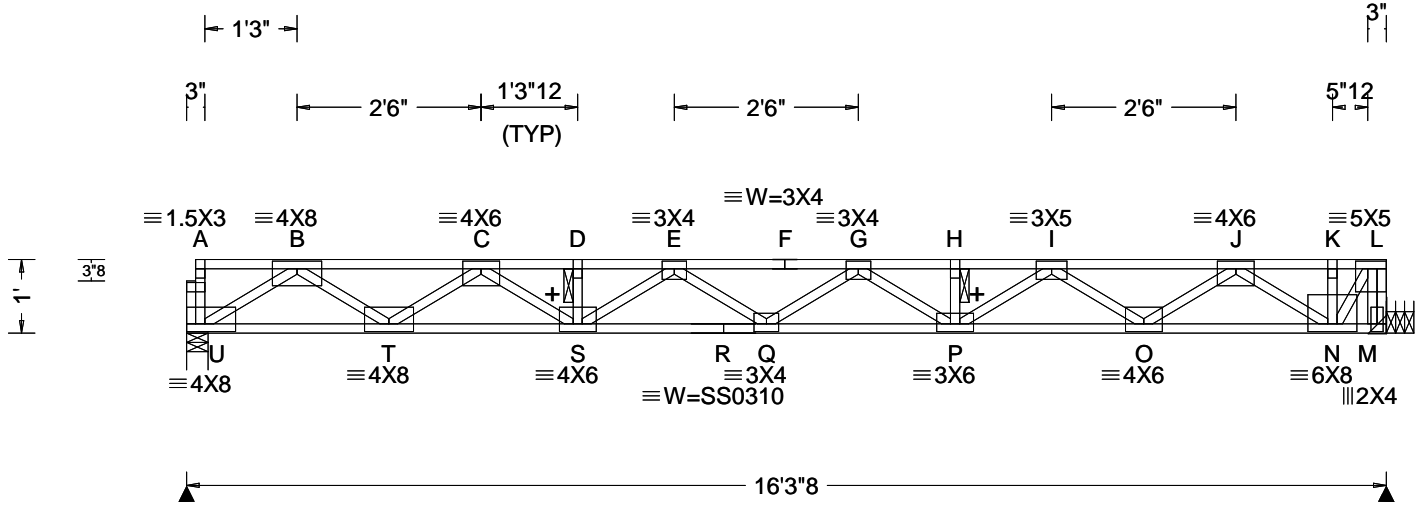
Chords	Tens.Comp.	Chords	Tens. Comp.
U - T	1229 0	Q - P	3876 0
T - S	2904 0	P - O	3774 0
S - R	3871 0	O - N	2875 0
R - Q	3871 0	N - M	1174 0

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

Webs	Tens.Comp.	Webs	Tens. Comp.
U - B	0 -1478	G - O	0 -428
B - T	1048 0	O - J	653 0
T - C	0 -996	J - N	0 -1018
C - S	623 0	N - K	1057 0
S - E	0 -771	K - M	0 -1438
P - G	444 -181		

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<b>Loading Criteria (psf)</b> TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Kzt: NA Mean Height: NA ft TCDL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	<b>Snow Criteria (Pg,Pf in PSF)</b> 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:12(0)/10(0) Plate Type(s): WAVE, 18SS	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.377 Q 505 480 VERT(CL): 0.518 Q 367 360 HORZ(LL): 0.052 B - - HORZ(TL): 0.071 B - - Creep Factor: 2.0 Max TC CSI: 0.573 Max BC CSI: 0.660 Max Web CSI: 0.831  VIEW Ver: 21.02.00.1005.17	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ /R- /Rh /Rw /U /RL U 1264 /- /- /- /- /- M 1054 /- /- /- /- /- U Brg Wid = 3.5 Min Req = 1.5 (Truss) M Brg Wid = - Min Req = - Bearing U is a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 0 -3217 G - H 0 -4565 C - D 0 -5352 H - I 0 -4565 D - E 0 -5352 I - J 0 -2924 E - F 0 -5309 J - K 0 -547 F - G 0 -5309 K - L 0 -547  <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. U - T 1788 0 Q - P 5110 0 T - S 4604 0 P - O 3888 0 S - R 5463 0 O - N 1916 0 R - Q 5463 0  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. U - B 0 -2149 P - I 813 0 B - T 1745 0 I - O 0 -1177 T - C 0 -1694 O - J 1230 0 C - S 898 0 J - N 0 -1645 D - S 0 -410 N - L 1148 0 G - P 0 -655 L - M 0 -1022
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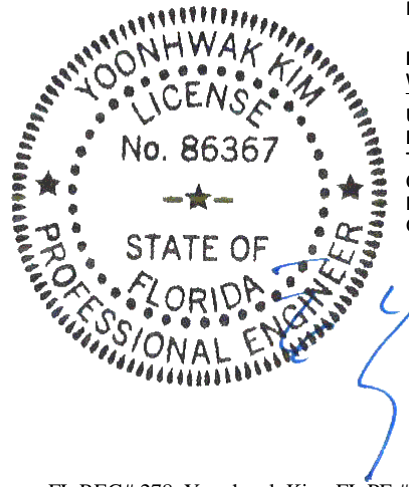
**Lumber**  
Top chord: 4x2 SP M-31;  
Bot chord: 4x2 SP M-31;  
Webs: 4x2 SP #3;

**Special Loads**  
----(Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00)  
TC: From 100 plf at 0.13 to 100 plf at 16.29  
BC: From 10 plf at 0.00 to 10 plf at 16.29  
TC: 539 lb Conc. Load at 4.73

**Plating Notes**  
All plates are 1.5X3 except as noted.

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

**Additional Notes**  
+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.  
Truss must be installed as shown with top chord up.




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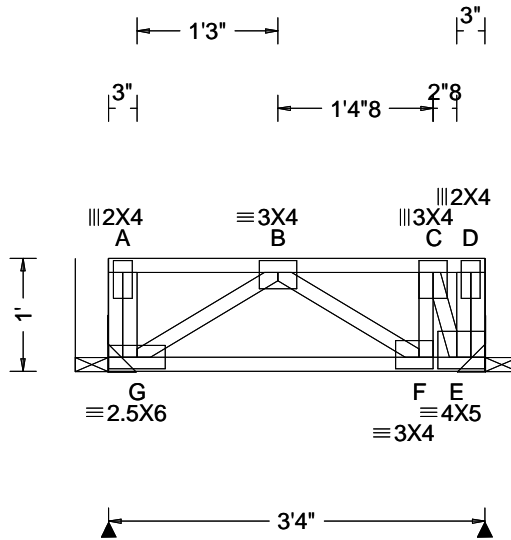
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 6750 Forum Drive  
 Suite 305  
 Orlando FL, 32821



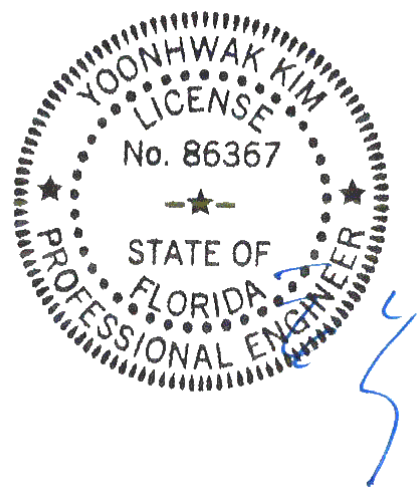
<b>Loading Criteria (psf)</b> TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Kzt: NA Mean Height: NA ft TCDL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	<b>Snow Criteria (Pg,Pf in PSF)</b> 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:12(0)/10(0) Plate Type(s): WAVE	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.012 B 999 480 VERT(CL): 0.017 B 999 360 HORZ(LL): 0.002 E - - HORZ(TL): 0.003 E - - Creep Factor: 2.0 Max TC CSI: 0.158 Max BC CSI: 0.261 Max Web CSI: 0.174  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs)</b> Gravity Non-Gravity Loc R+ /R- /Rh /Rw /U /RL G 539 /- /- /- /- /- E 456 /- /- /- /- /- G Brg Wid = - E Brg Wid = - Members not listed have forces less than 375# <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. G - F 606 0  <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. Webs Tens. Comp. G - B 0 -744 C - E 0 -445 B - F 0 -564
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**Lumber**  
Top chord: 4x2 SP #2;  
Bot chord: 4x2 SP #2;  
Webs: 4x2 SP #3;

**Special Loads**  
----(Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00)  
TC: From 100 plf at 0.00 to 100 plf at 3.33  
BC: From 10 plf at 0.00 to 10 plf at 3.33  
TC: 628 lb Conc. Load at 1.48

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

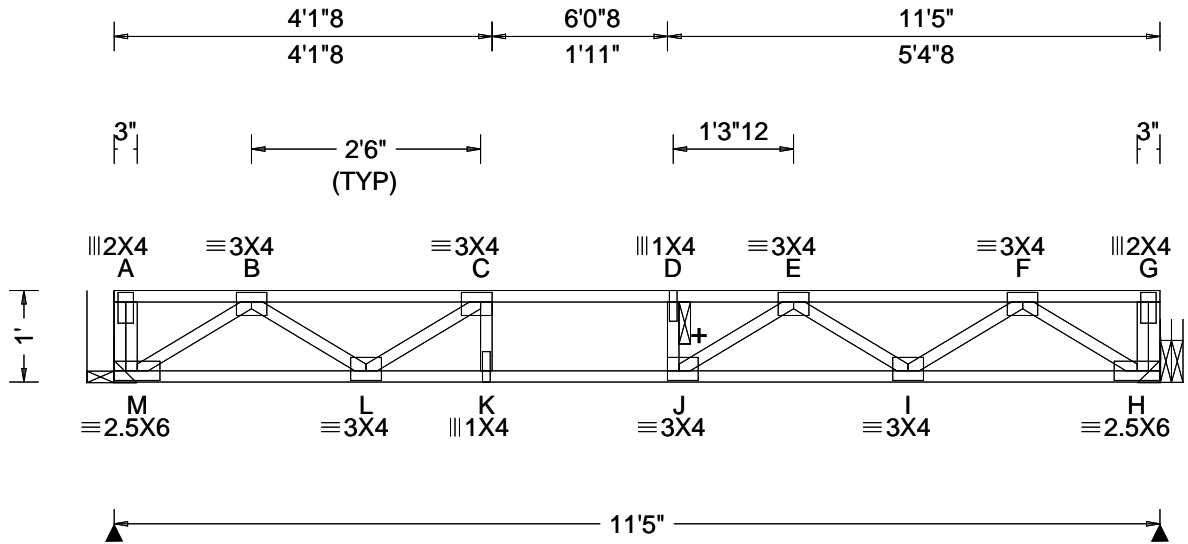
**Additional Notes**  
Truss must be installed as shown with top chord up.



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11/29/2021

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<b>Loading Criteria (psf)</b> TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Kzt: NA Mean Height: NA ft TCDL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	<b>Snow Criteria (Pg,Pf in PSF)</b> 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:12(0)/10(0) Plate Type(s): WAVE	<b>Defl/CSI Criteria</b> PP Deflection in loc L/defl L/# VERT(LL): 0.121 D 999 480 VERT(CL): 0.184 D 713 360 HORZ(LL): 0.017 H - - HORZ(TL): 0.023 H - - Creep Factor: 2.0 Max TC CSI: 0.624 Max BC CSI: 0.770 Max Web CSI: 0.294  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs)</b> Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity M 628 /- /- /- /- /- H 628 /- /- /- /- /- M Brg Wid = - H Brg Wid = - Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 0 - 1281 D - E 0 - 1794 C - D 0 - 1800 E - F 0 - 1280
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**Lumber**  
Top chord: 4x2 SP #2;  
Bot chord: 4x2 SP #2;  
Webs: 4x2 SP #3;

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

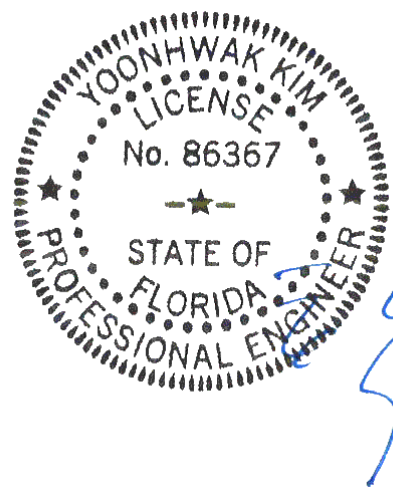
**Additional Notes**  
+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.  
Truss must be installed as shown with top chord up.

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

Chords	Tens.Comp.	Chords	Tens. Comp.
M - L	775 0	J - I	1706 0
L - K	1795 0	I - H	793 0
K - J	1800 0		

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

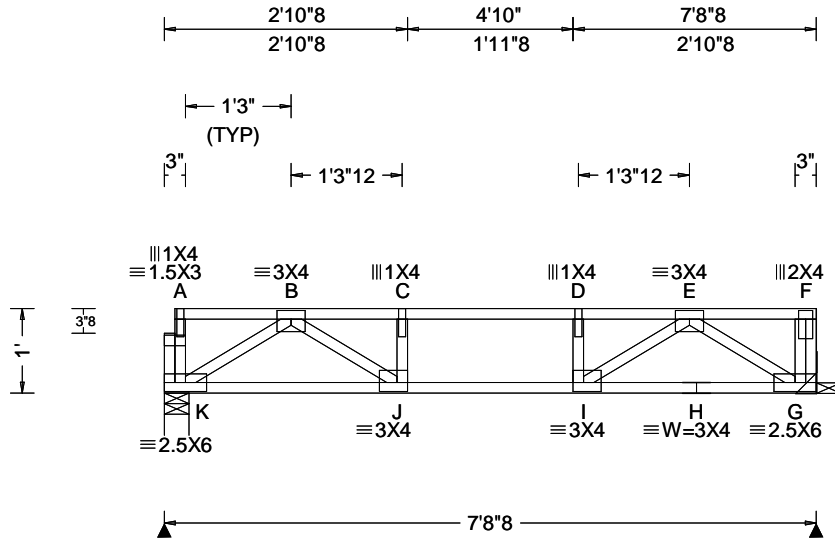
Webs	Tens.Comp.	Webs	Tens. Comp.
M - B	0 - 951	E - I	0 - 521
B - L	617 0	I - F	594 0
L - C	0 - 628	F - H	0 - 972



FL REG# 278, Yoonhwak Kim, FL PE #86367  
11/29/2021

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<b>Loading Criteria (psf)</b> TCCL: 40.00 TCCL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Kzt: NA Mean Height: NA ft TCCL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	<b>Snow Criteria (Pg,Pf in PSF)</b> 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:12(0)/10(0) Plate Type(s): WAVE	<b>Defl/CSI Criteria</b> PP Deflection in loc L/defl L/# VERT(LL): 0.029 C 999 480 VERT(CL): 0.047 C 999 360 HORZ(LL): 0.007 B - - HORZ(TL): 0.011 B - - Creep Factor: 2.0 Max TC CSI: 0.238 Max BC CSI: 0.122 Max Web CSI: 0.187  VIEW Ver: 21.02.00.1005.17	<b>▲ Maximum Reactions (lbs)</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Loc</th> <th colspan="3">Gravity</th> <th colspan="3">Non-Gravity</th> </tr> <tr> <th>R+</th> <th>/R-</th> <th>/Rh</th> <th>/Rw</th> <th>/U</th> <th>/RL</th> </tr> </thead> <tbody> <tr> <td>K</td> <td>408</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>G</td> <td>428</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td colspan="7">K Brg Wid = 3.5 Min Req = 1.5 (Truss)</td> </tr> <tr> <td colspan="7">G Brg Wid = - Min Req = -</td> </tr> <tr> <td colspan="7">Bearing K is a rigid surface.</td> </tr> <tr> <td colspan="7">Members not listed have forces less than 375#</td> </tr> <tr> <td colspan="7"><b>Maximum Top Chord Forces Per Ply (lbs)</b></td> </tr> <tr> <td colspan="2">Chords</td> <td colspan="2">Tens.Comp.</td> <td colspan="2">Chords</td> <td colspan="1">Tens. Comp.</td> </tr> <tr> <td>B - C</td> <td>0</td> <td>-774</td> <td>D - E</td> <td>0</td> <td>-773</td> <td></td> </tr> <tr> <td>C - D</td> <td>0</td> <td>-786</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <b>Maximum Bot Chord Forces Per Ply (lbs)</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <td colspan="2">Chords</td> <td colspan="2">Tens.Comp.</td> <td colspan="2">Chords</td> <td colspan="1">Tens. Comp.</td> </tr> </thead> <tbody> <tr> <td>K - J</td> <td>493</td> <td>0</td> <td>I - H</td> <td>473</td> <td>0</td> </tr> <tr> <td>J - I</td> <td>786</td> <td>0</td> <td>H - G</td> <td>473</td> <td>0</td> </tr> </tbody> </table> <b>Maximum Web Forces Per Ply (lbs)</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <td colspan="2">Webs</td> <td colspan="2">Tens.Comp.</td> <td colspan="2">Webs</td> <td colspan="1">Tens. Comp.</td> </tr> </thead> <tbody> <tr> <td>K - B</td> <td>0</td> <td>-593</td> <td>I - E</td> <td>393</td> <td>0</td> </tr> <tr> <td>B - J</td> <td>377</td> <td>0</td> <td>E - G</td> <td>0</td> <td>-582</td> </tr> </tbody> </table>	Loc	Gravity			Non-Gravity			R+	/R-	/Rh	/Rw	/U	/RL	K	408	-	-	-	-	-	G	428	-	-	-	-	-	K Brg Wid = 3.5 Min Req = 1.5 (Truss)							G Brg Wid = - Min Req = -							Bearing K is a rigid surface.							Members not listed have forces less than 375#							<b>Maximum Top Chord Forces Per Ply (lbs)</b>							Chords		Tens.Comp.		Chords		Tens. Comp.	B - C	0	-774	D - E	0	-773		C - D	0	-786					Chords		Tens.Comp.		Chords		Tens. Comp.	K - J	493	0	I - H	473	0	J - I	786	0	H - G	473	0	Webs		Tens.Comp.		Webs		Tens. Comp.	K - B	0	-593	I - E	393	0	B - J	377	0	E - G	0	-582
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K - J	493	0	I - H	473	0																																																																																																																								
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**Lumber**

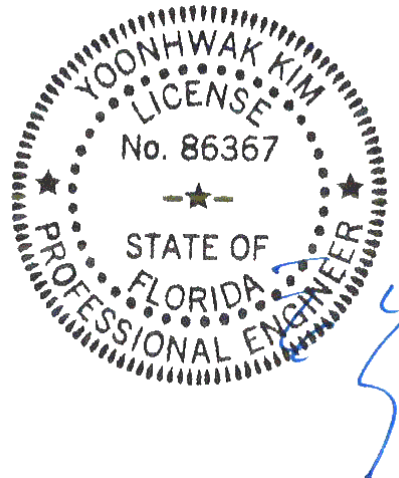
Top chord: 4x2 SP #2;  
 Bot chord: 4x2 SP M-31;  
 Webs: 4x2 SP #3;

**Hangers / Ties**

(J) Hanger Support Required, by others

**Additional Notes**

Truss must be installed as shown with top chord up.



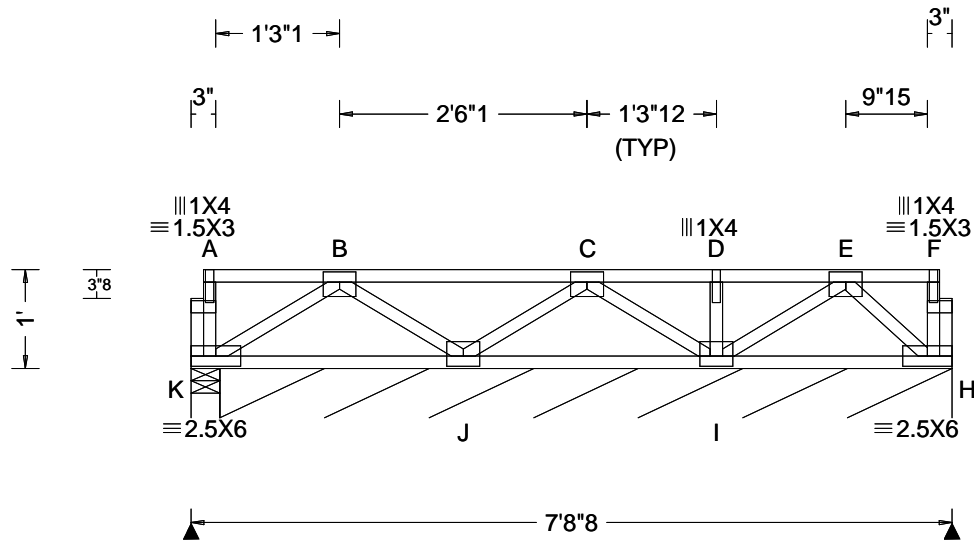
FL REG# 278, Yoonhwak Kim, FL PE #86367  
 11/29/2021

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6750 Forum Drive  
 Suite 305  
 Orlando FL, 32821



<b>Loading Criteria (psf)</b> TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Kzt: NA Mean Height: NA ft TCDL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	<b>Snow Criteria (Pg,Pf in PSF)</b> 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:12(0)/10(0) Plate Type(s): WAVE	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.003 B 999 480 VERT(CL): 0.004 B 999 360 HORZ(LL): 0.001 H - - HORZ(TL): 0.001 H - - Creep Factor: 2.0 Max TC CSI: 0.250 Max BC CSI: 0.113 Max Web CSI: 0.053  VIEW Ver: 21.02.00.1005.17	<b>▲ Maximum Reactions (lbs), or *=PLF</b> Gravity Non-Gravity Loc R+ /R- /Rh /Rw /U /RL K 146 /- /- /- /- /- H* 91 /- /- /- /- /- K Brg Wid = 3.5 Min Req = 1.5 (Truss) H Brg Wid = 89.0 Min Req = - Bearings K & K are a rigid surface. Members not listed have forces less than 375#
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**Lumber**

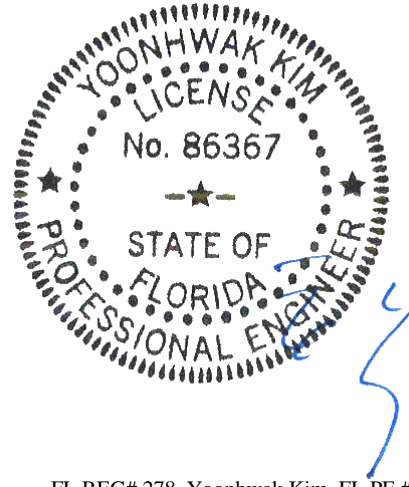
Top chord: 4x2 SP #2;  
Bot chord: 4x2 SP #2;  
Webs: 4x2 SP #3;

**Plating Notes**

All plates are 3X4 except as noted.

**Additional Notes**

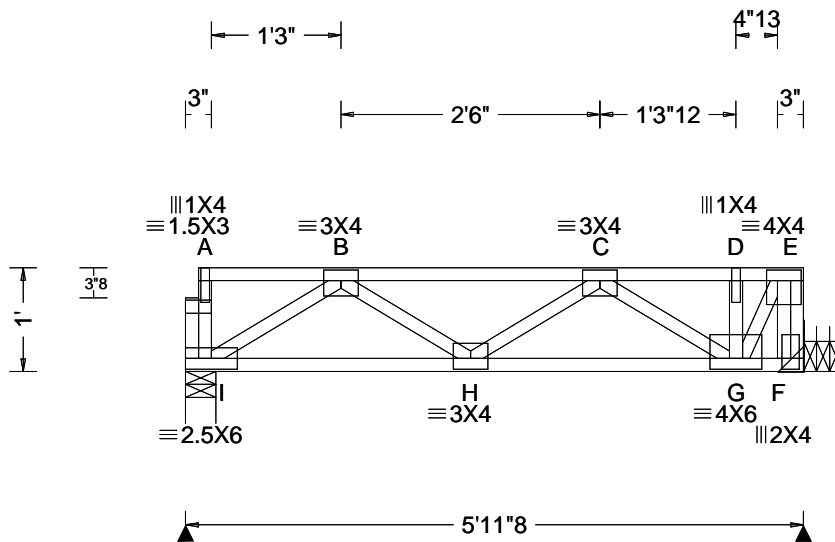
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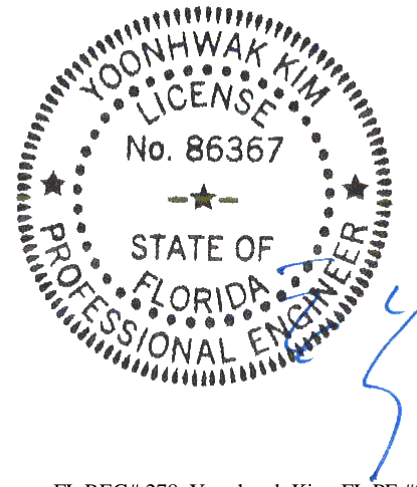
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**Lumber**  
Top chord: 4x2 SP #2;  
Bot chord: 4x2 SP #2;  
Webs: 4x2 SP #3;

**Special Loads**  
----(Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00)  
TC: From 50 plf at 0.13 to 50 plf at 5.96  
BC: From 5 plf at 0.00 to 5 plf at 5.96  
TC: 428 lb Conc. Load at 2.10, 4.10

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

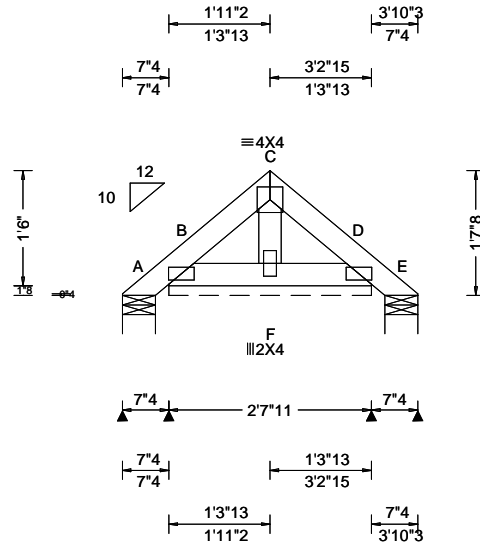
**Additional Notes**  
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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 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: 19.82 ft TCDL: 4.2 psf BCDL: 2.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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/def L/# VERT(LL): 0.000 B 999 240 VERT(CL): 0.000 B 999 180 HORZ(LL): -0.000 D - - HORZ(TL): 0.000 D - - Creep Factor: 2.0 Max TC CSI: 0.015 Max BC CSI: 0.008 Max Web CSI: 0.008  VIEW Ver: 21.01.01A.0521.20	<b>Gravity</b> Loc R+ / R- / Rh / Rw / U / RL A 12 /- /- /47 /32 /59 B* 82 /- /- /70 /21 /- E 12 /- /- /32 /12 /- <b>Non-Gravity</b> Wind reactions based on MWFRS A Brg Wid = 5.2 Min Req = 1.5 B Brg Wid = 31.7 Min Req = - E Brg Wid = 5.2 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;  
Webs: 2x4 SP #3;

**Plating Notes**

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

**Purlins**

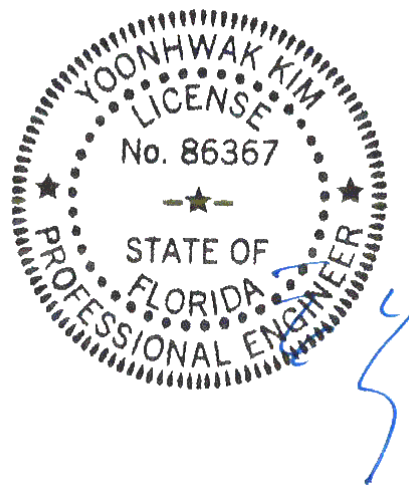
In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

**Wind**

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

**Additional Notes**

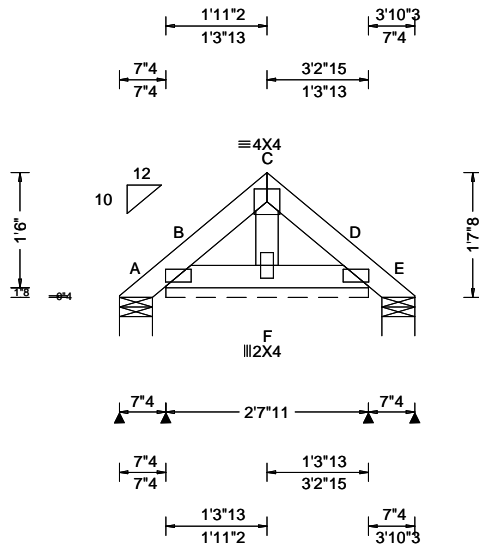
Refer to DWG PB160160118 for piggyback details.



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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
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: 19.82 ft TCDL: 4.2 psf BCDL: 2.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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/def L/# VERT(LL): 0.000 B 999 240 VERT(CL): 0.000 B 999 180 HORZ(LL): 0.000 D - - HORZ(TL): 0.000 D - - Creep Factor: 2.0 Max TC CSI: 0.015 Max BC CSI: 0.008 Max Web CSI: 0.008  VIEW Ver: 21.01.01A.0521.20	<b>Gravity</b> Loc R+ / R- / Rh / Rw / U / RL A 12 /- /- /37 /26 /43 B* 82 /- /- /67 /24 /- E 12 /- /- /12 /4 /- <b>Non-Gravity</b> Wind reactions based on MWFRS A Brg Wid = 5.2 Min Req = 1.5 B Brg Wid = 31.7 Min Req = - E Brg Wid = 5.2 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;  
Webs: 2x4 SP #3;

**Plating Notes**

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

**Purlins**

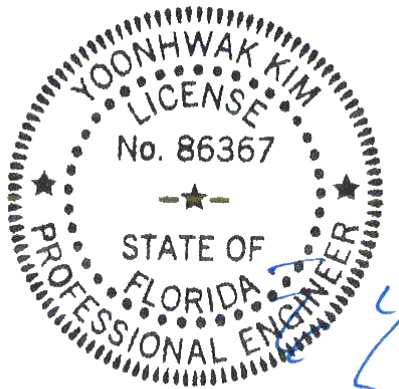
In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

**Wind**

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

**Additional Notes**

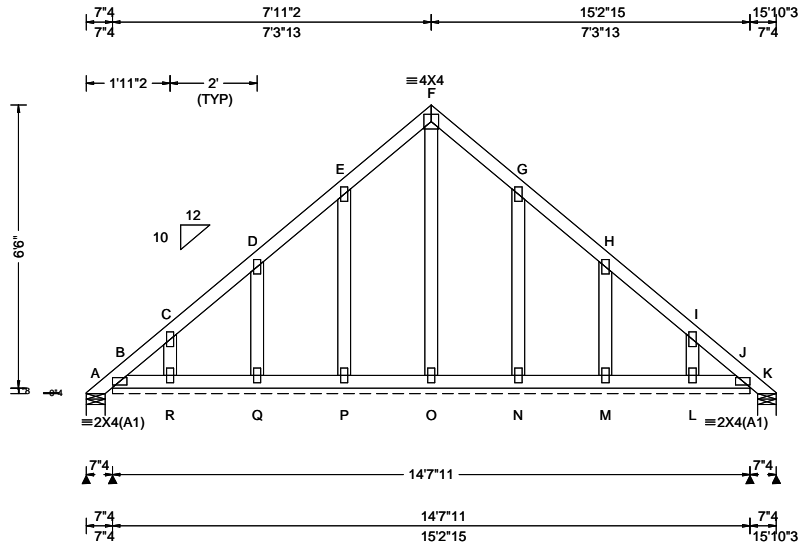
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FL REG# 278, Yoonhwak Kim, FL PE #86367  
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<b>Loading Criteria (psf)</b> TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 22.32 ft TCDL: 4.2 psf BCDL: 2.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg, Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.001 F 999 240 VERT(CL): 0.001 G 999 180 HORZ(LL): 0.004 G - - - HORZ(TL): 0.004 G - - - Creep Factor: 2.0 Max TC CSI: 0.067 Max BC CSI: 0.033 Max Web CSI: 0.127  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs), or *=PLF</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL A 17 /- /- /142 /133 /200 B* 71 /- /- /58 /32 /- K 17 /- /- /10 /1 /- R /-140 Q /-152 P /-206 N /-206 M /-152 L /-141 Wind reactions based on MWFRS A Brg Wid = 5.2 Min Req = 1.5 B Brg Wid = 175 Min Req = - K Brg Wid = 5.2 Min Req = 1.5 Bearings A, B, & K are a rigid surface. Members not listed have forces less than 375#
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**Lumber**

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

**Plating Notes**

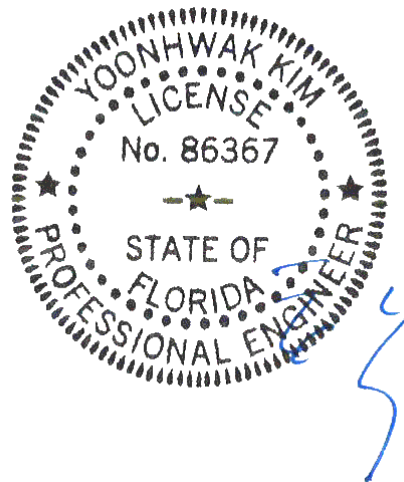
All plates are 2X4 except as noted.

**Wind**

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

**Additional Notes**

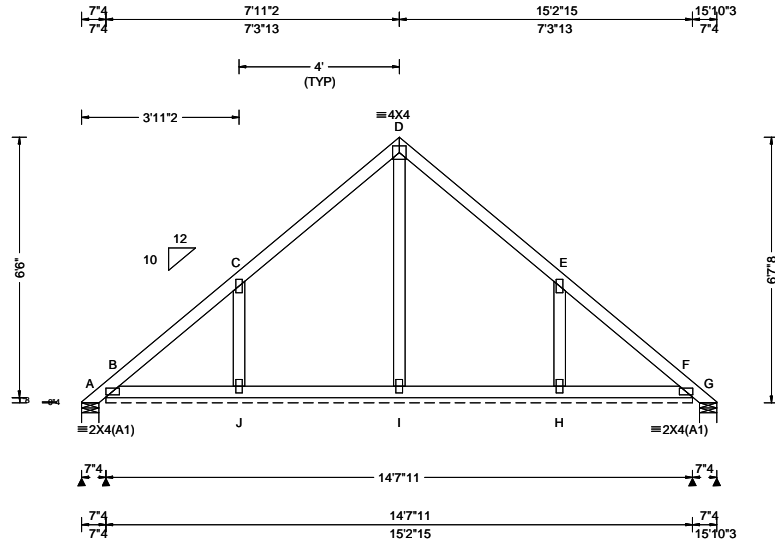
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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg, Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load 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: 22.32 ft TCDL: 4.2 psf BCDL: 2.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.68 ft Loc. from endwall: Any GCp: 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/def L/# VERT(LL): 0.001 D 999 240 VERT(CL): 0.002 D 999 180 HORZ(LL): 0.003 E - - HORZ(TL): 0.004 E - - Creep Factor: 2.0 Max TC CSI: 0.220 Max BC CSI: 0.061 Max Web CSI: 0.116  VIEW Ver: 21.01.01A.0521.20	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity A - /-7 /- /164 /157 /216 B* 73 /- /- /54 /28 /- G 18 /-23 /- /29 /19 /- J /-207 H /-219 Wind reactions based on MWFRS A Brg Wid = 5.2 Min Req = 1.5 B Brg Wid = 175 Min Req = - G Brg Wid = 5.2 Min Req = 1.5 Bearings A, B, & G are a rigid surface. Members not listed have forces less than 375#

**Lumber**

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

**Plating Notes**

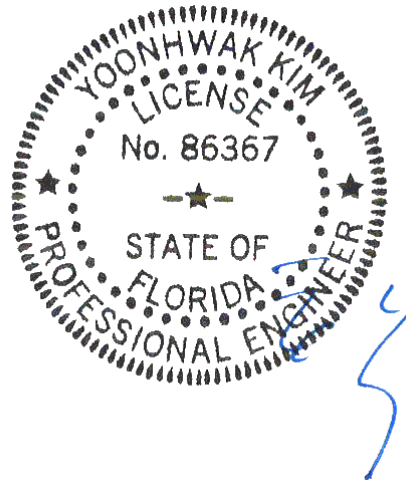
All plates are 2X4 except as noted.

**Wind**

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

**Additional Notes**

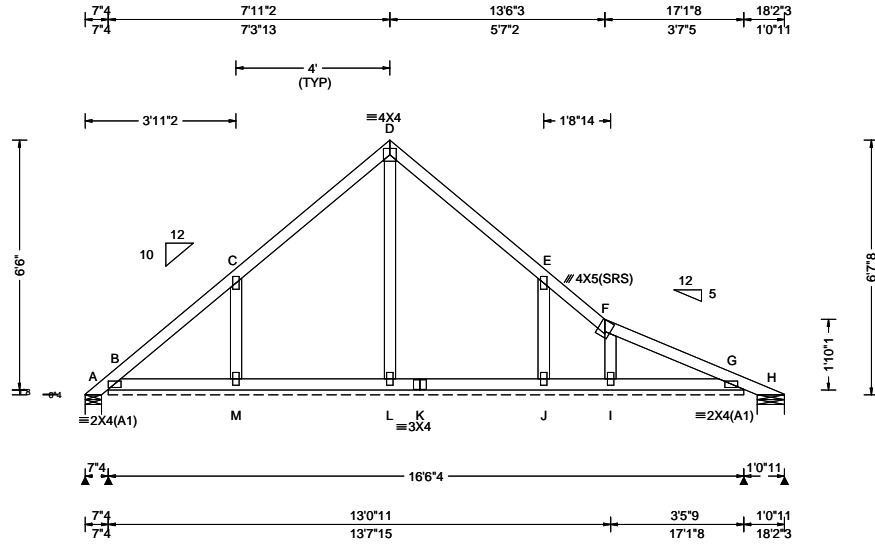
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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg, Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>																																																
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 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: 22.32 ft TCCL: 4.2 psf BCDL: 2.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.91 ft Loc. from endwall: Any GCp: 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 G 999 240 VERT(CL): 0.003 G 999 180 HORZ(LL): 0.003 E - - HORZ(TL): 0.004 E - - Creep Factor: 2.0 Max TC CSI: 0.220 Max BC CSI: 0.062 Max Web CSI: 0.111 VIEW Ver: 21.01.01A.0521.20	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Loc</th> <th colspan="3">Gravity</th> <th colspan="3">Non-Gravity</th> </tr> <tr> <th>R+</th> <th>/R-</th> <th>/Rh</th> <th>/Rw</th> <th>/U</th> <th>/RL</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>-</td> <td>/-8</td> <td>/-</td> <td>/154</td> <td>/157</td> <td>/205</td> </tr> <tr> <td>B*</td> <td>72</td> <td>/-</td> <td>/-</td> <td>/49</td> <td>/28</td> <td>/-</td> </tr> <tr> <td>H</td> <td>-</td> <td>/-17</td> <td>/-</td> <td>/19</td> <td>/21</td> <td>/-</td> </tr> <tr> <td>M</td> <td></td> <td>/-207</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>J</td> <td></td> <td>/-193</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> Wind reactions based on MWFRS A Brg Wid = 5.2 Min Req = 1.5 B Brg Wid = 198 Min Req = - H Brg Wid = 8.5 Min Req = 1.5 Bearings A, B, & H are a rigid surface. Members not listed have forces less than 375#	Loc	Gravity			Non-Gravity			R+	/R-	/Rh	/Rw	/U	/RL	A	-	/-8	/-	/154	/157	/205	B*	72	/-	/-	/49	/28	/-	H	-	/-17	/-	/19	/21	/-	M		/-207					J		/-193				
Loc	Gravity			Non-Gravity																																																
	R+	/R-	/Rh	/Rw	/U	/RL																																														
A	-	/-8	/-	/154	/157	/205																																														
B*	72	/-	/-	/49	/28	/-																																														
H	-	/-17	/-	/19	/21	/-																																														
M		/-207																																																		
J		/-193																																																		

**Lumber**

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

**Plating Notes**

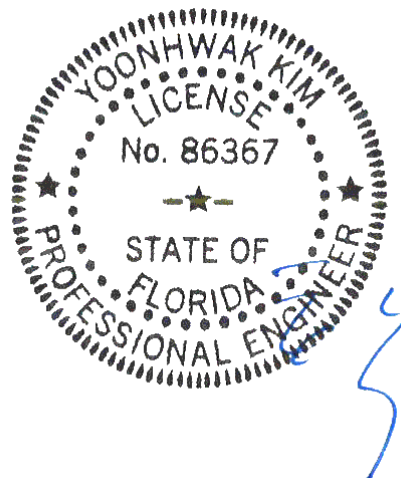
All plates are 2X4 except as noted.

**Wind**

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 Wind loading based on both gable and hip roof types.

**Additional Notes**

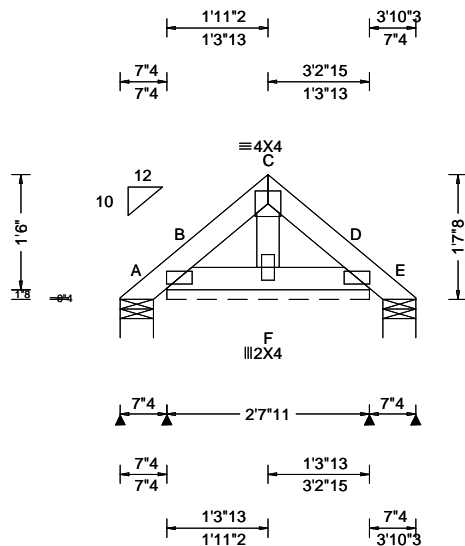
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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load 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: 19.82 ft TCDL: 4.2 psf BCDL: 2.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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/def L/# VERT(LL): -0.000 D 999 240 VERT(CL): 0.000 D 999 180 HORZ(LL): 0.000 D - - HORZ(TL): 0.000 D - - Creep Factor: 2.0 Max TC CSI: 0.031 Max BC CSI: 0.010 Max Web CSI: 0.008  VIEW Ver: 21.01.01A.0521.20	<b>Gravity</b> Loc R+ / R- / Rh / Rw / U / RL A 11 /- /- /33 /28 /44 B* 82 /- /- /65 /32 /- E 11 /- /- /7 /6 /- <b>Non-Gravity</b> Wind reactions based on MWFRS A Brg Wid = 5.2 Min Req = 1.5 B Brg Wid = 31.7 Min Req = - E Brg Wid = 5.2 Min Req = 1.5 Bearings A, B, & E are a rigid surface. Members not listed have forces less than 375#

**Lumber**

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

**Plating Notes**

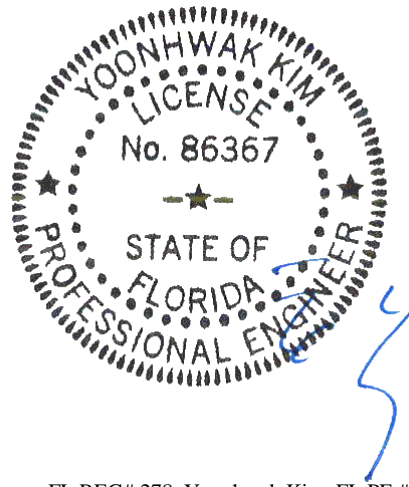
All plates are 2X4(A1) except as noted.

**Wind**

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

**Additional Notes**

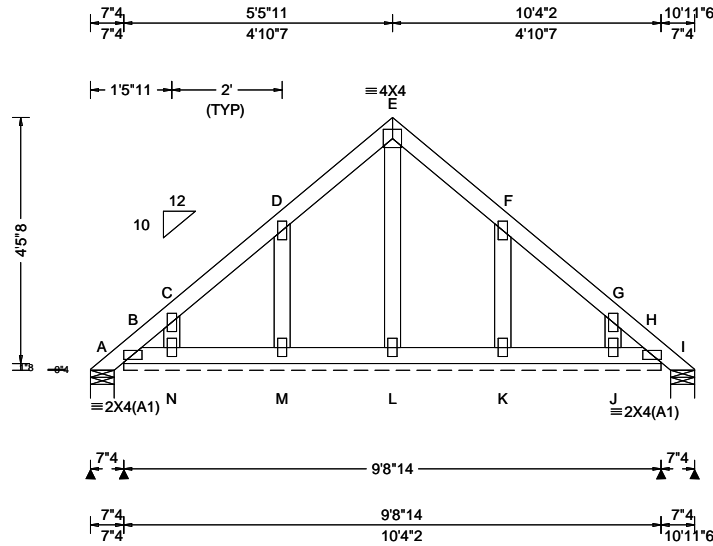
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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>																																		
TCLL: 20.00 TCCL: 10.00 BCCL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 21.30 ft TCCL: 4.2 psf BCDL: 2.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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): 0.000 E 999 240 VERT(CL): 0.001 E 999 180 HORZ(LL): 0.001 F - - HORZ(TL): 0.002 F - - Creep Factor: 2.0 Max TC CSI: 0.056 Max BC CSI: 0.024 Max Web CSI: 0.048 VIEW Ver: 21.01.01A.0521.20	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Loc</th> <th colspan="3">Gravity</th> <th colspan="3">Non-Gravity</th> </tr> <tr> <th>R+</th> <th>/R-</th> <th>/Rh</th> <th>/Rw</th> <th>/U</th> <th>/RL</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>18</td> <td>-</td> <td>-</td> <td>/101</td> <td>/87</td> <td>/135</td> </tr> <tr> <td>B*</td> <td>72</td> <td>-</td> <td>-</td> <td>/59</td> <td>/25</td> <td>-</td> </tr> <tr> <td>I</td> <td>18</td> <td>-</td> <td>-</td> <td>/13</td> <td>/3</td> <td>-</td> </tr> </tbody> </table> <p>Wind reactions based on MWFRS                  A Brg Wid = 5.2 Min Req = 1.5                  B Brg Wid = 116 Min Req = -                  I Brg Wid = 5.2 Min Req = 1.5                  Bearings A, B, &amp; I are a rigid surface.                  Members not listed have forces less than 375#</p>	Loc	Gravity			Non-Gravity			R+	/R-	/Rh	/Rw	/U	/RL	A	18	-	-	/101	/87	/135	B*	72	-	-	/59	/25	-	I	18	-	-	/13	/3	-
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**Lumber**

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

**Plating Notes**

All plates are 2X4 except as noted.

**Purlins**

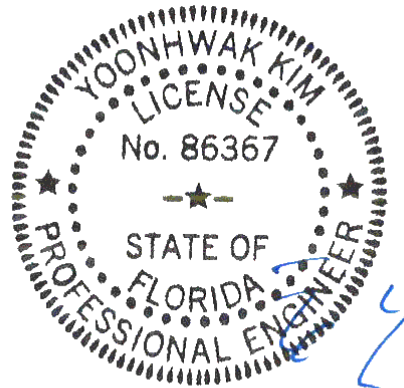
In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

**Wind**

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

**Additional Notes**

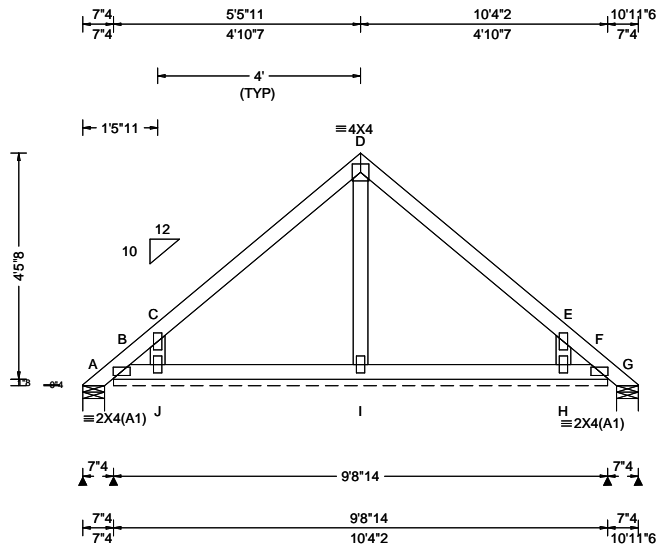
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FL REG# 278, Yoonhwak Kim, FL PE #86367  
 11/29/2021

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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
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: 21.30 ft TCDL: 4.2 psf BCDL: 2.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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 D 999 240 VERT(CL): 0.001 D 999 180 HORZ(LL): 0.001 E - - HORZ(TL): 0.002 E - - Creep Factor: 2.0 Max TC CSI: 0.221 Max BC CSI: 0.059 Max Web CSI: 0.098  VIEW Ver: 21.01.01A.0521.20	<b>Gravity</b> Loc R+ / R- / Rh / Rw / U / RL A 10 /- /- /102 /90 /135 B* 74 /- /- /60 /27 /- G 10 /- /- /12 /1 /- J /-145 H /-154 <b>Non-Gravity</b> Wind reactions based on MWFRS A Brg Wid = 5.2 Min Req = 1.5 B Brg Wid = 116 Min Req = - G Brg Wid = 5.2 Min Req = 1.5 Bearings A, B, & G are a rigid surface. Members not listed have forces less than 375#

**Lumber**

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

**Plating Notes**

All plates are 2X4 except as noted.

**Purlins**

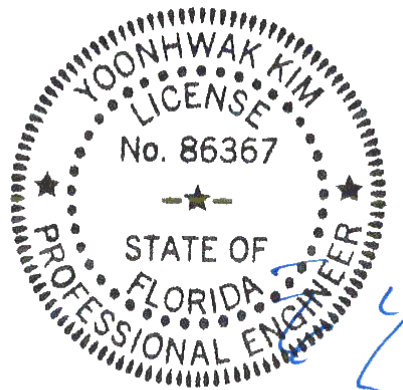
In lieu of rigid ceiling use purlins to brace BC @ 24" oc.

**Wind**

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

**Additional Notes**

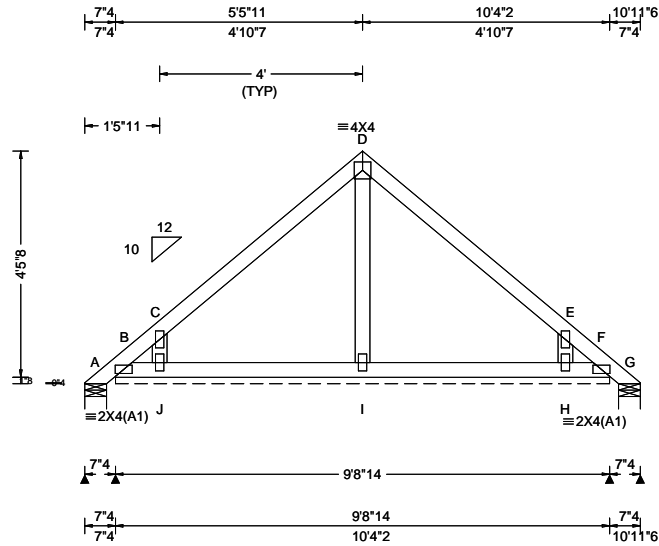
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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 0.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 21.30 ft TCDL: 4.2 psf BCDL: 2.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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 D 999 240 VERT(CL): 0.001 D 999 180 HORZ(LL): 0.001 E - - - HORZ(TL): 0.001 E - - - Creep Factor: 2.0 Max TC CSI: 0.221 Max BC CSI: 0.059 Max Web CSI: 0.091  VIEW Ver: 21.01.01A.0521.20	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity A 13 /0 /- /102 /91 /136 B* 72 /- /- /61 /24 /- G 10 /- /- /12 /1 /- J /-143 H /-150 Wind reactions based on MWFRS A Brg Wid = 5.2 Min Req = 1.5 B Brg Wid = 116 Min Req = - G Brg Wid = 5.2 Min Req = 1.5 Bearings A, B, & G are a rigid surface. Members not listed have forces less than 375#

**Lumber**

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

**Plating Notes**

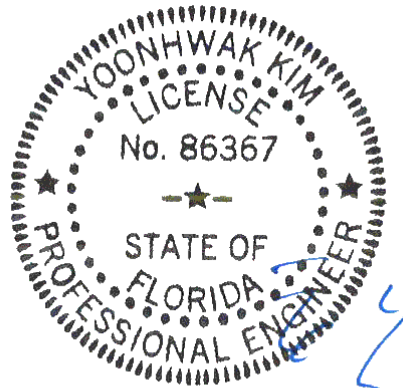
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**Wind**

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

**Additional Notes**

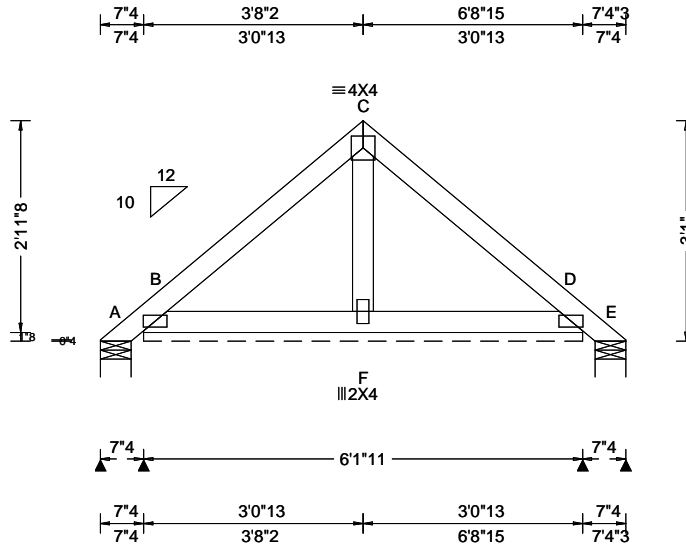
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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load 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: 22.05 ft TCDL: 4.2 psf BCDL: 2.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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/def L/# VERT(LL): -0.000 B 999 240 VERT(CL): 0.001 D 999 180 HORZ(LL): 0.001 D - - HORZ(TL): 0.001 D - - Creep Factor: 2.0 Max TC CSI: 0.104 Max BC CSI: 0.044 Max Web CSI: 0.017  VIEW Ver: 21.01.01A.0521.20	<b>Gravity</b> Loc R+ / R- / Rh / Rw / U / RL A - /-50 /- /95 /110 /89 B* 95 /- /- /72 /44 /- E - /-50 /- /50 /52 /- <b>Non-Gravity</b> Wind reactions based on MWFRS A Brg Wid = 5.2 Min Req = 1.5 B Brg Wid = 73.7 Min Req = - E Brg Wid = 5.2 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;  
Webs: 2x4 SP #3;

**Plating Notes**

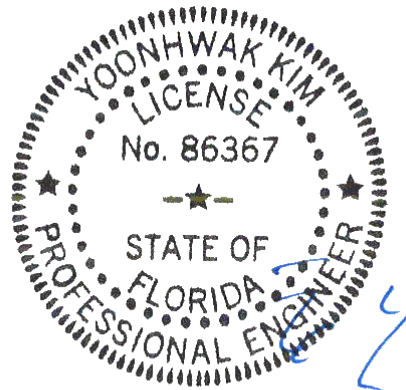
All plates are 2X4(A1) except as noted.

**Wind**

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Wind loading based on both gable and hip roof types.

**Additional Notes**

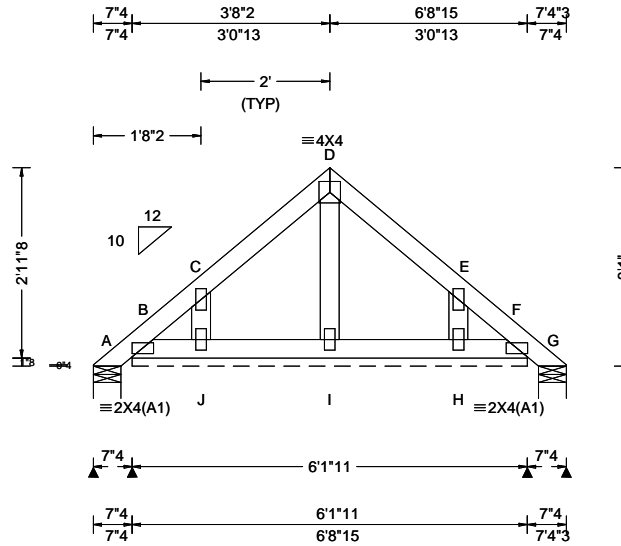
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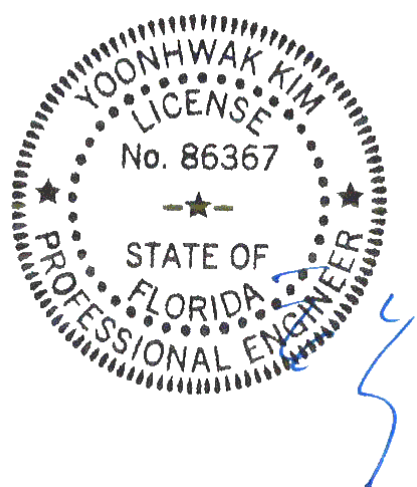
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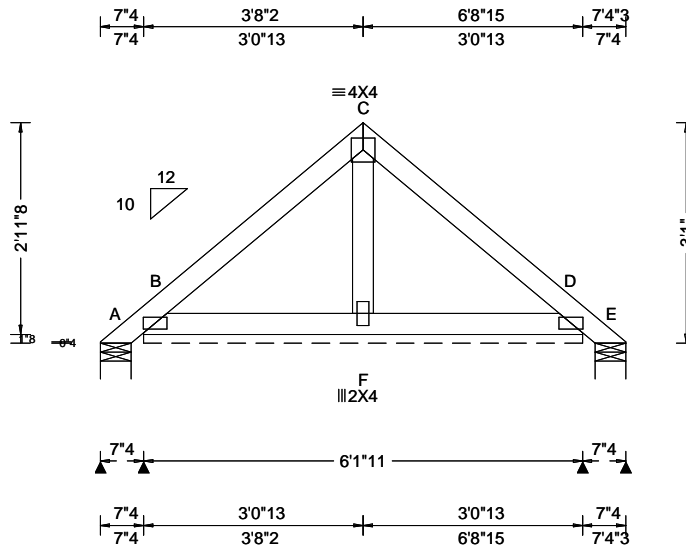
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Loc	Gravity			Non-Gravity																																									
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A	-	/-53	/-	/97	/116	/90																																							
B*	95	/-	/-	/71	/53	/-																																							
E	-	/-53	/-	/58	/57	/-																																							
B	/-114																																												

**Lumber**

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

**Plating Notes**

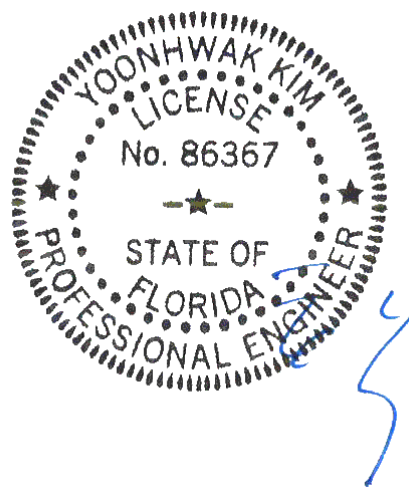
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**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

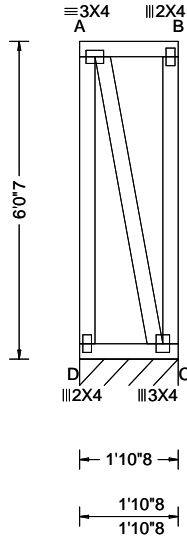


FL REG# 278, Yoonhwak Kim, FL PE #86367  
 11/29/2021

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SEQN: 34222 / FROM:	FLAT Ply: 1 Qty: 1	Job Number: 21-6403 Highland Country Model Truss Label: SP01	Cust: R215 JRef: 1XaX2150001 T50 / DrwNo: 333.21.0907.59615 / YK 11/29/2021
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<b>Loading Criteria (psf)</b> TCCL: 20.00 TCCL: 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.03 ft TCCL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.000 B 999 240 VERT(CL): 0.001 B 999 180 HORZ(LL): -0.001 A - - HORZ(TL): 0.002 A - - Creep Factor: 2.0 Max TC CSI: 0.082 Max BC CSI: 0.036 Max Web CSI: 0.036 VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs), or *=PLF</b> <table border="1"> <thead> <tr> <th colspan="3">Gravity</th> <th colspan="3">Non-Gravity</th> </tr> <tr> <th>Loc</th> <th>R+</th> <th>/R-</th> <th>/Rh</th> <th>/Rw</th> <th>/U</th> <th>/RL</th> </tr> </thead> <tbody> <tr> <td>C*</td> <td>80</td> <td>/-</td> <td>/-</td> <td>/41</td> <td>/21</td> <td>/-</td> </tr> </tbody> </table> Wind reactions based on MWFRS C Brg Wid = 22.5 Min Req = - Bearing D is a rigid surface. Members not listed have forces less than 375#	Gravity			Non-Gravity			Loc	R+	/R-	/Rh	/Rw	/U	/RL	C*	80	/-	/-	/41	/21	/-
Gravity			Non-Gravity																					
Loc	R+	/R-	/Rh	/Rw	/U	/RL																		
C*	80	/-	/-	/41	/21	/-																		

**Lumber**

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

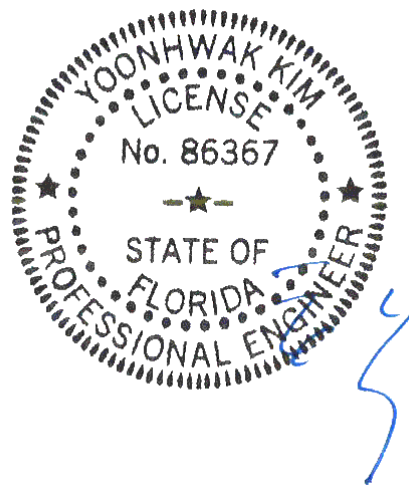
**Wind**

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

End verticals not exposed to wind pressure.

**Additional Notes**

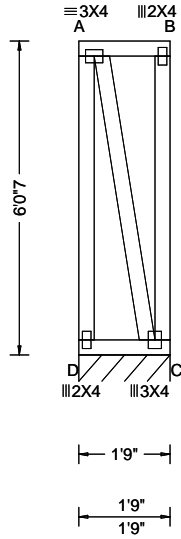
Truss must be installed as shown with top chord up.



FL REG# 278, Yoonhwak Kim, FL PE #86367  
 11/29/2021

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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
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: 15.03 ft TCDL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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): 0.000 B 999 240 VERT(CL): 0.001 B 999 180 HORZ(LL): -0.001 A - - HORZ(TL): 0.002 A - - Creep Factor: 2.0 Max TC CSI: 0.069 Max BC CSI: 0.030 Max Web CSI: 0.034  VIEW Ver: 21.01.01A.0521.20	<b>Gravity</b> Loc R+ / R- / Rh / Rw / U / RL C* 80 /- /- /41 /21 /- <b>Non-Gravity</b> Wind reactions based on MWFRS C Brg Wid = 21.0 Min Req = - Bearing D is a rigid surface. Members not listed have forces less than 375#

**Lumber**

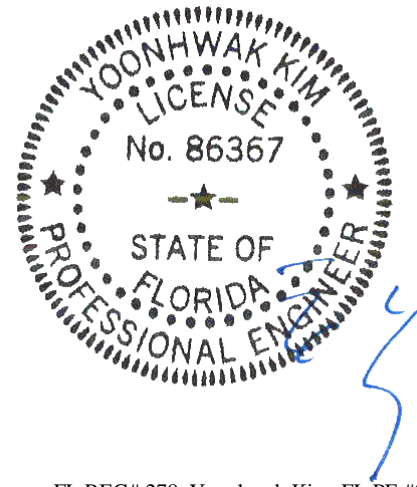
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

**Wind**

Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.

**Additional Notes**

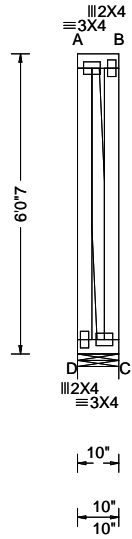
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)																		
TCCL: 20.00 TCCL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.03 ft TCCL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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/def L/# VERT(LL): 0.000 B 999 240 VERT(CL): 0.000 B 999 180 HORZ(LL): -0.001 A - - HORZ(TL): 0.002 A - - Creep Factor: 2.0 Max TC CSI: 0.015 Max BC CSI: 0.007 Max Web CSI: 0.016 VIEW Ver: 21.01.01A.0521.20	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Gravity</th> <th colspan="4">Non-Gravity</th> </tr> <tr> <th>Loc</th> <th>R+ / R-</th> <th>/ Rh</th> <th>/ Rw</th> <th>/ U</th> <th>/ RL</th> </tr> </thead> <tbody> <tr> <td>C 67</td> <td>/-</td> <td>/-</td> <td>/34</td> <td>/18</td> <td>/-</td> </tr> </tbody> </table> Wind reactions based on MWFRS C Brg Wid = 10.0 Min Req = 1.5 Bearing D is a rigid surface. Members not listed have forces less than 375#	Gravity		Non-Gravity				Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL	C 67	/-	/-	/34	/18	/-
Gravity		Non-Gravity																				
Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL																	
C 67	/-	/-	/34	/18	/-																	

**Lumber**

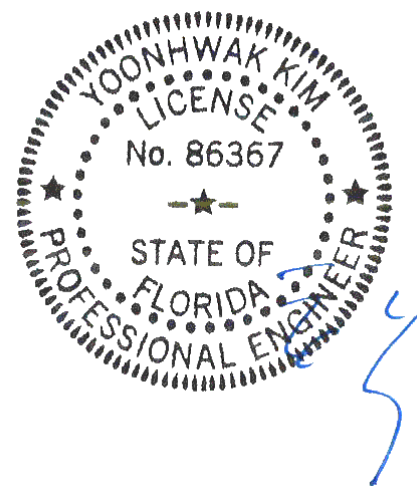
Top chord: 2x4 SP #2;  
 Bot chord: 2x4 SP #2;  
 Webs: 2x4 SP #3;

**Wind**

Wind loads based on MWFRS with additional C&C member design.  
 End verticals not exposed to wind pressure.

**Additional Notes**

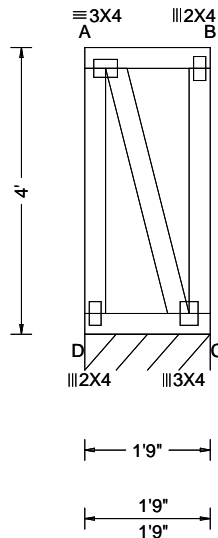
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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load 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: 18.00 ft TCDL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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/def L/# VERT(LL): 0.000 B 999 240 VERT(CL): 0.000 B 999 180 HORZ(LL): -0.000 B - - HORZ(TL): 0.001 B - - Creep Factor: 2.0 Max TC CSI: 0.068 Max BC CSI: 0.028 Max Web CSI: 0.041  VIEW Ver: 21.01.01A.0521.20	<b>Gravity</b> Loc R+ / R- / Rh / Rw / U / RL C* 80 /- /- /41 /25 /- <b>Non-Gravity</b> Wind reactions based on MWFRS C Brg Wid = 21.0 Min Req = - Bearing D is a rigid surface. Members not listed have forces less than 375#

**Lumber**

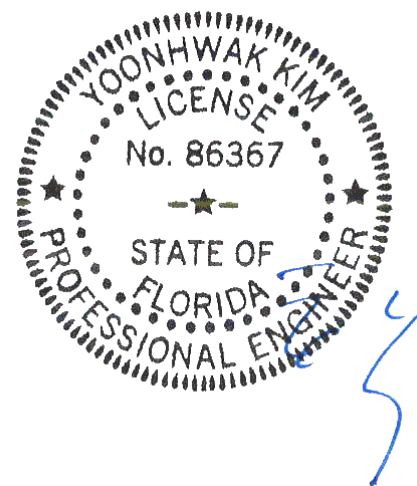
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

**Wind**

Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.

**Additional Notes**

Truss must be installed as shown with top chord up.

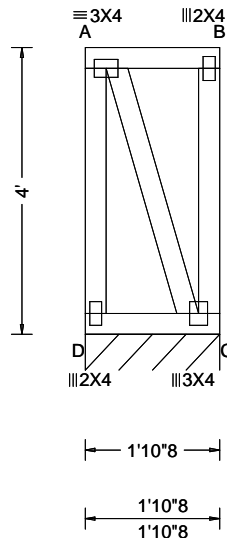


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SEQN: 34230 / FROM:	FLAT Ply: 1 Qty: 4	Job Number: 21-6403 Highland Country Model Truss Label: SP05	Cust: R 215 JRef: 1XaX2150001 T52 / DrwNo: 333.21.0907.58630 / YK 11/29/2021
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<b>Loading Criteria (psf)</b> 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 18.00 ft TCDL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.000 B 999 240 VERT(CL): 0.000 B 999 180 HORZ(LL): -0.000 B - - HORZ(TL): 0.001 B - - Creep Factor: 2.0 Max TC CSI: 0.081 Max BC CSI: 0.034 Max Web CSI: 0.045  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs), or *=PLF</b> Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL C* 80 /- /- /41 /25 /- Wind reactions based on MWFRS C Brg Wid = 22.5 Min Req = - Bearing D is a rigid surface. Members not listed have forces less than 375#
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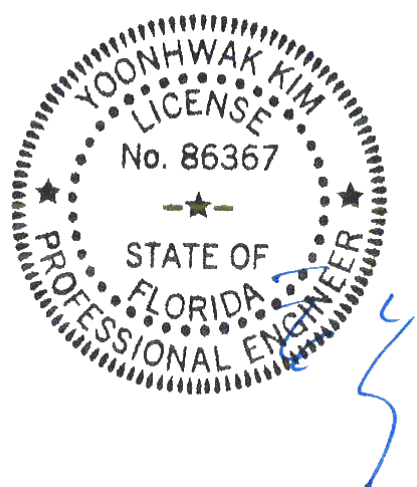
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

**Wind**

Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.

**Additional Notes**

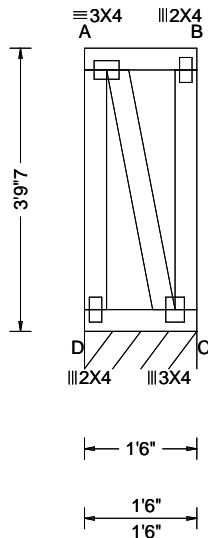
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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load 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: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: h/2 to h 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/def L/# VERT(LL): 0.000 B 999 240 VERT(CL): 0.000 B 999 180 HORZ(LL): -0.000 B - - HORZ(TL): 0.001 B - - Creep Factor: 2.0 Max TC CSI: 0.047 Max BC CSI: 0.021 Max Web CSI: 0.032  VIEW Ver: 21.01.01A.0521.20	<b>Gravity</b> Loc R+ / R- / Rh / Rw / U / RL D* 80 /- /- /41 /21 /- <b>Non-Gravity</b> Wind reactions based on MWFRS D Brg Wid = 18.0 Min Req = - Bearing D is a rigid surface. Members not listed have forces less than 375#

**Lumber**

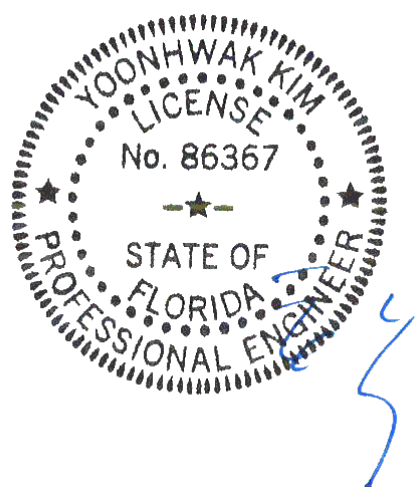
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

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**Additional Notes**

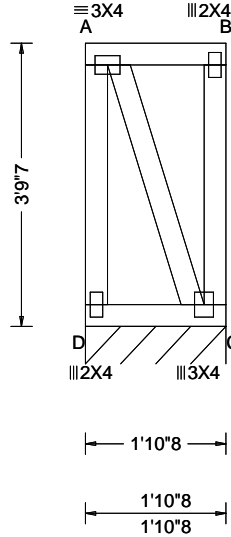
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 20.00 TCCL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCCL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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): 0.000 B 999 240 VERT(CL): 0.000 B 999 180 HORZ(LL): -0.000 B - - HORZ(TL): 0.001 B - - Creep Factor: 2.0 Max TC CSI: 0.078 Max BC CSI: 0.034 Max Web CSI: 0.043 VIEW Ver: 21.01.01A.0521.20	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL C* 80 /- /- /41 /21 /- Wind reactions based on MWFRS C Brg Wid = 22.5 Min Req = - Bearing D is a rigid surface. Members not listed have forces less than 375#

**Lumber**

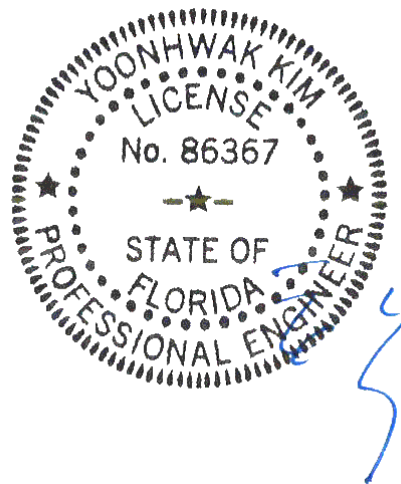
Top chord: 2x4 SP #2;  
 Bot chord: 2x4 SP #2;  
 Webs: 2x4 SP #3;

**Wind**

Wind loads based on MWFRS with additional C&C member design.  
 End verticals not exposed to wind pressure.

**Additional Notes**

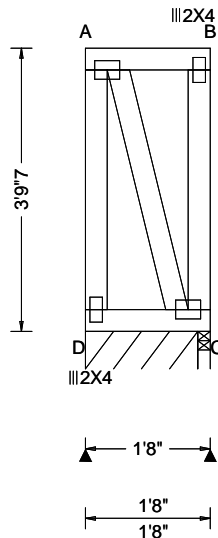
Truss must be installed as shown with top chord up.



FL REG# 278, Yoonhwak Kim, FL PE #86367  
 11/29/2021

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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 20.00 TCDL: 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: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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): 0.000 B 999 240 VERT(CL): 0.000 B 999 180 HORZ(LL): -0.000 B - - HORZ(TL): 0.000 B - - Creep Factor: 2.0 Max TC CSI: 0.059 Max BC CSI: 0.022 Max Web CSI: 0.037  VIEW Ver: 21.01.01A.0521.20	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL D* 42 /- /- /22 /11 /- C 70 /- /- /36 /18 /- Wind reactions based on MWFRS D Brg Wid = 18.0 Min Req = - C Brg Wid = 2.0 Min Req = 1.5 Bearings D & C are a rigid surface. Members not listed have forces less than 375#

**Lumber**

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

**Plating Notes**

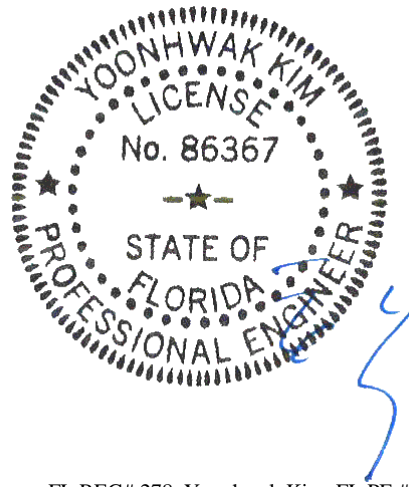
All plates are 3X4 except as noted.

**Wind**

Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.

**Additional Notes**

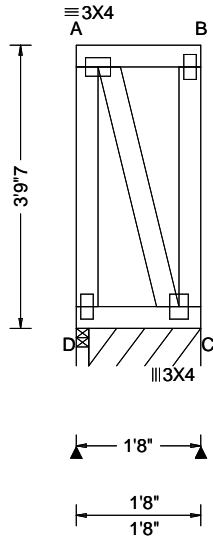
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11/29/2021

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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
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: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: h/2 to h 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/def L/# VERT(LL): 0.000 B 999 240 VERT(CL): 0.000 B 999 180 HORZ(LL): -0.000 B - - HORZ(TL): 0.001 B - - Creep Factor: 2.0 Max TC CSI: 0.059 Max BC CSI: 0.026 Max Web CSI: 0.037  VIEW Ver: 21.01.01A.0521.20	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL D 67 /- /- /34 /17 /- C* 44 /- /- /23 /12 /- Wind reactions based on MWFRS D Brg Wid = 2.0 Min Req = 1.5 C Brg Wid = 18.0 Min Req = - Bearings D & D are a rigid surface. Members not listed have forces less than 375#

**Lumber**

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

**Plating Notes**

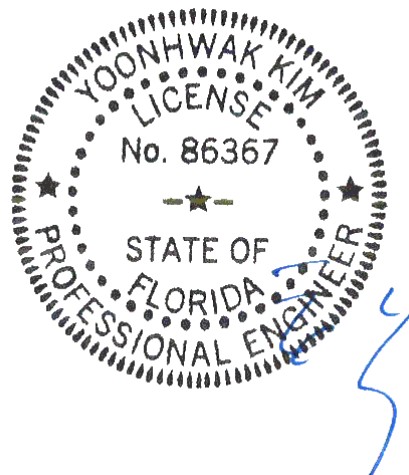
All plates are 2X4 except as noted.

**Wind**

Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.

**Additional Notes**

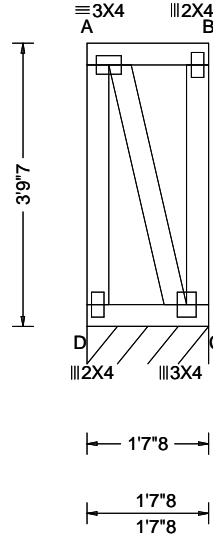
Truss must be installed as shown with top chord up.



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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCCL: 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 TCCL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: h/2 to h 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/def L/# VERT(LL): 0.000 B 999 240 VERT(CL): 0.000 B 999 180 HORZ(LL): -0.000 B - - HORZ(TL): 0.001 B - - Creep Factor: 2.0 Max TC CSI: 0.056 Max BC CSI: 0.024 Max Web CSI: 0.035 VIEW Ver: 21.01.01A.0521.20	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL C* 80 /- /- /41 /21 /- Wind reactions based on MWFRS C Brg Wid = 19.5 Min Req = - Bearing D is a rigid surface. Members not listed have forces less than 375#

**Lumber**

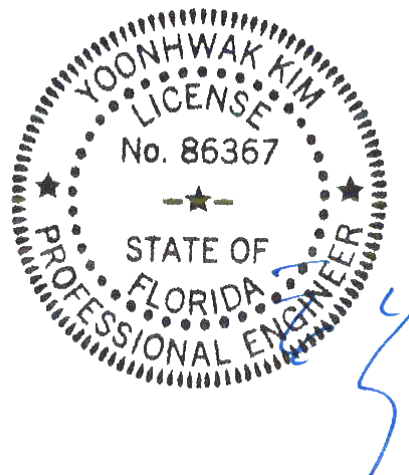
Top chord: 2x4 SP #2;  
 Bot chord: 2x4 SP #2;  
 Webs: 2x4 SP #3;

**Wind**

Wind loads based on MWFRS with additional C&C member design.  
 End verticals not exposed to wind pressure.

**Additional Notes**

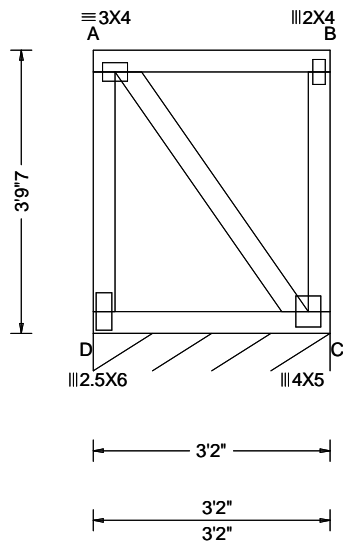
Truss must be installed as shown with top chord up.



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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
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: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: h/2 to h 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/def L/# VERT(LL): 0.000 B 999 240 VERT(CL): 0.001 B 999 180 HORZ(LL): -0.000 B - - HORZ(TL): 0.001 B - - Creep Factor: 2.0 Max TC CSI: 0.231 Max BC CSI: 0.100 Max Web CSI: 0.101  VIEW Ver: 21.01.01A.0521.20	<b>Gravity</b> Loc R+ / R- / Rh / Rw / U / RL C* 80 /- /- /41 /21 /- <b>Non-Gravity</b> Wind reactions based on MWFRS C Brg Wid = 38.0 Min Req = - Bearing D is a rigid surface. Members not listed have forces less than 375#

**Lumber**

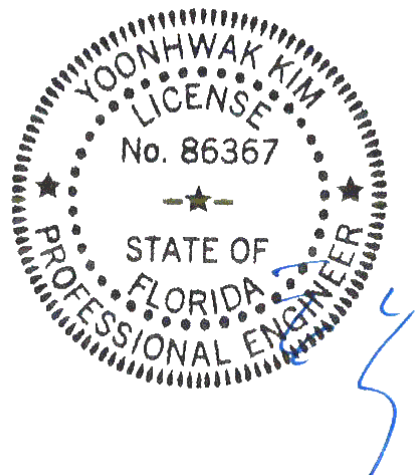
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

**Wind**

Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.

**Additional Notes**

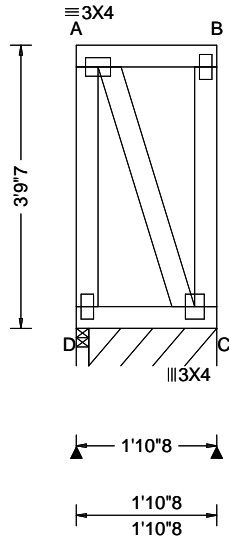
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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load 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: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 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): 0.000 B 999 240 VERT(CL): 0.000 B 999 180 HORZ(LL): -0.000 B - - HORZ(TL): 0.001 B - - Creep Factor: 2.0 Max TC CSI: 0.078 Max BC CSI: 0.034 Max Web CSI: 0.043  VIEW Ver: 21.01.01A.0521.20	<b>Gravity</b> Loc R+ / R- / Rh / Rw / U / RL D 75 /- /- /38 /20 /- C* 44 /- /- /23 /12 /- <b>Non-Gravity</b> Wind reactions based on MWFRS D Brg Wid = 2.0 Min Req = 1.5 C Brg Wid = 20.5 Min Req = - Bearings D & D are a rigid surface. Members not listed have forces less than 375#

**Lumber**

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

**Plating Notes**

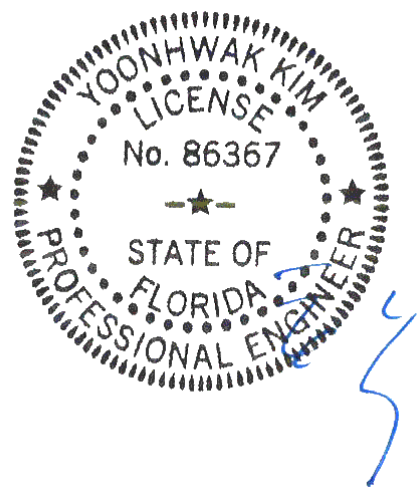
All plates are 2X4 except as noted.

**Wind**

Wind loads based on MWFRS with additional C&C member design.  
End verticals not exposed to wind pressure.

**Additional Notes**

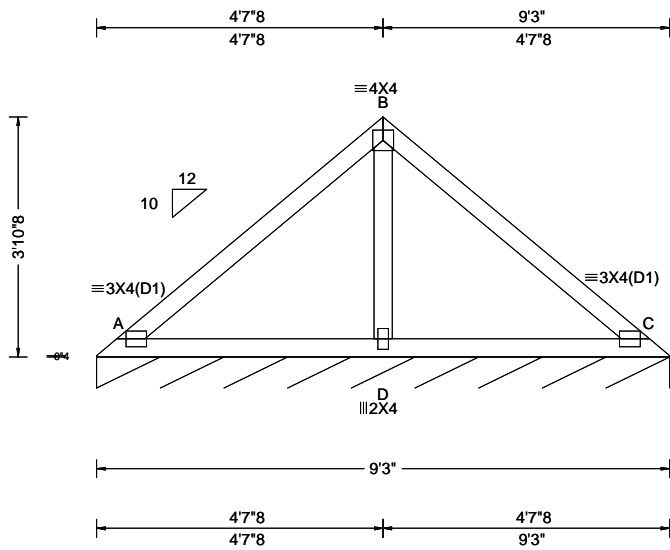
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<b>Loading Criteria (psf)</b>	<b>Wind Criteria</b>	<b>Snow Criteria (Pg,Pf in PSF)</b>	<b>Defl/CSI Criteria</b>	<b>▲ Maximum Reactions (lbs), or *=PLF</b>
TCLL: 20.00 TCCL: 10.00 BCCL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCCL: 4.2 psf BCDL: 3.0 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/def L/# VERT(LL): 0.009 A 999 240 VERT(CL): 0.018 A 999 180 HORZ(LL): -0.005 C - - HORZ(TL): 0.011 C - - Creep Factor: 2.0 Max TC CSI: 0.370 Max BC CSI: 0.256 Max Web CSI: 0.141 VIEW Ver: 21.01.01A.0521.20	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL C* 86 /- /- /47 /16 /11 Wind reactions based on MWFRS C Brg Wid = 111 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375# <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. B - D 475 -481

**Lumber**

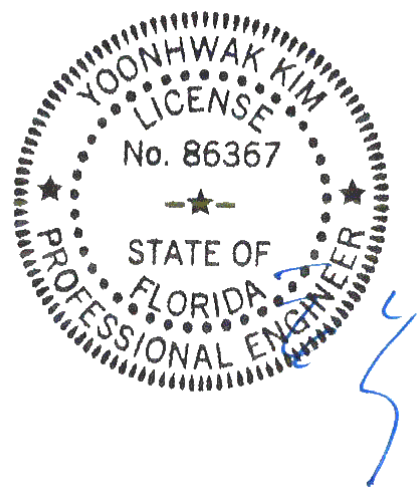
Top chord: 2x4 SP #2;  
 Bot chord: 2x4 SP #2;  
 Webs: 2x4 SP #3;

**Wind**

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

**Additional Notes**

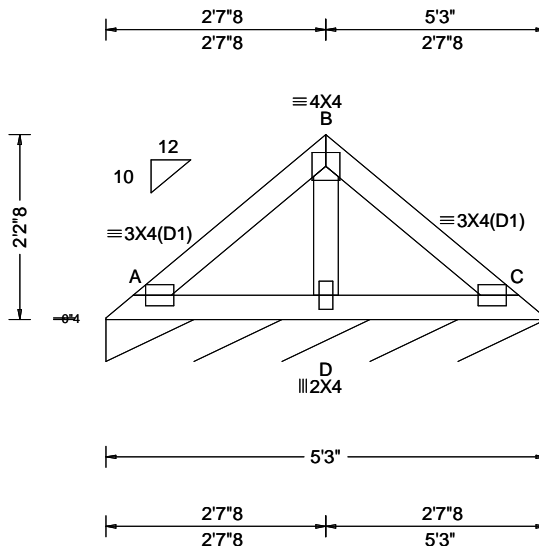
See DWGS VALTN160118 and VAL180160118 for valley details.



FL REG# 278, Yoonhwak Kim, FL PE #86367  
 11/29/2021

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<b>Loading Criteria (psf)</b> 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 "	<b>Wind Criteria</b> Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	<b>Snow Criteria (Pg,Pf in PSF)</b> 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	<b>Defl/CSI Criteria</b> PP Deflection in loc L/def L/# VERT(LL): 0.002 A 999 240 VERT(CL): 0.003 A 999 180 HORZ(LL): -0.001 C - - HORZ(TL): 0.002 C - - Creep Factor: 2.0 Max TC CSI: 0.115 Max BC CSI: 0.076 Max Web CSI: 0.065  VIEW Ver: 21.01.01A.0521.20	<b>▲ Maximum Reactions (lbs), or *=PLF</b> Gravity Non-Gravity Loc R+ /R- /Rh /Rw /U /RL C* 85 /- /- /45 /14 /10 Wind reactions based on MWFRS C Brg Wid = 63.0 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375#
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**Lumber**

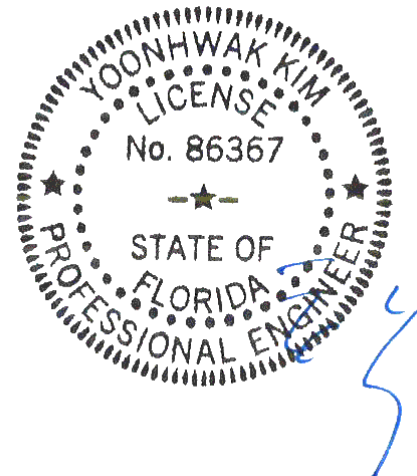
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

**Wind**

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

**Additional Notes**

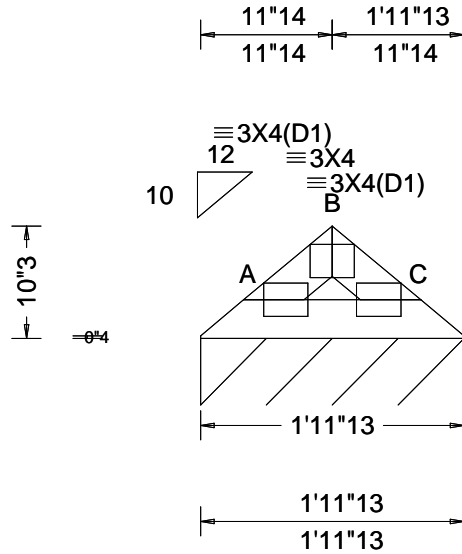
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.30 ft TCDL: 4.2 psf BCDL: 3.0 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): 0.000 A 999 240 VERT(CL): 0.001 A 999 180 HORZ(LL): -0.000 A - - HORZ(TL): 0.000 A - - Creep Factor: 2.0 Max TC CSI: 0.014 Max BC CSI: 0.025 Max Web CSI: 0.000 VIEW Ver: 21.01.01A.0521.20	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL C* 84 /- /- /39 /6 /7 Wind reactions based on MWFRS C Brg Wid = 23.8 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375#

**Lumber**

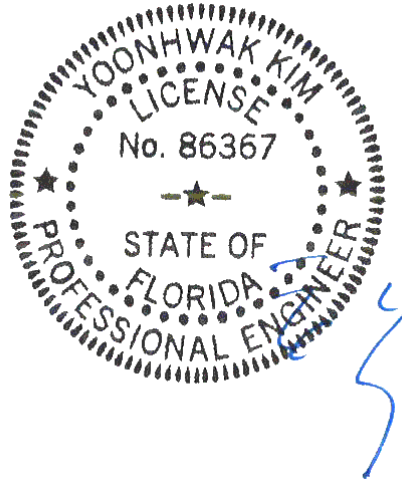
Top chord: 2x4 SP #2;  
 Bot chord: 2x4 SP #2;

**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.



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# Gable Stud Reinforcement Detail

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

- Or: 120 mph Wind Speed, 15' Mean Height, Partially Enclosed, Exposure C, Kzt = 1.00
- Or: 120 mph Wind Speed, 15' Mean Height, Enclosed, Exposure D, Kzt = 1.00
- Or: 100 mph Wind Speed, 15' Mean Height, Partially Enclosed, Exposure D, Kzt = 1.00

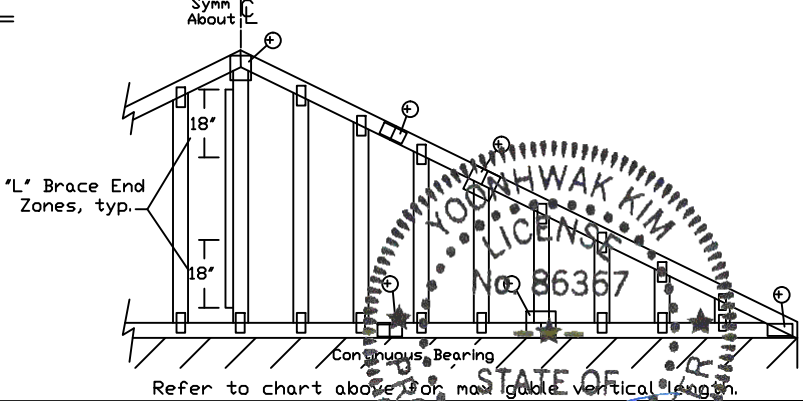
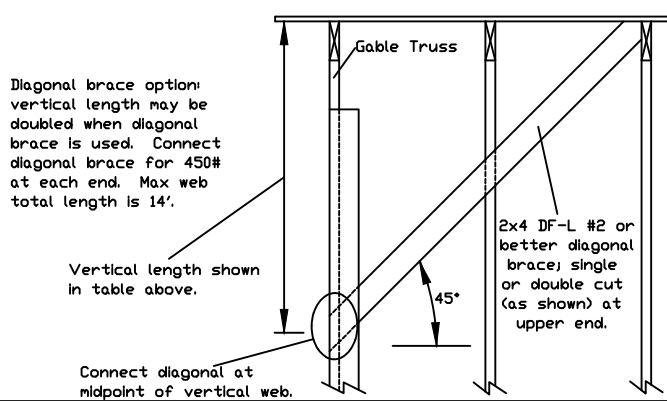
Max Gable Vertical Length	2x4 Gable Vertical		Brace Grade	No Braces	(1) 1x4 'L' Brace *		(1) 2x4 'L' Brace *		(2) 2x4 'L' Brace **		(1) 2x6 'L' Brace *		(2) 2x6 'L' Brace **	
	Spacing	Species			Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B
	24" o.c.	SPF	#1 / #2	#1 /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

**Bracing Group Species and Grades:**

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

1x4 Braces shall be SRB (Stress-Rated Board).  
 \*\*\*For 1x4 So. Pine use only Industrial 55 or Industrial 45 Stress-Rated Boards. Group B values may be used with these grades.

**Gable Truss Detail Notes:**  
 Wind Load deflection criterion is L/240.  
 Provide uplift connections for 55 plf over continuous bearing (5 psf TC Dead Load).  
 Gable end supports load from 4' 0" outlookers with 2' 0" overhang, or 12' plywood overhang.



Attach 'L' braces with 10d (0.128"x3.0" min) nails.  
 \* For (1) 'L' brace: space nails at 2' o.c. in 18' end zones and 4' o.c. between zones.  
 \*\* For (2) 'L' braces: space nails at 3' o.c. in 18' end zones and 6' o.c. between zones.  
 'L' bracing must be a minimum of 80% of web member length.

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

+ Refer to common truss design for peak, splice, and heel plates.  
 Refer to the Building Designer for conditions not addressed by this detail.

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

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Yoonhwak Kim, FL PE #86367

REF	ASCE7-16-GAB14015
DATE	01/26/2018
DRWG	A14015ENC160118
MAX. TOT. LD.	60 PSF
MAX. SPACING	24.0"

# Gable Stud Reinforcement Detail

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

- Or: 120 mph Wind Speed, 30' Mean Height, Partially Enclosed, Exposure C, Kzt = 1.00
- Or: 120 mph Wind Speed, 30' Mean Height, Enclosed, Exposure D, Kzt = 1.00
- Or: 100 mph wind speed, 30' Mean Height, Partially Enclosed, Exposure D, Kzt = 1.00

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

**Bracing Group Species and Grades:**

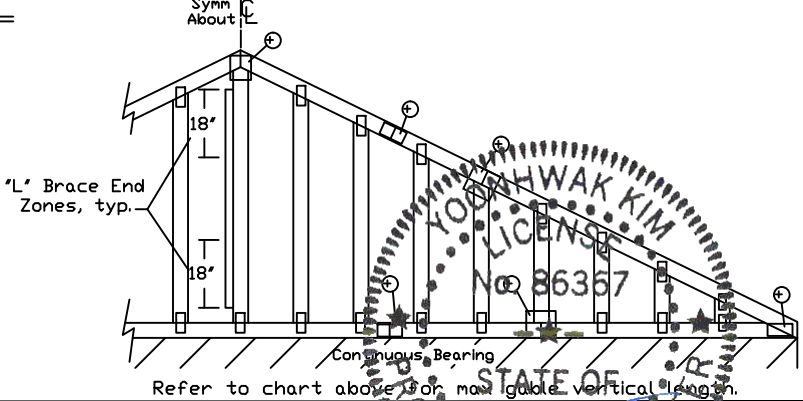
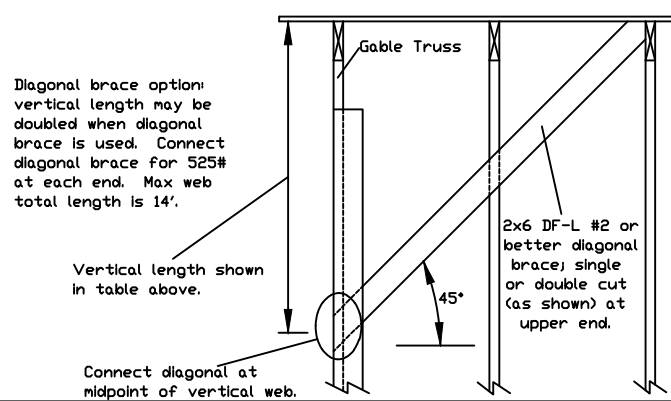
Group A:			
Spruce-Pine-Fir		Hem-Fir	
#1 / #2	Standard	#2	Stud
#3	Stud	#3	Standard
Douglas Fir-Larch		Southern Pine***	
#3	Stud	#3	Stud
Standard		Standard	

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

1x4 Braces shall be SRB (Stress-Rated Board).  
 \*\*\*For 1x4 So. Pine use only Industrial 55 or Industrial 45 Stress-Rated Boards. Group B values may be used with these grades.

**Gable Truss Detail Notes:**  
 Wind Load deflection criterion is L/240.  
 Provide uplift connections for 100 plf over continuous bearing (5 psf TC Dead Load).  
 Gable end supports load from 4' 0" outlookers with 2' 0" overhang, or 12' plywood overhang.



Attach 'L' braces with 10d (0.128"x3.0" min) nails.  
 \* For (1) 'L' brace: space nails at 2' o.c. in 18' end zones and 4' o.c. between zones.  
 \*\* For (2) 'L' braces: space nails at 3' o.c. in 18' end zones and 6' o.c. between zones.

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

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

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

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

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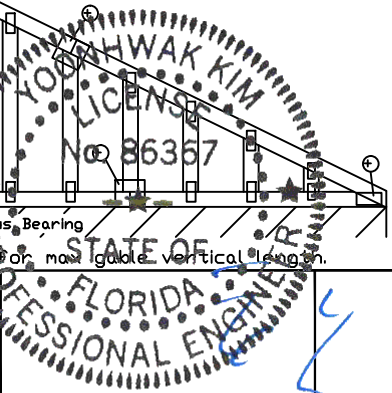
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 ALPINE: www.alpineitw.com TPI: www.tpinstr.org SBCA: www.sbcacomponents.com ICC: www.iccsafe.org



REF	ASCE7-16-GAB14030
DATE	01/26/2018
DRWG	A14030ENC160118
MAX. TOT. LD. 60 PSF	
MAX. SPACING 24.0"	

# CLR Reinforcing Member Substitution

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

## Notes:

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

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

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

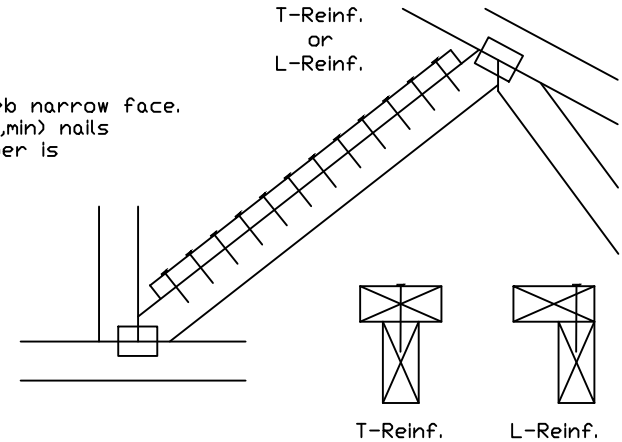
Web Member Size	Specified CLR Restraint	Alternative Reinforcement T- or L- Reinf.	Scab Reinf.
2x3 or 2x4	1 row	2x4	1-2x4
2x3 or 2x4	2 rows	2x6 or 2x4	2-2x4
2x6	1 row	2x4	1-2x6
2x6	2 rows	2x6	2-2x4(*)
2x8	1 row	2x6	1-2x8
2x8	2 rows	2x6	2-2x6(*)

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.

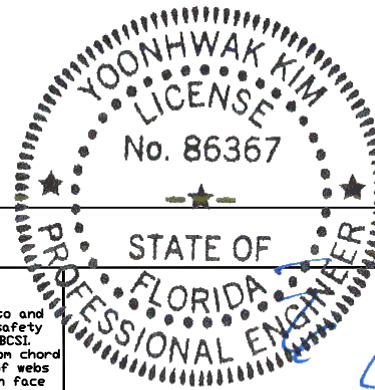
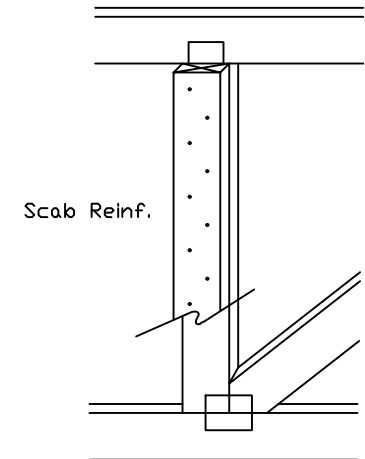
## T-Reinforcement or L-Reinforcement:

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.



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

# NAIL SPACING DETAIL

MINIMUM SPACING FOR SINGLE BLOCK IS SHOWN. DOUBLE NAIL SPACINGS AND STAGGER NAILING FOR TWO BLOCKS. GREATER SPACING MAY BE REQUIRED TO AVOID SPLITTING.

BLOCK LOCATION, SIZE, LENGTH, GRADE AND TOTAL NUMBER AND TYPE OF NAILS ARE TO BE SPECIFIED ON SEALED DESIGN REFERENCING THIS DETAIL.

LOAD PERPENDICULAR TO GRAIN

- A - EDGE DISTANCE AND SPACING BETWEEN STAGGERED ROWS OF NAILS (6 NAIL DIAMETERS)
- B - SPACING OF NAILS IN A ROW (12 NAIL DIAMETERS)
- C - END DISTANCE (15 NAIL DIAMETERS)

LOAD PARALLEL TO GRAIN

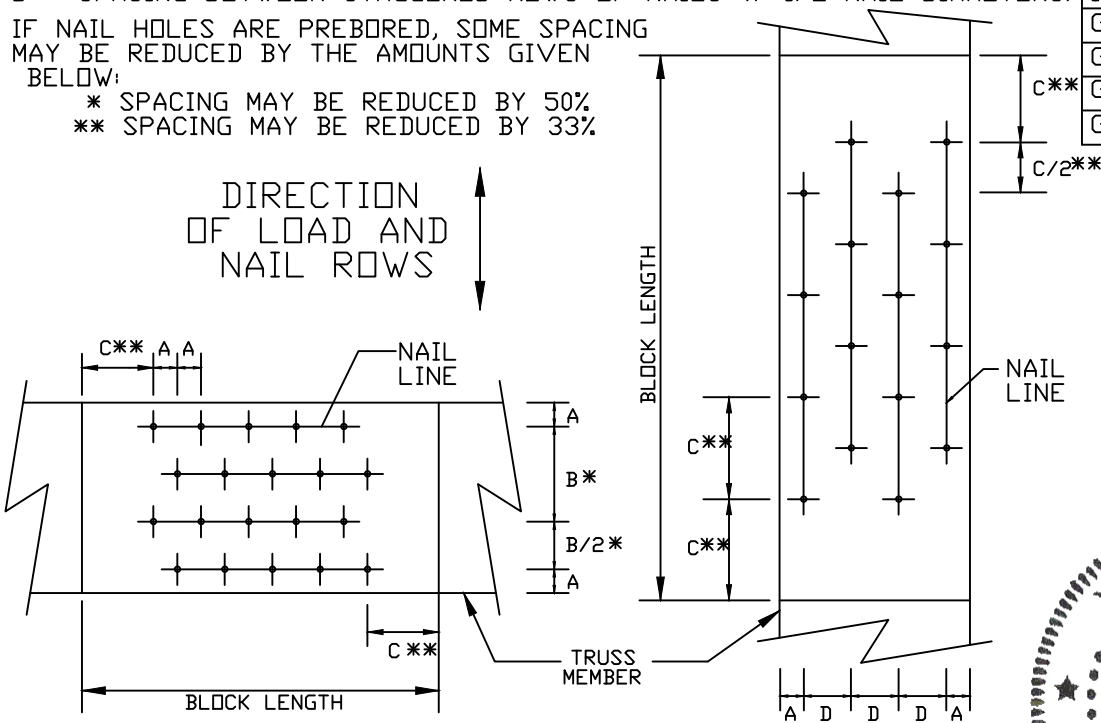
- A - EDGE DISTANCE (6 NAIL DIAMETERS)
- C - SPACING OF NAILS IN A ROW AND END DISTANCE (15 NAIL DIAMETERS)
- D - SPACING BETWEEN STAGGERED ROWS OF NAILS (7 1/2 NAIL DIAMETERS)

IF NAIL HOLES ARE PREBORED, SOME SPACING MAY BE REDUCED BY THE AMOUNTS GIVEN BELOW:

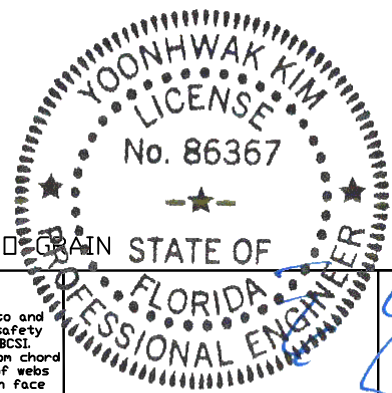
- \* SPACING MAY BE REDUCED BY 50%
- \*\* SPACING MAY BE REDUCED BY 33%

MINIMUM NAIL SPACING DISTANCES

NAIL TYPE	DISTANCES			
	A	B*	C**	D
8d BOX (0.113"X 2.5",MIN)	3/4"	1 3/8"	1 3/4"	7/8"
10d BOX (0.128"X 3",MIN)	7/8"	1 5/8"	2"	1"
12d BOX (0.128"X 3.25",MIN)	7/8"	1 5/8"	2"	1"
16d BOX (0.135"X 3.5",MIN)	7/8"	1 5/8"	2 1/8"	1 1/8"
20d BOX (0.148"X 4",MIN)	1"	1 7/8"	2 1/4"	1 1/8"
8d COMMON (0.131"X 2.5",MIN)	7/8"	1 5/8"	2"	1"
10d COMMON (0.148"X 3",MIN)	1"	1 7/8"	2 1/4"	1 1/8"
12d COMMON (0.148"X 3.25",MIN)	1"	1 7/8"	2 1/4"	1 1/8"
16d COMMON (0.162"X 3.5",MIN)	1"	2"	2 1/2"	1 1/4"
GUN (0.120"X 2.5",MIN)	3/4"	1 1/2"	1 7/8"	1"
GUN (0.131"X 2.5",MIN)	7/8"	1 5/8"	2"	1"
GUN (0.120"X 3",MIN)	3/4"	1 1/2"	1 7/8"	1"
GUN (0.131"X 3",MIN)	7/8"	1 5/8"	2"	1"



LOAD APPLIED PERPENDICULAR TO GRAIN      LOAD APPLIED PARALLEL TO GRAIN



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REF	NAIL SPACE
DATE	10/01/14
DRWG	CNNAILSP1014

## Commentary: Deflection and Camber

Camber may be built into trusses to compensate for the vertical deflection that results from the application of loads. Providing camber has the following advantages:

- Helps to ensure level ceilings and floors after dead loads are applied.
- Facilitates drainage to avoid ponding on flat or low slope roofs.
- Compensates for different deflection characteristics between adjacent trusses.
- Improves appearance of garage door headers and other long spans that can appear to "sag."
- Avoids "dips" in roof ridgelines at the transition from the gable to adjacent clear span trusses.

In accordance with ANSI/TPI 1 the Building Designer, through the Construction Documents, shall provide the location, direction, and magnitude of all loads attributable to ponding that may occur due to the design of the roof drainage system. The Building Designer shall also specify any dead load, live load, and in-service creep deflection criteria for flat or low-slope roofs subject to ponding loads.

The amount of camber is dependent on the truss type, span, loading, application, etceteras.

More restrictive limits for allowable deflection and slenderness ratio (L/D) may be required to help control vibration.

The following tables are provided as guidelines for limiting deflection and estimating camber. Conditions or codes may exist that require exceeding these recommendations, or past experience may warrant using more stringent limitations.

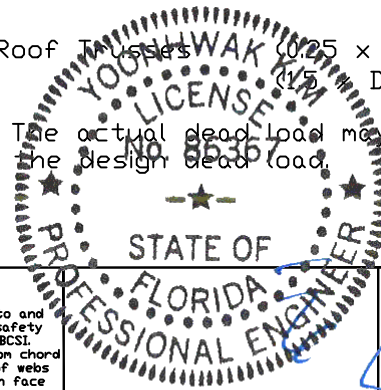
L = Span of Truss (inches)  
D = Depth of Truss at Deflection Point (inches)

### Recommended Truss Deflection Limits

Truss Type	L/D	Deflection Limits	
		Live Load	Total Load
Pitched Roof Trusses	24	L/240 (vertical)	L/180 (vertical)
Floor of Room-In-Attic Trusses	24	L/360 (vertical)	L/240 (vertical)
Flat or Shallow Pitched Roof Trusses	24	L/360 (vertical)	L/240 (vertical)
Residential Floor Trusses	24	L/360 (vertical)	L/240 (vertical)
Commercial Floor Trusses	20	L/480 (vertical)	L/240 (vertical)
Scissors Trusses	24	0.75" (horizontal)	1.25" (horizontal)

Truss Type	Recommended Camber
Pitched Trusses	1.00 x Deflection from Actual Dead Load
Sloping Parallel Chord Trusses	1.5 x Vertical Deflection from Actual Dead Load
Floor Trusses	(0.25 x Deflection from Live Load) + Actual Dead Load
Flat Roof Trusses	(0.25 x Deflection from Live Load) + Design Dead Load Deflection

Note: The actual dead load may be considerably less than the design dead load.



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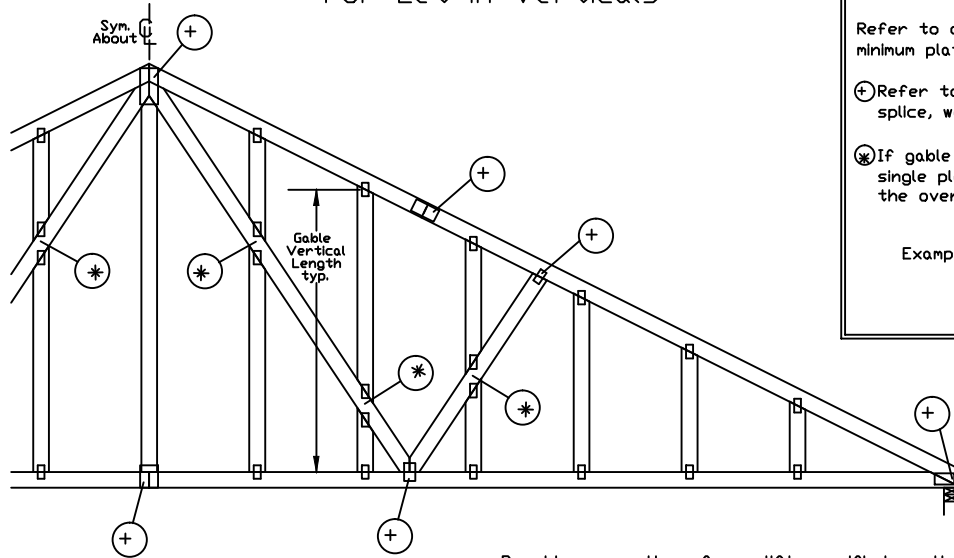
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11/29/2021  
 Yoonhwak Kim, FL PE #86367

REF	DEFLEC/CAMB
DATE	10/01/14
DRWG	DEFLCAMB1014

# Gable Detail For Let-in Verticals

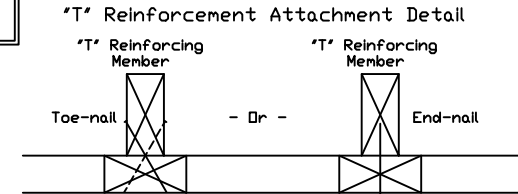


### Gable Truss Plate Sizes

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:



Provide connections for uplift specified on the engineered truss design.  
 Attach each "T" reinforcing member with  
 End Driven Nails:  
 10d Common (0.148"x3",min) Nails at 4' o.c. plus  
 (4) nails in the top and bottom chords.

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

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

- ASCE 7-05 Gable Detail Drawings  
 A13015051014, A12015051014, A11015051014, A10015051014, A14015051014,  
 A13030051014, A12030051014, A11030051014, A10030051014, A14030051014
- ASCE 7-10 & ASCE 7-16 Gable Detail Drawings  
 A11515ENC100118, A12015ENC100118, A14015ENC100118, A16015ENC100118,  
 A18015ENC100118, A20015ENC100118, A20015END100118, A20015PE1D100118,  
 A11530ENC100118, A12030ENC100118, A14030ENC100118, A16030ENC100118,  
 A18030ENC100118, A20030ENC100118, A20030END100118, A20030PE1D100118,  
 S11515ENC100118, S12015ENC100118, S14015ENC100118, S16015ENC100118,  
 S18015ENC100118, S20015ENC100118, S20015PE1D100118, S20015PE1D100118,  
 S11530ENC100118, S12030ENC100118, S14030ENC100118, S16030ENC100118,  
 S18030ENC100118, S20030ENC100118, S20030END100118, S20030PE1D100118

See appropriate Alpine gable detail for maximum unreinforced gable vertical length.

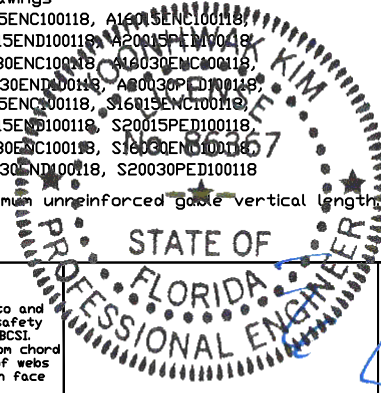
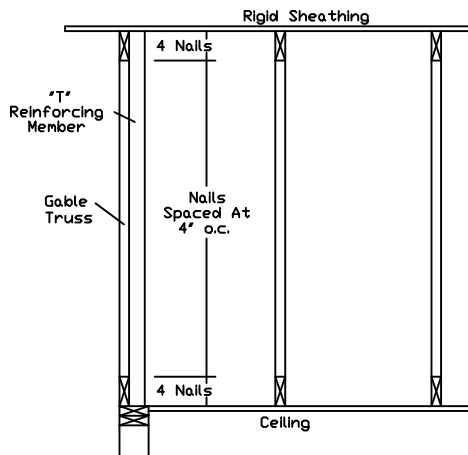
To convert from "L" to "T" reinforcing members, multiply "T" increase by length (based on appropriate Alpine gable detail).

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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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

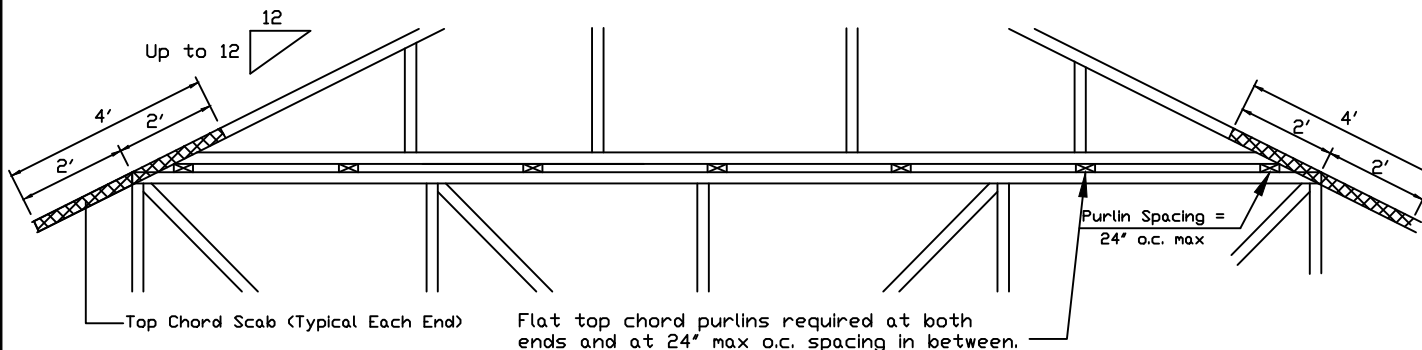
160 mph Wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp C, Wind DL= 5.0 psf (min), Kzt=1.0.  
 Or 140 mph wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp D, wind DL= 5.0 psf (min), Kzt=1.0.

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

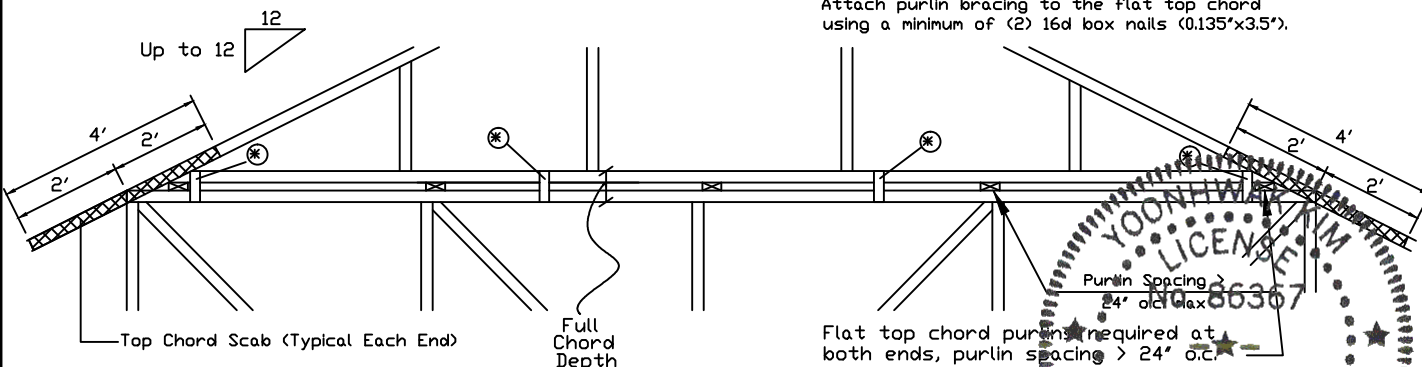


Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135"x3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128"x3") at 4' o.c.

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.

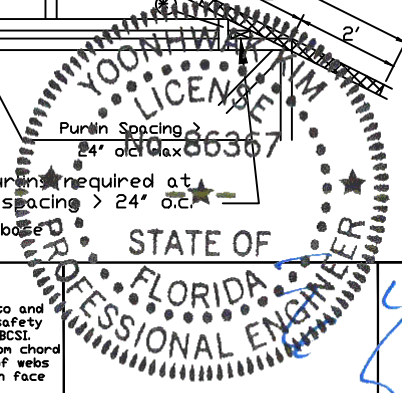
\* In addition, provide connection with one of the following methods:

**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.



514 Earth City Expressway  
 Suite 242  
 Earth City, MO 63045

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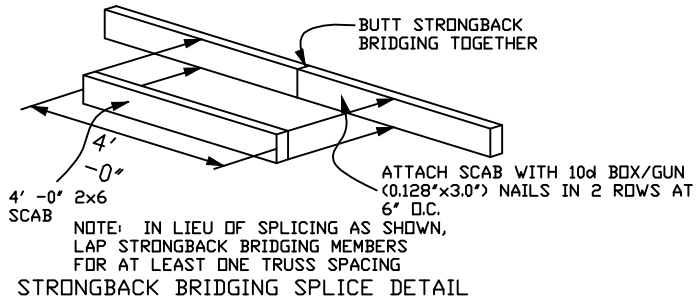
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REF	PIGGYBACK
DATE	01/02/2018
DRWG	PB160160118
SPACING	24.0"

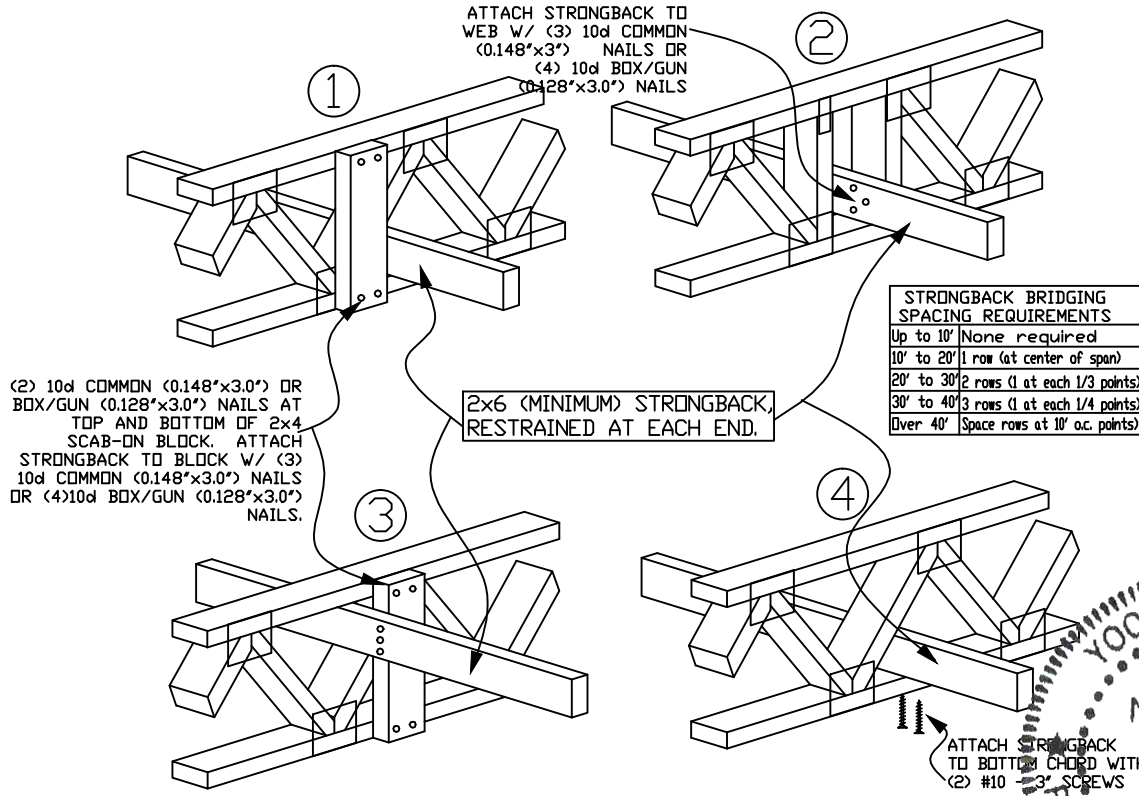
Yoonhwak Kim, FL PE #86367

# STRONGBACK BRIDGING RECOMMENDATIONS



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

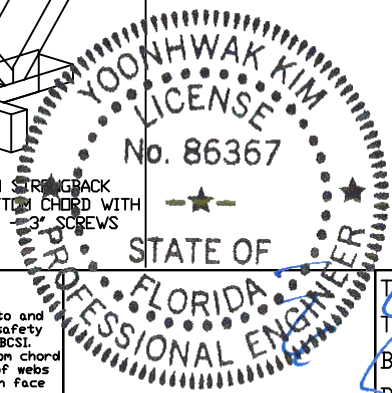
NOTE: Details 1 and 2 are the preferred attachment methods



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

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

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



## STRONGBACK BRIDGING ATTACHMENT ALTERNATIVES



514 Earth City Expressway  
Suite 242  
Earth City, MO 63045

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For more information see this Job's general notes page and these web sites:  
ALPINE: [www.alpineitw.com](http://www.alpineitw.com) TPI: [www.tpinstr.org](http://www.tpinstr.org) SBCA: [www.sbcacomponents.com](http://www.sbcacomponents.com) ICD: [www.icd300.org](http://www.icd300.org)

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

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

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

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

Bottom chord may be square or pitched cut as shown.

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

All plates shown are Alpine Wave Plates.

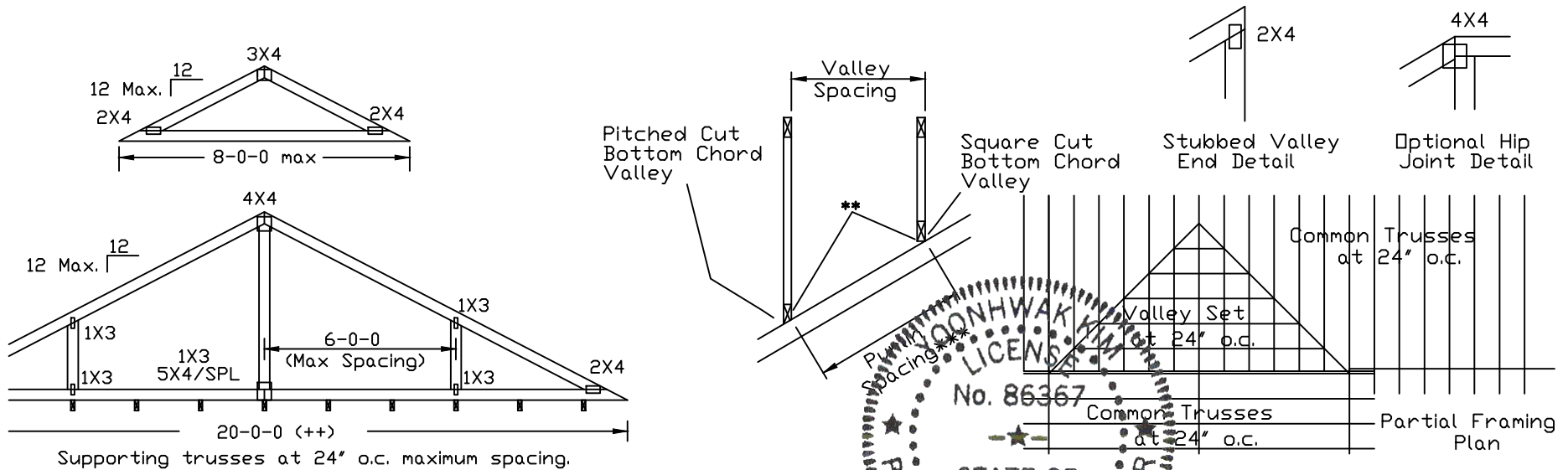
Unless specified otherwise on engineer's sealed design, for vertical valley webs taller than 7-9" apply 2x4 "T" reinforcement, 80% length of web, same species and grade or better, attached with 10d box (0.128" x 3.0") nails at 6" o.c. In lieu of "T" reinforcement, 2x4 Continuous Lateral Restraint applied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

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

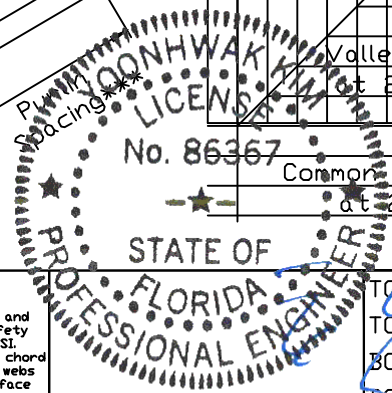
Or  
 Purlins at 24" o.c. or as otherwise specified on engineer's sealed design  
 Or  
 By valley trusses used in lieu of purlin spacing as specified on Engineer's sealed design.

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

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



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

# Valley Detail - ASCE 7-16: 30' Mean Height, Enclosed, Exp. C, 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.

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.

\*\* 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.).

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.

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

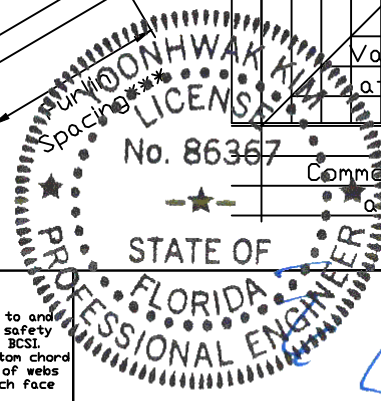
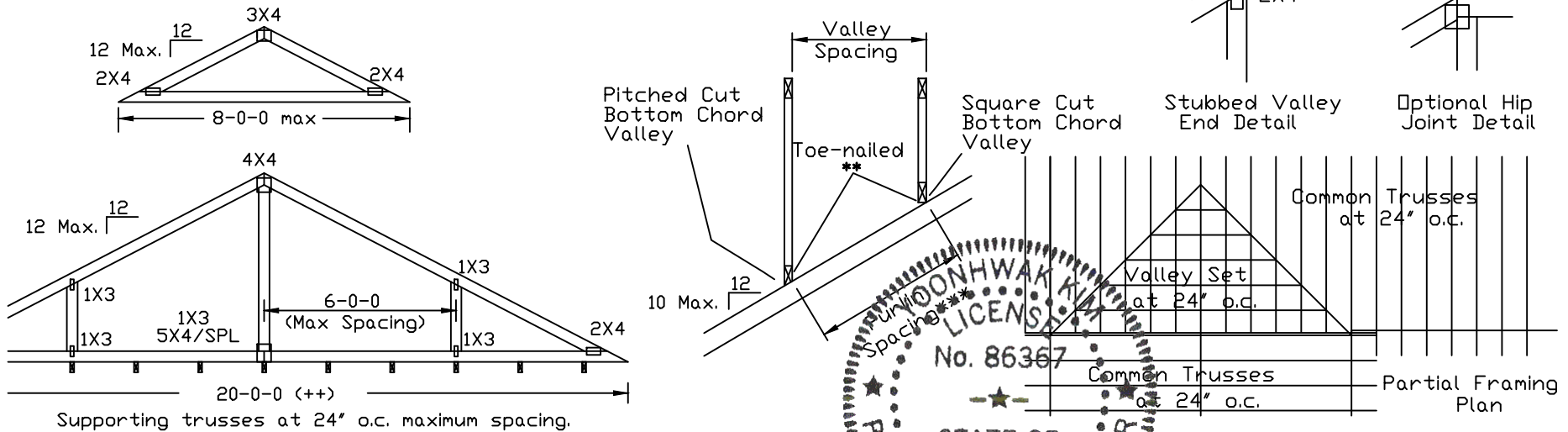
Bottom chord of valley trusses may be square or pitched cut as shown.

\*\*\* 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.

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.

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

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