

Job:(STOCK23) / -OPEN / / I 40' 4/12 60# STOCK

This dwg. prepared by the ITW job designer program from truss mfr's layout.

Top chord 2x4 SPF 2100f-1.8E :T2, T3 2x4 SPF 1650f-1.5E:  
Bot chord 2x4 SPF 2100f-1.8E  
Webs 2x4 SPF Stud

Calculated horizontal deflection is 0.20" due to live load and 0.07" due to dead load.

Deflection meets L/360 live and L/240 total load. Creep increase factor for dead load is 2.00.

Truss designed for unbalanced snow load based on Pg=60.00 psf, Ct=1.10, Ce=1.00, CAT II & Pf=46.20 psf.

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

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

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

| CHORD | SPACING(IN OC) | START(FT) | END(FT) |
|-------|----------------|-----------|---------|
| BC    | 120            | 0.15      | 39.85   |

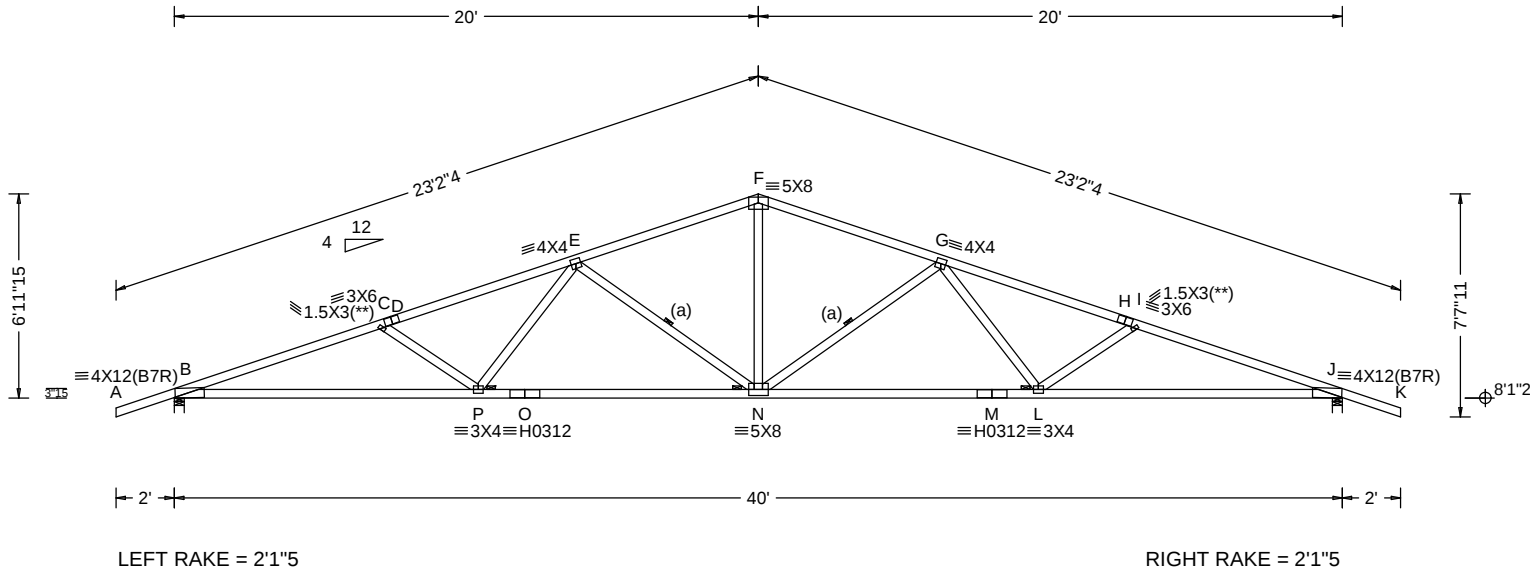
Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

115 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=4.2 psf, wind BC DL=6.0 psf.

(a) Continuous lateral restraint equally spaced on member.

Bottom chord checked for 10.00 psf non-concurrent bottom chord live load applied per IBC-15 section 1607.

Calculated vertical deflection is 0.69" due to live load and 0.49" due to dead load at X = 20-0-0.



#### ▲ Maximum Reactions (lbs)

| Loc | R    | / U | / Rw  | / Rh | / RL  | / W   |
|-----|------|-----|-------|------|-------|-------|
| B   | 2801 | / - | / 836 | / -  | / 108 | / 4.0 |
| J   | 2801 | / - | / 836 | / -  | / -   | / 4.0 |

Wind reactions based on MWFRS

B Min Brg Width Req = 3.6

J Min Brg Width Req = 3.6

Bearings B & J Fcperp = 565psi.

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|--------|-------|-------|--------|-------|-------|
| A - B  | 71    | 0     | F - G  | 589   | -4140 |
| B - C  | 776   | -6531 | G - H  | 686   | -5843 |
| C - D  | 668   | -5852 | H - I  | 668   | -5852 |
| D - E  | 686   | -5843 | I - J  | 776   | -6531 |
| E - F  | 589   | -4140 | J - K  | 71    | 0     |

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

| Chords | Tens. | Comp. | Chords | Tens. | Comp. |
|--------|-------|-------|--------|-------|-------|
| B - P  | 6091  | -654  | N - M  | 4972  | -515  |
| P - O  | 4972  | -510  | M - L  | 4972  | -515  |
| O - N  | 4972  | -510  | L - J  | 6091  | -659  |

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

| Webs  | Tens. | Comp. | Webs  | Tens. | Comp. |
|-------|-------|-------|-------|-------|-------|
| C - P | 196   | -802  | N - G | 246   | -1792 |
| P - E | 817   | 0     | G - L | 817   | 0     |
| E - N | 247   | -1792 | L - I | 196   | -802  |
| F - N | 1884  | -157  |       |       |       |

DESC = I 40' 4/12 60# STOCK

PLT TYP. WAVE

DESIGN CRIT=IBC 2015 /TPI-2014 FT/RT=0%(0%)/0(0)

PLY= 1 QTY= 30

REV. 16.02.01A.0117.20



**\*\*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 SBCE) 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.

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.

TC LL 47.00 PSF

TC DL 7.00 PSF

BC DL 10.00 PSF

BC LL 0.00 PSF

TOT. LD 64.00 PSF

DUR. FAC 1.15

SPACING 24.0 "

JOB #: STOCK23

DATE - 01/25/23

I 40' 4/12 60# STOCK

WEIGHT =182.4

SEQ - 150489

TYPE COMN