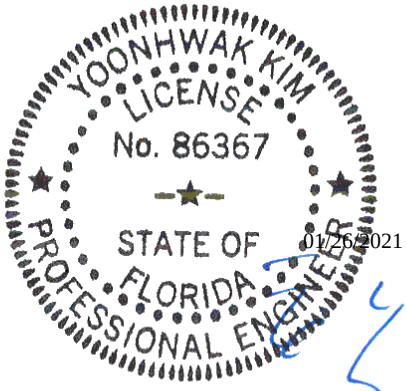



01/26/2021

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

ALPINE AN ITW COMPANY

FL REG# 278, Yoonhwak Kim, FL PE #86367

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

| Site Information: | Page 1: |
|---|---|
| *Customer:* W. B. Howland Company, Inc. | *Job Number:* 20-4966 |
| *Job Description:* Dale and Karla Nickelson Res | |
| *Address:* | |

| Job Engineering Criteria: | |
|---|---|
| *Design Code:* FBC 7th Ed. 2020 Res | *IntelliVIEW Version:* 20.01.01A through 20.02.01A<br>*JRef #:* 1X2e2150002 |
| *Wind Standard:* ASCE 7-16 *Wind Speed (mph):* 130<br>*Building Type:* Closed | *Design Loading (psf):* 40.00, 55.00 |

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

| Item | Drawing Number | Truss | Item | Drawing Number | Truss |
|---|---|---|---|---|---|
| 1 | 026.21.1006.45375 | A01 | 2 | 026.21.1006.46126 | A01A |
| 3 | 026.21.1028.22487 | A01B | 4 | 026.21.1006.45703 | A02 |
| 5 | 026.21.1006.45532 | A03 | 6 | 026.21.1006.45406 | A04 |
| 7 | 026.21.1006.46094 | A05 | 8 | 026.21.1006.45282 | A06 |
| 9 | 026.21.1006.45547 | A07 | 10 | 026.21.1006.45875 | A08 |
| 11 | 026.21.1006.45579 | B01 | 12 | 026.21.1006.45485 | B02 |
| 13 | 026.21.1006.46032 | B03 | 14 | 026.21.1006.45593 | B04 |
| 15 | 026.21.1006.46171 | B05 | 16 | 026.21.1006.45656 | C01 |
| 17 | 026.21.1006.45718 | C02 | 18 | 026.21.1006.45907 | C03 |
| 19 | 026.21.1006.45968 | C04 | 20 | 026.21.1006.45329 | C05 |
| 21 | 026.21.1006.46157 | C06 | 22 | 026.21.1006.45923 | D01 |
| 23 | 026.21.1006.46188 | E01 | 24 | 026.21.1006.46001 | E02 |
| 25 | 026.21.1006.46313 | E03 | 26 | 026.21.1006.45516 | F03 |
| 27 | 026.21.1006.45954 | F04 | 28 | 026.21.1006.45359 | F05 |
| 29 | 026.21.1006.46296 | FT02 | 30 | 026.21.1006.45844 | M01 |
| 31 | 026.21.1006.46063 | M02 | 32 | 026.21.1006.45313 | M03 |
| 33 | 026.21.1006.45735 | M04 | 34 | 026.21.1006.46218 | PB01 |
| 35 | 026.21.1006.45781 | PB02 | 36 | 026.21.1006.46156 | PB03 |
| 37 | 026.21.1006.45796 | PB03 | 38 | 026.21.1006.45344 | PB04 |
| 39 | 026.21.1006.45766 | PB06 | 40 | 026.21.1006.45578 | PB07 |
| 41 | 026.21.1006.46235 | PB08 | 42 | 026.21.1006.45921 | PB09 |
| 43 | A14015ENC160118 | | 44 | A14030ENC160118 | |
| 45 | BRCLBSUB0119 | | 46 | GBLLETIN0118 | |
| 47 | PB160160118 | | 48 | STRBRIBR1014 | |

## General Notes

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

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

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

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

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

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

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

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

## **General Notes** (continued)

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

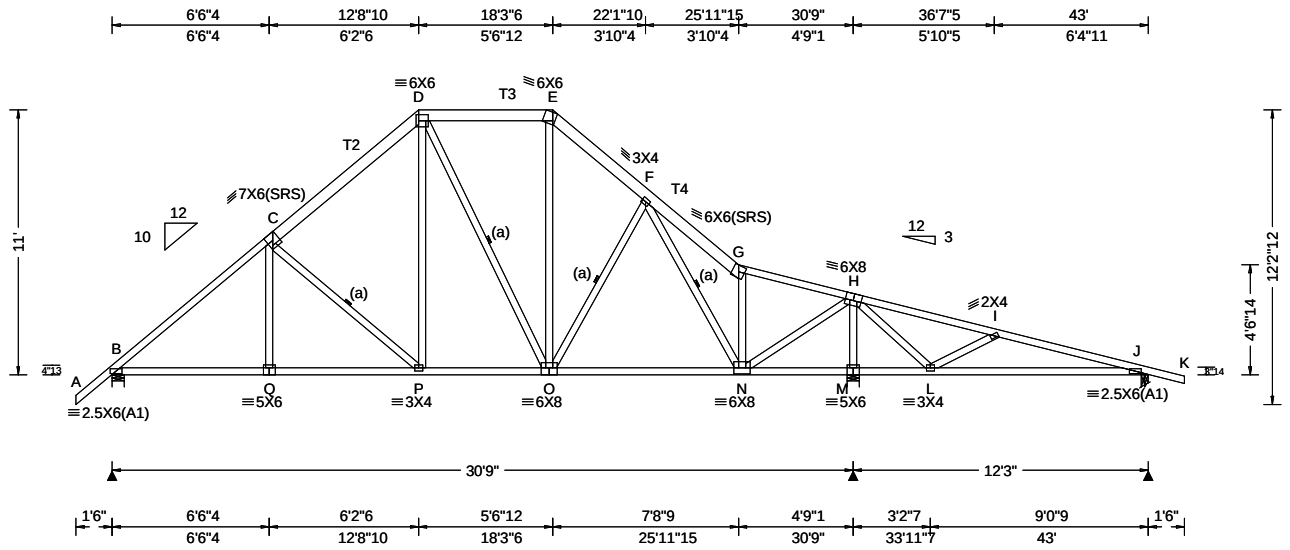
BCDL = Bottom Chord standard design Dead Load in pounds per square foot.
BCLL = Bottom Chord standard design Live Load in pounds per square foot.
CL = Certified lumber.
Des Ld = total of TCLL, TCDL, BCLL and BCDL Design Load in pounds per square foot.
FRT = Fire Retardant Treated lumber.
FRT-DB = D-Blaze Fire Retardant Treated lumber.
FRT-DC = Dricon Fire Retardant Treated lumber.
FRT-FP = FirePRO Fire Retardant Treated lumber.
FRT-FL = FlamePRO Fire Retardant Treated lumber.
FRT-FT = FlameTech Fire Retardant Treated lumber.
FRT-PG = PYRO-GUARD Fire Retardant Treated lumber.
g = green lumber.
HORZ(LL) = maximum Horizontal panel point deflection due to Live Load, in inches.
HORZ(TL) = maximum Horizontal panel point long term deflection in inches, due to Total Load, including creep adjustment.
HPL = additional Horizontal Load added to a truss Piece in pounds per linear foot or pounds.
Ic = Incised lumber.
FJ = Finger Jointed lumber.
L/# = user specified divisor for limiting span/deflection ratio for evaluation of actual L/defl value.
L/defl = ratio of Length between bearings, in inches, divided by the vertical Deflection due to creep, in inches, at the referenced panel point. Reported as 999 if greater than or equal to 999.
Loc = Location, starting location of left end of bearing or panel point (joint) location of deflection.
Max BC CSI = Maximum bending and axial Combined Stress Index for Bottom Chords for of all load cases.
Max TC CSI = Maximum bending and axial Combined Stress Index for Top Chords for of all load cases.
Max Web CSI= Maximum bending and axial Combined Stress Index for Webs for of all load cases.
NCBCLL = Non-Concurrent Bottom Chord design Live Load in pounds per square foot.
PL = additional Load applied at a user specified angle on a truss Piece in pounds per linear foot or pounds.
PLB = additional vertical load added to a Bottom chord Piece of a truss in pounds per linear foot or pounds
PLT = additional vertical load added to a Top chord Piece of a truss in pounds per linear foot or pounds.
PP = Panel Point.
R = maximum downward design Reaction, in pounds, from all specified gravity load cases, at the indicated location (Loc).
-R = maximum upward design Reaction, in pounds, from all specified gravity load cases, at the identified location (Loc).
Rh = maximum horizontal design Reaction in either direction, in pounds, from all specified gravity load cases, at the indicated location (Loc).
RL = maximum horizontal design Reaction in either direction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).
Rw = maximum downward design Reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the identified location (Loc).
TCDL = Top Chord standard design Dead Load in pounds per square foot.
TCLL = Top Chord standard design Live Load in pounds per square foot.
U = maximum Upward design reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).
VERT(CL) = maximum Vertical panel point deflection in inches due to Live Load and Creep Component of Dead Load in inches.
VERT(CTL) = maximum Vertical panel point deflection ratios due to Live Load and Creep Component of Dead Load, and maximum long term Vertical panel point deflection in inches due to Total load, including creep adjustment.
VERT(LL) = maximum Vertical panel point deflection in inches due to Live Load.
VERT(TL) = maximum Vertical panel point long term deflection in inches due to Total load, including creep adjustment.
W = Width of non-hanger bearing, in inches.

Refer to ASCE-7 for Wind and Seismic abbreviations.
Uppercase Acronyms not explained above are as defined in TPI 1.

**References:**


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

| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** A01 | Ply: 1<br>Qty: 2 | SEQN: 335897 / T27 / COMN<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45375<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 16.23 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: > 2h
C&C Dist a: 4.30 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.052 | P | 999 | 240 |
| VERT(TL): 0.102 | P | 999 | 180 |
| HORZ(LL): 0.025 | N | - | - |
| HORZ(TL): 0.049 | N | - | - |

Creep Factor: 2.0
Max TC CSI: 0.558
Max BC CSI: 0.734
Max Web CSI: 0.784

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| Loc | Gravity R+ | Gravity / R- | Gravity / Rh | Non-Gravity / Rw | Non-Gravity / U | Non-Gravity / RL |
|---|---|---|---|---|---|---|
| B | 1479 | /- | /- | /878 | /- | /365 |
| M | 2219 | /- | /- | /1095 | /- | /- |
| J | 440 | /- | /- | /221 | /99 | /- |

Wind reactions based on MWFRS
B Brg Width = 6.0 Min Req = 1.7
M Brg Width = 6.0 Min Req = 2.6
J Brg Width = 3.5 Min Req = 1.5
Bearings B, M, & J are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 0 | -1811 | F - G | 0 | -1483 |
| C - D | 0 | -1410 | G - H | 0 | -1119 |
| D - E | 4 | -973 | I - J | 166 | -391 |
| E - F | 0 | -1335 | | | |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - Q | 1289 | -29 | O - N | 1073 | 0 |
| Q - P | 1286 | -30 | N - M | 57 | -792 |
| P - O | 985 | 0 | M - L | 58 | -766 |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| C - P | 130 | -410 | N - H | 2059 | 0 |
| D - P | 455 | -32 | M - H | 0 | -2215 |
| O - E | 484 | -17 | H - L | 662 | 0 |
| G - N | 15 | -906 | L - I | 138 | -563 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #2 T2,T3,
T4 2x6 SP 2400f-2.0E;
Bot chord 2x4 SP #2
Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**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.

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Wind**

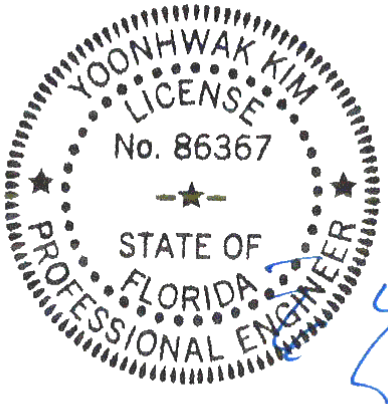
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

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




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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

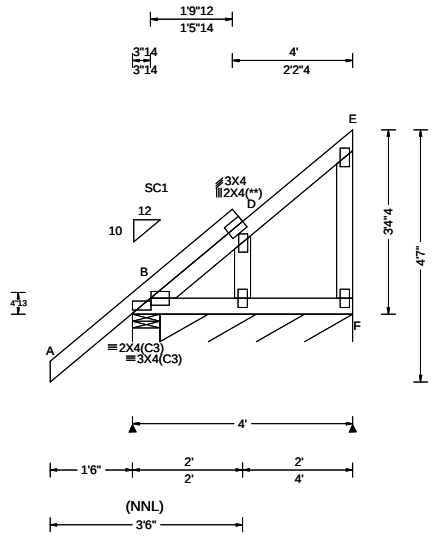
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI.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

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

ALPINE
AN ITW COMPANY
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837

| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** A01A | Ply: 1<br>Qty: 1 | SEQN: 335884 / T11 / GABL<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46126<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.25
Spacing: 16.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: > 2h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.001 | G | 999 | 240 |
| VERT(TL): 0.001 | G | 999 | 180 |
| HORZ(LL): -0.000 | E | - | - |
| HORZ(TL): 0.001 | E | - | - |

Creep Factor: 2.0
Max TC CSI: 0.128
Max BC CSI: 0.044
Max Web CSI: 0.011

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| B | 172 | /- | /- | /141 | /17 | /47 |
| F* | 37 | /- | /- | /29 | /- | /- |

Wind reactions based on MWFRS
B Brg Width = 6.0 Min Req = 1.5
F Brg Width = 42.0 Min Req = -
Bearings B & B are a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**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.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Wind**

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

Right end vertical not exposed to wind pressure.

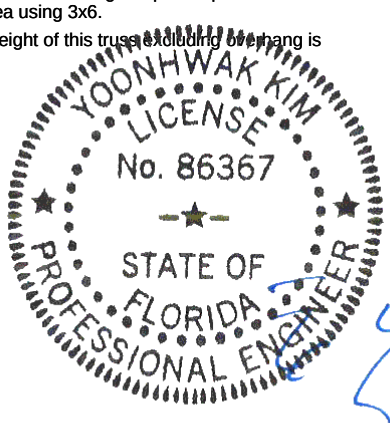
Wind loading based on both gable and hip roof types.

**Additional Notes**

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

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

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




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

****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.

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

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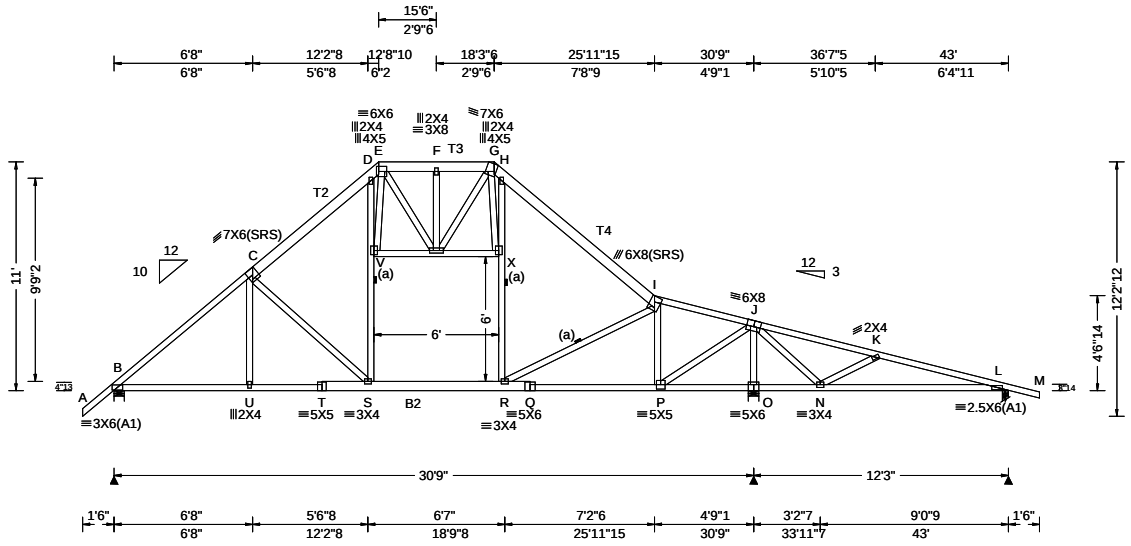
AN ITW COMPANY
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837

| | | | | |
|---|---|---|---|---|
| SEQN: 355274 COMN<br>FROM: CDM | Ply: 1<br>Qty: 3 | **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** A01B | Cust: R 215 JRef:1X2e2150002 T9<br>DrwNo: 026.21.1028.22487<br>/ YK 01/26/2021 | |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 16.23 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: > 2h
C&C Dist a: 4.30 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

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

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.085 | S | 999 | 240 |
| VERT(CL): 0.203 | S | 999 | 180 |
| HORZ(LL): 0.093 | R | - | - |
| HORZ(TL): 0.224 | R | - | - |

Creep Factor: 2.0
Max TC CSI: 0.723
Max BC CSI: 0.787
Max Web CSI: 0.830

VIEW Ver: 20.01.01A.0724.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| B | 1721 | /- | /- | /916 | /- | /365 |
| O | 2362 | /- | /- | /1181 | /- | /- |
| L | 510 | /- | /- | /221 | /147 | /- |

Wind reactions based on MWFRS
B Brg Width = 6.0 Min Req = 2.0
O Brg Width = 6.0 Min Req = 2.8
L Brg Width = 3.5 Min Req = 1.5
Bearings B, O, & L are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 0 | -2172 | G - H | 51 | -1782 |
| C - D | 0 | -1831 | H - I | 0 | -1808 |
| D - E | 25 | -1553 | I - J | 57 | -1270 |
| E - F | 0 | -1205 | J - K | 437 | -311 |
| F - G | 0 | -1206 | K - L | 324 | -661 |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - U | 1566 | -68 | Q - P | 1282 | 0 |
| U - T | 1565 | -69 | P - O | 335 | -871 |
| T - S | 1566 | -68 | O - N | 335 | -845 |
| S - R | 1298 | 0 | N - L | 615 | -302 |
| R - Q | 1282 | 0 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| C - S | 175 | -424 | I - P | 0 | -1169 |
| S - V | 768 | -14 | P - J | 2179 | 0 |
| V - E | 712 | -83 | O - J | 0 | -2301 |
| G - X | 948 | -97 | J - N | 640 | 0 |
| X - H | 147 | -439 | N - K | 133 | -562 |
| X - R | 564 | -3 | | | |

**Lumber**

Top chord: 2x4 SP #2; T2,T3,
T4 2x6 SP 2400f-2.0E;
Bot chord: 2x4 SP #2; B2 2x6 SP 2400f-2.0E;
Webs: 2x4 SP #3;

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Loading**

Attic room loading from 12-6-0 to 18-6-0: Live Load: 30 PSF. Dead Load: 5 PSF Ceiling: 5 PSF, Kneewalls: 5 PSF

Truss designed for sleeping room only. No waterbeds permitted. Provide information to contractor, architect, and bldg owner. Trusses to be visibly stamped to indicate 30.00 psf MAX LL.

Mechanical Unit Loads Supported by this Truss

| At X-Loc | Truss Piece | Unit Lbs. | Unit Width | Supporting Trusses |
|---|---|---|---|---|
| 15.07 | BC | 200.0 | 3.00 | 3 |
| 15.07 | BC | 200.0 | 3.00 | 3 |
| 15.07 | BC | 200.0 | 3.00 | 3 |
| 15.07 | BC | 200.0 | 3.00 | 3 |

**Purlins**

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

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

**Wind**

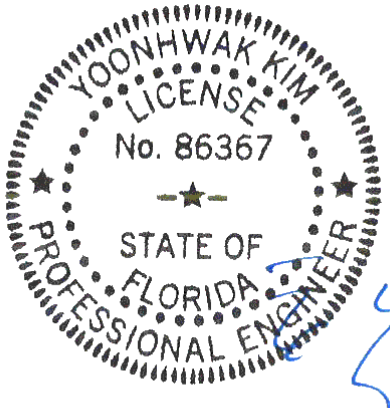
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

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




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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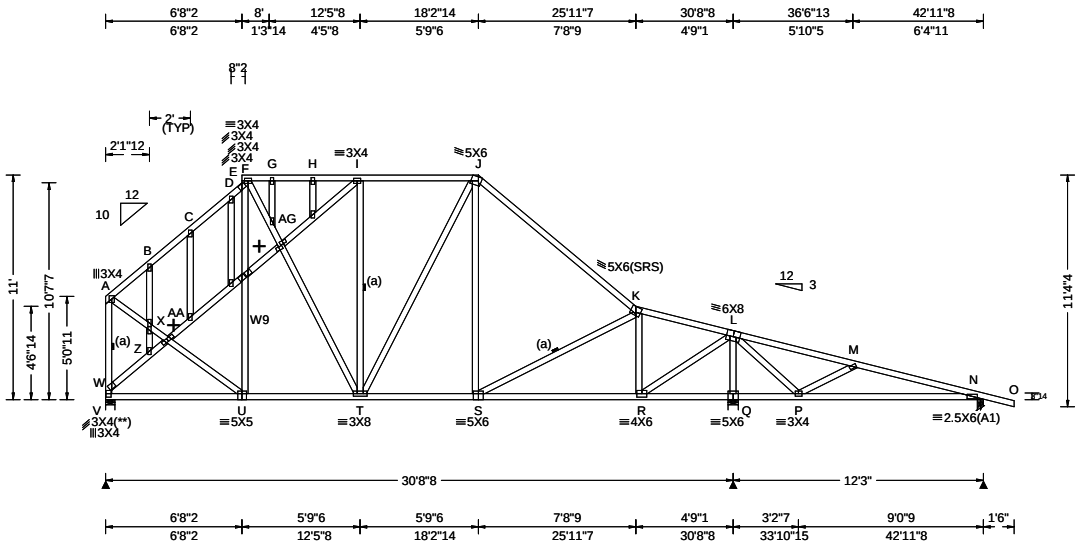
For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcindustry.com; ICC: iccsafe.org; AWC: awc.org


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

| | | | | |
|---|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** A02 | Ply: 1<br>Qty: 1 | SEQN: 335958 / T43 / SPEC<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45703<br>KD / WHK 01/26/2021 | |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.47 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: > 2h
C&C Dist a: 4.30 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.052 | H | 999 | 240 |
| VERT(TL): 0.100 | H | 999 | 180 |
| HORZ(LL): 0.048 | C | - | - |
| HORZ(TL): 0.093 | C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.755
Max BC CSI: 0.529
Max Web CSI: 0.984

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| V | 1383 | /- | /- | /680 | /- | /293 |
| Q | 2147 | /- | /- | /1117 | /- | /- |
| N | 442 | /- | /- | /218 | /101 | /- |

Wind reactions based on MWFRS
V Brg Width = 5.5 Min Req = 1.6
Q Brg Width = 6.0 Min Req = 2.5
N Brg Width = 3.5 Min Req = 1.5
Bearings V, Q, & N are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - B | 2 | - 828 | H - I | 89 | - 742 |
| B - C | 50 | - 864 | I - J | 72 | - 967 |
| C - D | 84 | - 820 | J - K | 36 | - 1392 |
| D - F | 112 | - 795 | K - L | 0 | - 1022 |
| E - G | 85 | - 730 | M - N | 135 | - 402 |
| G - H | 90 | - 743 | | | |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| V - U | 384 | - 118 | S - R | 1032 | 0 |
| U - T | 822 | 0 | R - Q | 63 | - 778 |
| T - S | 946 | 0 | Q - P | 63 | - 754 |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| A - W | 0 | - 1036 | E - F | 94 | - 437 |
| A - X | 804 | 0 | E -AG | 420 | - 90 |
| V - W | 12 | - 1328 | K - R | 53 | - 979 |
| W - Z | 47 | - 459 | R - L | 1951 | 0 |
| X -AA | 748 | 0 | Q - L | 2 | - 2109 |
| Z -AA | 46 | - 404 | L - P | 654 | 0 |
| AA- U | 600 | - 1 | P - M | 139 | - 570 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #2
Bot chord 2x4 SP #2
Webs 2x4 SP #3 W9 2x4 SP #2;

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Plating Notes**

All plates are 2X4 except as noted.

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

**Loading**

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

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

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

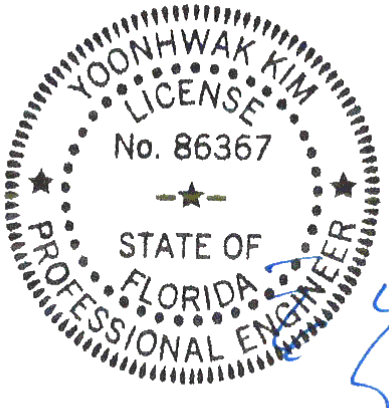
**Wind**

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.

+ Member to be laterally braced for horizontal wind loads. bracing system to be desiged and furnished by others.

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01/26/2021

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

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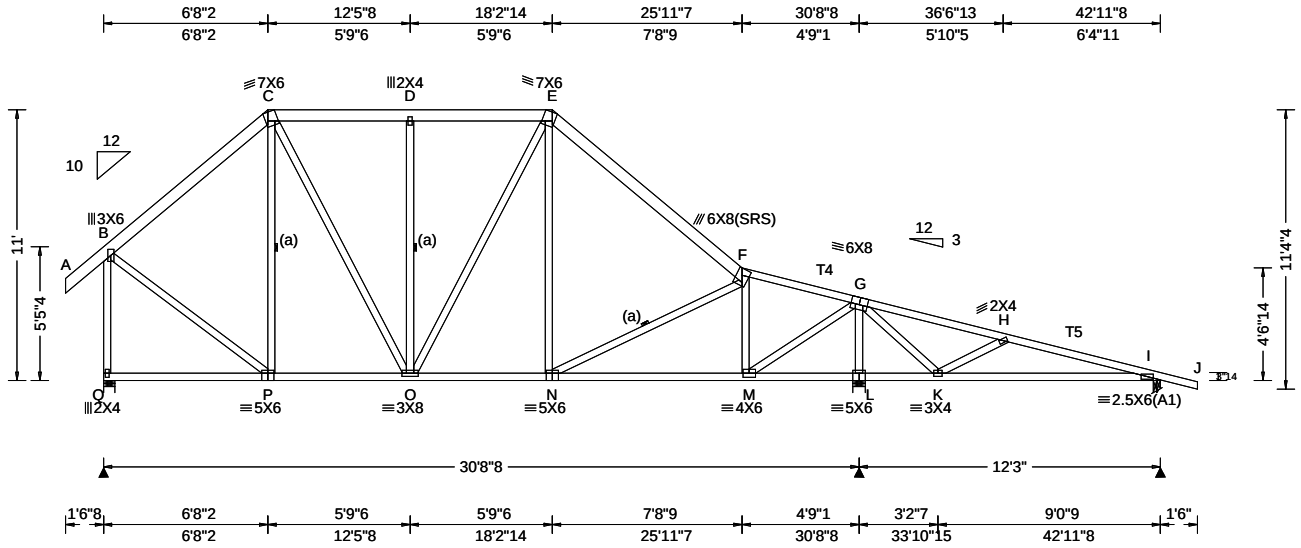
AN ITW COMPANY
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837

| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** A03 | Ply: 1<br>Qty: 11 | SEQN: 335952 / T37 / SPEC<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45532<br>KD / WHK 01/26/2021 |




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

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.47 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: > 2h
C&C Dist a: 4.30 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.041 | N | 999 | 240 |
| VERT(TL): 0.077 | K | 999 | 180 |
| HORZ(LL): 0.015 | M | - | - |
| HORZ(TL): 0.031 | M | - | - |

Creep Factor: 2.0
Max TC CSI: 0.560
Max BC CSI: 0.541
Max Web CSI: 0.764

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| Loc | Gravity R+ | / R- | / Rh | Non-Gravity / Rw | / U | / RL |
|---|---|---|---|---|---|---|
| Q | 1538 | /- | /- | /771 | /- | /341 |
| L | 2147 | /- | /- | /1098 | /- | /- |
| I | 450 | /- | /- | /226 | /106 | /- |

Wind reactions based on MWFRS
Q Brg Width = 5.5 Min Req = 1.8
L Brg Width = 6.0 Min Req = 2.5
I Brg Width = 3.5 Min Req = 1.5
Bearings Q, L, & I are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 0 | -1100 | E - F | 0 | -1440 |
| C - D | 0 | -1013 | F - G | 0 | -1079 |
| D - E | 0 | -1013 | H - I | 133 | -432 |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| P - O | 746 | -2 | M - L | 36 | -709 |
| O - N | 994 | 0 | L - K | 37 | -684 |
| N - M | 1085 | 0 | K - I | 394 | -78 |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B - Q | 0 | -1489 | M - G | 1925 | 0 |
| B - P | 931 | 0 | L - G | 0 | -2108 |
| C - O | 554 | -10 | G - K | 650 | 0 |
| F - M | 0 | -965 | K - H | 140 | -565 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

Top chord 2x6 SP 2400f-2.0E T4,T5 2x4 SP #2;
Bot chord 2x4 SP #2
Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**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.

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Wind**

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

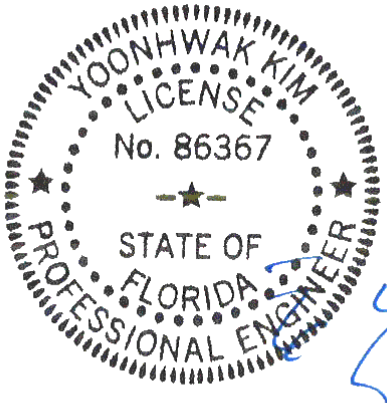
Left end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

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

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01/26/2021

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

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AN ITW COMPANY
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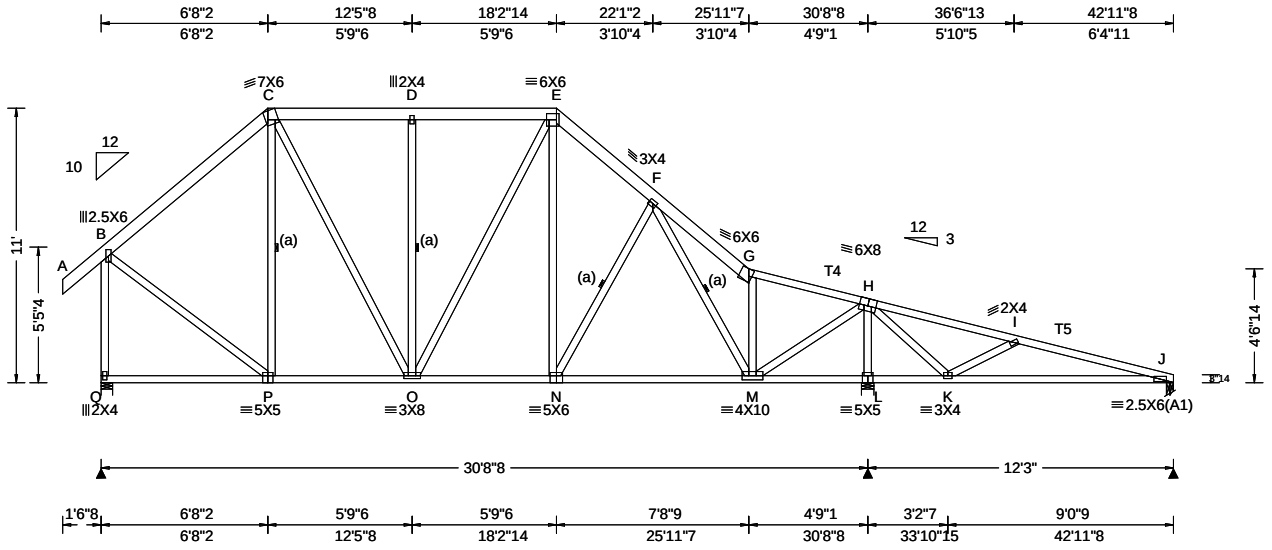
Suite 150
Orlando FL, 32837

| | | | | |
|---|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** A04 | Ply: 1<br>Qty: 1 | SEQN: 335908 / T28 / COMN<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45406<br>KD / WHK 01/26/2021 | |




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

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.66 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 4.30 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.039 | K | 999 | 240 |
| VERT(TL): 0.079 | K | 999 | 180 |
| HORZ(LL): 0.012 | M | - | - |
| HORZ(TL): 0.025 | M | - | - |

Creep Factor: 2.0
Max TC CSI: 0.627
Max BC CSI: 0.541
Max Web CSI: 0.666

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| Q | 1341 | /- | /- | /767 | /53 | /332 |
| L | 2017 | /- | /- | /1104 | /70 | /- |
| J | 356 | /- | /- | /164 | /32 | /- |

Wind reactions based on MWFRS
Q Brg Width = 5.5 Min Req = 1.6
L Brg Width = 6.0 Min Req = 2.4
J Brg Width = 3.5 Min Req = 1.5
Bearings Q, L, & J are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 129 | -933 | F - G | 129 | -1271 |
| C - D | 160 | -833 | G - H | 45 | -953 |
| D - E | 160 | -833 | I - J | 102 | -505 |
| E - F | 175 | -1140 | | | |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| P - O | 618 | -11 | M - L | 77 | -691 |
| O - N | 817 | 0 | L - K | 76 | -668 |
| N - M | 916 | 0 | K - J | 467 | -68 |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B - Q | 80 | -1287 | M - H | 1748 | -44 |
| B - P | 771 | -41 | L - H | 83 | -1985 |
| C - O | 447 | -144 | H - K | 677 | -5 |
| G - M | 103 | -812 | K - I | 144 | -580 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

Top chord 2x6 SP 2400f-2.0E T4,T5 2x4 SP #2;
Bot chord 2x4 SP #2
Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Wind**

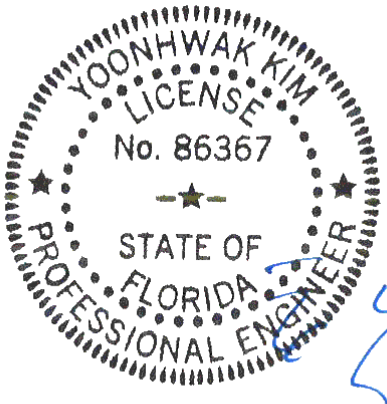
Wind loads based on MWFRS with additional C&C member design.

Left end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

**Additional Notes**

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




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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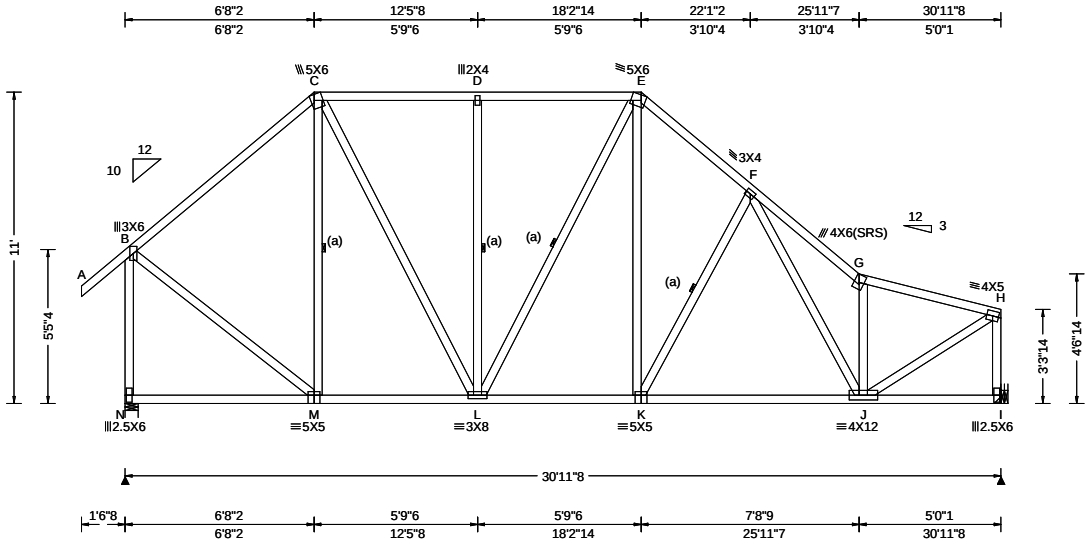
Orlando FL, 32837

| | | | | |
|---|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** A05 | Ply: 1<br>Qty: 5 | SEQN: 335954 / T42 / COMN<br>FROM: CDM<br>Page 1 of 2 | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46094<br>KD / WHK 01/26/2021 | |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 17.16 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.10 ft
Loc. from endwall: not in 4.50 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.070 | K | 999 | 240 |
| VERT(TL): 0.126 | K | 999 | 180 |
| HORZ(LL): 0.024 | C | - | - |
| HORZ(TL): 0.044 | C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.687
Max BC CSI: 0.782
Max Web CSI: 0.865

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | | Gravity | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| N | 1608 | /- | /- | /796 | /281 | /269 |
| I | 1490 | /- | /- | /708 | /247 | /- |

Wind reactions based on MWFRS
N Brg Width = 5.5 Min Req = 1.9
I Brg Width = - Min Req = -
Bearing N is a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 283 | - 1147 | E - F | 404 | - 1548 |
| C - D | 359 | - 1097 | F - G | 460 | - 2134 |
| D - E | 359 | - 1097 | G - H | 264 | - 1619 |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| M - L | 782 | - 66 | K - J | 1323 | - 173 |
| L - K | 1128 | - 72 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B - N | 308 | - 1560 | F - J | 552 | - 143 |
| B - M | 984 | - 80 | G - J | 341 | - 1221 |
| C - L | 660 | - 143 | J - H | 1803 | - 265 |
| E - K | 690 | - 118 | H - I | 261 | - 1472 |
| K - F | 214 | - 414 | | | |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Hangers / Ties**

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

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

Bearing at location x=30'8"8 uses the following support conditions: 30'8"8
Bearing I (30'8"8, 10') HUS26
Supporting Member: (2)2x6 SP 2400f-2.0E
(14) 0.148"x3" nails into supporting member,
(4) 0.148"x3" nails into supported member.

**Loading**

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

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

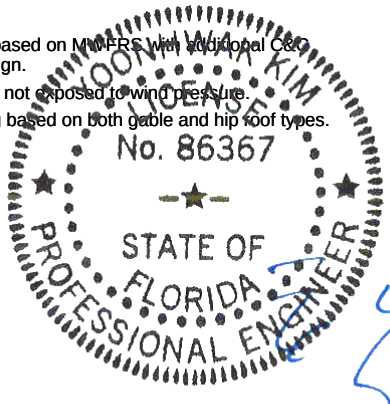
In lieu of structural panels use purlins to brace all flat TC @ 24" oc.

**Wind**

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

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
01/26/2021

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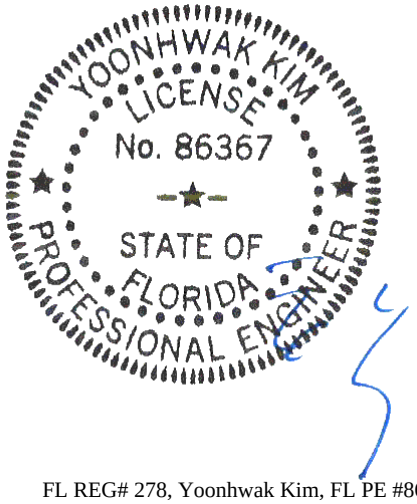
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** A05 | Ply: 1<br>Qty: 5 | SEQN: 335954 / T42 / COMN<br>FROM: CDM<br>Page 2 of 2 | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46094<br>KD / WHK 01/26/2021 |

**Additional Notes**

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

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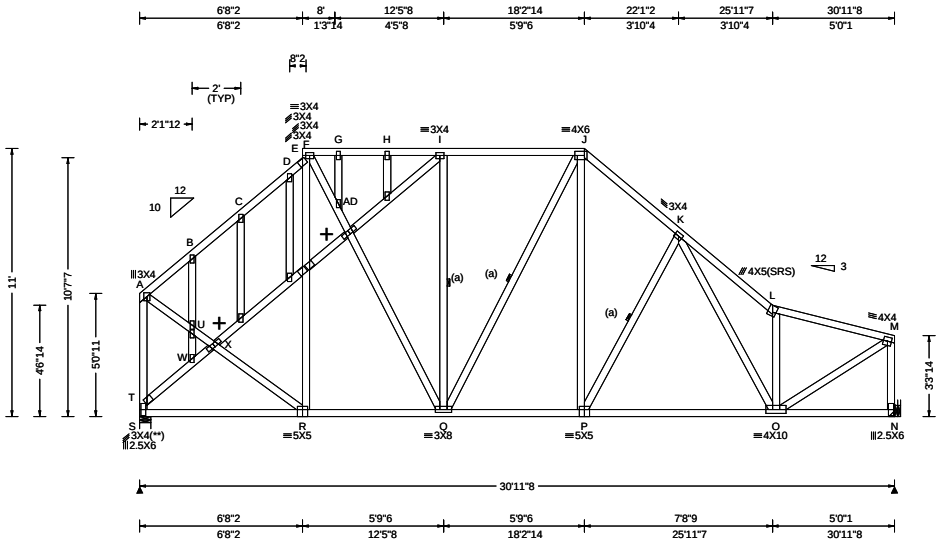
|---|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** A06 | Ply: 1<br>Qty: 1 | SEQN: 335941 / T36 / COMN<br>FROM: CDM<br>Page 1 of 2 | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45282<br>KD / WHK 01/26/2021 | |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 17.16 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.10 ft
Loc. from endwall: not in 4.50 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.050 | P | 999 | 240 |
| VERT(TL): 0.104 | P | 999 | 180 |
| HORZ(LL): 0.045 | C | - | - |
| HORZ(TL): 0.093 | C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.391
Max BC CSI: 0.557
Max Web CSI: 0.948

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| Loc | Gravity R+ | / R- | / Rh | Non-Gravity / Rw | / U | / RL |
|---|---|---|---|---|---|---|
| S | 1292 | /- | /- | /704 | /261 | /221 |
| N | 1282 | /- | /- | /713 | /239 | /- |

Wind reactions based on MWFRS
S Brg Width = 5.5 Min Req = 1.5
N Brg Width = - Min Req = -
Bearing S is a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - B | 132 | - 752 | H - I | 308 | - 687 |
| B - C | 241 | - 787 | I - J | 345 | - 905 |
| C - D | 291 | - 743 | J - K | 391 | - 1276 |
| D - F | 343 | - 719 | K - L | 448 | - 1793 |
| E - G | 303 | - 676 | L - M | 254 | - 1353 |
| G - H | 308 | - 688 | | | |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| R - Q | 756 | - 52 | P - O | 1098 | - 164 |
| Q - P | 920 | - 63 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| A - T | 171 | - 945 | E -AD | 417 | - 134 |
| A - U | 730 | - 118 | J - P | 507 | - 118 |
| S - T | 287 | - 1231 | P - K | 214 | - 378 |
| T - W | 175 | - 451 | K - O | 470 | - 143 |
| U - X | 674 | - 71 | L - O | 336 | - 1069 |
| W - X | 138 | - 396 | O - M | 1497 | - 254 |
| X - R | 526 | - 33 | M - N | 253 | - 1246 |
| E - F | 150 | - 436 | | | |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Plating Notes**

All plates are 2X4 except as noted.

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

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Wind**

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

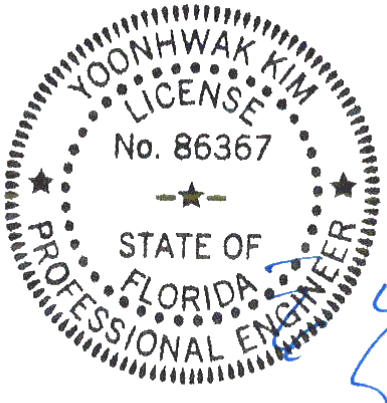
End verticals not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

**Additional Notes**

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

+ Member to be laterally braced for horizontal wind loads. bracing system to be desiged and furnished by others.

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01/26/2021

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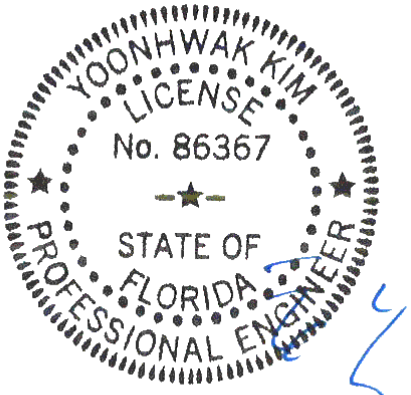
**Hangers / Ties**

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

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

Bearing at location x=30'8"8 uses the following support conditions: 30'8"8
Bearing N (30'8"8, 10') HUS26
Supporting Member: (2)2x6 SP 2400f-2.0E
(14) 0.148"x3" nails into supporting member,
(4) 0.148"x3" nails into supported member.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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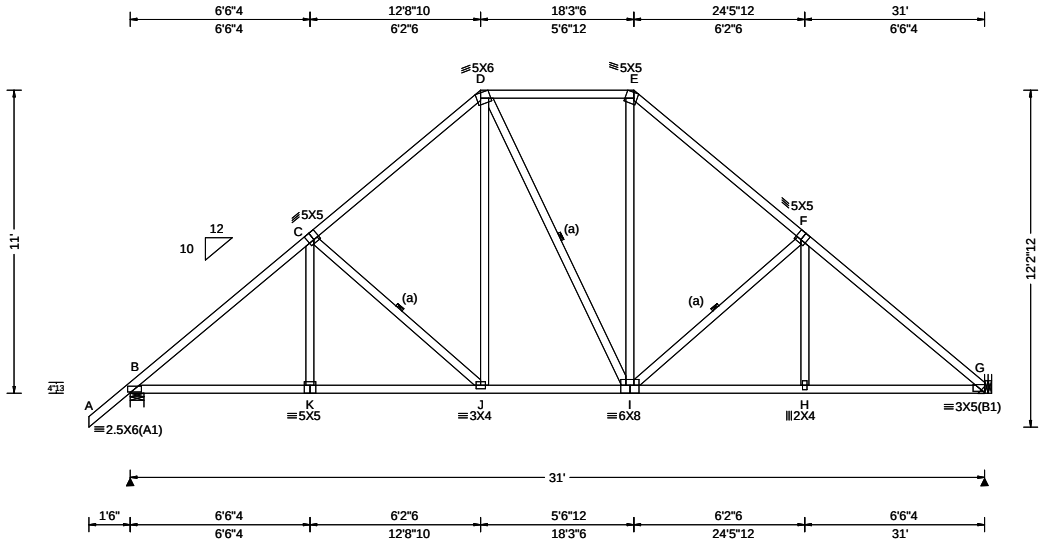
| | | | | |
|---|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** A07 | Ply: 1<br>Qty: 2 | SEQN: 335932 / T35 / COMN<br>FROM: CDM<br>Page 1 of 2 | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45547<br>KD / WHK 01/26/2021 | |




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

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 16.23 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.10 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.059 | J | 999 | 240 |
| VERT(TL): 0.120 | J | 999 | 180 |
| HORZ(LL): 0.031 | H | - | - |
| HORZ(TL): 0.063 | H | - | - |

Creep Factor: 2.0
Max TC CSI: 0.468
Max BC CSI: 0.481
Max Web CSI: 0.211

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| B | 1510 | /- | /- | /904 | /133 | /368 |
| G | 1388 | /- | /- | /805 | /105 | /- |

Wind reactions based on MWFRS
B Brg Width = 6.0 Min Req = 1.8
G Brg Width = - Min Req = -
Bearing B is a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 152 | -1853 | E - F | 206 | -1444 |
| C - D | 207 | -1460 | F - G | 157 | -1859 |
| D - E | 221 | -1009 | | | |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - K | 1319 | -71 | I - H | 1329 | -10 |
| K - J | 1318 | -71 | H - G | 1330 | -9 |
| J - I | 1016 | 0 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| C - J | 228 | -407 | I - E | 465 | -95 |
| D - J | 484 | -94 | I - F | 235 | -435 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Hangers / Ties**

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

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

Bearing at location x=30'9" uses the following support conditions: 30'9"
Bearing G (30'9", 10') HUS26
Supporting Member: (2)2x6 SP 2400f-2.0E
(14) 0.148"x3" nails into supporting member,
(4) 0.148"x3" nails into supported member.

**Loading**

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

Bottom chord checked for 10.00 psf non-concurrent live load.

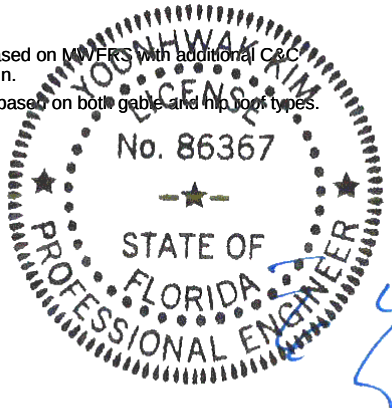
**Purlins**

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

**Wind**

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

Wind loading based on both gable and hip roof types.

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01/26/2021

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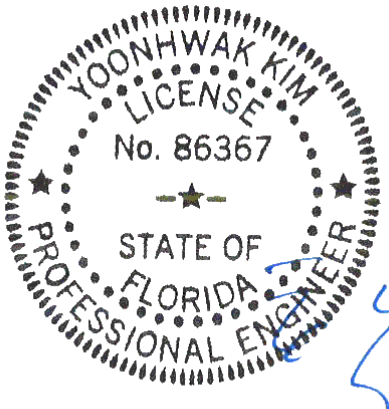
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** A07 | Ply: 1<br>Qty: 2 | SEQN: 335932 / T35 / COMN<br>FROM: CDM<br>Page 2 of 2 | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45547<br>KD / WHK 01/26/2021 |

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

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




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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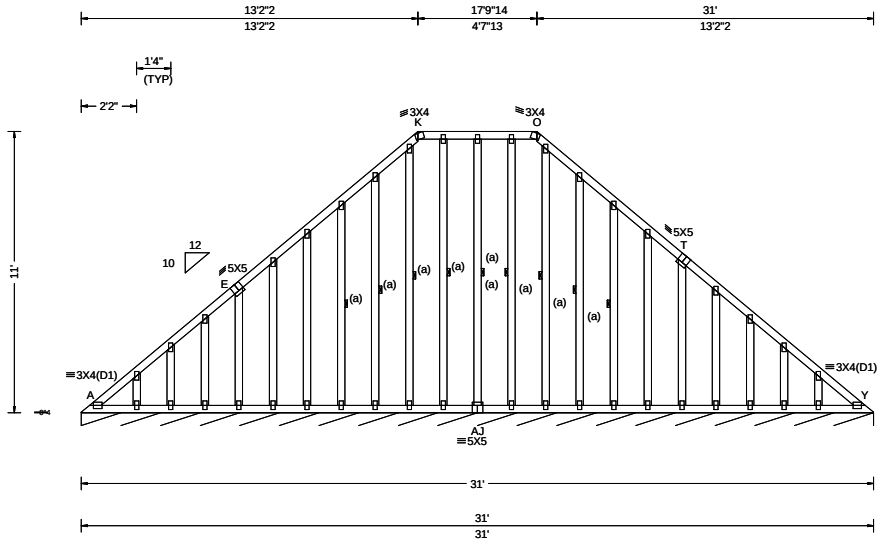
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** A08 | Ply: 1<br>Qty: 1 | SEQN: 335937 / T10 / GABL<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45875<br>KD / WHK 01/26/2021 |




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

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.65 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.10 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.003 | K | 999 | 240 |
| VERT(TL): 0.004 | K | 999 | 180 |
| HORZ(LL): -0.005 | F | - | - |
| HORZ(TL): 0.007 | I | - | - |

Creep Factor: 2.0
Max TC CSI: 0.081
Max BC CSI: 0.055
Max Web CSI: 0.086

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| Y* | 86 | /- | /- | /47 | /13 | /10 |

Wind reactions based on MWFRS
Y Brg Width = 371 Min Req = -
Bearing A is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Wind**

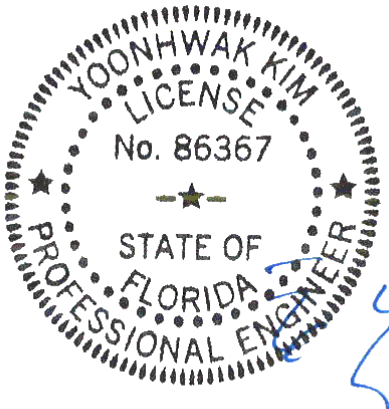
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A14030ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.

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

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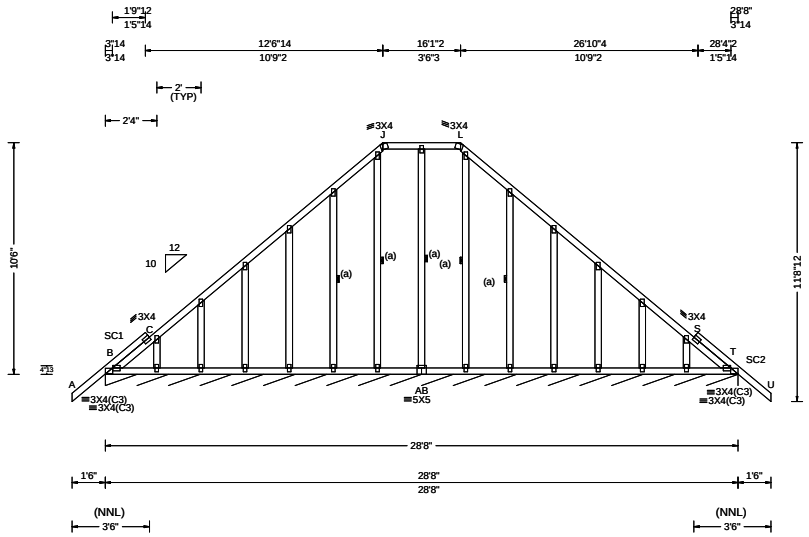
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** B01 | Ply: 1<br>Qty: 1 | SEQN: 335732 / T5 / GABL<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45579<br>KD / WHK 01/26/2021 |




| **Loading Criteria** (psf) | **Wind Criteria** | **Snow Criteria** (Pg,Pf in PSF) | **Defl/CSI Criteria** | **▲Maximum Reactions (lbs), or *=PLF** |
|---|---|---|---|---|
| TCLL: 20.00<br>TCDL: 10.00<br>BCLL: 0.00<br>BCDL: 10.00<br>Des Ld: 40.00<br>NCBCLL: 10.00<br>Soffit: 2.00<br>Load Duration: 1.25<br>Spacing: 24.0 " | Wind Std: ASCE 7-16<br>Speed: 130 mph<br>Enclosure: Closed<br>Risk Category: II<br>EXP: C<br>Mean Height: 15.75 ft<br>TCDL: 5.0 psf<br>BCDL: 5.0 psf<br>MWFRS Parallel Dist: 0 to h/2<br>C&C Dist a: 3.00 ft<br>Loc. from endwall: Any<br>GCpi: 0.18<br>Wind Duration: 1.60 | Pg: NA Ct: NA CAT: NA<br>Pf: NA Ce: NA<br>Lu: NA Cs: NA<br>Snow Duration: NA<br><br>**Code / Misc Criteria**<br>Bldg Code: FBC 7th Ed. 2020 Res<br>TPI Std: 2014<br>Rep Factors Used: Yes<br>FT/RT:20(0)/10(0)<br>Plate Type(s):<br>WAVE | PP Deflection in loc L/defl L/#<br>VERT(LL): 0.001 L 999 240<br>VERT(TL): 0.003 L 999 180<br>HORZ(LL): -0.001 C - -<br>HORZ(TL): 0.002 C - -<br>Creep Factor: 2.0<br>Max TC CSI: 0.195<br>Max BC CSI: 0.077<br>Max Web CSI: 0.114<br><br>VIEW Ver: 20.02.01A.1209.11 | Gravity / Non-Gravity<br>Loc R+ / R- / Rh / Rw / U / RL<br>T* 93 /- /- /50 /- /4<br>Wind reactions based on MWFRS<br>T Brg Width = 343 Min Req = -<br>Bearing B is a rigid surface.<br>Members not listed have forces less than 375# |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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;

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**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 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.

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 10-6-0.

YOONHWAK KIM LICENSEE No. 86367 STATE OF FLORIDA PROFESSIONAL ENGINEER

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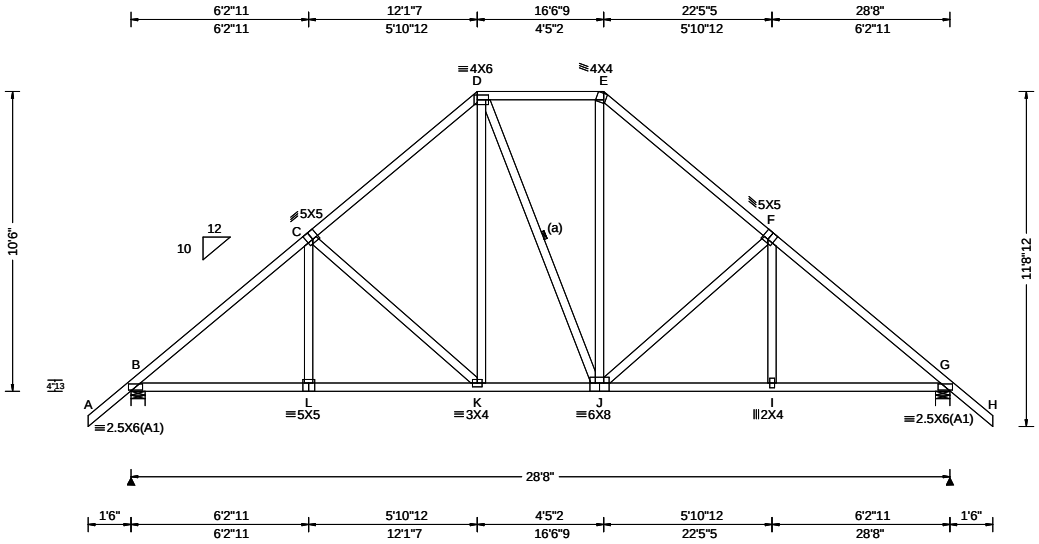
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** B02 | Ply: 1<br>Qty: 4 | SEQN: 335730 / T31 / COMN<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45485<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.051 | K | 999 | 240 |
| VERT(TL): 0.103 | K | 999 | 180 |
| HORZ(LL): 0.027 | I | - | - |
| HORZ(TL): 0.055 | I | - | - |

Creep Factor: 2.0
Max TC CSI: 0.421
Max BC CSI: 0.425
Max Web CSI: 0.484

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| B | 1389 | /- | /- | /830 | /205 | /372 |
| G | 1384 | /- | /- | /830 | /205 | /- |

Wind reactions based on MWFRS
B Brg Width = 6.0 Min Req = 1.6
G Brg Width = 6.0 Min Req = 1.6
Bearings B & G are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 266 | -1678 | E - F | 322 | -1287 |
| C - D | 324 | -1300 | F - G | 266 | -1672 |
| D - E | 309 | -893 | | | |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - L | 1190 | -155 | J - I | 1184 | -62 |
| L - K | 1189 | -156 | I - G | 1185 | -61 |
| K - J | 897 | -70 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| C - K | 195 | -394 | J - E | 412 | -78 |
| D - K | 433 | -80 | J - F | 194 | -396 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**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.

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Wind**

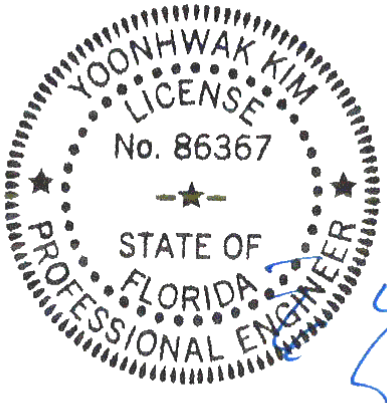
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 10-6-0.

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01/26/2021

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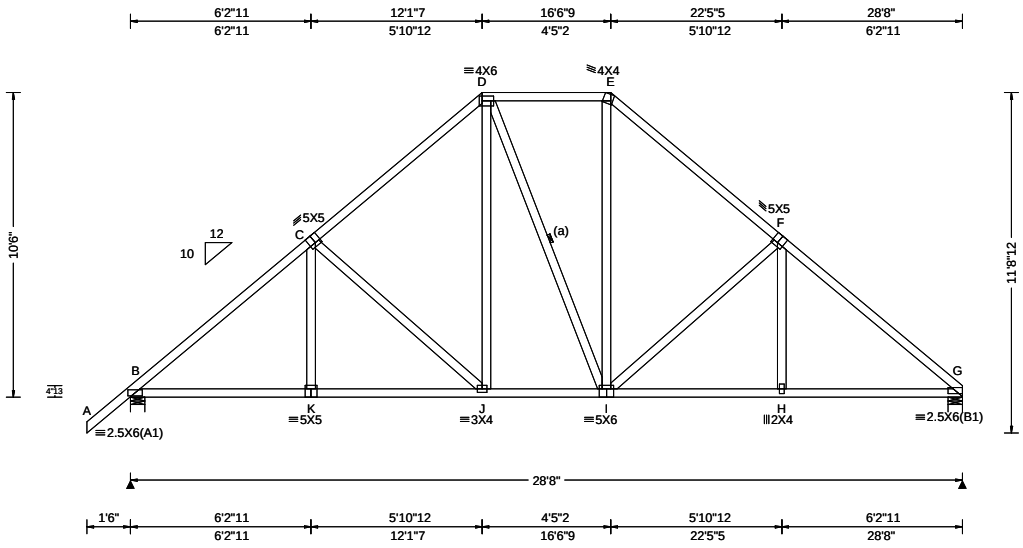
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** B03 | Ply: 1<br>Qty: 6 | SEQN: 335735 / T4 / COMN<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46032<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h/2 to h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.050 | J | 999 | 240 |
| VERT(TL): 0.102 | J | 999 | 180 |
| HORZ(LL): 0.026 | H | - | - |
| HORZ(TL): 0.053 | H | - | - |

Creep Factor: 2.0
Max TC CSI: 0.421
Max BC CSI: 0.436
Max Web CSI: 0.507

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| B | 1393 | /- | /- | /830 | /206 | /348 |
| G | 1274 | /- | /- | /732 | /180 | /- |

Wind reactions based on MWFRS
B Brg Width = 6.0 Min Req = 1.6
G Brg Width = 6.0 Min Req = 1.5
Bearings B & G are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 268 | -1683 | E - F | 325 | -1294 |
| C - D | 326 | -1306 | F - G | 272 | -1689 |
| D - E | 310 | -897 | | | |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - K | 1194 | -107 | I - H | 1203 | -104 |
| K - J | 1193 | -107 | H - G | 1204 | -104 |
| J - I | 901 | -21 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| C - J | 194 | -394 | I - E | 420 | -81 |
| D - J | 434 | -80 | I - F | 200 | -415 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**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.

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Wind**

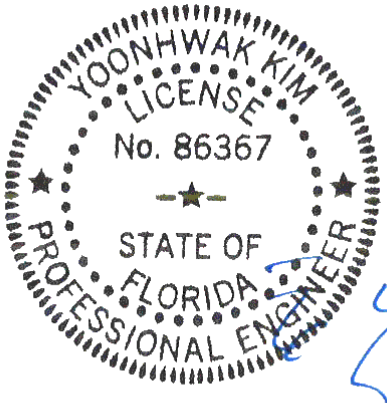
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 10-6-0.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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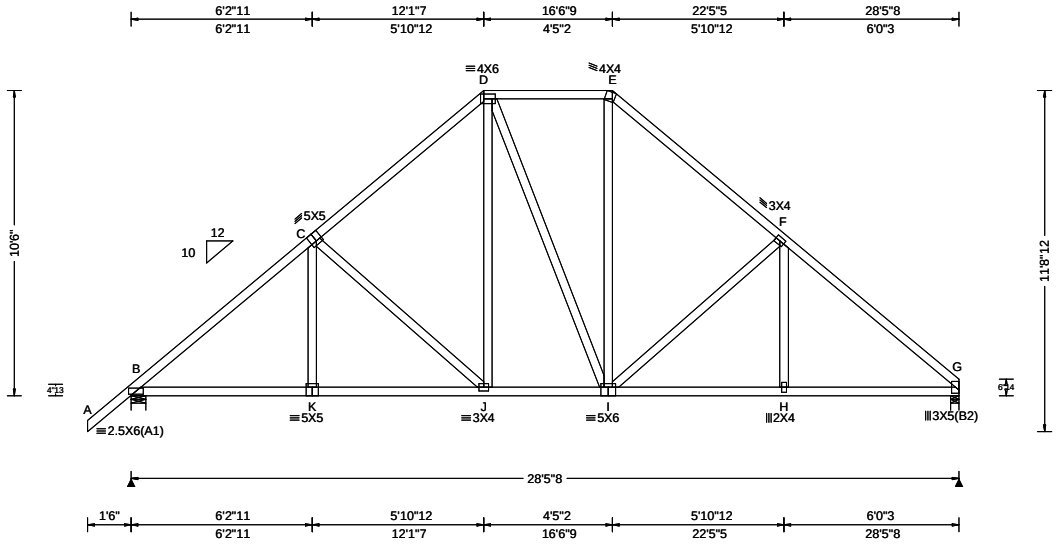
Suite 150
Orlando FL, 32837

| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** B04 | Ply: 1<br>Qty: 1 | SEQN: 335738 / T6 / COMN<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45593<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.75 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.047 | J | 999 | 240 |
| VERT(TL): 0.100 | J | 999 | 180 |
| HORZ(LL): 0.027 | H | - | - |
| HORZ(TL): 0.058 | H | - | - |

Creep Factor: 2.0
Max TC CSI: 0.418
Max BC CSI: 0.454
Max Web CSI: 0.489

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | | / Rw | / U | / RL |
| B | 1338 | /- | /- | | /832 | /- | /348 |
| G | 1217 | /- | /- | | /727 | /- | /- |

Wind reactions based on MWFRS
B Brg Width = 6.0 Min Req = 1.6
G Brg Width = 3.5 Min Req = 1.5
Bearings B & G are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 14 | -1603 | E - F | 80 | -1213 |
| C - D | 86 | -1219 | F - G | 8 | -1594 |
| D - E | 93 | -836 | | | |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - K | 1133 | -94 | I - H | 1125 | 0 |
| K - J | 1132 | -94 | H - G | 1126 | 0 |
| J - I | 835 | -6 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| C - J | 120 | -401 | I - E | 400 | -31 |
| D - J | 405 | -28 | I - F | 131 | -393 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Wind**

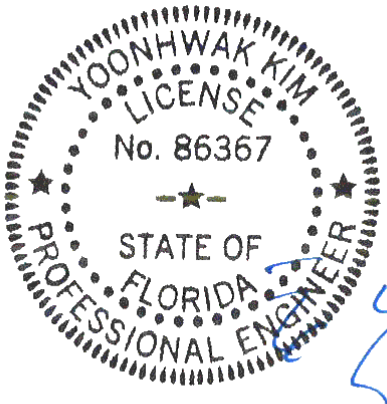
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 10-6-0.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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2400 Lake Orange Dr.
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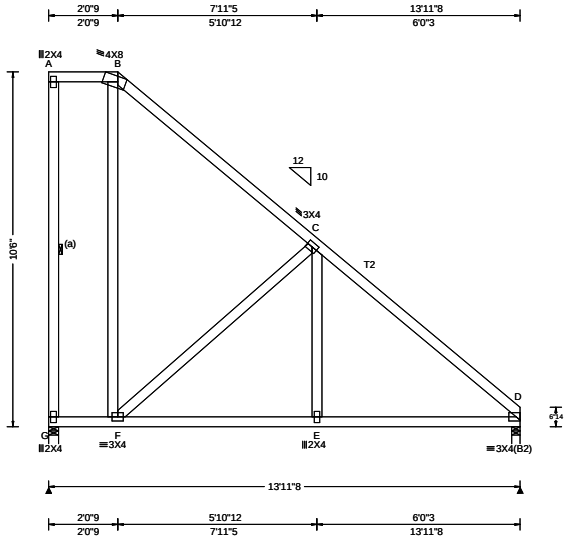
Orlando FL, 32837

| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** B05 | Ply: 1<br>Qty: 3 | SEQN: 335810 / T32 / MONO<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46171<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 16.39 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.259 | F | 644 | 240 |
| VERT(TL): 0.557 | F | 299 | 180 |
| HORZ(LL): -0.213 | B | - | - |
| HORZ(TL): 0.459 | B | - | - |

Creep Factor: 2.0
Max TC CSI: 0.660
Max BC CSI: 0.560
Max Web CSI: 0.810

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| G | 598 | /- | /- | /475 | /83 | /259 |
| D | 603 | /- | /- | /377 | /- | /- |

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

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

| Chords | Tens. | Comp. |
|---|---|---|
| C - D | 0 | - 748 |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| F - E | 492 | 0 | E - D | 495 | 0 |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| F - C | 170 | - 663 | C - E | 402 | 0 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Wind**

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

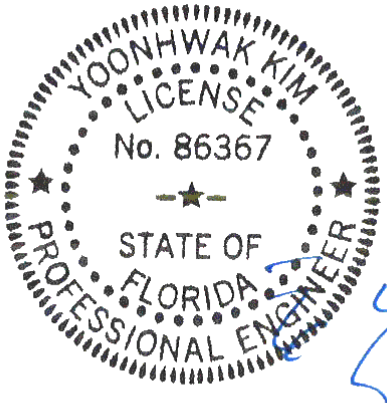
Left end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 10-6-0.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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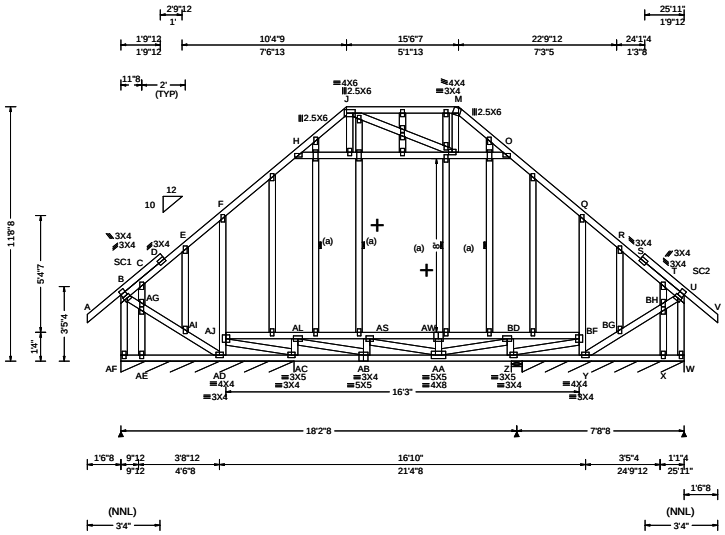
Orlando FL, 32837

| | | | | |
|---|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** C01 | Ply: 1<br>Qty: 1 | SEQN: 335832 / T16 / GABL<br>FROM: CDM<br>Page 1 of 2 | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45656<br>KD / WHK 01/26/2021 | |




| Loading Criteria (psf) | Wind Criteria | Snow Criteria (Pg,Pf in PSF) | Defl/CSI Criteria |
|---|---|---|---|
| TCLL: 20.00<br>TCDL: 10.00<br>BCLL: 0.00<br>BCDL: 10.00<br>Des Ld: 40.00<br>NCBCLL: 10.00<br>Soffit: 2.00<br>Load Duration: 1.25<br>Spacing: 24.0 " | Wind Std: ASCE 7-16<br>Speed: 130 mph<br>Enclosure: Closed<br>Risk Category: II<br>EXP: C<br>Mean Height: 16.67 ft<br>TCDL: 5.0 psf<br>BCDL: 5.0 psf<br>MWFRS Parallel Dist: 0 to h/2<br>C&C Dist a: 3.00 ft<br>Loc. from endwall: Any<br>GCpi: 0.18<br>Wind Duration: 1.60 | Pg: NA Ct: NA CAT: NA<br>Pf: NA Ce: NA<br>Lu: NA Cs: NA<br>Snow Duration: NA<br><br>**Code / Misc Criteria**<br>Bldg Code: FBC 7th Ed. 2020 Res<br>TPI Std: 2014<br>Rep Factors Used: Yes<br>FT/RT:20(0)/10(0)<br>Plate Type(s):<br>WAVE | PP Deflection in loc L/defl L/#<br>VERT(LL): 0.039 K 999 240<br>VERT(TL): 0.074 K 999 180<br>HORZ(LL): 0.014 Q - -<br>HORZ(TL): 0.026 Q - -<br>Creep Factor: 2.0<br>Max TC CSI: 0.611<br>Max BC CSI: 0.332<br>Max Web CSI: 0.406<br><br>VIEW Ver: 20.02.01A.1209.11 |

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| AF* | 296 | /- | /- | /96 | /- | /24 |
| Z | 1276 | /- | /- | /299 | /- | /- |
| W* | 143 | /- | /- | /64 | /5 | /- |

Wind reactions based on MWFRS
AF Brg Width = 95.5 Min Req = -
Z Brg Width = 6.0 Min Req = 1.5
W Brg Width = 89.5 Min Req = -
Bearings AF, Z, & Z are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 94 | - 510 | M - O | 0 | - 555 |
| C - D | 82 | - 554 | O - Q | 15 | - 629 |
| D - E | 1 | - 539 | Q - R | 0 | - 523 |
| E - F | 11 | - 527 | R - S | 0 | - 536 |
| F - H | 33 | - 633 | S - T | 60 | - 551 |
| H - J | 0 | - 546 | T - U | 72 | - 521 |
| J - M | 0 | - 429 | | | |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| AD-AC | 387 | - 54 | Z - Y | 389 | - 51 |
| AB-AA | 1115 | 0 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B -AF | 2 | - 743 | AA-BD | 1025 | 0 |
| B -AG | 464 | - 81 | AW-BD | 0 | - 698 |
| AG-AI | 484 | - 78 | BD- Z | 0 | - 1065 |
| AI-AD | 466 | - 81 | BD-BF | 569 | 0 |
| AJ-AC | 0 | - 618 | Z -BF | 0 | - 561 |
| AJ-AL | 625 | 0 | Y -BG | 472 | - 62 |
| AC-AL | 0 | - 1079 | BG-BH | 481 | - 58 |
| AL-AB | 1012 | 0 | BH- U | 469 | - 61 |
| AL-AS | 0 | - 629 | U - W | 0 | - 739 |
| AS-AW | 0 | - 698 | | | |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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;

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

Attic room loading from 4-10-0 to 21-1-0: Live Load: 40 PSF. Dead Load: 10 PSF Ceiling: 10 PSF, Kneewalls: 10 PSF

**Purlins**

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

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

+ Member to be laterally braced for horizontal wind loads. bracing system to be desiged and furnished 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.

YOONHWAK KIM LICENSE No. 86367 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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Orlando FL, 32837

| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** C01 | Ply: 1<br>Qty: 1 | SEQN: 335832 / T16 / GABL<br>FROM: CDM<br>Page 2 of 2 | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45656<br>KD / WHK 01/26/2021 |

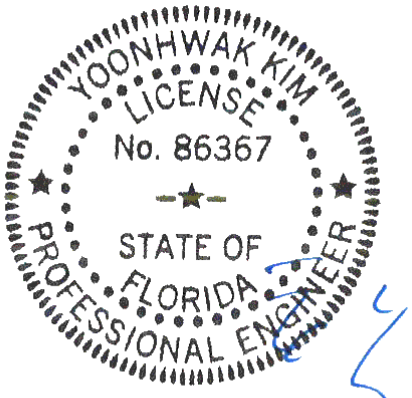
**Additional Notes**

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.

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 11-8-8.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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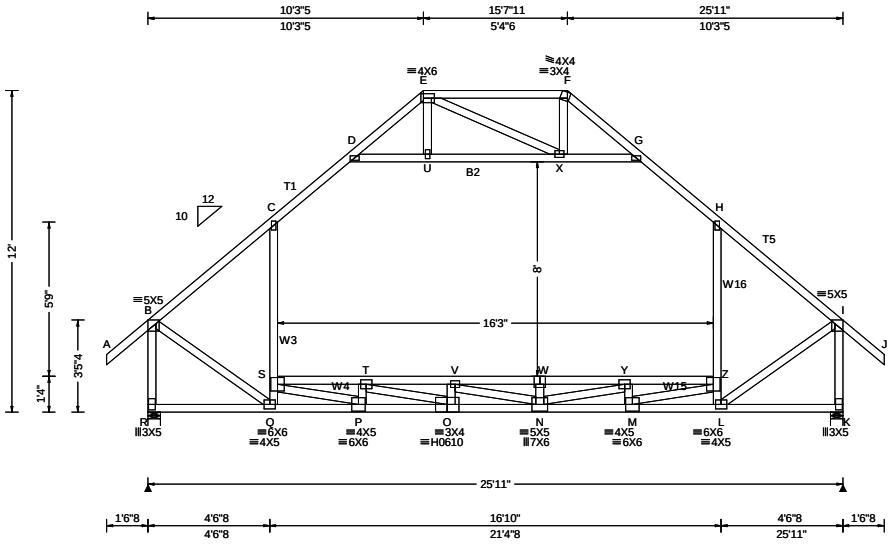
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** C02 | Ply: 1<br>Qty: 4 | SEQN: 335817 / T34 / ATIC<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45718<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 16.67 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.463 | E | 671 | 240 |
| VERT(TL): 0.933 | F | 333 | 180 |
| HORZ(LL): 0.453 | C | - | - |
| HORZ(TL): 0.994 | C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.756
Max BC CSI: 0.646
Max Web CSI: 0.903

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | | / Rw | / U | / RL |
| R | 2351 | /- | /- | | /721 | /222 | /332 |
| K | 2351 | /- | /- | | /721 | /222 | /- |

Wind reactions based on MWFRS
R Brg Width = 5.5 Min Req = 1.9
K Brg Width = 5.5 Min Req = 1.9
Bearings R & K are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 213 | - 1834 | F - G | 167 | - 435 |
| C - D | 325 | - 1441 | G - H | 325 | - 1441 |
| D - E | 170 | - 448 | H - I | 213 | - 1834 |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| Q - P | 1363 | - 482 | N - M | 4119 | 0 |
| P - O | 4115 | - 320 | M - L | 1363 | - 155 |
| O - N | 5180 | 0 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B - R | 232 | - 2311 | V - W | 0 | - 3963 |
| B - Q | 1500 | - 61 | N - Y | 1350 | - 224 |
| Q - S | 124 | - 658 | W - Y | 0 | - 3963 |
| C - S | 501 | - 71 | X - G | 242 | - 1140 |
| S - P | 2686 | 0 | Y - M | 110 | - 733 |
| S - T | 271 | - 2857 | Y - Z | 281 | - 2862 |
| D - U | 239 | - 1129 | M - Z | 2690 | 0 |
| P - T | 110 | - 740 | Z - H | 500 | - 71 |
| T - O | 1306 | - 214 | Z - L | 125 | - 660 |
| T - V | 0 | - 3921 | L - I | 1500 | - 62 |
| U - X | 238 | - 1118 | I - K | 232 | - 2311 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #2 T1,T5 2x4 SP M-31;
Bot chord 2x4 SP M-31 B2 2x4 SP #2;
Webs 2x4 SP #3 W3,W4,W15,W16 2x4 SP #2;

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

Attic room loading from 4-10-0 to 21-1-0: Live Load: 40 PSF. Dead Load: 10 PSF Ceiling: 10 PSF, Kneewalls: 10 PSF

**Purlins**

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

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

**Wind**

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

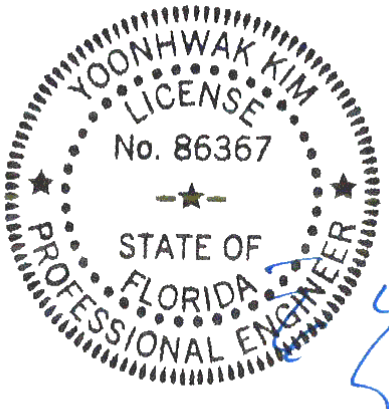
End verticals not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 12-0-0.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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

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

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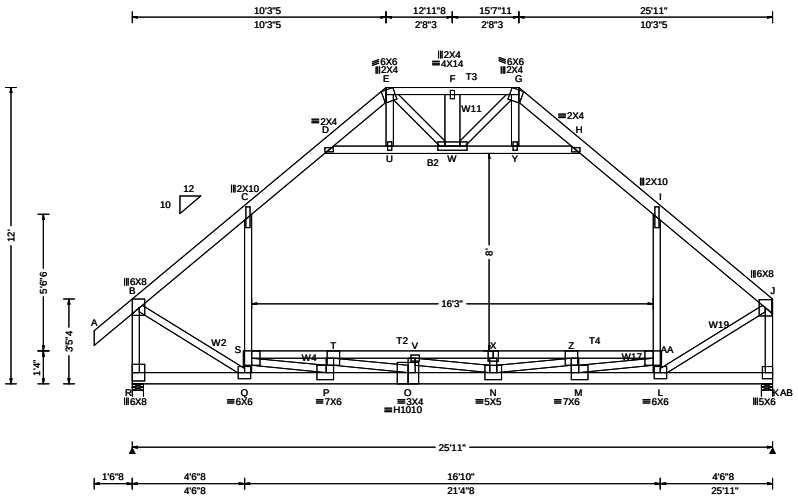
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837

| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** C03 | Ply: 2<br>Qty: 1 | SEQN: 335839 / T46 / ATIC<br>FROM: CDM<br>Page 1 of 2 | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45907<br>KD / WHK 01/26/2021 |

**2 Complete Trusses Required**




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 0.00 |
| Soffit: | 2.00 |
| Load Duration: | 1.25 |
| Spacing: | 24.0 " |

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 18.19 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Varies by Load Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.471 | G | 660 | 240 |
| VERT(TL): 0.930 | G | 334 | 180 |
| HORZ(LL): 0.186 | C | - | - |
| HORZ(TL): 0.367 | C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.660
Max BC CSI: 0.731
Max Web CSI: 0.976

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| R | 7757 | /- | /- | /- | /566 | /55 |
| AB | 7755 | /- | /- | /- | /494 | /- |

Wind reactions based on MWFRS
R Brg Width = 5.5 Min Req = 3.2
AB Brg Width = 5.5 Min Req = 3.2
Bearings R & AB are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 244 | - 3237 | F - G | 498 | - 1419 |
| C - D | 302 | - 2492 | G - H | 366 | - 1123 |
| D - E | 367 | - 1122 | H - I | 302 | - 2490 |
| E - F | 498 | - 1419 | I - J | 232 | - 3236 |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| Q - P | 2205 | - 178 | N - M | 6643 | - 85 |
| P - O | 6587 | - 97 | M - L | 2219 | - 174 |
| O - N | 9029 | - 65 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B - R | 291 | - 3822 | F - W | 352 | - 1517 |
| B - Q | 2705 | - 206 | W - Y | 0 | - 1748 |
| C - S | 1028 | 0 | W - G | 1137 | - 263 |
| S - P | 4268 | 0 | N - Z | 2449 | 0 |
| S - T | 0 | - 4055 | X - Z | 0 | - 6685 |
| D - U | 0 | - 1768 | Y - H | 0 | - 1766 |
| P - T | 0 | - 814 | Z - M | 0 | - 766 |
| T - O | 2517 | 0 | Z -AA | 0 | - 4125 |
| T - V | 0 | - 6684 | M -AA | 4325 | 0 |
| E - W | 1141 | - 262 | AA- I | 1027 | 0 |
| U - W | 0 | - 1751 | L - J | 2706 | - 221 |
| V - X | 0 | - 6685 | J - K | 258 | - 3765 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

Top chord 2x6 SP 2400f-2.0E T2,T4 2x4 SP M-31;
T3 2x4 SP #2;
Bot chord 2x6 SP 2400f-2.0E B2 2x4 SP #2;
Webs 2x4 SP #3 W2,W4,W17,W19 2x4 SP #2;
W11 2x8 SP 2400f-2.0E;

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Nailnote**

Nail Schedule:0.131"x3", min. nails
Top Chord: 1 Row @ 7.50" o.c.
Bot Chord: 1 Row @ 5.00" o.c.
Webs : 1 Row @ 4" o.c.
Use equal spacing between rows and stagger nails in each row to avoid splitting.

**Special Loads**

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

| | | | | | |
|---|---|---|---|---|---|
| TC: From | 66 plf at | -1.54 to | 66 plf at | 25.92 |
| PLT: From | 26 plf at | 4.83 to | 26 plf at | 7.79 |
| PLT: From | 20 plf at | 7.79 to | 20 plf at | 18.12 |
| PLT: From | 26 plf at | 18.12 to | 26 plf at | 21.08 |
| PLT: From | 100 plf at | 4.83 to | 100 plf at | 21.08 |
| BC: From | 5 plf at | -1.54 to | 5 plf at | 0.00 |
| BC: From | 20 plf at | 0.00 to | 20 plf at | 25.92 |

TC: 3000 lb Conc. Load at 12.96
BC: 660 lb Conc. Load at 2.15, 4.15, 6.15, 8.15 10.15,12.15,14.15,16.15,18.15,20.15,22.15,24.15
BC: 111 lb Conc. Load at 4.83,21.08

**Plating Notes**

All plates are 7X8 except as noted.

**Purlins**

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

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

**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.

YOONHWAK KIM LICENSE No. 86367 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837

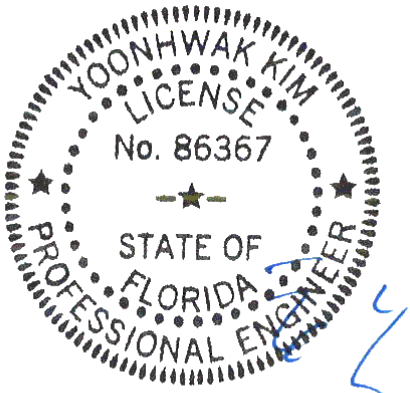
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** C03 | Ply: 2<br>Qty: 1 | SEQN: 335839 / T46 / ATIC<br>FROM: CDM<br>Page 2 of 2 | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45907<br>KD / WHK 01/26/2021 |

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 12-0-0.

IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER TO VERIFY AND APPROVE THE LOADING.THE ENGINEERING SEAL ON THIS DESIGN IS ONLY VALID IF THE BUILDING DESIGNER APPROVES THAT THIS DESIGN MEETS SECTION 1601.2.2 OF THE 2001 FLORIDA BUILDING CODE: "THE STRUCTURAL SYSTEM SHALL BE ABLE TO SUSTAIN LOCAL DAMAGE OR FAILURE WITH THE OVERALL STRUCTURE REMAINING STABLE."

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01/26/2021

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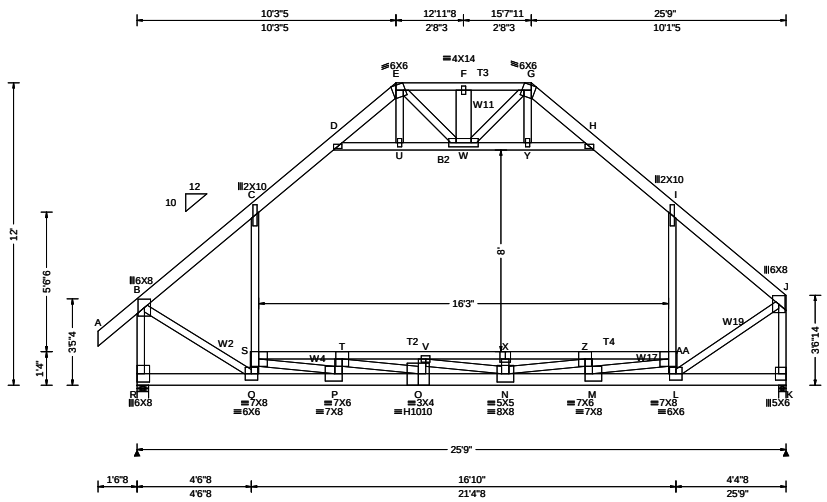
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** C04 | Ply: 2<br>Qty: 1 | SEQN: 335836 / T22 / ATIC<br>FROM: CDM<br>Page 1 of 2 | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45968<br>KD / WHK 01/26/2021 |

**2 Complete Trusses Required**




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 0.00 |
| Soffit: | 2.00 |
| Load Duration: | 1.25 |
| Spacing: | 24.0 " |

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 18.19 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Varies by Location
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.464 | E | 666 | 240 |
| VERT(TL): 0.916 | E | 337 | 180 |
| HORZ(LL): 0.210 | C | - | - |
| HORZ(TL): 0.415 | C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.624
Max BC CSI: 0.729
Max Web CSI: 0.975

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| R | 7707 | /- | /- | /- | /562 | /55 |
| K | 7791 | /- | /- | /- | /495 | /- |

Wind reactions based on MWFRS
R Brg Width = 5.5 Min Req = 3.2
K Brg Width = 3.5 Min Req = 3.2
Bearings R & K are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 241 | - 3194 | F - G | 499 | - 1440 |
| C - D | 300 | - 2458 | G - H | 367 | - 1135 |
| D - E | 367 | - 1138 | H - I | 301 | - 2465 |
| E - F | 499 | - 1440 | I - J | 226 | - 3169 |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| Q - P | 2200 | - 178 | N - M | 6493 | - 76 |
| P - O | 6625 | - 99 | M - L | 2137 | - 169 |
| O - N | 9000 | - 63 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B - R | 288 | - 3774 | F - W | 352 | - 1514 |
| B - Q | 2663 | - 203 | W - Y | 0 | - 1695 |
| C - S | 1009 | 0 | W - G | 1147 | - 264 |
| S - P | 4320 | 0 | N - Z | 2518 | 0 |
| S - T | 0 | - 4140 | X - Z | 0 | - 6640 |
| D - U | 0 | - 1698 | Y - H | 0 | - 1713 |
| P - T | 0 | - 787 | Z - M | 0 | - 796 |
| T - O | 2451 | 0 | Z -AA | 0 | - 4005 |
| T - V | 0 | - 6699 | M -AA | 4247 | 0 |
| E - W | 1128 | - 261 | AA- I | 973 | 0 |
| U - W | 0 | - 1681 | L - J | 2726 | - 224 |
| V - X | 0 | - 6640 | J - K | 261 | - 3811 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

Top chord 2x6 SP 2400f-2.0E T2,T4 2x4 SP M-31;
T3 2x4 SP #2;
Bot chord 2x6 SP 2400f-2.0E B2 2x4 SP #2;
Webs 2x4 SP #3 W2,W4,W17,W19 2x4 SP #2;
W11 2x8 SP 2400f-2.0E;

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Nailnote**

Nail Schedule:0.131"x3", min. nails
Top Chord: 1 Row @ 7.50" o.c.
Bot Chord: 1 Row @ 4.75" o.c.
Webs : 1 Row @ 4" o.c.
Use equal spacing between rows and stagger nails in each row to avoid splitting.

**Special Loads**

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

| | | | | | |
|---|---|---|---|---|---|
| TC: From | 66 plf at | -1.54 to | 66 plf at | 25.75 |
| PLT: From | 26 plf at | 4.83 to | 26 plf at | 7.79 |
| PLT: From | 20 plf at | 7.79 to | 20 plf at | 18.12 |
| PLT: From | 26 plf at | 18.12 to | 26 plf at | 21.08 |
| PLT: From | 100 plf at | 4.83 to | 100 plf at | 21.08 |
| BC: From | 5 plf at | -1.54 to | 5 plf at | 0.00 |
| BC: From | 20 plf at | 0.00 to | 20 plf at | 25.75 |

TC: 3000 lb Conc. Load at 12.96
BC: 660 lb Conc. Load at 2.15, 4.15, 6.15, 8.15 10.15,12.15,14.15,16.15,18.15,20.15,22.15,24.15
BC: 111 lb Conc. Load at 4.83,21.08

**Plating Notes**

All plates are 2X4 except as noted.

**Purlins**

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

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

**Wind**

Wind loads and reactions based on MWFRS.

End verticals not exposed to wind pressure.

Wind loading based on both gable end and roof types.

YOONHWAK KIM LICENSE No. 86367 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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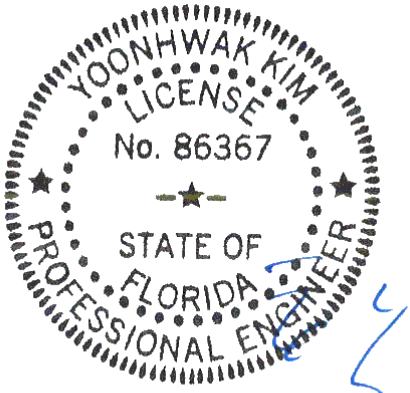
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** C04 | Ply: 2<br>Qty: 1 | SEQN: 335836 / T22 / ATIC<br>FROM: CDM<br>Page 2 of 2 | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45968<br>KD / WHK 01/26/2021 |

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 12-0-0.

IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER TO VERIFY AND APPROVE THE LOADING.THE ENGINEERING SEAL ON THIS DESIGN IS ONLY VALID IF THE BUILDING DESIGNER APPROVES THAT THIS DESIGN MEETS SECTION 1601.2.2 OF THE 2001 FLORIDA BUILDING CODE: "THE STRUCTURAL SYSTEM SHALL BE ABLE TO SUSTAIN LOCAL DAMAGE OR FAILURE WITH THE OVERALL STRUCTURE REMAINING STABLE."




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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

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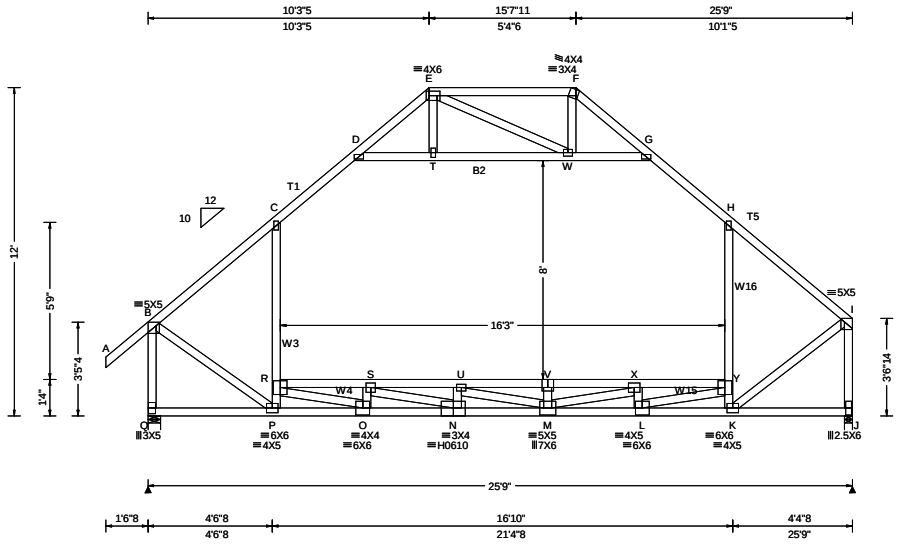
Orlando FL, 32837

| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** C05 | Ply: 1<br>Qty: 6 | SEQN: 335820 / T33 / ATIC<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45329<br>KD / WHK 01/26/2021 |




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

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 16.67 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h/2 to h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.457 | E | 675 | 240 |
| VERT(TL): 0.927 | N | 333 | 180 |
| HORZ(LL): 0.483 | C | - | - |
| HORZ(TL): 1.046 | C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.752
Max BC CSI: 0.644
Max Web CSI: 0.987

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| Q | 2339 | /- | /- | /733 | /83 | /307 |
| J | 2237 | /- | /- | /632 | /66 | /- |

Wind reactions based on MWFRS
Q Brg Width = 5.5 Min Req = 1.9
J Brg Width = 3.5 Min Req = 1.9
Bearings Q & J are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 91 | -1818 | F - G | 0 | -439 |
| C - D | 165 | -1427 | G - H | 166 | -1430 |
| D - E | 0 | -455 | H - I | 82 | -1787 |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| P - O | 1381 | -406 | M - L | 4054 | 0 |
| O - N | 4132 | -248 | L - K | 1302 | -149 |
| N - M | 5166 | 0 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| B - Q | 89 | -2292 | U - V | 0 | -3945 |
| B - P | 1485 | -22 | M - X | 1385 | -213 |
| P - R | 103 | -668 | V - X | 0 | -3945 |
| C - R | 493 | -73 | W - G | 307 | -1119 |
| R - O | 2688 | 0 | X - L | 105 | -748 |
| R - S | 271 | -2894 | X - Y | 289 | -2810 |
| D - T | 302 | -1102 | L - Y | 2683 | 0 |
| O - S | 110 | -727 | Y - H | 472 | -101 |
| S - N | 1275 | -215 | Y - K | 115 | -690 |
| S - U | 0 | -3924 | K - I | 1513 | 0 |
| T - W | 301 | -1091 | I - J | 76 | -2209 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #2 T1,T5 2x4 SP M-31;
Bot chord 2x4 SP M-31 B2 2x4 SP #2;
Webs 2x4 SP #3 W3,W4,W15,W16 2x4 SP #2;

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

Attic room loading from 4-10-0 to 21-1-0: Live Load: 40 PSF. Dead Load: 10 PSF Ceiling: 10 PSF, Kneewalls: 10 PSF

**Purlins**

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

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

**Wind**

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

End verticals not exposed to wind pressure.

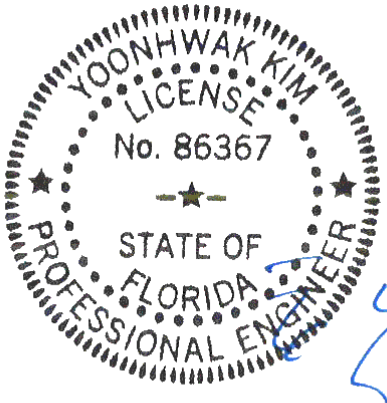
Wind loading based on both gable and hip roof types.

**Additional Notes**

WARNING: Furnish a copy of this DWG to the installation contractor. Special care must be taken during handling, shipping and installation of trusses. See "WARNING" note below.

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 12-0-0.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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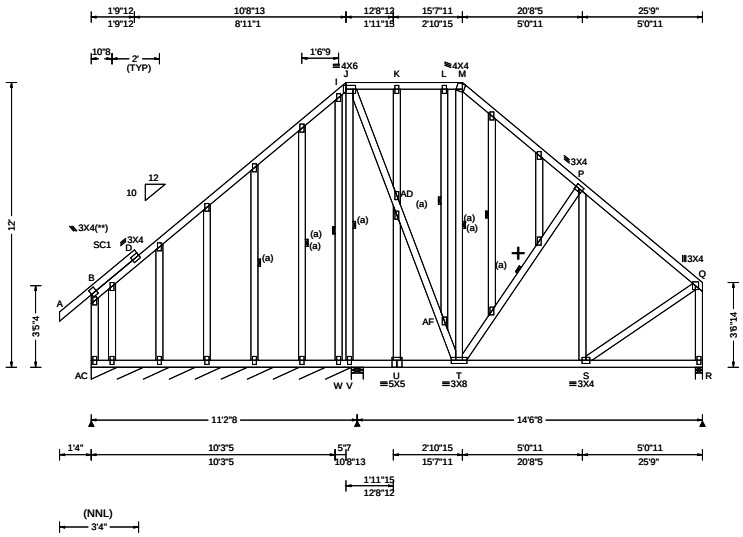
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** C06 | Ply: 1<br>Qty: 1 | SEQN: 335829 / T23 / GABL<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46157<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 18.19 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: not in 4.50 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.021 | N | 999 | 240 |
| VERT(TL): 0.044 | N | 999 | 180 |
| HORZ(LL): 0.020 | N | - | - |
| HORZ(TL): 0.028 | N | - | - |

Creep Factor: 2.0
Max TC CSI: 0.352
Max BC CSI: 0.251
Max Web CSI: 0.309

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| AC | *126 | /- | /- | /76 | /0 | /25 |
| V | 305 | /- | /- | /170 | /- | /- |
| R | 629 | /- | /- | /356 | /1 | /- |

Wind reactions based on MWFRS
AC Brg Width = 131 Min Req = -
V Brg Width = 6.0 Min Req = 1.5
R Brg Width = 3.5 Min Req = 1.5
Bearings AC, V, & R are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. |
|---|---|---|
| P - Q | 39 | -486 |

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

| Chords | Tens. | Comp. |
|---|---|---|
| V - U | 539 | -390 |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| J - V | 110 | -439 | AF- T | 478 | -145 |
| J -AD | 495 | -133 | Q - R | 21 | -588 |
| AD-AF | 486 | -135 | | | |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Bracing**

(a) Continuous lateral restraint equally spaced on member.

**Plating Notes**

All plates are 2X4 except as noted.

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

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Wind**

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

End verticals not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

**Additional Notes**

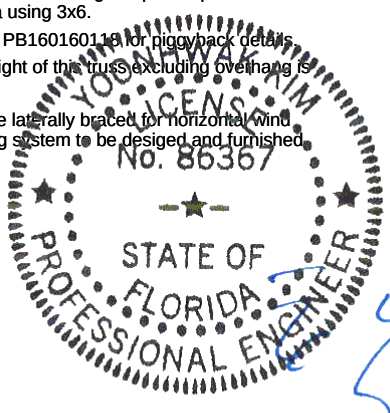
See DWGS A14030ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.

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.

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 12-0-0.

+ Member to be laterally braced for horizontal wind loads. bracing system to be design and furnished by others.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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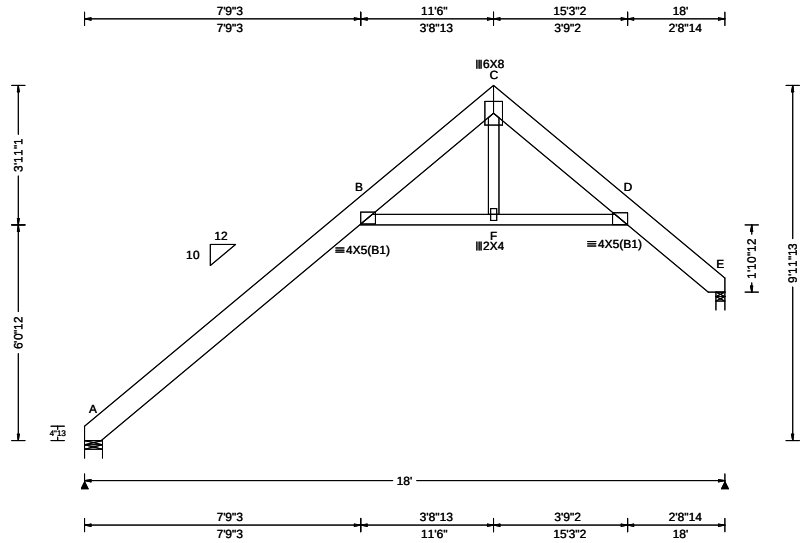
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** D01 | Ply: 1<br>Qty: 11 | SEQN: 335814 / T30 / COMN<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45923<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 16.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 18.53 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.441 | F | 470 | 240 |
| VERT(TL): 0.819 | F | 253 | 180 |
| HORZ(LL): 0.377 | F | - | - |
| HORZ(TL): 0.701 | F | - | - |

Creep Factor: 2.0
Max TC CSI: 0.379
Max BC CSI: 0.193
Max Web CSI: 0.026

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| A | 437 | /- | /- | /231 | /45 | /183 |
| E | 455 | /- | /- | /262 | /45 | /- |

Wind reactions based on MWFRS
A Brg Width = 6.0 Min Req = 1.5
E Brg Width = 3.0 Min Req = 1.5
Bearings A & E are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 45 | -551 | C - D | 105 | -703 |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - F | 691 | -96 | F - D | 691 | -96 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

Top chord 2x8 SP 2400f-2.0E
Bot chord 2x4 SP #2
Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

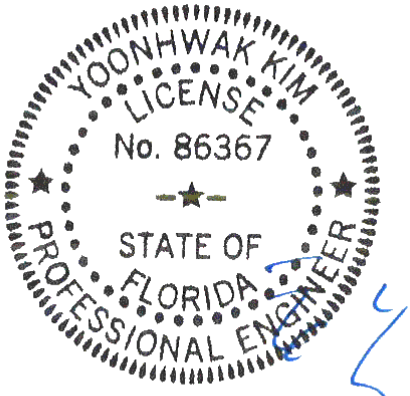
**Wind**

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

Wind loading based on both gable and hip roof types.

**Additional Notes**

The overall height of this truss excluding overhang is 9-11-13.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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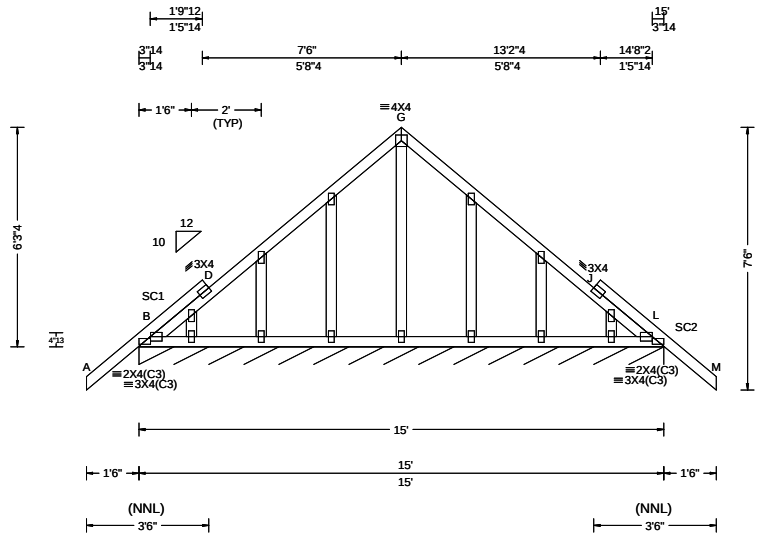
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** E01 | Ply: 1<br>Qty: 1 | SEQN: 335712 / T2 / GABL<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46188<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): | 0.001 N | 999 | 240 |
| VERT(TL): | 0.002 N | 999 | 180 |
| HORZ(LL): | -0.001 T | - | - |
| HORZ(TL): | 0.001 T | - | - |

Creep Factor: 2.0
Max TC CSI: 0.197
Max BC CSI: 0.066
Max Web CSI: 0.087

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| L* | 100 | /- | /- | /54 | /- | /8 |

Wind reactions based on MWFRS
L Brg Width = 180 Min Req = -
Bearing B is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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;

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Wind**

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

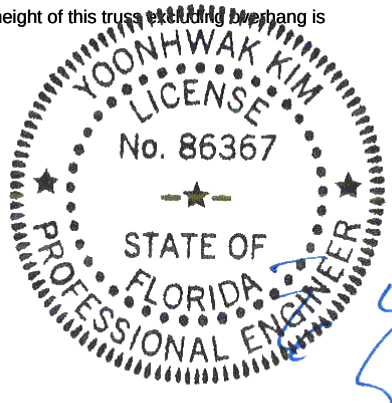
Wind loading based on both gable and hip roof types.

**Additional Notes**

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

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

The overall height of this truss excluding overhang is 6-3-4.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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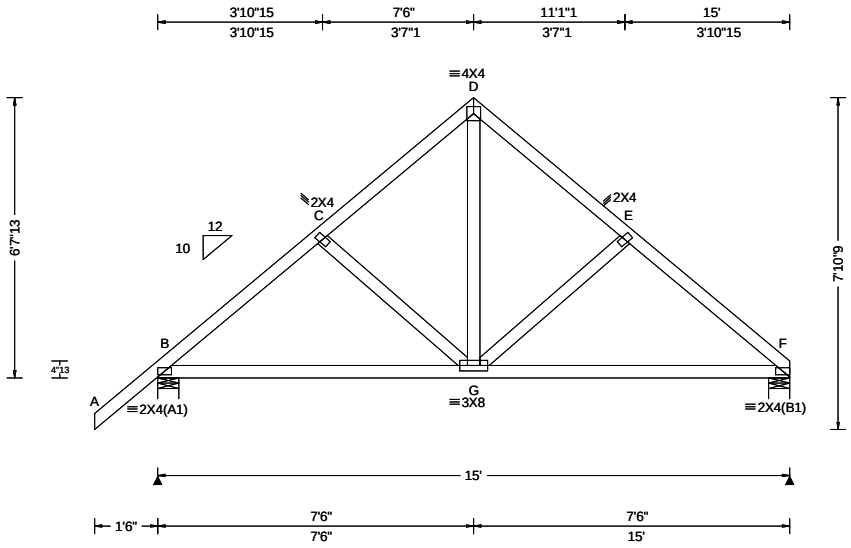
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837

| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** E02 | Ply: 1<br>Qty: 6 | SEQN: 335714 / T1 / COMN<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46001<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.012 | G | 999 | 240 |
| VERT(TL): 0.026 | G | 999 | 180 |
| HORZ(LL): 0.006 | G | - | - |
| HORZ(TL): 0.012 | G | - | - |

Creep Factor: 2.0
Max TC CSI: 0.194
Max BC CSI: 0.493
Max Web CSI: 0.167

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| B | 759 | /- | /- | /483 | /116 | /232 |
| F | 639 | /- | /- | /382 | /87 | /- |

Wind reactions based on MWFRS
B Brg Width = 6.0 Min Req = 1.5
F Brg Width = 6.0 Min Req = 1.5
Bearings B & F are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 143 | - 758 | D - E | 155 | - 582 |
| C - D | 154 | - 579 | E - F | 146 | - 764 |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - G | 518 | - 71 | G - F | 535 | - 47 |

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

| Webs | Tens. | Comp. |
|---|---|---|
| D - G | 439 | - 98 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

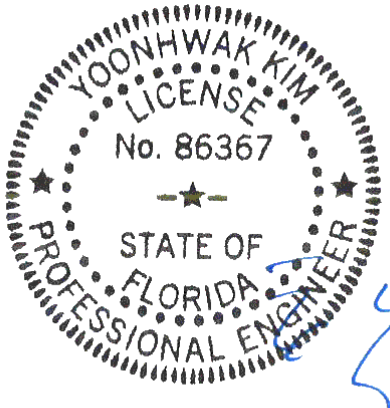
**Wind**

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

Wind loading based on both gable and hip roof types.

**Additional Notes**

The overall height of this truss excluding overhang is 6-7-13.

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01/26/2021

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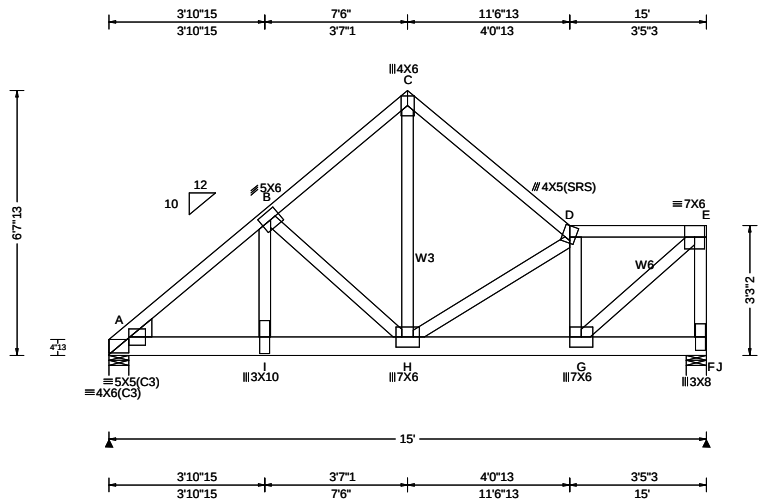
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** E03 | Ply: 2<br>Qty: 1 | SEQN: 354450 / T39 / COMN<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46313<br>KD / WHK 01/26/2021 |

**2 Complete Trusses Required**




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

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: No
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.071 | H | 999 | 240 |
| VERT(TL): 0.141 | H | 999 | 180 |
| HORZ(LL): 0.027 | B | - | - |
| HORZ(TL): 0.054 | B | - | - |

Creep Factor: 2.0
Max TC CSI: 0.349
Max BC CSI: 0.428
Max Web CSI: 0.835

VIEW Ver: 20.01.01A.0724.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| A | 5891 | /- | /- | /- | /828 | /- |
| J | 5292 | /- | /- | /- | /855 | /- |

Wind reactions based on MWFRS
A Brg Width = 6.0 Min Req = 2.4
J Brg Width = 6.0 Min Req = 2.2
Bearings A & J are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - B | 580 | - 3923 | C - D | 426 | - 2640 |
| B - C | 425 | - 2640 | D - E | 442 | - 2732 |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - I | 2979 | - 434 | H - G | 2852 | - 462 |
| I - H | 2953 | - 432 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| I - B | 1602 | - 169 | D - G | 206 | - 1194 |
| B - H | 155 | - 1287 | G - E | 3700 | - 598 |
| C - H | 3172 | - 480 | E - F | 420 | - 2549 |
| H - D | 176 | - 1030 | | | |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #2
Bot chord 2x6 SP 2400f-2.0E
Webs 2x4 SP #3 W3,W6 2x4 SP #2;
Lt Wedge: 2x6 SP 2400f-2.0E;

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Nailnote**

Nail Schedule:0.131"x3", min. nails
Top Chord: 1 Row @12.00" o.c.
Bot Chord: 2 Rows @ 4.50" o.c. (Each Row)
Webs : 1 Row @ 4" o.c.
Use equal spacing between rows and stagger nails in each row to avoid splitting.

**Special Loads**

------(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)
TC: From 66 plf at 0.00 to 66 plf at 15.00
BC: From 10 plf at 0.00 to 10 plf at 12.56
BC: From 20 plf at 12.56 to 20 plf at 15.00
BC: 1388 lb Conc. Load at 2.06, 4.06
BC: 1282 lb Conc. Load at 4.56
BC: 1490 lb Conc. Load at 6.56, 8.56,10.56,12.56

**Purlins**

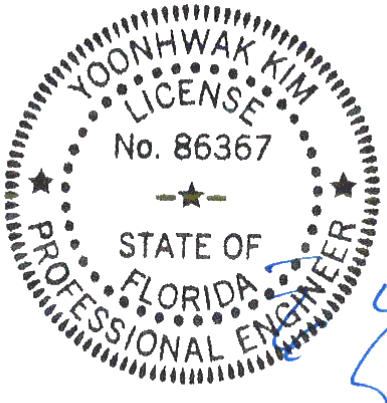
In lieu of structural panels use purlins to brace all flat TC @ 24" oc.

**Additional Notes**

The overall height of this truss excluding overhang is 6-7-13.

**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.

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01/26/2021

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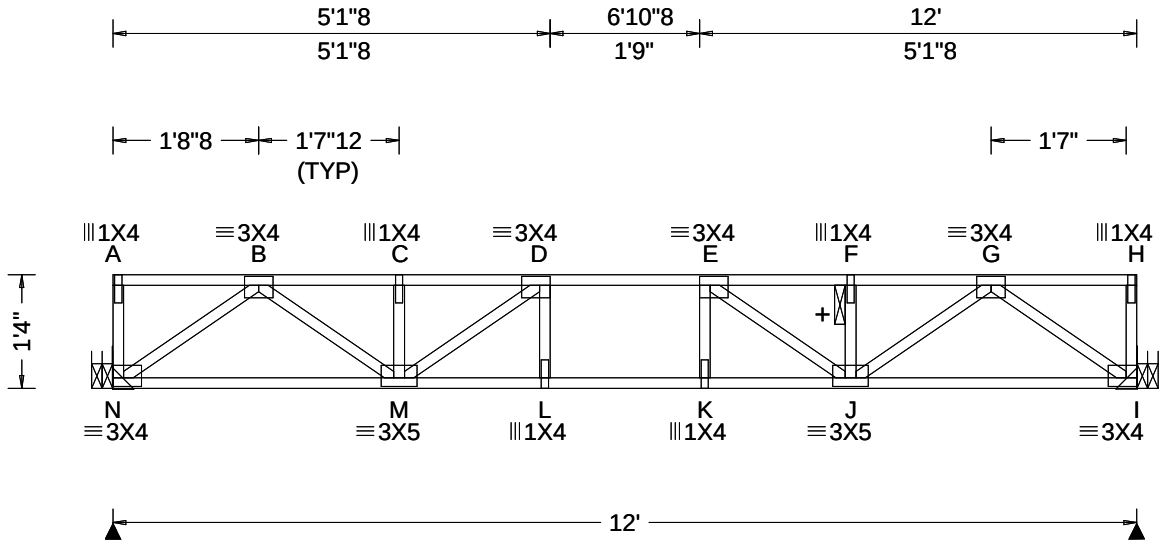
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** F03 | Ply: 1<br>Qty: 12 | SEQN: 335824 / T20 / SY42<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45516<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)
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 "

**Wind Criteria**
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: 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

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:12(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.084 | L | 999 | 480 |
| VERT(TL): 0.127 | L | 999 | 360 |
| HORZ(LL): 0.017 | I | - | - |
| HORZ(TL): 0.026 | B | - | - |

Creep Factor: 2.0
Max TC CSI: 0.424
Max BC CSI: 0.579
Max Web CSI: 0.308

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| N | 660 | /- | /- | /- | /- | /- |
| I | 660 | /- | /- | /- | /- | /- |
| N | Brg Width = - | | | Min Req = - | | |
| I | Brg Width = - | | | Min Req = - | | |

Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 0 | -1334 | E - F | 0 | -1334 |
| C - D | 0 | -1334 | F - G | 0 | -1334 |
| D - E | 0 | -1611 | | | |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| N - M | 812 | 0 | K - J | 1610 | 0 |
| M - L | 1610 | 0 | J - I | 812 | 0 |
| L - K | 1611 | 0 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| N - B | 0 | -994 | E - J | 0 | -473 |
| B - M | 648 | 0 | J - G | 648 | 0 |
| M - D | 0 | -473 | G - I | 0 | -994 |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Hangers / Ties**

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

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

Bearing at location x=0' uses the following support conditions: 0'
Bearing N (0', 10') HUS46
Supporting Member: (2)2x6 SP 2400f-2.0E
(4) 0.148"x3" nails into supporting member,
(4) 0.148"x3" nails into supported member.
Bearing I (11'9", 10') HUS46
Supporting Member: (2)2x6 SP 2400f-2.0E
(4) 0.148"x3" nails into supporting member,
(4) 0.148"x3" nails into supported member.

**Loading**

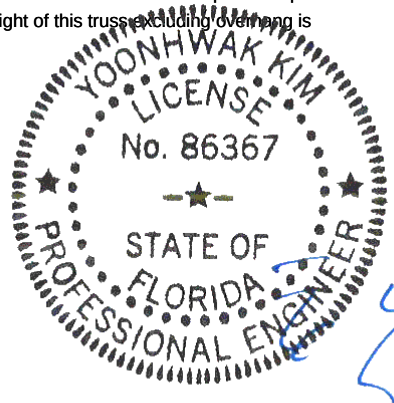
Bottom chord checked for 10.00 psf non-concurrent live load.

**Additional Notes**

+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.

Truss must be installed as shown with top chord up.

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

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01/26/2021

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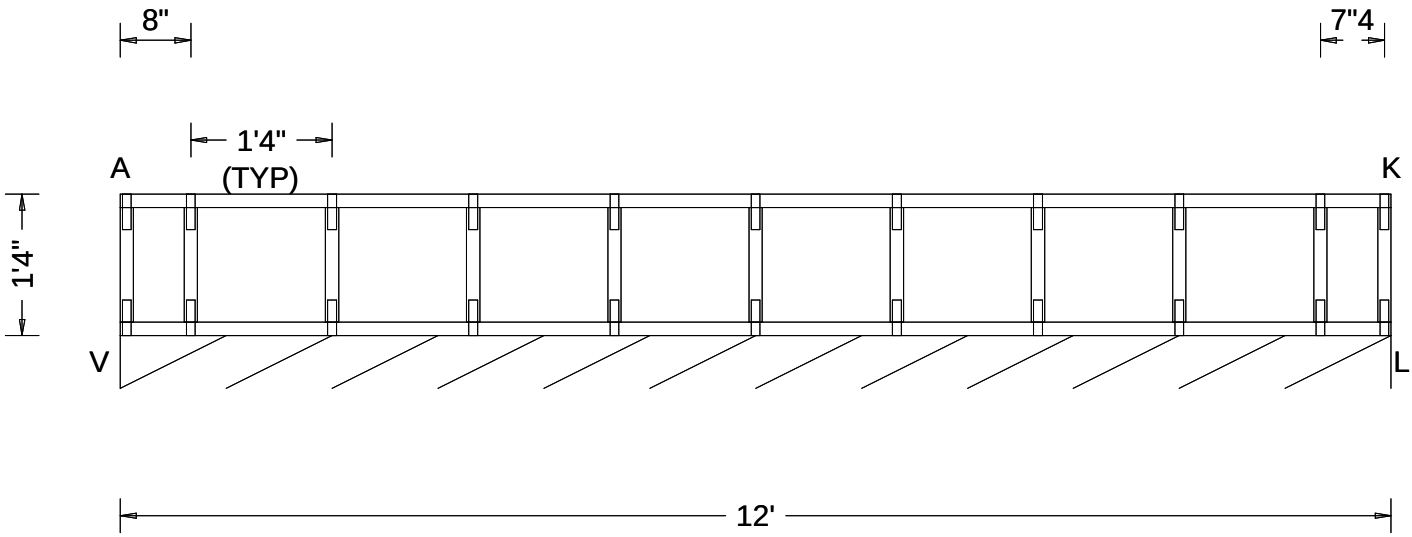
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** F04 | Ply: 1<br>Qty: 1 | SEQN: 335826 / T40 / SY42<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45954<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)
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 "

**Wind Criteria**
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: 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

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.000 | I | 999 | 480 |
| VERT(TL): 0.000 | I | 999 | 360 |
| HORZ(LL): -0.000 | V | - | - |
| HORZ(TL): 0.000 | V | - | - |

Creep Factor: 2.0
Max TC CSI: 0.079
Max BC CSI: 0.019
Max Web CSI: 0.032

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| L* | 110 | /- | /- | /- | /- | /- |

L Brg Width = 144 Min Req = -
Bearing V is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Bracing**

Sheathing is required for any longitudinal(drag) forces. All connections to be designed by the building designer.

Fasten rated sheathing to one face of this frame.

**Plating Notes**

All plates are 1X4 except as noted.

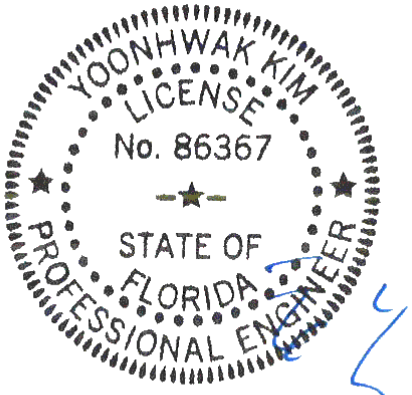
**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Additional Notes**

Truss must be installed as shown with top chord up.

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




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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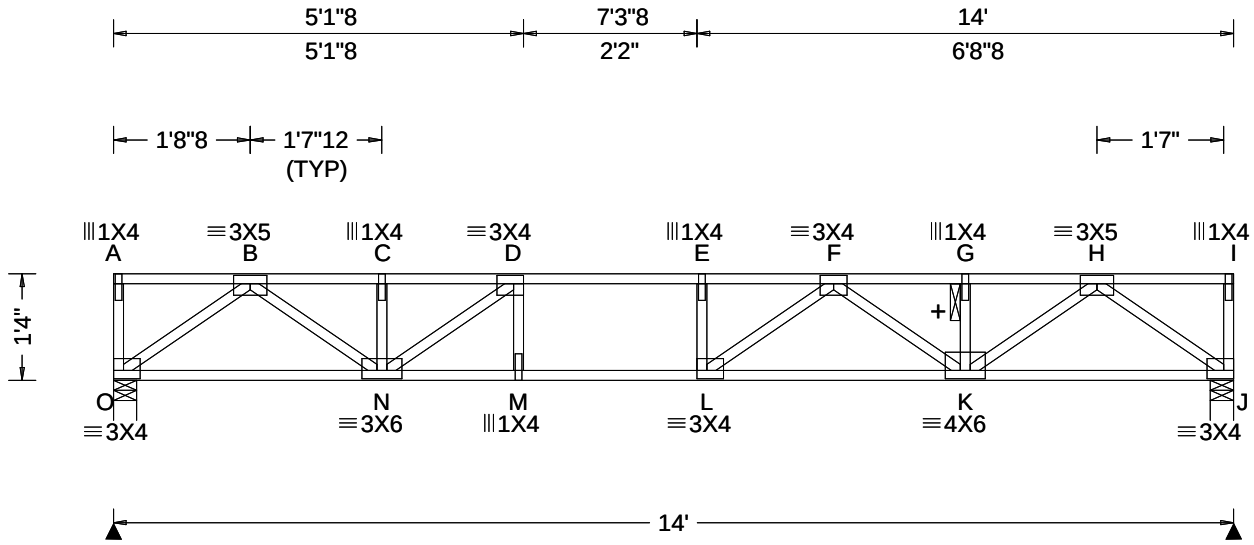
ALPINE
AN ITW COMPANY
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837

| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** F05 | Ply: 1<br>Qty: 6 | SEQN: 335774 / T24 / SY42<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45359<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)
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 "

**Wind Criteria**
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: 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

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:12(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.178 | E | 945 | 480 |
| VERT(TL): 0.266 | E | 632 | 360 |
| HORZ(LL): 0.026 | J | - | - |
| HORZ(TL): 0.036 | J | - | - |

Creep Factor: 2.0
Max TC CSI: 0.451
Max BC CSI: 0.885
Max Web CSI: 0.399

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| O | 770 | /- | /- | /- | /- | /- |
| J | 770 | /- | /- | /- | /- | /- |
| O | Brg Width = 3.5 | | | Min Req = 1.5 | | |
| J | Brg Width = 3.5 | | | Min Req = 1.5 | | |

Bearings O & J are a rigid surface.
Members not listed have forces less than 375#

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| B - C | 0 | -1621 | E - F | 0 | -2159 |
| C - D | 0 | -1621 | F - G | 0 | -1645 |
| D - E | 0 | -2165 | G - H | 0 | -1645 |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| O - N | 965 | 0 | L - K | 2050 | 0 |
| N - M | 2161 | 0 | K - J | 970 | 0 |
| M - L | 2165 | 0 | | | |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| O - B | 0 | -1182 | F - K | 0 | -503 |
| B - N | 813 | 0 | K - H | 838 | 0 |
| N - D | 0 | -788 | H - J | 0 | -1188 |
| L - F | 394 | -74 | | | |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Loading**

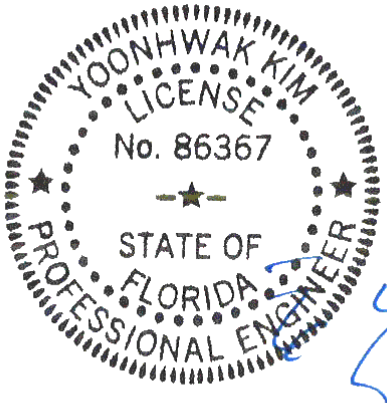
Bottom chord checked for 10.00 psf non-concurrent live load.

**Additional Notes**

+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.

Truss must be installed as shown with top chord up.

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

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01/26/2021

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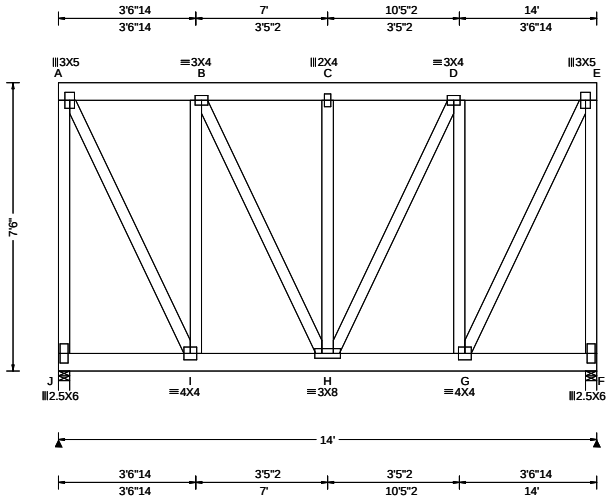
Orlando FL, 32837

| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** FT02 | Ply: 2<br>Qty: 1 | SEQN: 354452 / T8 / FLAT<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46296<br>KD / WHK 01/26/2021 |

**2 Complete Trusses Required**




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

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 17.50 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: not in 12.50 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: No
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.028 | C | 999 | 240 |
| VERT(TL): 0.057 | C | 999 | 180 |
| HORZ(LL): 0.002 | A | - | - |
| HORZ(TL): 0.005 | A | - | - |

Creep Factor: 2.0
Max TC CSI: 0.108
Max BC CSI: 0.103
Max Web CSI: 0.595

VIEW Ver: 20.01.01A.0724.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| J | 2821 | /- | /- | /- | /274 | /- |
| F | 2887 | /- | /- | /- | /281 | /- |

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

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| A - B | 50 | - 518 | C - D | 67 | - 690 |
| B - C | 67 | - 690 | D - E | 50 | - 519 |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|---|---|---|---|---|---|
| I - H | 552 | - 54 | H - G | 553 | - 54 |

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

| Webs | Tens. | Comp. | Webs | Tens. | Comp. |
|---|---|---|---|---|---|
| A - J | 126 | - 1208 | D - G | 101 | - 815 |
| A - I | 1184 | - 114 | G - E | 1187 | - 115 |
| I - B | 101 | - 813 | E - F | 128 | - 1232 |
| C - H | 62 | - 460 | | | |

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Nailnote**

Nail Schedule:0.131"x3", min. nails
Top Chord: 1 Row @ 4.25" o.c.
Bot Chord: 1 Row @12.00" o.c.
Webs : 1 Row @ 4" o.c.
Use equal spacing between rows and stagger nails in each row to avoid splitting.

**Special Loads**

------(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)
TC: From 30 plf at 0.00 to 30 plf at 14.00
BC: From 20 plf at 0.00 to 20 plf at 14.00
TC: 455 lb Conc. Load at 0.44, 1.77, 3.10, 4.44 5.77, 7.10, 8.44, 9.77,11.10,12.44,13.65

**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.

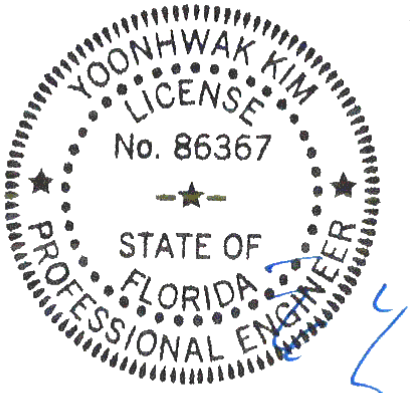
End verticals not exposed to wind pressure.

**Additional Notes**

Truss must be installed as shown with top chord up.

The overall height of this truss excluding overhang is 7-6-0.

WIND LOAD CASE MODIFIED!

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01/26/2021

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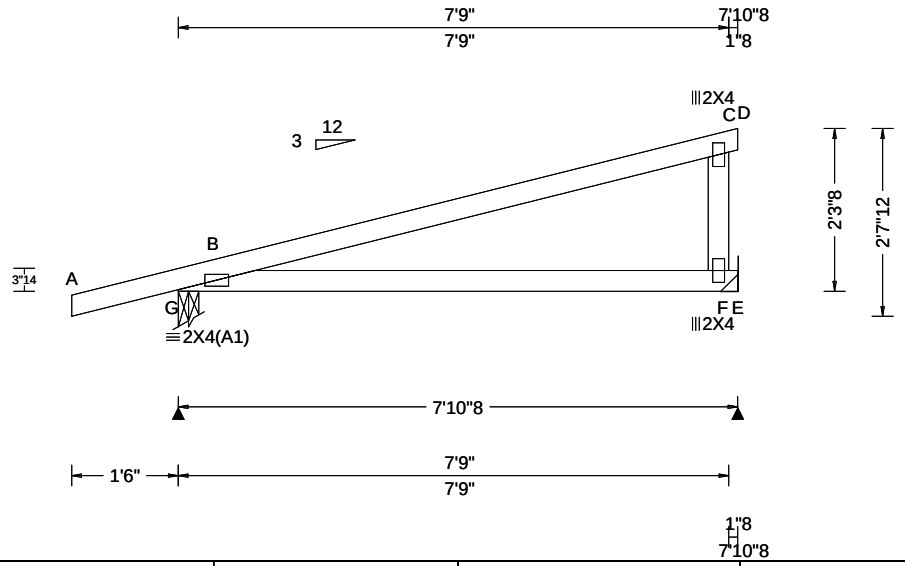
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** M01 | Ply: 1<br>Qty: 17 | SEQN: 335722 / T25 / MONO<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45844<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: not in 4.50 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**
PP Deflection in loc L/defl L/#
VERT(LL): NA
VERT(TL): NA
HORZ(LL): 0.019 F - -
HORZ(TL): 0.036 F - -
Creep Factor: 2.0
Max TC CSI: 0.748
Max BC CSI: 0.545
Max Web CSI: 0.280

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| G | 427 | /- | /- | /232 | /95 | /80 |
| E | 305 | /- | /- | /161 | /65 | /- |

Wind reactions based on MWFRS
G Brg Width = 3.5 Min Req = 1.5
E Brg Width = - Min Req = -
Bearing G is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

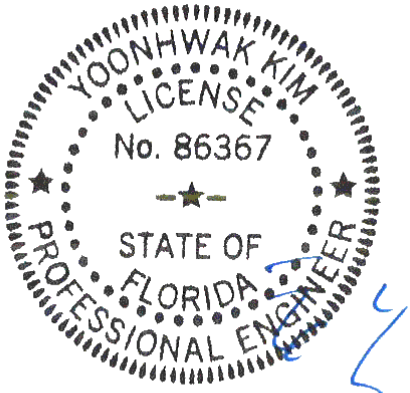
Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

**Additional Notes**

The overall height of this truss excluding overhang is 2-3-8.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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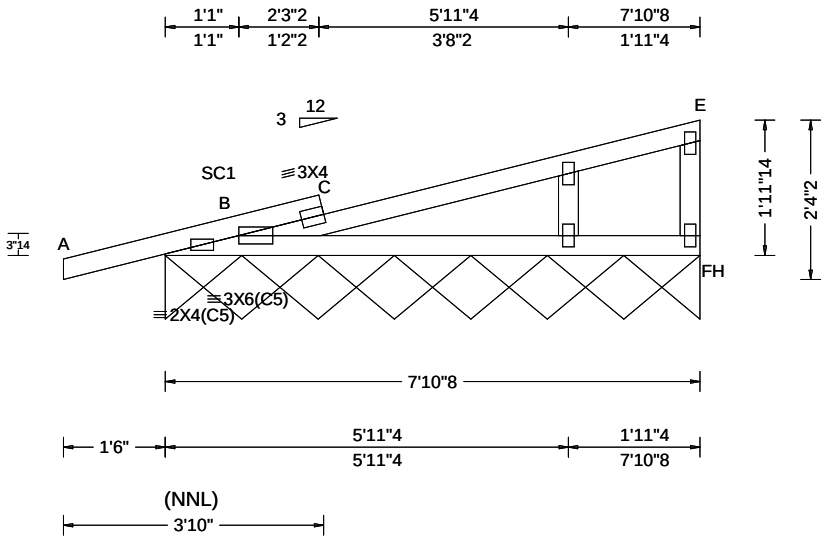
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** M02 | Ply: 1<br>Qty: 2 | SEQN: 335724 / T15 / GABL<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46063<br>KD / WHK 01/26/2021 |




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

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.030 | C | 999 | 240 |
| VERT(TL): 0.058 | C | 999 | 180 |
| HORZ(LL): -0.004 | E | - | - |
| HORZ(TL): 0.008 | E | - | - |

Creep Factor: 2.0
Max TC CSI: 0.299
Max BC CSI: 0.257
Max Web CSI: 0.052

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| H* | 93 | /- | /- | /49 | /- | /4 |

Wind reactions based on MWFRS
H Brg Width = 94.5 Min Req = -
Bearing B is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Purlins**

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

**Wind**

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

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

**Additional Notes**

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

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

The overall height of this truss excluding overhang is 1-11-14.

YOONHWAK KIM LICENSE No. 86367 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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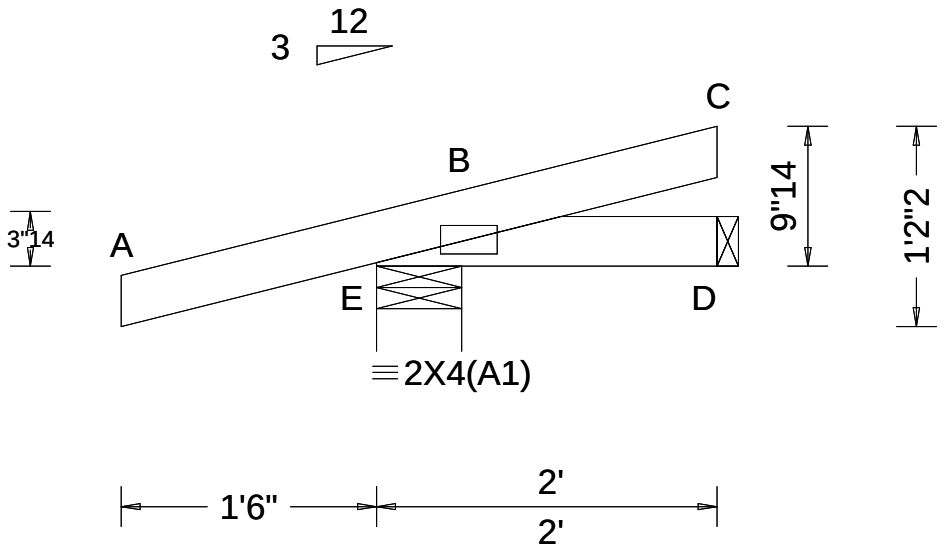
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** M03 | Ply: 1<br>Qty: 7 | SEQN: 335878 / T17 / MONO<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45313<br>KD / WHK 01/26/2021 |




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

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.005 | C | 999 | 240 |
| VERT(TL): 0.008 | C | 999 | 180 |
| HORZ(LL): 0.001 | C | - | - |
| HORZ(TL): 0.002 | C | - | - |

Creep Factor: 2.0
Max TC CSI: 0.148
Max BC CSI: 0.036
Max Web CSI: 0.000

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| E | 231 | /- | /- | /135 | /94 | /33 |
| D | 38 | /- | /- | /30 | /16 | /- |

Wind reactions based on MWFRS
E Brg Width = 6.0 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
Bearing E is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #2
Bot chord 2x4 SP #2

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

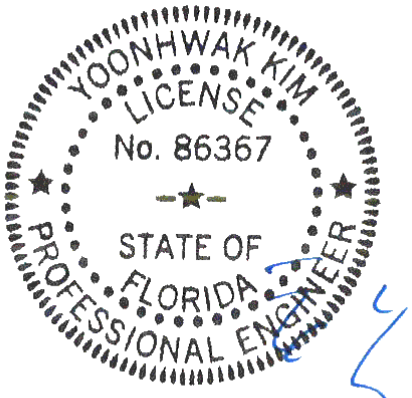
**Wind**

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

Wind loading based on both gable and hip roof types.

**Additional Notes**

The overall height of this truss excluding overhang is 0-9-14.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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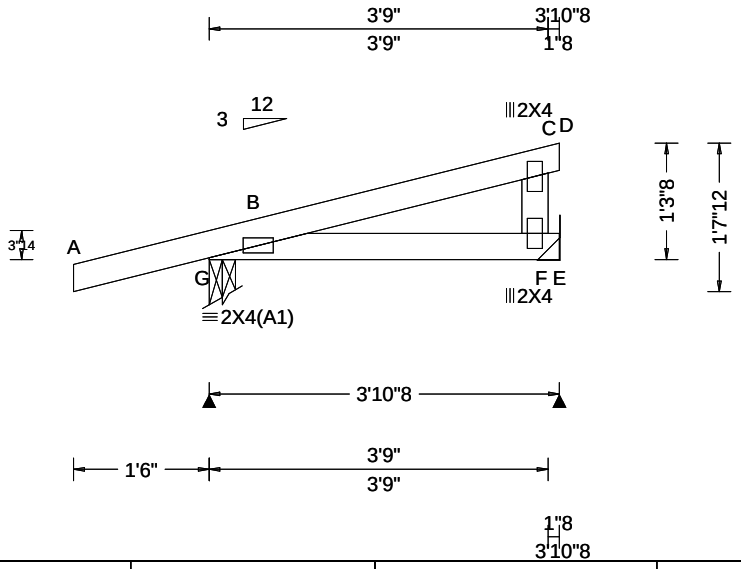
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** M04 | Ply: 1<br>Qty: 8 | SEQN: 335960 / T18 / MONO<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45735<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**
PP Deflection in loc L/defl L/#
VERT(LL): NA
VERT(TL): NA
HORZ(LL): 0.001 F - -
HORZ(TL): 0.003 F - -
Creep Factor: 2.0
Max TC CSI: 0.148
Max BC CSI: 0.101
Max Web CSI: 0.024

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| G | 278 | /- | /- | /157 | /87 | /47 |
| E | 131 | /- | /- | /75 | /9 | /- |

Wind reactions based on MWFRS
G Brg Width = 3.5 Min Req = 1.5
E Brg Width = - Min Req = -
Bearing G is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

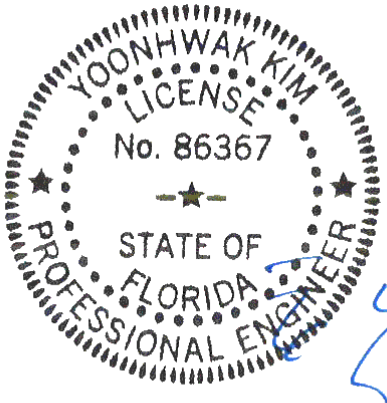
Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

**Additional Notes**

The overall height of this truss excluding overhang is 1-3-8.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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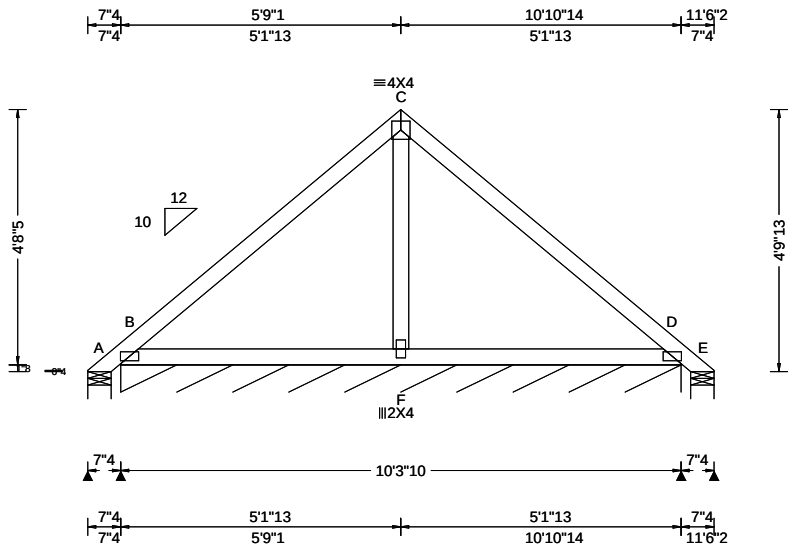
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** PB01 | Ply: 1<br>Qty: 17 | SEQN: 335972 / T7 / COMN<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46218<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 23.42 ft
TCDL: 5.0 psf
BCDL: 2.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.001 | F | 999 | 240 |
| VERT(TL): 0.002 | F | 999 | 180 |
| HORZ(LL): -0.001 | F | - | - |
| HORZ(TL): 0.003 | F | - | - |

Creep Factor: 2.0
Max TC CSI: 0.256
Max BC CSI: 0.085
Max Web CSI: 0.009

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| A | 4 | /-1 | /- | /- | /16 | /- |
| B* | 48 | /- | /- | /42 | /- | /- |
| E | - | /-193 | /- | /- | /94 | /- |

Wind reactions based on MWFRS
A Brg Width = 5.2 Min Req = 1.5
B Brg Width = 123 Min Req = -
E Brg Width = 5.2 Min Req = 1.5
Bearings A, B, & E are a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Plating Notes**

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

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

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

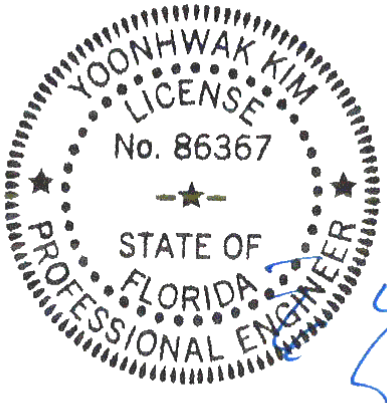
Wind loading based on both gable and hip roof types.

**Additional Notes**

Negative reaction(s) of -193# MAX. from a non-wind load case requires uplift connection. See Maximum Reactions.

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 4-9-13.

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01/26/2021

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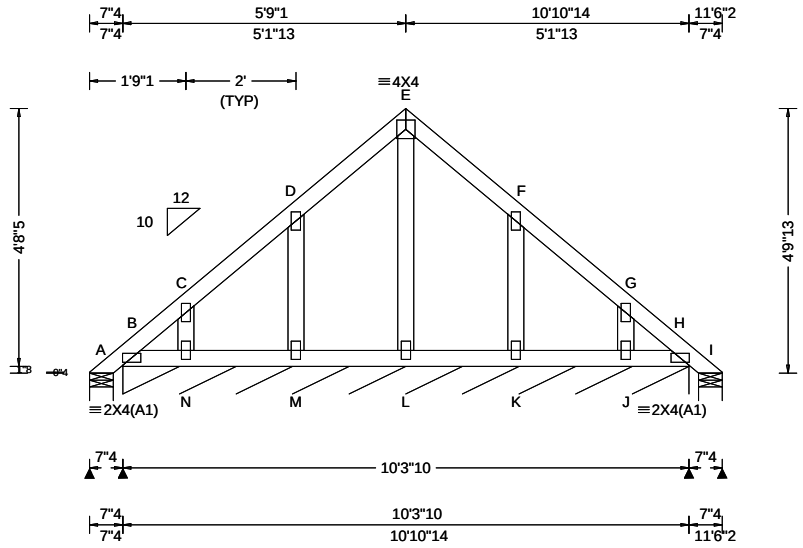
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** PB02 | Ply: 1<br>Qty: 2 | SEQN: 335956 / T3 / COMN<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45781<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 23.42 ft
TCDL: 5.0 psf
BCDL: 2.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: not in 4.50 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.000 | F | 999 | 240 |
| VERT(TL): 0.000 | F | 999 | 180 |
| HORZ(LL): -0.000 | F | - | - |
| HORZ(TL): 0.000 | F | - | - |

Creep Factor: 2.0
Max TC CSI: 0.036
Max BC CSI: 0.011
Max Web CSI: 0.022

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| A | 1 | /- | /- | /5 | /- | /- |
| B* | 28 | /- | /- | /30 | /- | /- |
| I | 17 | /- | /- | /11 | /- | /- |

Wind reactions based on MWFRS
A Brg Width = 5.2 Min Req = 1.5
B Brg Width = 123 Min Req = -
I Brg Width = 5.2 Min Req = 1.5
Bearings A, B, & I are a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

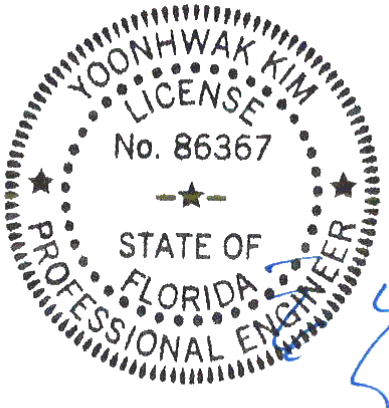
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 4-9-13.

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01/26/2021

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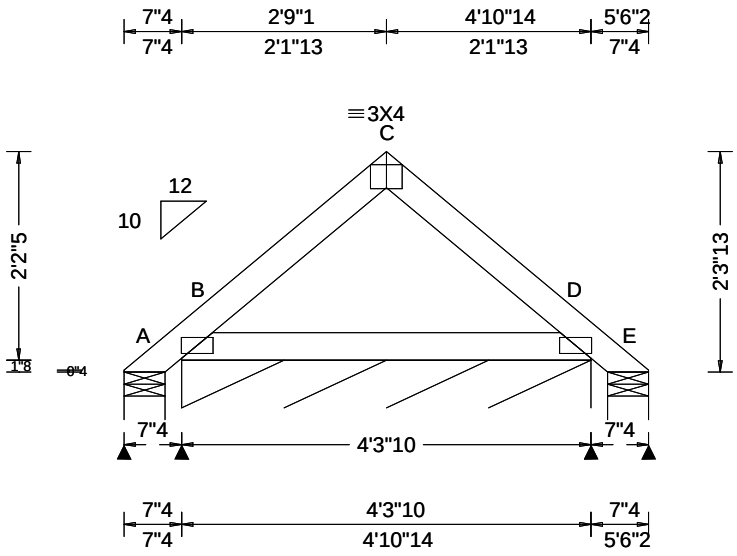
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** PB03 | Ply: 1<br>Qty: 5 | SEQN: 335899 / T12 / GABL<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46156<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 16.23 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: > 2h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.000 | C | 999 | 240 |
| VERT(TL): 0.001 | C | 999 | 180 |
| HORZ(LL): -0.000 | | - | - |
| HORZ(TL): 0.001 | | - | - |

Creep Factor: 2.0
Max TC CSI: 0.032
Max BC CSI: 0.053
Max Web CSI: 0.000

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

| | | Gravity | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| A | 1 | /-1 | /- | /53 | /60 | /67 |
| B* | 83 | /- | /- | /72 | /6 | /- |
| E | 1 | /-1 | /- | /11 | /18 | /- |

Wind reactions based on MWFRS
A Brg Width = 5.2 Min Req = 1.5
B Brg Width = 51.6 Min Req = -
E Brg Width = 5.2 Min Req = 1.5
Bearings A, B, & E are a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #2
Bot chord 2x4 SP #2

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Plating Notes**

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

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

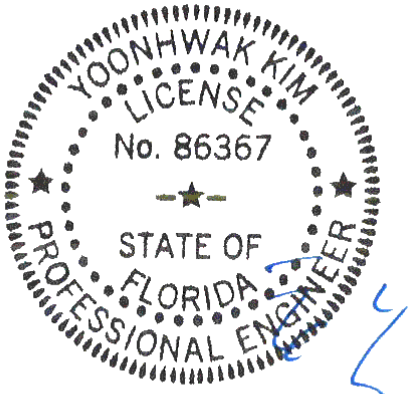
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 2-3-13.

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01/26/2021

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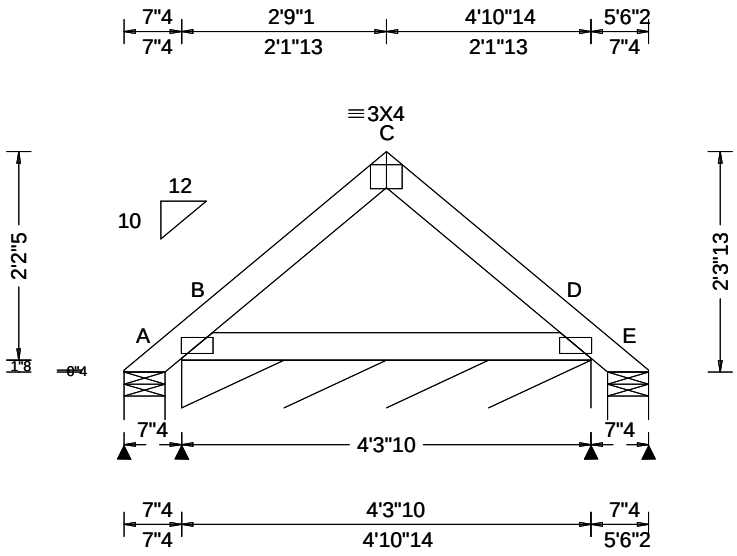
Orlando FL, 32837

| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** PB03 | Ply: 1<br>Qty: 2 | SEQN: 335945 / T26 / GABL<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45796<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 16.23 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.000 | C | 999 | 240 |
| VERT(TL): 0.001 | C | 999 | 180 |
| HORZ(LL): -0.000 | | - | - |
| HORZ(TL): 0.001 | | - | - |

Creep Factor: 2.0
Max TC CSI: 0.032
Max BC CSI: 0.053
Max Web CSI: 0.000

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

| | | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | | / Rw | / U | / RL |
| A | 1 | /-1 | /- | | /52 | /58 | /65 |
| B* | 83 | /- | /- | | /71 | /26 | /- |
| E | 1 | /-1 | /- | | /11 | /18 | /- |

Wind reactions based on MWFRS
A Brg Width = 5.2 Min Req = 1.5
B Brg Width = 51.6 Min Req = -
E Brg Width = 5.2 Min Req = 1.5
Bearings A, B, & E are a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #2
Bot chord 2x4 SP #2

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Plating Notes**

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

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

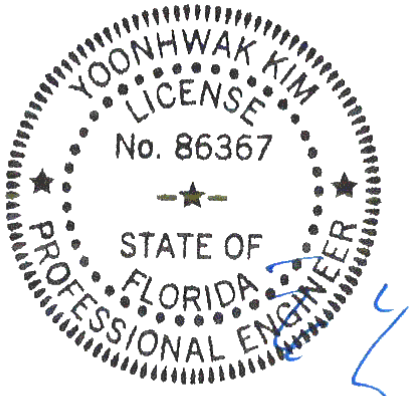
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 2-3-13.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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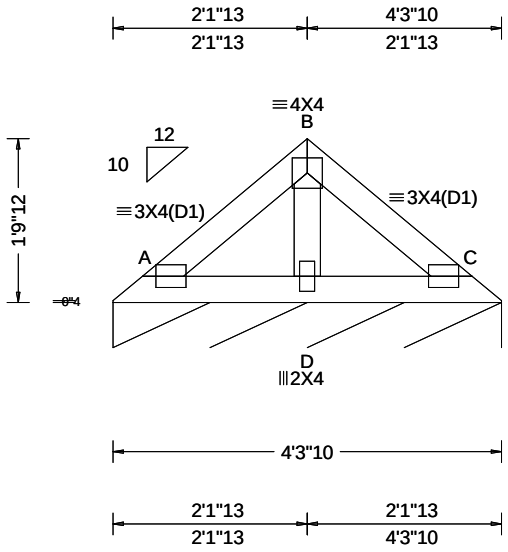
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** PB04 | Ply: 1<br>Qty: 1 | SEQN: 335947 / T14 / COMN<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45344<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 22.17 ft
TCDL: 5.0 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

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.000 | D | 999 | 240 |
| VERT(TL): 0.000 | D | 999 | 180 |
| HORZ(LL): -0.000 | D | - | - |
| HORZ(TL): 0.000 | D | - | - |

Creep Factor: 2.0
Max TC CSI: 0.006
Max BC CSI: 0.012
Max Web CSI: 0.002

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

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

Wind reactions based on MWFRS
A Brg Width = 51.6 Min Req = -
Bearing A is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

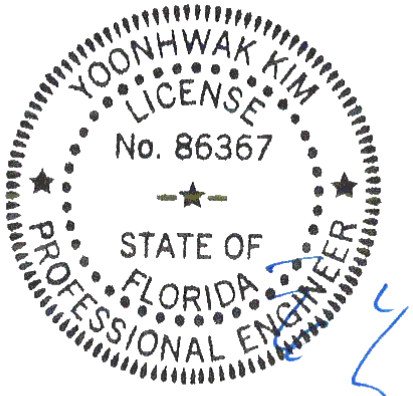
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 1-11-4.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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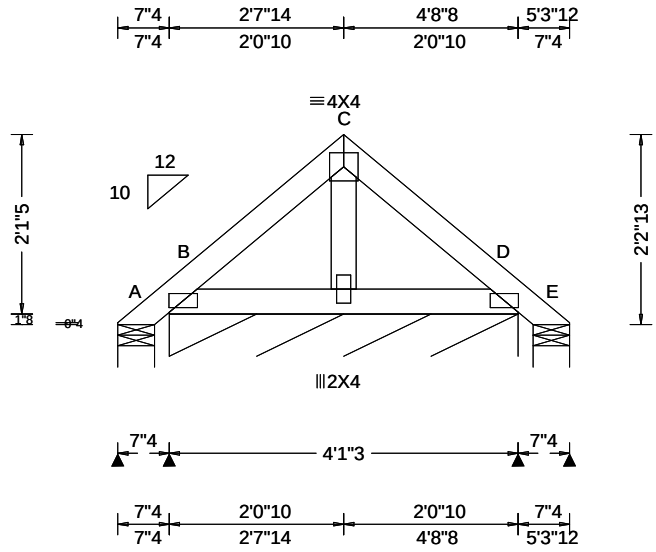
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** PB06 | Ply: 1<br>Qty: 14 | SEQN: 335822 / T13 / GABL<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45766<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 18.19 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: not in 4.50 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): -0.000 | F | 999 | 240 |
| VERT(TL): 0.000 | F | 999 | 180 |
| HORZ(LL): 0.000 | F | - | - |
| HORZ(TL): 0.000 | F | - | - |

Creep Factor: 2.0
Max TC CSI: 0.042
Max BC CSI: 0.019
Max Web CSI: 0.011

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| A | 9 | /-15 | /- | /53 | /50 | /63 |
| B* | 86 | /- | /- | /68 | /33 | /- |
| E | - | /-4 | /- | /12 | /8 | /- |

Wind reactions based on MWFRS
A Brg Width = 5.2 Min Req = 1.5
B Brg Width = 49.2 Min Req = -
E Brg Width = 5.2 Min Req = 1.5
Bearings A, B, & E are a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Plating Notes**

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

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

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

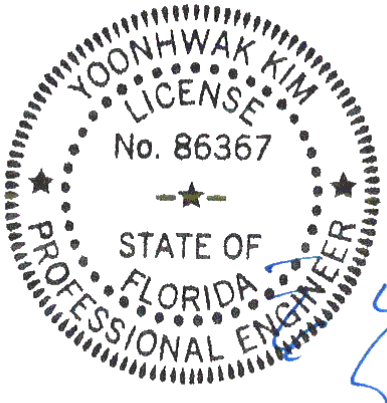
Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A14030ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 2-2-13.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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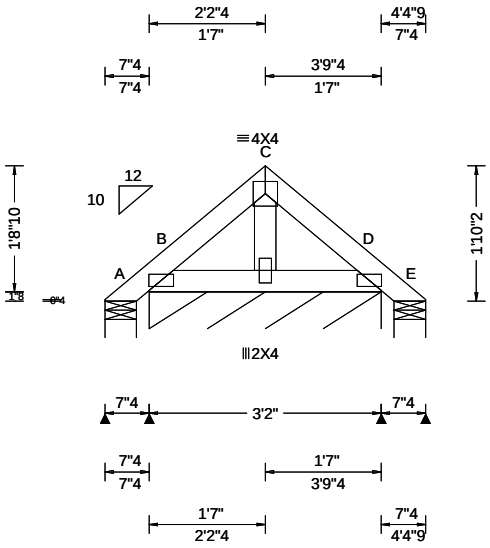
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** PB07 | Ply: 1<br>Qty: 11 | SEQN: 335746 / T29 / GABL<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45578<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 15.75 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): | 0.000 F | 999 | 240 |
| VERT(TL): | 0.000 F | 999 | 180 |
| HORZ(LL): | 0.000 F | - | - |
| HORZ(TL): | 0.000 F | - | - |

Creep Factor: 2.0
Max TC CSI: 0.023
Max BC CSI: 0.011
Max Web CSI: 0.009

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| A | 8 | /- | /- | /42 | /33 | /50 |
| B* | 83 | /- | /- | /67 | /24 | /- |
| E | 8 | /- | /- | /8 | /- | /- |

Wind reactions based on MWFRS
A Brg Width = 5.2 Min Req = 1.5
B Brg Width = 38.0 Min Req = -
E Brg Width = 5.2 Min Req = 1.5
Bearings A, B, & E are a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Plating Notes**

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

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

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

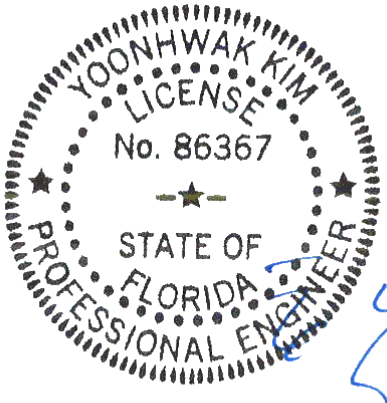
Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A14030ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.

Refer to DWG PB160160118 for piggyback details.

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




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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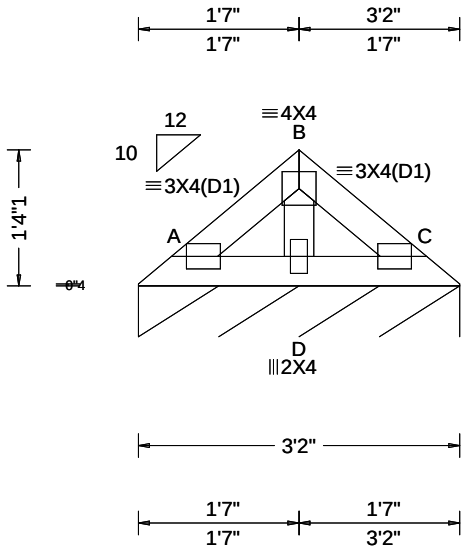
| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** PB08 | Ply: 1<br>Qty: 1 | SEQN: 335748 / T38 / SPEC<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.46235<br>KD / WHK 01/26/2021 |




**Loading Criteria** (psf)

| | |
|---|---|
| TCLL: | 20.00 |
| TCDL: | 10.00 |
| BCLL: | 0.00 |
| BCDL: | 10.00 |
| Des Ld: | 40.00 |
| NCBCLL: | 10.00 |
| Soffit: | 2.00 |

Load Duration: 1.25
Spacing: 24.0 "

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 21.43 ft
TCDL: 5.0 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

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.000 | D | 999 | 240 |
| VERT(TL): 0.000 | D | 999 | 180 |
| HORZ(LL): -0.000 | D | - | - |
| HORZ(TL): 0.000 | D | - | - |

Creep Factor: 2.0
Max TC CSI: 0.004
Max BC CSI: 0.005
Max Web CSI: 0.001

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs), or *=PLF**

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

Wind reactions based on MWFRS
A Brg Width = 38.0 Min Req = -
Bearing A is a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

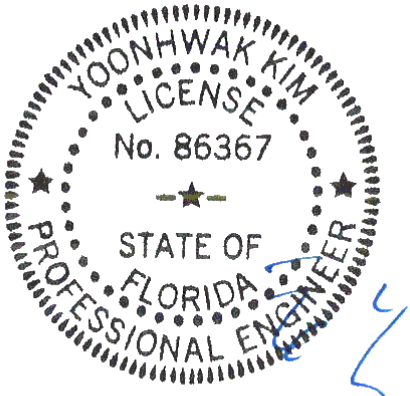
Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

**Additional Notes**

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 1-5-9.




FL REG# 278, Yoonhwak Kim, FL PE #86367
01/26/2021

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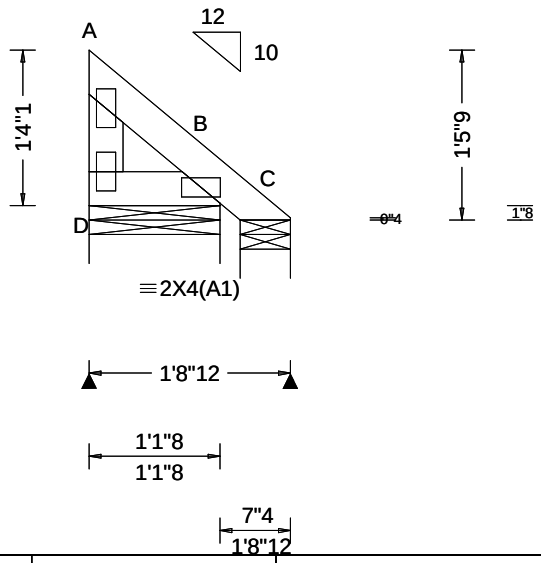
ALPINE
AN ITW COMPANY
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837

| | | | |
|---|---|---|---|
| **Job Number:** 20-4966<br>Dale and Karla Nickelson Res<br>**Truss Label:** PB09 | Ply: 1<br>Qty: 3 | SEQN: 335750 / T19 / GABL<br>FROM: CDM | Cust: R215 JRef: 1X2e2150002<br>DrwNo: 026.21.1006.45921<br>KD / WHK 01/26/2021 |




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

**Wind Criteria**
Wind Std: ASCE 7-16
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 16.39 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

**Snow Criteria** (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

**Code / Misc Criteria**
Bldg Code: FBC 7th Ed. 2020 Res
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

**Defl/CSI Criteria**

| PP Deflection in | loc | L/defl | L/# |
|---|---|---|---|
| VERT(LL): 0.000 | D | 999 | 240 |
| VERT(TL): 0.000 | D | 999 | 180 |
| HORZ(LL): 0.000 | A | - | - |
| HORZ(TL): 0.000 | D | - | - |

Creep Factor: 2.0
Max TC CSI: 0.011
Max BC CSI: 0.005
Max Web CSI: 0.004

VIEW Ver: 20.02.01A.1209.11

**▲Maximum Reactions (lbs)**

| | Gravity | | | Non-Gravity | | |
|---|---|---|---|---|---|---|
| Loc | R+ | / R- | / Rh | / Rw | / U | / RL |
| D | 93 | /- | /- | /85 | /13 | /33 |
| C | 14 | /- | /- | /13 | /1 | /- |

Wind reactions based on MWFRS
D Brg Width = 13.5 Min Req = 1.5
C Brg Width = 5.2 Min Req = 1.5
Bearings D & C are a rigid surface.
Members not listed have forces less than 375#

**Lumber**

Value Set: 13B (Effective 6/1/2013)

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

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

**Plating Notes**

All plates are 2X4 except as noted.

**Loading**

Bottom chord checked for 10.00 psf non-concurrent live load.

**Wind**

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

Left end vertical not exposed to wind pressure.

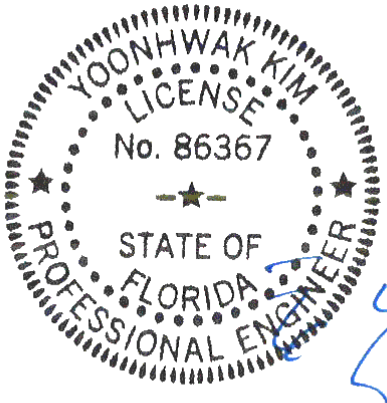
Wind loading based on both gable and hip roof types.

**Additional Notes**

See DWGS A14030ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 1-5-9.

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ALPINE
AN ITW COMPANY
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837

# Gable Stud Reinforcement Detail

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

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

Max Gable Vertical Length

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

Bracing Group Species and Grades:

Group A:

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

| Hem-Fir | |
|---|---|
| #2 | Stud |
| #3 | Standard |

| Douglas Fir-Larch |
|---|
| #3 |
| Stud |
| Standard |

| Southern Pine*** |
|---|
| #3 |
| Stud |
| Standard |

Group B:

| Hem-Fir |
|---|
| #1 & Btr |
| #1 |

| Douglas Fir-Larch |
|---|
| #1 |
| #2 |

| Southern Pine*** |
|---|
| #1 |
| #2 |

1x4 Braces shall be SRB (Stress-Rated Board).

***For 1x4 So. Pine use only Industrial 55 or Industrial 45 Stress-Rated Boards. Group B values may be used with these grades.

### Gable Truss Detail Notes:

Wind Load deflection criterion is L/240.

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

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

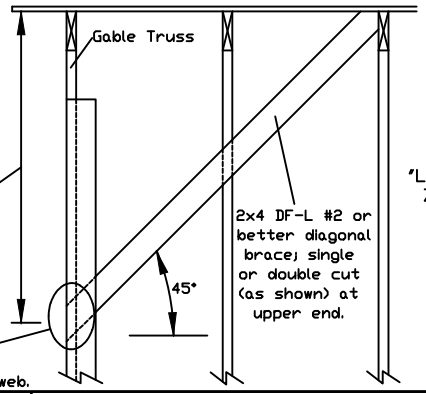
Attach "L" braces with 10d (0.128"x3.0" min) nails.

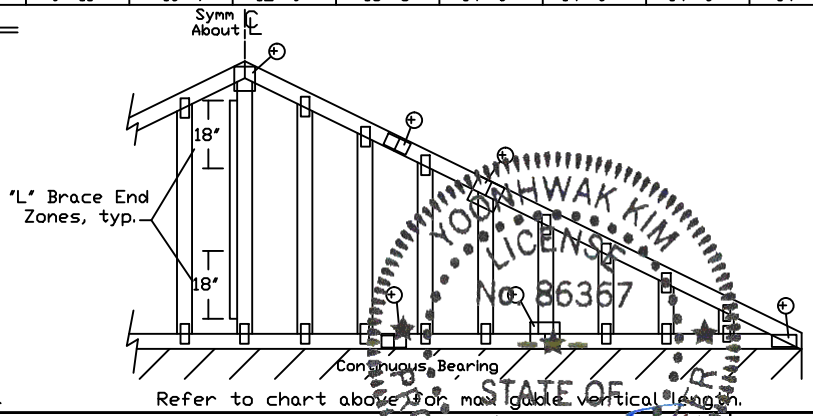
* For (1) "L" brace: space nails at 2" o.c. in 18" end zones and 4" o.c. between zones.

** For (2) "L" braces: space nails at 3" o.c. in 18" end zones and 6" o.c. between zones.

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

Diagonal brace option: vertical length may be doubled when diagonal brace is used. Connect diagonal brace for 450# at each end. Max web total length is 14'.




Refer to chart above for max gable vertical length.

Gable Vertical Plate Sizes

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

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

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

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Suite 242
Earth City, MO 63045


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MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"

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

1/26/2021
FL PE# 278, Yoonhwak Kim, FL PE #86367

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

| Hem-Fir | |
|---|---|
| #2 | Stud |
| #3 | Standard |

| Douglas Fir-Larch |
|---|
| #3 |
| Stud |
| Standard |

| Southern Pine*** |
|---|
| #3 |
| Stud |
| Standard |

**Group B:**

| Hem-Fir |
|---|
| #1 & Btr |
| #1 |

| Douglas Fir-Larch |
|---|
| #1 |
| #2 |

| Southern Pine*** |
|---|
| #1 |
| #2 |

1x4 Braces shall be SRB (Stress-Rated Board).

***For 1x4 So. Pine use only Industrial 55 or Industrial 45 Stress-Rated Boards. Group B values may be used with these grades.

### Gable Truss Detail Notes:

Wind Load deflection criterion is L/240.

Provide uplift connections for 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.

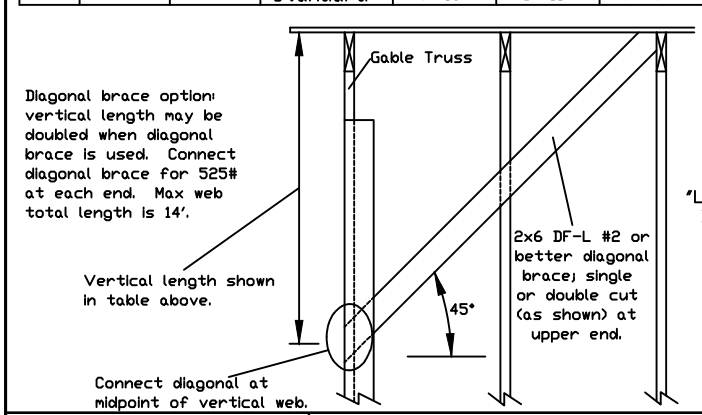
"L" bracing must be a minimum of 80% of web member length.

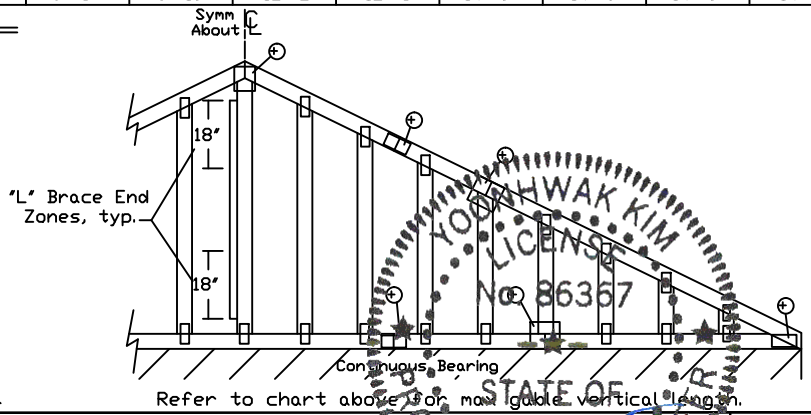
**Gable Vertical Plate Sizes**

| 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.




Refer to chart above for max gable vertical length.

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


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


YOONHWAK KIM LICENSE No. 86367 STATE OF FLORIDA PROFESSIONAL ENGINEER

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"

| | |
|---|---|
| REF | ASCE7-16-GAB14030 |
| DATE | 01/26/2018 |
| DRWG | A14030ENC160118 |

# CLR Reinforcing Member Substitution

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

## Notes:

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

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

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

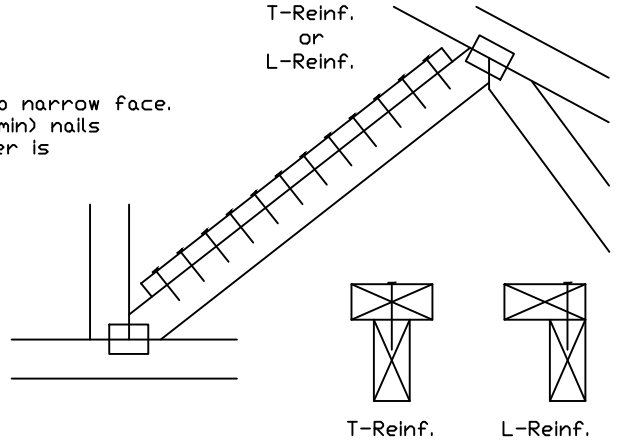
| Web Member Size | Specified CLR Restraint | Alternative Reinforecement T- or L- Reinf. | Alternative Reinforecement Scab Reinf. |
|---|---|---|---|
| 2x3 or 2x4 | 1 row | 2x4 | 1-2x4 |
| 2x3 or 2x4 | 2 rows | 2x6 | 2-2x4 |
| 2x6 | 1 row | 2x4 | 1-2x6 |
| 2x6 | 2 rows | 2x6 | 2-2x4(*) |
| 2x8 | 1 row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

T-reinforcement, L-reinforcement, or scab reinforcement to be same species and grade or better than web member unless specified otherwise on Engineer's sealed design.

(*) Center scab on wide face of web. Apply (1) scab to each face of web.

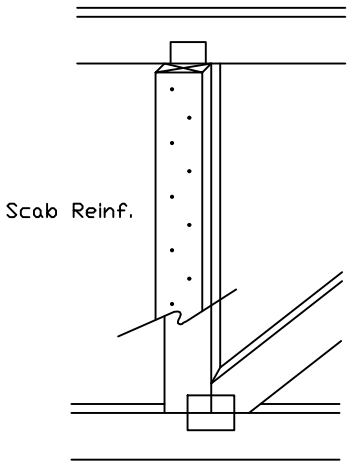
## T-Reinforcement or L-Reinforcement:

Apply to either side of web narrow face. Attach with 10d (0.128"x3.0",min) nails at 6" o.c. Reinforcing member is a minimum 80% of web member length.




## Scab Reinforcement:

Apply scab(s) to wide face of web. No more than (1) scab per face. Attach with 10d (0.128"x3.0",min) nails at 6" o.c. Reinforcing member is a minimum 80% of web member length.

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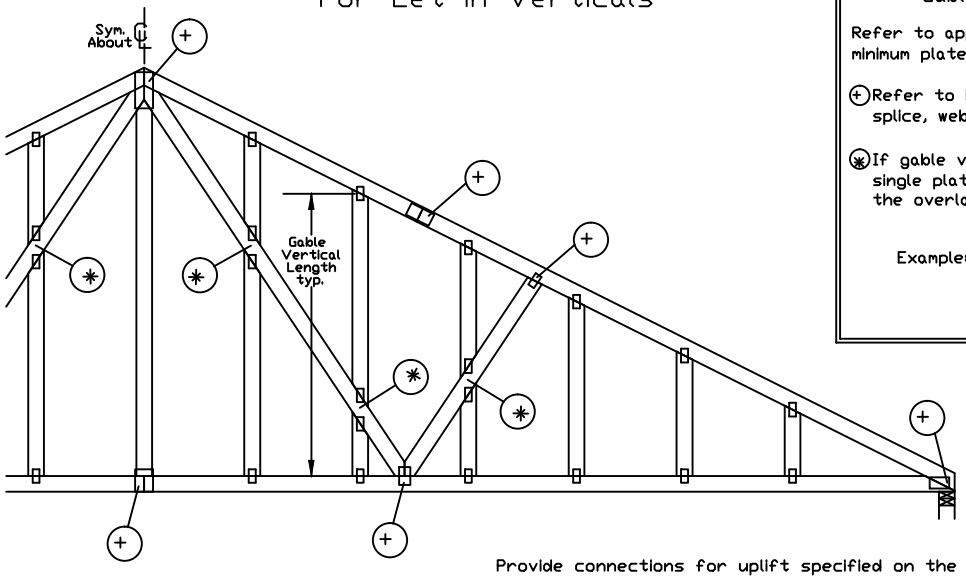
| | | |
|---|---|---|
| TC LL | | PSF |
| TC DL | | PSF |
| BC DL | | PSF |
| BC LL | | PSF |
| TOT. LD. | | PSF |
| DUR. FAC. | | |
| SPACING | | |

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

1/26/2021
FL REG# 278, Yoonhwak Kim, FL PE #86367

# Gable Detail
## For Let-in Verticals



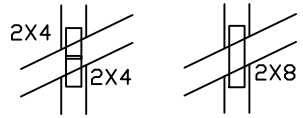

### Gable Truss Plate Sizes

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

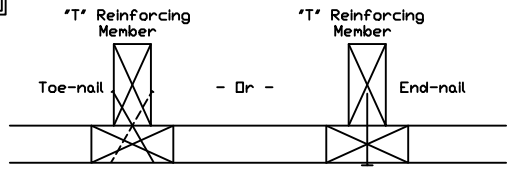
⊕ Refer to Engineered truss design for peak, splice, web, and heel plates.

⊛ If gable vertical plates overlap, use a single plate that covers the total area of the overlapped plates to span the web.

Example:




### "T" Reinforcement Attachment Detail




Provide connections for uplift specified on the engineered truss design.

Attach each "T" reinforcing member with

End Driven Nails:
10d Common (0.148"x 3.",min) Nails at 4" o.c. plus
(4) nails in the top and bottom chords.

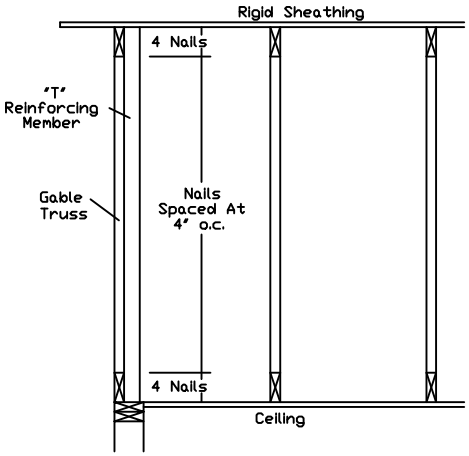
Toenailed Nails:
10d Common (0.148"x3",min) Toenails at 4" o.c. plus
(4) toenails in the top and bottom chords.

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

ASCE 7-05 Gable Detail Drawings
A13015051014, A12015051014, A11015051014, A10015051014, A14015051014, A13030051014, A12030051014, A11030051014, A10030051014, A14030051014

ASCE 7-10 & ASCE 7-16 Gable Detail Drawings
A11515ENC100118, A12015ENC100118, A14015ENC100118, A18015ENC100118, A20015ENC100118, A20015END100118, A20015PED100118, A11530ENC100118, A12030ENC100118, A14030ENC100118, A18030ENC100118, A20030ENC100118, A20030END100118, A20030PED100118, S11515ENC100118, S12015ENC100118, S14015ENC100118, S16015ENC100118, S18015ENC100118, S20015ENC100118, S20015END100118, S20015PED100118, S11530ENC100118, S12030ENC100118, S14030ENC100118, S16030ENC100118, S18030ENC100118, S20030ENC100118, S20030END100118, S20030PED100118

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




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

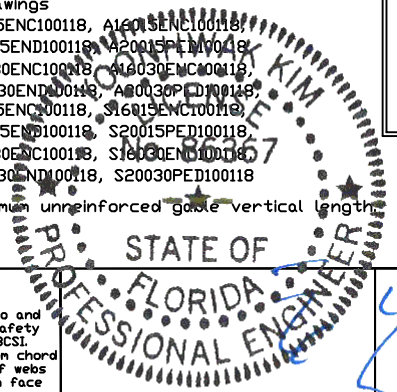
Maximum allowable "T" reinforced gable vertical length is 14' from top to bottom chord.

"T" reinforcing member material must match size, specie, and grade of the "L" reinforcing member.

### Web Length Increase w/ "T" Brace

| "T" Reinf. Mbr. Size | "T" Increase |
|---|---|
| 2x4 | 30 % |
| 2x6 | 20 % |

Example:
ASCE 7-10 Wind Speed = 120 mph
Mean Roof Height = 30 ft, Kzt = 1.00
Gable Vertical = 24"o.c. SP #3
"T" Reinforcing Member Size = 2x4
"T" Brace Increase (From Above) = 30% = 1.30
(1) 2x4 "L" Brace Length = 8' 7"
Maximum "T" Reinforced Gable Vertical Length
1.30 x 8' 7" = 11' 2"

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

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

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

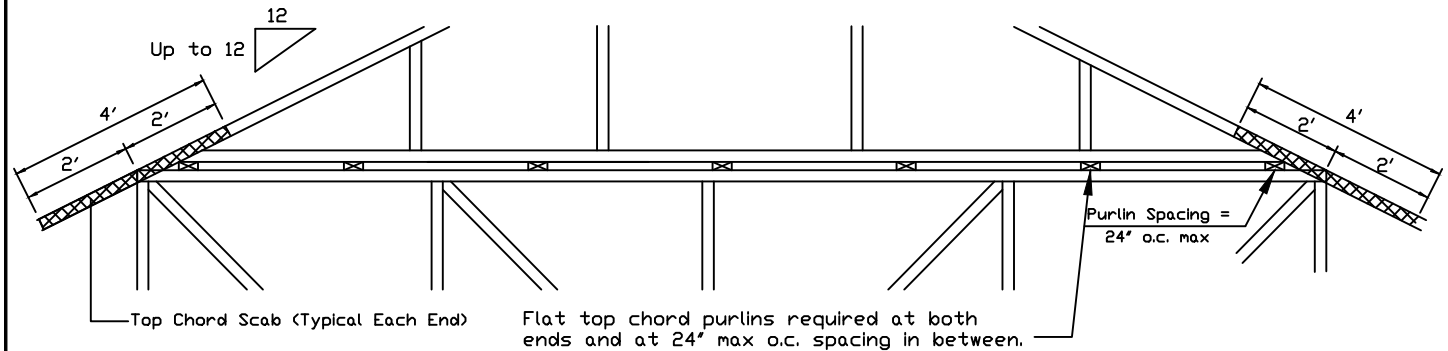
160 mph Wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp C, Wind DL= 5.0 psf (min), Kzt=1.0.
Or 140 mph wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp D, Wind DL= 5.0 psf (min), Kzt=1.0.

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

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

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

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




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

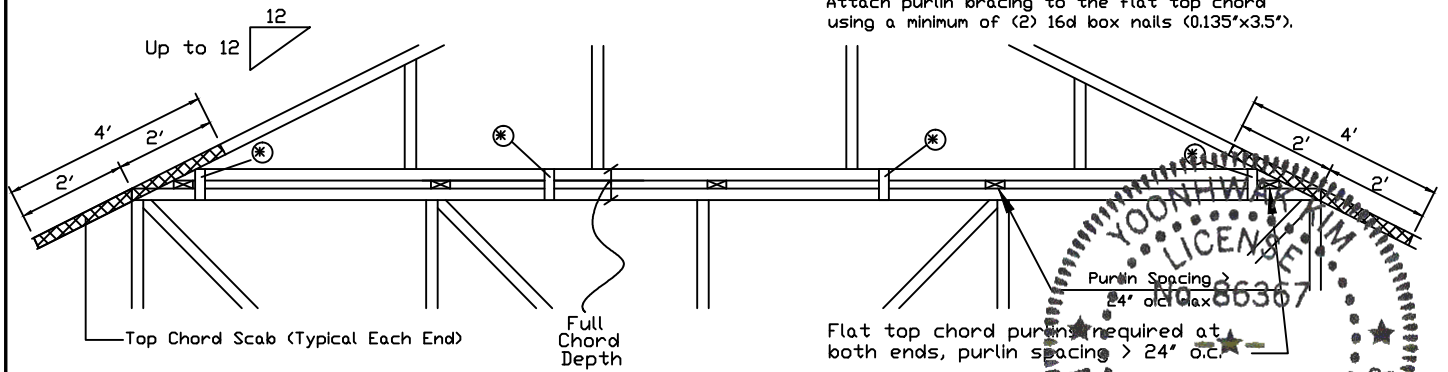
Attach purlin bracing to the flat top chord using (2) 16d box nails (0.135"x3.5").

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

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

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

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




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

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

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

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

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

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

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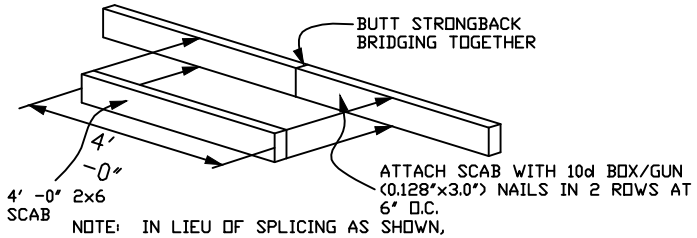
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043




01/26/2021
FL REG# 278, Yoonhwak Kim, FL PE #86367

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

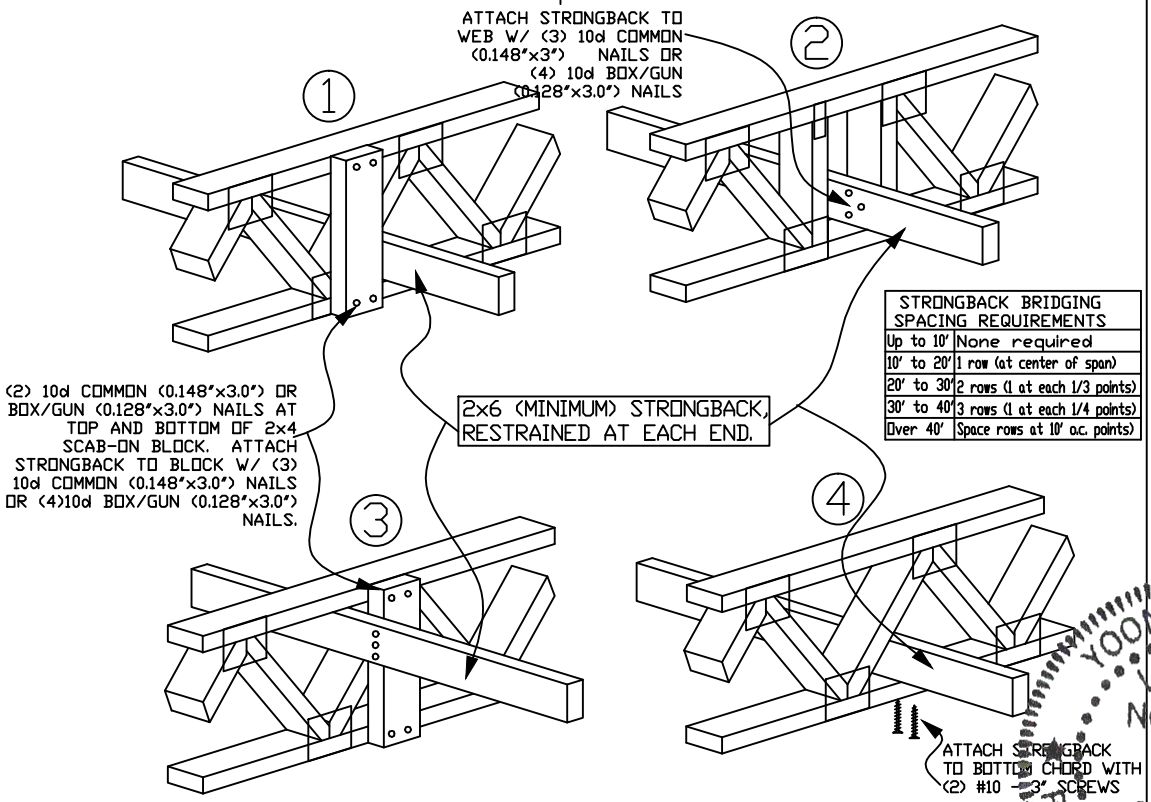
# STRONGBACK BRIDGING RECOMMENDATIONS




NOTE: IN LIEU OF SPLICING AS SHOWN, LAP STRONGBACK BRIDGING MEMBERS FOR AT LEAST ONE TRUSS SPACING

STRONGBACK BRIDGING SPLICE DETAIL

NOTE: Details 1 and 2 are the preferred attachment methods




| STRONGBACK BRIDGING SPACING REQUIREMENTS | |
|---|---|
| Up to 10' | None required |
| 10' to 20' | 1 row (at center of span) |
| 20' to 30' | 2 rows (1 at each 1/3 points) |
| 30' to 40' | 3 rows (1 at each 1/4 points) |
| Over 40' | Space rows at 10' o.c. points) |

STRONGBACK BRIDGING ATTACHMENT ALTERNATIVES

- 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.)
- 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).

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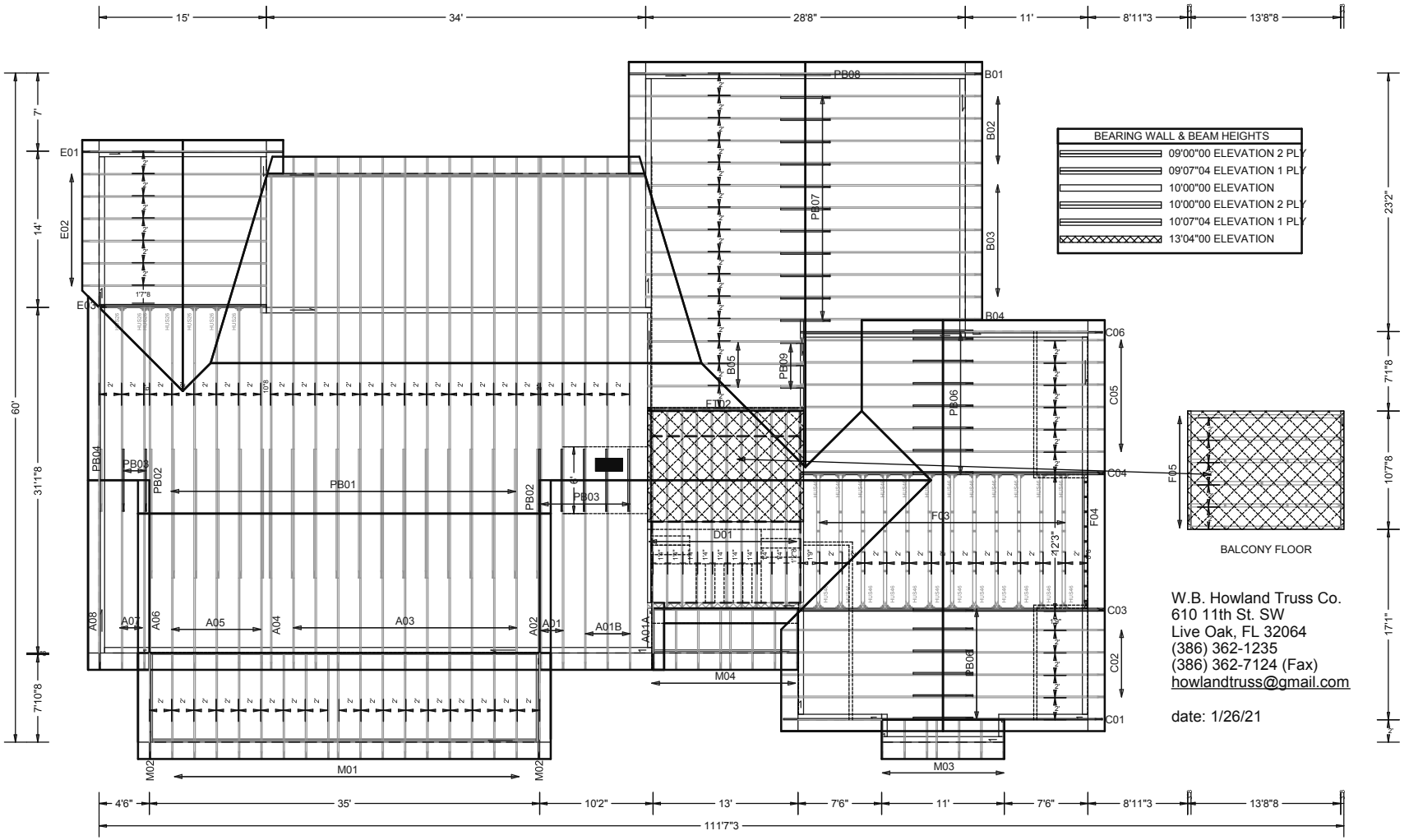
| | | |
|---|---|---|
| TC LL | PSF | REF STRONGBACK |
| TC DL | PSF | DATE 10/01/14 |
| BC DL | PSF | DRWG STRBRIBR1014 |
| BC LL | PSF | |
| TOT. LD. | PSF | |
| DUR. FAC. | 1.00 | |
| SPACING | | |

04/26/2021
Job # 278, Yoonhwak Kim, FL PE #86367




JOB #: 20-4966

Job Name: Dale and Karla Nickelson
Customer: Contractor
Designer: Bill Eklund
ADDRESS:
SALESMAN: Fill in later
: <Not Found>

JOB NO:
20-4966

PAGE NO:
1 OF 1