

# Residential System Sizing Calculation

## Summary

Legue Residence

Project Title:  
1203079

, FL

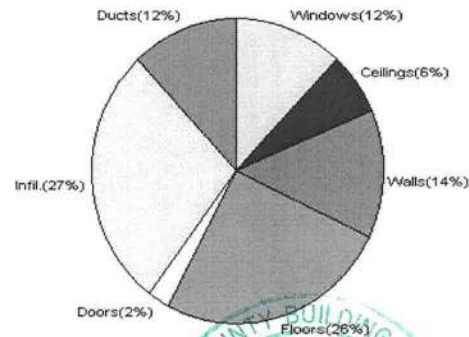
3/30/2012

|                                                                                                       |                   |                                       |                   |
|-------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------|-------------------|
| Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M) |                   |                                       |                   |
| Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(54gr.)                    |                   |                                       |                   |
| Winter design temperature(MJ8 99%)                                                                    | 33 F              | Summer design temperature(MJ8 99%)    | 92 F              |
| Winter setpoint                                                                                       | 70 F              | Summer setpoint                       | 75 F              |
| Winter temperature difference                                                                         | 37 F              | Summer temperature difference         | 17 F              |
| <b>Total heating load calculation</b>                                                                 | <b>36579 Btuh</b> | <b>Total cooling load calculation</b> | <b>38566 Btuh</b> |
| Submitted heating capacity                                                                            | % of calc Btuh    | Submitted cooling capacity            | % of calc Btuh    |
| Total (Electric Heat Pump)                                                                            | 125.8 46000       | Sensible (SHR = 0.75)                 | 117.4 34500       |
| Heat Pump + Auxiliary(0.0kW)                                                                          | 125.8 46000       | Latent                                | 125.2 11500       |
|                                                                                                       |                   | Total (Electric Heat Pump)            | 119.3 46000       |

## WINTER CALCULATIONS

Winter Heating Load (for 1914 sqft)

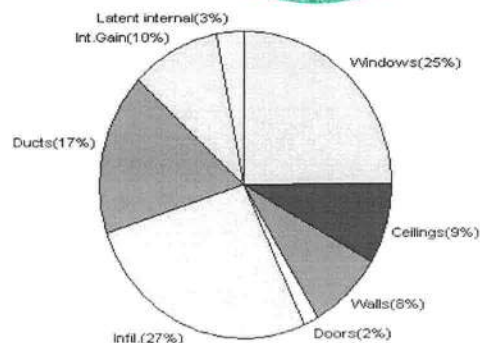
| Load component         |           | Load         |             |
|------------------------|-----------|--------------|-------------|
| Window total           | 343 sqft  | 4442         | Btuh        |
| Wall total             | 1543 sqft | 5066         | Btuh        |
| Door total             | 60 sqft   | 888          | Btuh        |
| Ceiling total          | 2014 sqft | 2373         | Btuh        |
| Floor total            | 1914 sqft | 9431         | Btuh        |
| Infiltration           | 248 cfm   | 10029        | Btuh        |
| Duct loss              |           | 4350         | Btuh        |
| <b>Subtotal</b>        |           | <b>36579</b> | <b>Btuh</b> |
| Ventilation            | 0 cfm     | 0            | Btuh        |
| <b>TOTAL HEAT LOSS</b> |           | <b>36579</b> | <b>Btuh</b> |



## SUMMER CALCULATIONS

Summer Cooling Load (for 1914 sqft)

| Load component                        |           | Load         |             |
|---------------------------------------|-----------|--------------|-------------|
| Window total                          | 343 sqft  | 9558         | Btuh        |
| Wall total                            | 1543 sqft | 3079         | Btuh        |
| Door total                            | 60 sqft   | 672          | Btuh        |
| Ceiling total                         | 2014 sqft | 3335         | Btuh        |
| Floor total                           |           | 0            | Btuh        |
| Infiltration                          | 186 cfm   | 3456         | Btuh        |
| Internal gain                         |           | 3780         | Btuh        |
| Duct gain                             |           | 5501         | Btuh        |
| Sens. Ventilation                     | 0 cfm     | 0            | Btuh        |
| Blower Load                           |           | 0            | Btuh        |
| <b>Total sensible gain</b>            |           | <b>29382</b> | <b>Btuh</b> |
| Latent gain(ducts)                    |           | 1198         | Btuh        |
| Latent gain(infiltration)             |           | 6786         | Btuh        |
| Latent gain(ventilation)              |           | 0            | Btuh        |
| Latent gain(internal/occupants/other) |           | 1200         | Btuh        |
| <b>Total latent gain</b>              |           | <b>9184</b>  | <b>Btuh</b> |
| <b>TOTAL HEAT GAIN</b>                |           | <b>38566</b> | <b>Btuh</b> |



8th Edition

EnergyGauge® System Sizing

PREPARED BY: E. V. R. B. G. M. S. C. B.

DATE: 3/30/12

# System Sizing Calculations - Winter

## Residential Load - Whole House Component Details

Legue Residence

Project Title:

1203079

, FL

Building Type: User

3/30/2012

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 37.0 F (MJ8 99%)

This calculation is for Worst Case. The house has been rotated 225 degrees.

### Component Loads for Whole House

| Window             | Panes/Type                                                    | Frame      | U       | Orientation         | Area(sqft)       | X     | HTM= | Load       |
|--------------------|---------------------------------------------------------------|------------|---------|---------------------|------------------|-------|------|------------|
| 1                  | 2, NFRC 0.35                                                  | Metal      | 0.35    | SW                  | 72.0             |       | 12.9 | 932 Btuh   |
| 2                  | 2, NFRC 0.35                                                  | Metal      | 0.35    | SW                  | 72.0             |       | 12.9 | 932 Btuh   |
| 3                  | 2, NFRC 0.35                                                  | Metal      | 0.35    | SW                  | 15.5             |       | 12.9 | 201 Btuh   |
| 4                  | 2, NFRC 0.35                                                  | Metal      | 0.35    | NW                  | 18.0             |       | 12.9 | 233 Btuh   |
| 5                  | 2, NFRC 0.35                                                  | Metal      | 0.35    | NW                  | 4.0              |       | 12.9 | 52 Btuh    |
| 6                  | 2, NFRC 0.35                                                  | Metal      | 0.35    | NW                  | 15.5             |       | 12.9 | 201 Btuh   |
| 7                  | 2, NFRC 0.35                                                  | Metal      | 0.35    | NE                  | 12.0             |       | 12.9 | 155 Btuh   |
| 8                  | 2, NFRC 0.35                                                  | Metal      | 0.35    | NE                  | 32.0             |       | 12.9 | 414 Btuh   |
| 9                  | 2, NFRC 0.35                                                  | Metal      | 0.35    | NE                  | 36.0             |       | 12.9 | 466 Btuh   |
| 10                 | 2, NFRC 0.35                                                  | Metal      | 0.35    | NE                  | 4.0              |       | 12.9 | 52 Btuh    |
| 11                 | 2, NFRC 0.35                                                  | Metal      | 0.35    | SE                  | 20.0             |       | 12.9 | 259 Btuh   |
| 12                 | 2, NFRC 0.35                                                  | Metal      | 0.35    | SE                  | 6.0              |       | 12.9 | 78 Btuh    |
| 13                 | 2, NFRC 0.35                                                  | Metal      | 0.35    | SE                  | 36.0             |       | 12.9 | 466 Btuh   |
| Window Total       |                                                               |            |         |                     | 343.0(sqft)      |       |      | 4442 Btuh  |
| Walls              | Type                                                          | Ornt.      | Ueff.   | R-Value<br>(Cav/Sh) | Area             | X     | HTM= | Load       |
| 1                  | Frame - Wood                                                  | - Ext      | (0.089) | 13.0/0.0            | 294              |       | 3.28 | 964 Btuh   |
| 2                  | Frame - Wood                                                  | - Ext      | (0.089) | 13.0/0.0            | 380              |       | 3.28 | 1246 Btuh  |
| 3                  | Frame - Wood                                                  | - Ext      | (0.089) | 13.0/0.0            | 197              |       | 3.28 | 647 Btuh   |
| 4                  | Frame - Wood                                                  | - Ext      | (0.089) | 13.0/0.0            | 433              |       | 3.28 | 1422 Btuh  |
| 5                  | Frame - Wood                                                  | - Adj      | (0.089) | 13.0/0.0            | 240              |       | 3.28 | 787 Btuh   |
| Wall Total         |                                                               |            |         |                     | 1543(sqft)       |       |      | 5066 Btuh  |
| Doors              | Type                                                          | Storm      | Ueff.   |                     | Area             | X     | HTM= | Load       |
| 1                  | Insulated - Exterior,                                         | n          | (0.400) |                     | 24               |       | 14.8 | 355 Btuh   |
| 2                  | Insulated - Exterior,                                         | n          | (0.400) |                     | 16               |       | 14.8 | 237 Btuh   |
| 3                  | Insulated - Garage,                                           | n          | (0.400) |                     | 20               |       | 14.8 | 296 Btuh   |
| Door Total         |                                                               |            |         |                     | 60(sqft)         |       |      | 888Btuh    |
| Ceilings           | Type/Color/Surface                                            |            | Ueff.   | R-Value             | Area             | X     | HTM= | Load       |
| 1                  | Vented Attic/D/Shing                                          |            | (0.032) | 30.0/0.0            | 2014             |       | 1.2  | 2373 Btuh  |
| Ceiling Total      |                                                               |            |         |                     | 2014(sqft)       |       |      | 2373Btuh   |
| Floors             | Type                                                          |            | Ueff.   | R-Value             | Size             | X     | HTM= | Load       |
| 1                  | Slab On Grade                                                 |            | (1.180) | 0.0                 | 216.0 ft(perim.) |       | 43.7 | 9431 Btuh  |
| Floor Total        |                                                               |            |         |                     | 1914 sqft        |       |      | 9431 Btuh  |
| Envelope Subtotal: |                                                               |            |         |                     |                  |       |      | 22199 Btuh |
| Infiltration       | Type                                                          | Wholehouse | ACH     | Volume(cuft)        | Wall Ratio       | CFM=  |      | Load       |
|                    | Natural                                                       |            | 0.86    | 17226               | 1.00             | 247.6 |      | 10029 Btuh |
| Duct load          | Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.135) |            |         |                     |                  |       |      | 4350 Btuh  |

# Manual J Winter Calculations

## Residential Load - Component Details (continued)

Legue Residence

Project Title:

1203079

, Fl

Building Type: User

3/30/2012

|           |                             |            |
|-----------|-----------------------------|------------|
| All Zones | Sensible Subtotal All Zones | 36579 Btuh |
|-----------|-----------------------------|------------|

### WHOLE HOUSE TOTALS

|                    |                                                                                  |                                    |
|--------------------|----------------------------------------------------------------------------------|------------------------------------|
| Totals for Heating | Subtotal Sensible Heat Loss<br>Ventilation Sensible Heat Loss<br>Total Heat Loss | 36579 Btuh<br>0 Btuh<br>36579 Btuh |
|--------------------|----------------------------------------------------------------------------------|------------------------------------|

### EQUIPMENT

|                       |   |            |
|-----------------------|---|------------|
| 1. Electric Heat Pump | # | 46000 Btuh |
|-----------------------|---|------------|

Key: Window types -NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)  
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)

U - (Window U-Factor)

HTM - (ManualJ Heat Transfer Multiplier)



Version 8

# System Sizing Calculations - Summer

## Residential Load - Whole House Component Details

Legue Residence

Project Title:  
1203079

, FL

3/30/2012

Reference City: Gainesville, FL

Temperature Difference: 17.0F(MJ8 99%)

Humidity difference: 54gr.

This calculation is for Worst Case. The house has been rotated 225 degrees.

### Component Loads for Whole House

| Window   | Type*                    |            |    |      |    | Overhang |            | Window Area(sqft) |                     |        | HTM      |        | Load     |            |      |      |
|----------|--------------------------|------------|----|------|----|----------|------------|-------------------|---------------------|--------|----------|--------|----------|------------|------|------|
|          | Panes                    | SHGC       | U  | InSh | IS | Ornt     | Len        | Hgt               | Gross               | Shaded | Unshaded | Shaded | Unshaded |            |      |      |
| 1        | 2 NFRC                   | 0.35, 0.35 | No | No   | SW |          | 1.5ft      | 2.0ft             | 72.0                | 5.6    | 66.4     | 13     | 31       | 2135       | Btuh |      |
| 2        | 2 NFRC                   | 0.35, 0.35 | No | No   | SW |          | 10.7       | 0.0ft             | 72.0                | 72.0   | 0.0      | 13     | 31       | 958        | Btuh |      |
| 3        | 2 NFRC                   | 0.35, 0.35 | No | No   | SW |          | 1.5ft      | 2.0ft             | 15.5                | 1.4    | 14.1     | 13     | 31       | 456        | Btuh |      |
| 4        | 2 NFRC                   | 0.35, 0.35 | No | No   | NW |          | 99.0       | 2.0ft             | 18.0                | 0.0    | 18.0     | 13     | 29       | 530        | Btuh |      |
| 5        | 2 NFRC                   | 0.35, 0.35 | No | No   | NW |          | 1.5ft      | 2.0ft             | 4.0                 | 0.0    | 4.0      | 13     | 29       | 118        | Btuh |      |
| 6        | 2 NFRC                   | 0.35, 0.35 | No | No   | NW |          | 1.5ft      | 2.0ft             | 15.5                | 0.0    | 15.5     | 13     | 29       | 457        | Btuh |      |
| 7        | 2 NFRC                   | 0.35, 0.35 | No | No   | NE |          | 8.5ft      | 2.0ft             | 12.0                | 0.0    | 12.0     | 13     | 29       | 354        | Btuh |      |
| 8        | 2 NFRC                   | 0.35, 0.35 | No | No   | NE |          | 12.0       | 1.0ft             | 32.0                | 0.0    | 32.0     | 13     | 29       | 943        | Btuh |      |
| 9        | 2 NFRC                   | 0.35, 0.35 | No | No   | NE |          | 8.5ft      | 2.0ft             | 36.0                | 0.0    | 36.0     | 13     | 29       | 1061       | Btuh |      |
| 10       | 2 NFRC                   | 0.35, 0.35 | No | No   | NE |          | 1.5ft      | 2.0ft             | 4.0                 | 0.0    | 4.0      | 13     | 29       | 118        | Btuh |      |
| 11       | 2 NFRC                   | 0.35, 0.35 | No | No   | SE |          | 1.5ft      | 2.0ft             | 20.0                | 1.9    | 18.1     | 13     | 31       | 587        | Btuh |      |
| 12       | 2 NFRC                   | 0.35, 0.35 | No | No   | SE |          | 1.5ft      | 2.0ft             | 6.0                 | 0.9    | 5.1      | 13     | 31       | 170        | Btuh |      |
| 13       | 2 NFRC                   | 0.35, 0.35 | No | No   | SE |          | 99.5       | 2.0ft             | 36.0                | 36.0   | 0.0      | 13     | 31       | 479        | Btuh |      |
|          | Excursion                |            |    |      |    |          |            |                   |                     |        |          |        |          | 1192       | Btuh |      |
|          | Window Total             |            |    |      |    |          |            |                   | 343 (sqft)          |        |          |        |          |            | 9558 | Btuh |
| Walls    | Type                     | U-Value    |    |      |    |          | R-Value    |                   | Area(sqft)          |        |          | HTM    |          | Load       |      |      |
|          |                          |            |    |      |    |          | Cav/Sheath |                   |                     |        |          |        |          |            |      |      |
| 1        | Frame - Wood - Ext       | 0.09       |    |      |    |          | 13.0/0.0   |                   | 293.5               |        |          | 2.1    |          | 612 Btuh   |      |      |
| 2        | Frame - Wood - Ext       | 0.09       |    |      |    |          | 13.0/0.0   |                   | 379.5               |        |          | 2.1    |          | 792 Btuh   |      |      |
| 3        | Frame - Wood - Ext       | 0.09       |    |      |    |          | 13.0/0.0   |                   | 197.0               |        |          | 2.1    |          | 411 Btuh   |      |      |
| 4        | Frame - Wood - Ext       | 0.09       |    |      |    |          | 13.0/0.0   |                   | 433.0               |        |          | 2.1    |          | 903 Btuh   |      |      |
| 5        | Frame - Wood - Adj       | 0.09       |    |      |    |          | 13.0/0.0   |                   | 239.5               |        |          | 1.5    |          | 361 Btuh   |      |      |
|          | Wall Total               |            |    |      |    |          |            |                   | 1543 (sqft)         |        |          |        |          | 3079 Btuh  |      |      |
| Doors    | Type                     |            |    |      |    |          |            |                   | Area (sqft)         |        |          | HTM    |          | Load       |      |      |
| 1        | Insulated - Exterior     |            |    |      |    |          |            |                   | 24.0                |        |          | 11.2   |          | 269 Btuh   |      |      |
| 2        | Insulated - Exterior     |            |    |      |    |          |            |                   | 16.0                |        |          | 11.2   |          | 179 Btuh   |      |      |
| 3        | Insulated - Garage       |            |    |      |    |          |            |                   | 20.0                |        |          | 11.2   |          | 224 Btuh   |      |      |
|          | Door Total               |            |    |      |    |          |            |                   | 60 (sqft)           |        |          |        |          | 672 Btuh   |      |      |
| Ceilings | Type/Color/Surface       | U-Value    |    |      |    |          | R-Value    |                   | Area(sqft)          |        |          | HTM    |          | Load       |      |      |
| 1        | Vented Attic/DarkShingle | 0.032      |    |      |    |          | 30.0/0.0   |                   | 2014.0              |        |          | 1.66   |          | 3335 Btuh  |      |      |
|          | Ceiling Total            |            |    |      |    |          |            |                   | 2014 (sqft)         |        |          |        |          | 3335 Btuh  |      |      |
| Floors   | Type                     |            |    |      |    |          | R-Value    |                   | Size                |        |          | HTM    |          | Load       |      |      |
| 1        | Slab On Grade            |            |    |      |    |          | 0.0        |                   | 1914 (ft-perimeter) |        |          | 0.0    |          | 0 Btuh     |      |      |
|          | Floor Total              |            |    |      |    |          |            |                   | 1914.0 (sqft)       |        |          |        |          | 0 Btuh     |      |      |
|          | Envelope Subtotal:       |            |    |      |    |          |            |                   |                     |        |          |        |          | 16645 Btuh |      |      |

# Manual J Summer Calculations

## Residential Load - Component Details (continued)

League Residence

Project Title:  
1203079

Climate:FL\_GAINESVILLE\_REGIONAL\_A

, FL

3/30/2012

|                      |                                                        |                     |                        |                 |                                |                   |
|----------------------|--------------------------------------------------------|---------------------|------------------------|-----------------|--------------------------------|-------------------|
| <b>Infiltration</b>  | Type<br>Natural                                        | Average ACH<br>0.65 | Volume(cuft)<br>17226  | Wall Ratio<br>1 | CFM=<br>185.7                  | Load<br>3456 Btuh |
| <b>Internal gain</b> |                                                        | Occupants<br>6      | Btuh/occupant<br>X 230 | Appliance<br>+  | 2400                           | Load<br>3780 Btuh |
|                      |                                                        |                     |                        |                 | Sensible Envelope Load:        | 23881 Btuh        |
| <b>Duct load</b>     | Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic) |                     |                        |                 | (DGM of 0.230)                 | 5501 Btuh         |
|                      |                                                        |                     |                        |                 | <b>Sensible Load All Zones</b> | <b>29382 Btuh</b> |

# Manual J Summer Calculations

## Residential Load - Component Details (continued)

Legue Residence

Project Title:  
1203079

Climate:FL\_GAINESVILLE\_REGIONAL\_A

, FL

3/30/2012

### WHOLE HOUSE TOTALS

|                                           |                                                           |                   |
|-------------------------------------------|-----------------------------------------------------------|-------------------|
| <b>Whole House<br/>Totals for Cooling</b> | <b>Sensible Envelope Load All Zones</b>                   | <b>23881 Btuh</b> |
|                                           | Sensible Duct Load                                        | 5501 Btuh         |
|                                           | <b>Total Sensible Zone Loads</b>                          | <b>29382 Btuh</b> |
|                                           | Sensible ventilation                                      | 0 Btuh            |
|                                           | Blower                                                    | 0 Btuh            |
|                                           | <b>Total sensible gain</b>                                | <b>29382 Btuh</b> |
|                                           | Latent infiltration gain (for 54 gr. humidity difference) | 6786 Btuh         |
|                                           | Latent ventilation gain                                   | 0 Btuh            |
|                                           | Latent duct gain                                          | 1198 Btuh         |
|                                           | Latent occupant gain (6.0 people @ 200 Btuh per person)   | 1200 Btuh         |
|                                           | Latent other gain                                         | 0 Btuh            |
|                                           | <b>Latent total gain</b>                                  | <b>9184 Btuh</b>  |
|                                           | <b>TOTAL GAIN</b>                                         | <b>38566 Btuh</b> |

### EQUIPMENT

|                 |   |            |
|-----------------|---|------------|
| 1. Central Unit | # | 46000 Btuh |
|-----------------|---|------------|

\*Key: Window types (Panels - Number and type of panes of glass)

(SHGC - Shading coefficient of glass as SHGC numerical value)

(U - Window U-Factor)

(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))

- For Blinds: Assume medium color, half closed

For Draperies: Assume medium weave, half closed

For Roller shades: Assume translucent, half closed

(IS - Insect screen: none(N), Full(F) or Half(½))

(Ornt - compass orientation)



Version 8

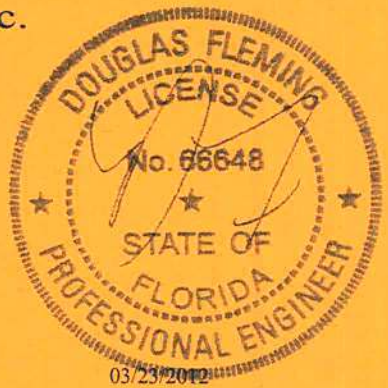
# ITW Building Components Group, Inc.

1950 Marley Drive Haines City, FL 33844

Florida Engineering Certificate of Authorization Number: 0 278

Florida Certificate of Product Approval # FL1999

Page 1 of 1 Document ID: IUKN487-Z0123144221



Truss Fabricator: Anderson Truss Company  
Job Identification: 12-063--Fill in later BRYAN ZECHER/LEGUE -- , \*\*  
Truss Count: 42  
Model Code: Florida Building Code  
Truss Criteria: FBC2010Res/TPI-2007(STD)  
Engineering Software: Alpine Software, Version 10.03.  
Structural Engineer of Record: The identity of the structural EOR did not exist as of  
Address: the seal date per section 61G15-31.003(5a) of the FAC  
Minimum Design Loads: Roof - 40.0 PSF @ 1.25 Duration  
Floor - N/A  
Wind - 120 MPH ASCE 7-10 -Closed

## Notes:

1. Determination as to the suitability of these truss components for the structure is the responsibility of the building designer/engineer of record, as defined in ANSI/TPI 1
2. The drawing date shown on this index sheet must match the date shown on the individual truss component drawing.
3. As shown on attached drawings; the drawing number is preceded by: HCUSR487

Douglas Fleming  
-Truss Design Engineer-

1950 Marley Drive  
Haines City, FL 33844

Details: BRCLBSUB-12015EC1-GBLLETIN-GABRST10-CNNAILSP-

| #  | Ref           | Description | Drawing# | Date     |
|----|---------------|-------------|----------|----------|
| 1  | 26424--H11A   |             | 12083001 | 03/23/12 |
| 2  | 26425--H13A   |             | 12083002 | 03/23/12 |
| 3  | 26426--HS15A  |             | 12083003 | 03/23/12 |
| 4  | 26427--AS     |             | 12083004 | 03/23/12 |
| 5  | 26428--A      |             | 12083005 | 03/23/12 |
| 6  | 26429--H21A   |             | 12083006 | 03/23/12 |
| 7  | 26430--HT9A   |             | 12083007 | 03/23/12 |
| 8  | 26431--HS17AT |             | 12083008 | 03/23/12 |
| 9  | 26432--HS19AT |             | 12083009 | 03/23/12 |
| 10 | 26433--HS21AT |             | 12083010 | 03/23/12 |
| 11 | 26434--AST    |             | 12083011 | 03/23/12 |
| 12 | 26435--AST1   |             | 12083012 | 03/23/12 |
| 13 | 26436--HS7B   |             | 12083013 | 03/23/12 |
| 14 | 26437--HS9B   |             | 12083014 | 03/23/12 |
| 15 | 26438--HS11B  |             | 12083015 | 03/23/12 |
| 16 | 26439--HS13B  |             | 12083016 | 03/23/12 |
| 17 | 26440--HS15B  |             | 12083017 | 03/23/12 |
| 18 | 26441--HS17B  |             | 12083018 | 03/23/12 |
| 19 | 26442--HS19B  |             | 12083019 | 03/23/12 |
| 20 | 26443--C      |             | 12083020 | 03/23/12 |
| 21 | 26444--C1     |             | 12083021 | 03/23/12 |
| 22 | 26445--CGE    |             | 12083022 | 03/23/12 |
| 23 | 26446--DGE    |             | 12083023 | 03/23/12 |
| 24 | 26447--E      |             | 12083024 | 03/23/12 |
| 25 | 26448--E1     |             | 12083025 | 03/23/12 |
| 26 | 26449--EGE    |             | 12083026 | 03/23/12 |
| 27 | 26450--F7F    |             | 12083028 | 03/23/12 |
| 28 | 26451--F9F    |             | 12083029 | 03/23/12 |
| 29 | 26452--G      |             | 12083030 | 03/23/12 |
| 30 | 26453--G1     |             | 12083031 | 03/23/12 |
| 31 | 26454--CJ1    |             | 12083032 | 03/23/12 |
| 32 | 26455--CJ3    |             | 12083033 | 03/23/12 |
| 33 | 26456--CJ5    |             | 12083034 | 03/23/12 |
| 34 | 26457--EJ7    |             | 12083027 | 03/23/12 |
| 35 | 26458--EJ9    |             | 12083035 | 03/23/12 |
| 36 | 26459--HJ7    |             | 12083036 | 03/23/12 |

| #  | Ref         | Description | Drawing# | Date     |
|----|-------------|-------------|----------|----------|
| 37 | 26460--HJ9  |             | 12083042 | 03/23/12 |
| 38 | 26461--CJ3T |             | 12083037 | 03/23/12 |
| 39 | 26462--CJ5T |             | 12083038 | 03/23/12 |
| 40 | 26463--CJ7T |             | 12083039 | 03/23/12 |
| 41 | 26464--EJ9T |             | 12083040 | 03/23/12 |
| 42 | 26465--HJ9T |             | 12083041 | 03/23/12 |



JOB NO:  
12-063

---

PAGE NO:  
1 OF 1

JOB DESCRIPTION:: Fill in later  
/: BRYAN ZECHER/LEGUE

# ITW Building Components Group, Inc.

1950 Marley Drive Haines City, FL 33844

Page 1 of 1 Document ID: IUKN487-Z0123144221

Truss Fabricator: Anderson Truss Company  
Job Identification: 12-063--Fill in later BRYAN ZECHER/LEGUE -- , \*\*  
Truss Count: 5  
Model Code: Florida Building Code  
Truss Criteria: FBC2010Res/TPI-2007(STD)  
Engineering Software: Alpine Software, Version 10.03.  
Structural Engineer of Record:  
Address:  
Minimum Design Loads: Roof - 40.0 PSF @ 1.25 Duration  
Floor - N/A  
Wind - 120 MPH ASCE 7-10 -Closed

## Notes:

1. Determination as to the suitability of these truss components for the structure is the responsibility of the building designer/engineer of record, as defined in ANSI/TPI 1
2. The drawing date shown on this index sheet must match the date shown on the individual truss component drawing.
3. As shown on attached drawings; the drawing number is preceded by: HCUSR487

## Revised Trusses

| # | Ref     | Description | Drawing# | Date     |
|---|---------|-------------|----------|----------|
| 1 | 26433-- | HS21AT      | 12083010 | 03/23/12 |
| 2 | 26451-- | F9F         | 12083029 | 03/23/12 |
| 3 | 26453-- | G1          | 12083031 | 03/23/12 |
| 4 | 26460-- | HJ9         | 12083042 | 03/23/12 |
| 5 | 26465-- | HJ9T        | 12083041 | 03/23/12 |



-Truss Design Engineer-  
Douglas Fleming

1950 Marley Drive  
Haines City, FL 33844

(12-063--Fill in later BRYAN ZECHER/LEGUE --, \*\* - H11A)

Top chord 2x4 SP N-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

Roof overhang supports 2.00 psf soffit load.

(a) 1x4 #3SRB SPF-S or better "I" brace. 80% length of web member.  
Attach with 8d Box or Gun (0.113"x2.5", min.) nails @ 6" OC.

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

WMFRS loads based on trusses located at least 7.50 ft. from roof edge.

THIS DMG PREPARED FROM COMPUTER INPUT (LOADS & DIMENSIONS) SUBMITTED BY TRUSS MFR.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg. not located within 6.50 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf.  $G C p_i (+/-) = 0.18$

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

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

3X6 ≡

6X6 ≡

3X4 ≡

1.5X3 ≡

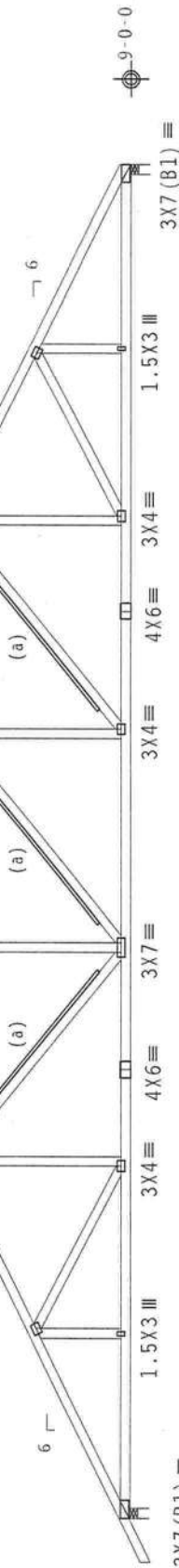
6X6 ≡

3X4 ≡

1.5X3 ≡

3X4 ≡

6X6 ≡



L=4'-0"

11'-0"-0

20'-4"-0

11'-0"-0

42'-4"-0 Over 2 Supports

R=1834 U=2 W=4"

RL=94/-99

R=1742 U=0 W=4"

Design Crit: FBC2010Res/TPI-2007 (STD)

FT/RT=10%(0%)/0(0)

FL/-4/-1-/R/- Scale = .1875"/Ft.

PLT TYP. Wave

\*\*IMPORTANT\*\*

FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety Information, by TPI and AISC) for best 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 web shall have bracing installed per BCSI sections B5, B7 or B10, as applicable.

TIM Building Components Group Inc. (TIBCGI) shall not be responsible for any deviation from this design or any failure to build the truss in accordance with AISC/TPI 1, or for handling, shipping, installing or bracing. Details, unless noted otherwise, refer to drawings 1004-2 for standard plate positions. A seal on the drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure is the responsibility of the building designer per AISC/TPI 1 Sec.2. For more information see: this job's general notes page; TIBCGI: www.tibcg.com; TPI: www.tpiinst.org; NICK: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE

ITW Building Components Group Inc.  
Haines City, FL 33844  
FL COA #0278

DOUGLAS FLEMING  
LICENSE  
No. 66648  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER  
03/23/2012

|          |          |        |             |          |
|----------|----------|--------|-------------|----------|
| TC LL    | 20.0 PSF | REF    | R487--      | 26424    |
| TC DL    | 10.0 PSF | DATE   | 03/23/12    |          |
| BC DL    | 10.0 PSF | DRW    | HCUSR487    | 12083001 |
| BC LL    | 0.0 PSF  | HC-ENG | TCE/DF      |          |
| TOT.LD.  | 40.0 PSF | SEQN-  | 279093      |          |
| DUR.FAC. | 1.25     |        |             |          |
| SPACING  | 24.0"    | JREF-  | 1UKN487_Z01 |          |

(12-063--Fill in later BRYAN ZECHER/LEGUE --, \*\* - H13A)

Top chord 2x4 SP M-30 :T1 2x4 SP #1:  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

Roof overhang supports 2.00 psf soffit load.

(a) 1x4 #3SRB SPF-S or better "T" brace. 80% length of web member.  
Attach with 8d Box or Gun (0.113"x2.5",min.)nails @ 6" OC.

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

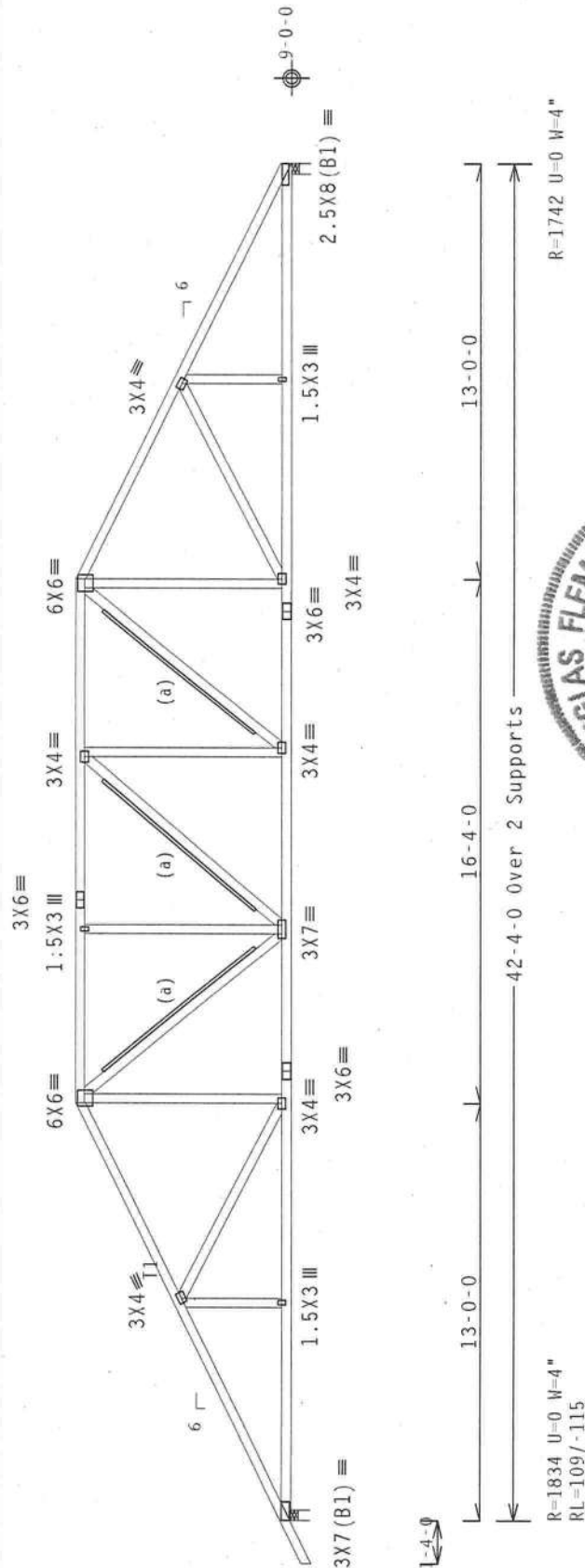
WMFRS loads based on trusses located at least 7.50 ft. from roof edge.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 13.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf, GCPI(+/-)=0.18

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

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



PLT TYP. Wave

Design Crit: FBC2010Res/TPI-2007 (STD)

FT/RT=10%(0%) / 0(0)

Scale = .1875"/Ft.

|          |          |        |                   |
|----------|----------|--------|-------------------|
| TC LL    | 20.0 PSF | REF    | R487-- 26425      |
| TC DL    | 10.0 PSF | DATE   | 03/23/12          |
| BC DL    | 10.0 PSF | DRW    | HCUSR487 12083002 |
| BC LL    | 0.0 PSF  | HC-ENG | TCE/DF            |
| TOT.LD.  | 40.0 PSF | SEQN-  | 279102            |
| DUR.FAC. | 1.25     |        |                   |
| SPACING  | 24.0"    | JREF-  | 1UKN487_Z01       |

ALPINE

RTW Building Components Group Inc.  
Haines City, FL 33844  
FL COA #0278



**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET  
**\*\*IMPORTANT\*\*** FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.  
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. See to follow the latest edition of BCSI Building Component Safety Information, by TPI and WCA, for 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 bracing installed per BCSI sections B3, B7 or B10, as applicable.  
RTW Building Components Group Inc. (RTWBCG) shall not be responsible for any deviation from this design or any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installing, bracing or trusses. Apply plates to each face of truss and position as shown above and on the joint to the bottom chord. The responsibility of the building designer per ANSI/TPI 1 Sec.2. For more information see: This job's general notes page; TIB-BG; www.tibbg.com; TPI: www.tpiinc.org; WCA: www.wcaindustry.com; ICC: www.iccsafe.org



(12-063--Fill in later BRYAN ZECHER/LEGUE --, \*\* - AS)

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

Left end vertical not exposed to wind pressure.

H = recommended connection based on manufacturer tested capacities and calculations. Conditions may exist that require different connections than indicated. Refer to manufacturer publication for additional information.

(H1) = (J) Hanger not calculated (1)2x6 SP M-26 supporting member.

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

MWFRS loads based on trusses located at least 15.00 ft. from roof edge.

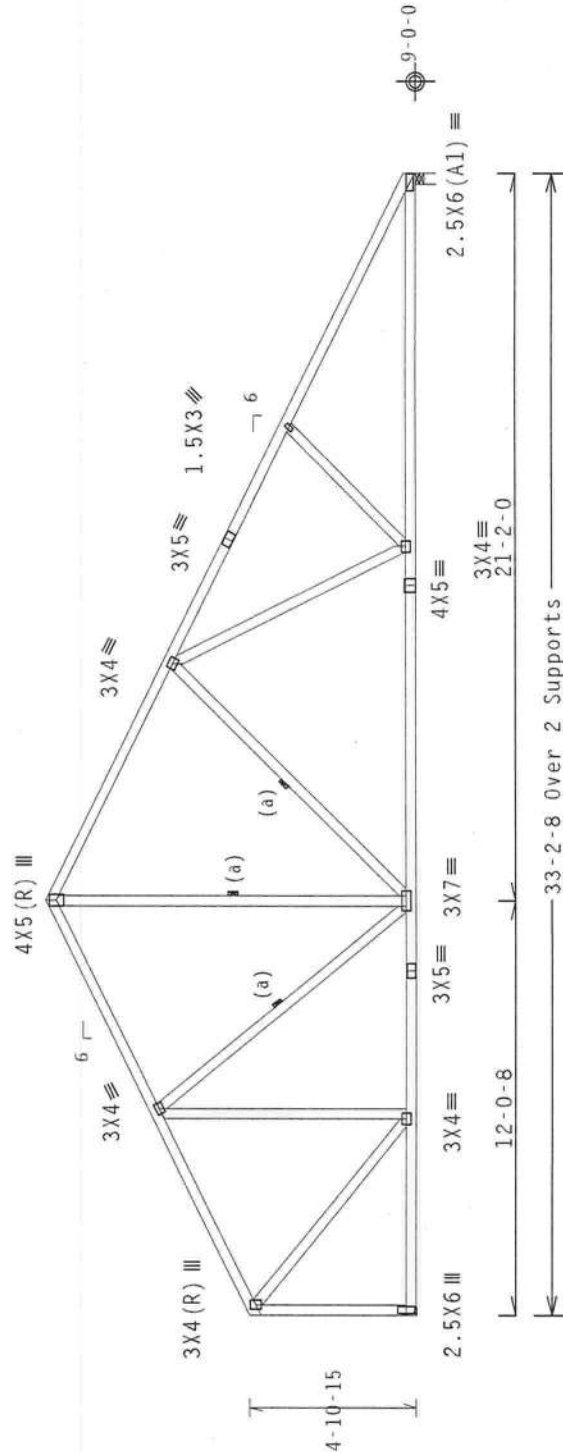
120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 9.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL-5.0 psf, wind BC DL-5.0 psf. 6CPI (+/-)=0.18

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

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.

(a) Continuous lateral bracing equally spaced on member.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



R=1361 U-0  
RL=109/-140 H-Simpson HUS26  
Supported Member Face: (4) 0.148"x3" nails  
Supporting Member Face: (14) 0.148"x3" nails  
Supporting Member : (1) 2x6 SP #2  
Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10%(0%)/0(0)

PLT TYP. Wave

Scale = .1875"/Ft.

FL/- /4/- /- /R/-

REF R487-- 26427

|         |          |          |                   |
|---------|----------|----------|-------------------|
| TC LL   | 20.0 PSF | DATE     | 03/23/12          |
| TC DL   | 10.0 PSF | DRW      | HCUSR487 12083004 |
| BC DL   | 10.0 PSF | HC-ENG   | TCE/DF            |
| BC LL   | 0.0 PSF  | SEQN-    | 279209            |
| TOT.LD. | 40.0 PSF | DUR.FAC. | 1.25              |
| SPACING | 24.0"    | JREF-    | 1UKN487_Z01       |

\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET

FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI Building Component Safety Information, by TPI and NRC for best 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 shall have bracing installed per BCSI sections B3, B7 or B10, as applicable.

IW Building Components Group Inc. (IBCG) shall not be responsible for any deviation from this design or any failure to build the truss in accordance with AWSI/TPI 1, or for handling, shipping, installing, bracing of trusses. Apply plates to each face of truss and position as shown above and on the joint between trusses. Trusses shall be braced in accordance with the design shown. The suitability and use of this design for any structure is the responsibility of the building designer per AWSI/TPI 1 Sec.2. For more information see: This job's general notes page; IBC-BCSI: www.ibc-bcsi.com; TPI: www.tpinet.org; NRC: www.nrc-industry.com; ICC: www.iccsafe.org



|     |       |     |    |      |
|-----|-------|-----|----|------|
| Top | chord | 2x4 | SP | M-30 |
| Bot | chord | 2x4 | SP | M-30 |
|     | webs  | 2x4 | SP | #3   |

Roof overhang supports 2.00 psf soffit load.

(a) Continuous lateral bracing equally spaced on member.

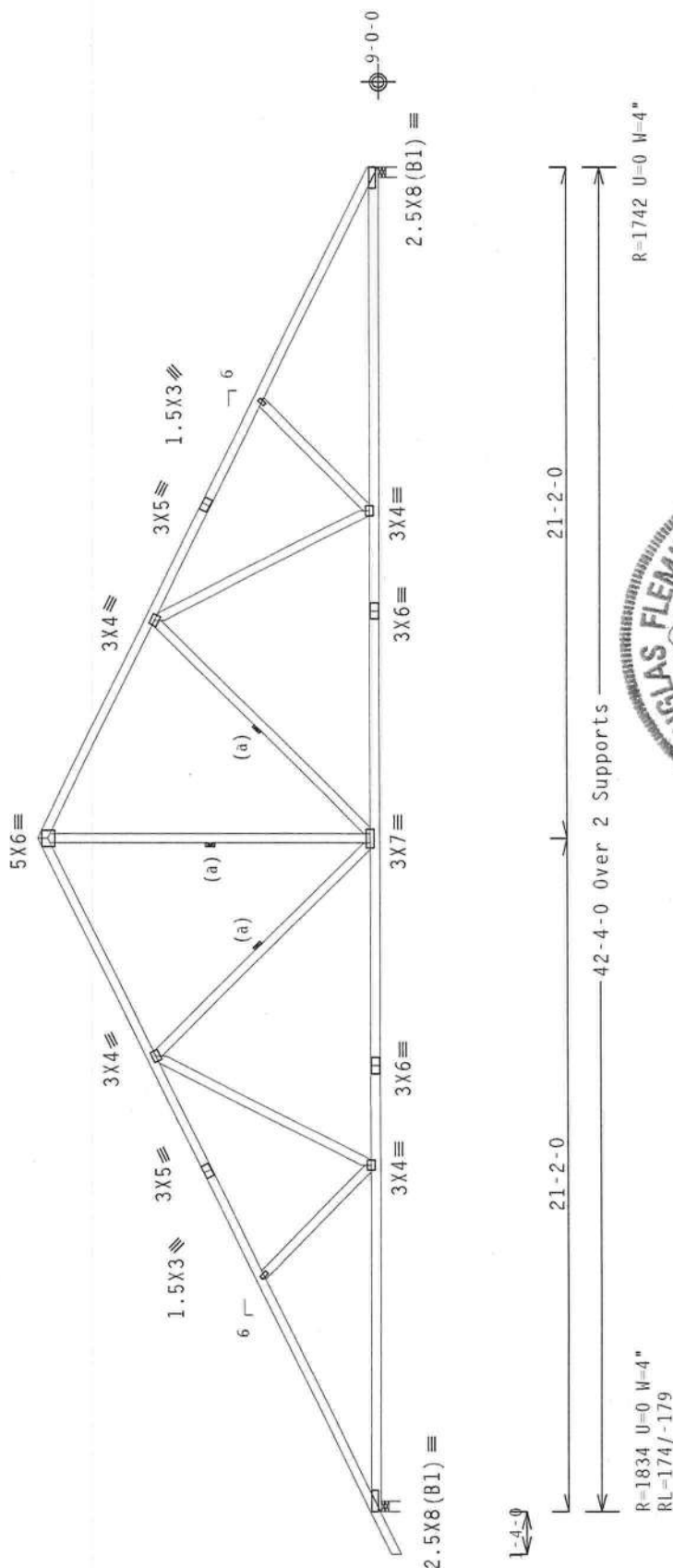
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

120 mph wind, 15.00 ft mean hgt., ASCE 7-10, CLOSED bldg, not located within 13.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCPI(+/-)=0.18

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

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

MMFRS loads based on trusses located at least 15.00 ft. from roof edge.



R=1834 U=0 W=4"  
RL=174/-179

Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10%(0%) / 0(0)

PLT TYP. Wave

FL/-/4/-/-/R/-  
Scale = .1875"/Ft.

**\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET!**

**IMPORTANT!!** TURKISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSP Building Component Safety Information, by TPI and WCLC for all activities prior to performing these functions. Trusses are designed to be attached to the top chord of the main roof truss system by attached structural sheathing and bottom chord bracing. Trusses shall have a property attached rigid ceiling. Locations shown for permanent lateral restraint shall have bracing installed per BCSP sections B3, B7 or B10, as applicable.

ITW Building Components Group Inc. (IBCG) shall not be responsible for any deviation from this specification. If a manufacturer fails to follow the instructions or fails to adhere to the specifications, it may cause structural failure to build the truss in conformance with AISC/TPI 1, or for handling, shipping, installation, stacking at trusses. Apply plates to each face of truss and position as shown above and on the jointed details, unless noted otherwise. Refer to drawing IBCA-2 for standard plate positions. A seal on the flange and/or cover plate listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. For more information, see: This job's general notes page; IBC-TPI 1, Section 2, for more information, see: This job's general notes page; IBC-BCE; and IBC-A96. TPI: [www.101581.org](http://www.101581.org); MTCA: [www.sdcindustry.com](http://www.sdcindustry.com); [www.icesafe.org](http://www.icesafe.org)

ALPINE

ITW Building Components Group Inc.

Haines City, FL 33844  
FL COA #0 278

03/23/2012

PACING 24.0"

JREF- 1UKN487\_Z01

(12-063--Fill in later BRYAN ZECHER/LEGUE -- \*\* - H21A)

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

Roof overhang supports 2.00 psf soffit load.

(a) Continuous lateral bracing equally spaced on member.

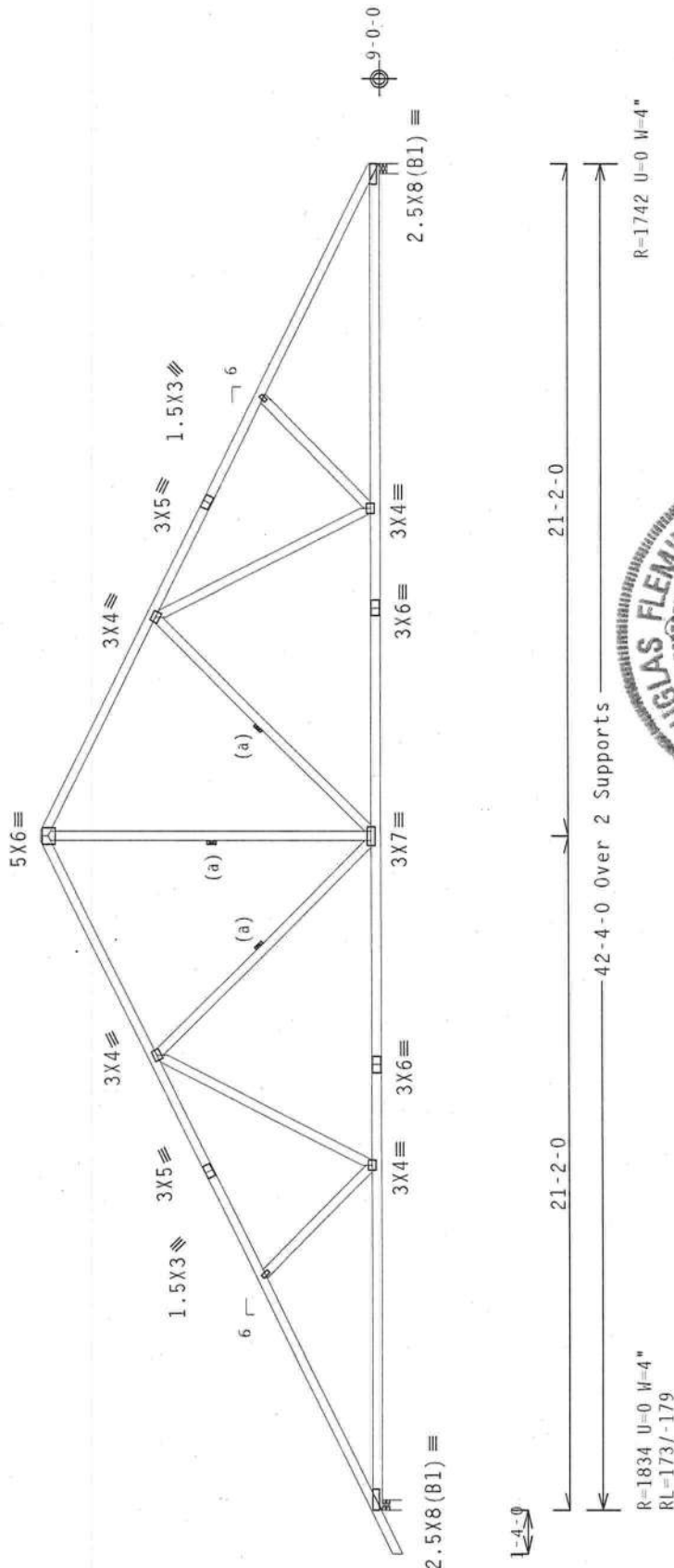
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 13.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf.  $G_{CPI}(\cdot) = 0.18$

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

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

MMFRS loads based on trusses located at least 15.00 ft. from roof edge.



PLT TYP. Wave

Design Crit: FBC2010Res/TP1-2007 (STD)  
FT/RT=10%(0%)/0(0)

Scale = .1875"/Ft.

|          |          |        |             |          |
|----------|----------|--------|-------------|----------|
| TC LL    | 20.0 PSF | REF    | R487--      | 26429    |
| TC DL    | 10.0 PSF | DATE   | 03/23/12    |          |
| BC DL    | 10.0 PSF | DRW    | HCUSR487    | 12083006 |
| BC LL    | 0.0 PSF  | HC-ENG | TCE/DF      |          |
| TOT.LD.  | 40.0 PSF | SEQN-  | 279224      |          |
| DUR.FAC. | 1.25     |        |             |          |
| SPACING  | 24.0"    | JREF-  | 1UKN487_Z01 |          |



**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET  
FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

**\*\*IMPORTANT\*\*** Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI Building Component Safety Information, by TPI and WCA for best practices prior to performing these functions. Installers shall provide temporary bracing and bottom chord bracing, 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 trusses shall have bracing installed per BCSI sections B5, B7 or B10, as applicable.

TIM Building Components Group Inc. (TIBCG) shall not be responsible for any deviation from this design for any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation, bracing of trusses. Apply plates to each face of truss and position as shown above and on the joint details, unless noted otherwise. Refer to drawings for details of professional engineering seal on this drawing. The suitability and use of this design 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; TIB-BCG: www.tibbcg.com; TPI: www.tpiinc.com; WCA: www.wcaindustry.com; ICC: www.iccsafe.org

**ALPINE**

**rtw Building Components Group Inc.**  
Haines City, FL 33844  
FL COA #0278

(12-063--Fill) in later BRYAN ZECHER/LEGUE --, \*\* - HT9A)

Top chord 2x4 SP M-30  
Bot chord 2x6 SP #2 :B1 2x4 SP M-30:  
:B2 2x8 SP 2400f-2.0E:  
Webs 2x4 SP #3 :W3, W9, W10 2x4 SP M-30:

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

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-)=0.18

Roof overhang supports 2.00 psf soffit load.

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

Left side jacks have 9-0-0 setback with 0-0-0 cant and 1-4-0 overhang.  
End jacks have 9-0-0 setback with 0-0-0 cant and 1-4-0 overhang.  
Right side jacks have 9-0-0 setback with 0-0-0 cant and 1-4-0 overhang.

## 2 COMPLETE TRUSSES REQUIRED

Nail Schedule: 0.131"x3", min. nails

Top Chord: 1 Row @ 12.00" o.c.

Bot Chord: 1 Row @ 12.00" o.c.

Webs : 1 Row @ 4" o.c.

Use equal spacing between rows and stagger nails in each row to avoid splitting.

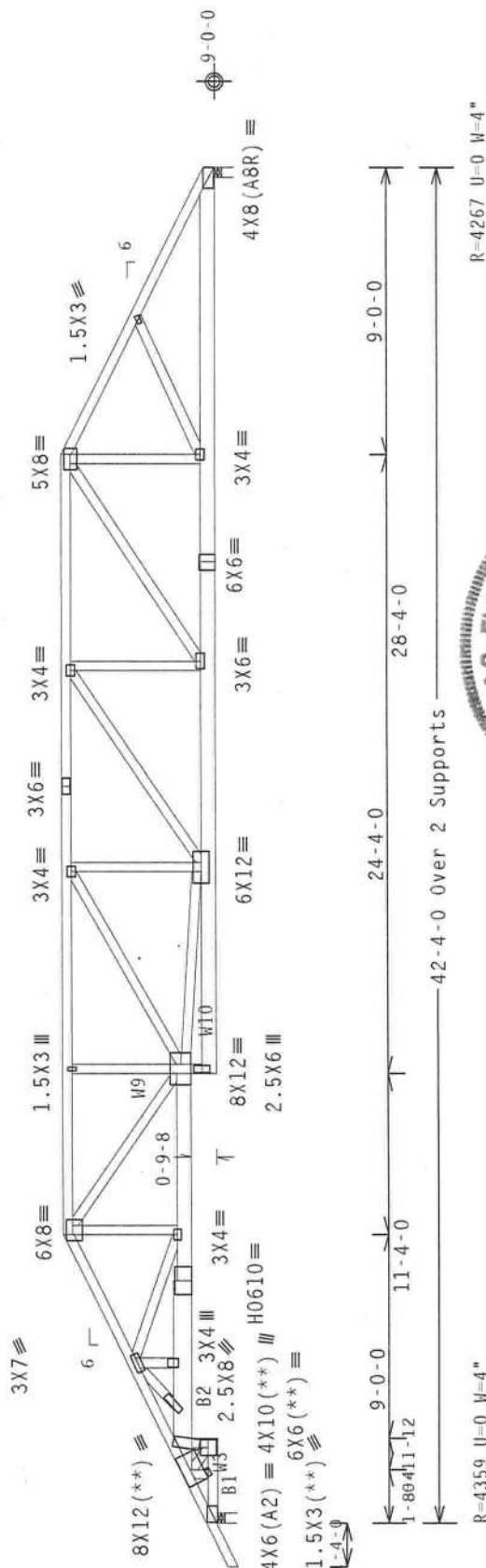
Wind loads and reactions based on MWFRS with additional C&C member design.

Calculated horizontal deflection is 0.18" due to live load and 0.28" due to dead load.

#1 hip supports 9-0-0 jacks W/2 panel TC and no end vert.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

Calculated vertical deflection is 0.48" due to live load and 0.77" due to dead load at X = 14-1-12.



PLT TYP. 20 Gauge HS, Wave

Design Crit: FBC2010Res/TPI-2007 (STD)

FT/RT=10%(0%)/0(0)

10.08.11.0209.21

Scale = .1875"/Ft.

|          |          |        |             |          |
|----------|----------|--------|-------------|----------|
| TC LL    | 20.0 PSF | REF    | R487--      | 26430    |
| TC DL    | 10.0 PSF | DATE   | 03/23/12    |          |
| BC DL    | 10.0 PSF | DRW    | HCSR487     | 12083007 |
| BC LL    | 0.0 PSF  | HC-ENG | TCE/DF      |          |
| TOT.LD.  | 40.0 PSF | SEQN-  | 279085      |          |
| DUR.FAC. | 1.25     |        |             |          |
| SPACING  | 24.0"    | JREF-  | 1UKN487_Z01 |          |

**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET!  
**\*\*IMPORTANT\*\*** FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.  
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of ECSI (Building Component Safety Information, by TPI and WCA) for best practices prior to performing these functions. Installers shall provide temporary bracing per ECSI. 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 shall have bracing installed per ECSI sections B3, B7 or B10, as applicable.  
ITW Building Components Group Inc. (ITWBCG) shall not be responsible for any deviation from this design or any failure to build the truss in conformance with ASCE 7-10, or handling, shipping, installing, or bracing. The responsibility of the building designer for the design shown, the suitability and use of this design for any structure is the responsibility of the building designer per ASCE 7-10, Sec. 2. For more information see: This job's general notes page; ITW-BCG; www.itwbcg.com; TPI: www.tpinat.org; WCA: www.wcaindustry.com; ICC: www.iccsafe.org

**ALPINE**

**ITW Building Components Group Inc.**  
Haines City, FL 33844  
FL COA #0278



Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

Left end vertical not exposed to wind pressure.

H = recommended connection based on manufacturer tested capacities and calculations. Conditions may exist that require different connections than indicated. Refer to manufacturer publication for additional information.

(H1) = (J) Hanger not calculated (1)2x6 SP M-26 supporting member.

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

Laterally brace Bottom Chord above filler at 24" oc, including a lateral brace at chord ends.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 9.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18

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

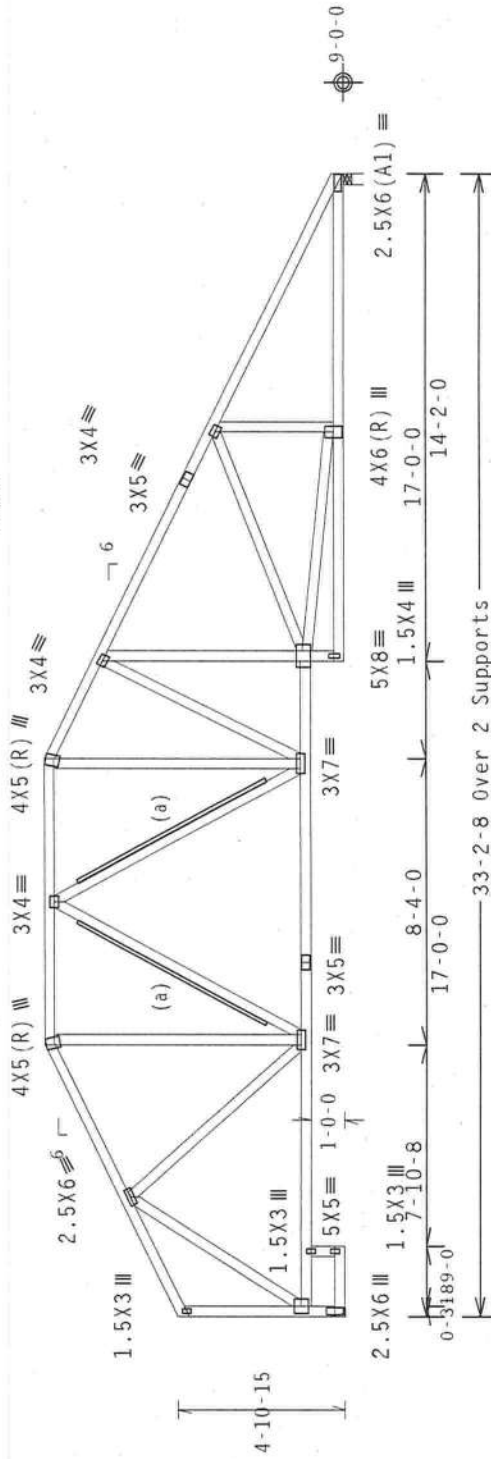
Hanger specified assumes connection to supporting chord is located a minimum of five times the depth of the supporting chord from any unsupported end, unless unsupported chord end has 85% plating coverage.

(a) 1x4 #3SRB SPF-S or better "I" brace. 80% length of web member. Attach with 8d Box or Gun (0.113"x2.5", min.) nails @ 6" OC.

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

MWFRS loads based on trusses located at least 15.00 ft. from roof edge.



R=1361 U=0  
RL=77/-109 H-Simpson HUS26  
Supported Member Face: (4) 0.148"x3" nails  
Supporting Member Face: (14) 0.148"x3" nails  
Supporting Member : (1) 2x6 SP #2

Design Crit: FBC2010Res/TPI-2007(STD)  
FT/RT=10% (0%) / 0 (0)

PLT TYP. Wave

Scale = .1875"/Ft.

FL/- /4/- /- /R/-

QTY 1

REF R487-- 26431

DATE 03/23/12

DRW HCUSR487 12083008

HC-ENG TCE/DF

SEQN- 279139

JREF- 1UKN487\_201

\*\*IMPORTANT\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET

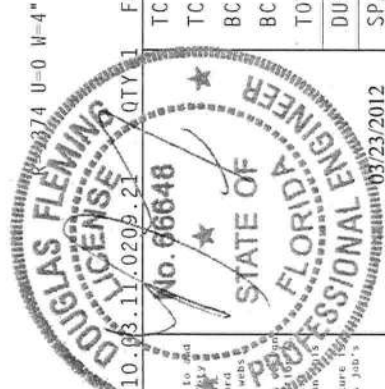
FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Follow the latest edition of BCSI Building Component Safety Information, by TPI and WEA for practices prior to performing these functions. Installers shall provide temporary bracing for all trusses 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 web shall have bracing installed per BCSI sections B3, B7 or B10, as applicable.

ITW Building Components Group Inc. (ITWBCG) shall not be responsible for any deviation from the design of trusses, including but not limited to, any failure to build the truss in accordance with AB51/TPI 1, or for handling, shipping, installing or bracing of trusses. Apply plates to each face of truss and position as shown above and on the joint. The responsibility of the Building Designer per AB51/TPI 1 Sec. 2. For more information see: This job's general notes page; ITW-BIG: www.itwbig.com; TPI: www.tpiinst.org; WEA: www.wcaindustry.com; ICC: www.iccsafe.org

ALPINE

ITW Building Components Group Inc.  
Haines City, FL 33844  
FL COA #0 278



(12-063--Fill in later BRYAN ZECHER/LEGUE --, \*\* - HS19AT)

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

Left end vertical not exposed to wind pressure.

H = recommended connection based on manufacturer tested capacities and calculations. Conditions may exist that require different connections than indicated. Refer to manufacturer publication for additional information.

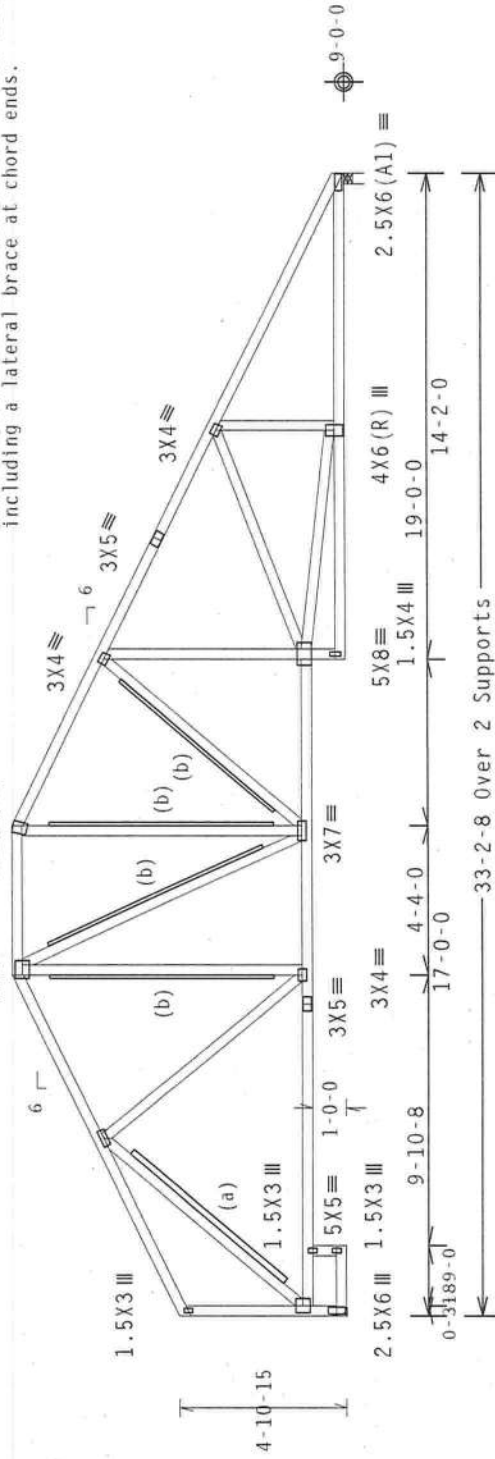
(H1) = (U) Hanger not calculated (1)2x6 SP M-26 supporting member.

(a) 2x4 #3 or better "I" brace. 80% length of web member. Attach with 16d Box or Gun (0.135"x3.5".min.)nails @ 6" OC.

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

MWFRS loads based on trusses located at least 15.00 ft. from roof edge.

2.5X6 5X6 4X5(R) 3X4



R=1361 U=0.

RL=92/-124 H-Simpson HUS26

Supported Member Face: (4) 0.148"x3" nails

Supporting Member Face: (14) 0.148"x3" nails

Supporting Member : (1) 2x6 SP #2

Design Crit: FBC2010Res/TPI-2007 (STD)

FT/RT=10% (0%) / 0 (0)

PLT TYP. Wave

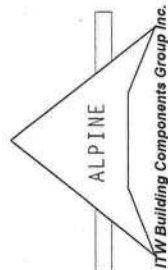
FL/-4/-1-/R/-

Scale = .1875"/Ft.

\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET.

FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.  
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSP (Building Component Safety Information, by TPI and WCA) for details and practices prior to performing these functions. Installers shall provide temporary bracing per BCSP. 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 trusses shall have bracing installed per BCSP sections B3, B7 or B10, as applicable.

11th Building Components Group Inc. (ITWBCG) shall not be responsible for any deviation from this design or any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation or bracing of trusses. Apply plates to each face of trusses for proper bracing. A seal on the drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the building shown. The suitability and use of this design 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; 11th-BCG; www.11thbcg.com; TPI: www.tpi101.org; WCA: www.bcindustry.com; ICC: www.iccsafe.org



ITW Building Components Group Inc.

Haines City, FL 33844  
FL COA #0278



|          |          |        |             |          |
|----------|----------|--------|-------------|----------|
| TC LL    | 20.0 PSF | REF    | R487--      | 26432    |
| TC DL    | 10.0 PSF | DATE   | 03/23/12    |          |
| BC DL    | 10.0 PSF | DRW    | HCUSR487    | 12083009 |
| BC LL    | 0.0 PSF  | HC-ENG | TCE/DF      |          |
| TOT.LD.  | 40.0 PSF | SEQN-  | 279151      |          |
| DUR.FAC. | 1.25     |        |             |          |
| SPACING  | 24.0"    | JREF-  | 1UKN487_Z01 |          |

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

:RT Bearing Leg 2x4 SP #3:RT Bearing Leg 2x6 SP #2:

Left end vertical not exposed to wind pressure.

H = recommended connection based on manufacturer tested capacities and calculations. Conditions may exist that require different connections than indicated. Refer to manufacturer publication for additional information.

(J) hanger connection not found in inventory file for this condition. Provide connection.

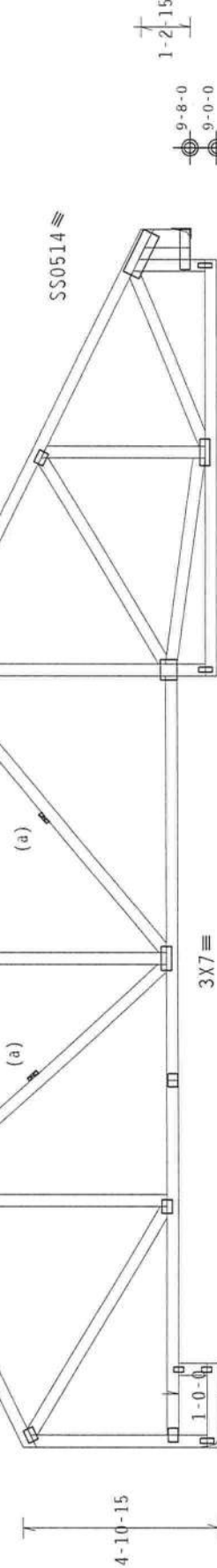
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

Laterally brace Bottom Chord above filler at 24" oc, including a lateral brace at chord ends.

4X5 (R) III

6

6



1-2-15

9-8-0  
9-0-0

SS0514 III

3X12 III

3X8 III

5X6 III

10-3-8

17-3-8

12-0-8

17-0-0

30-1-0

Over 2 Supports

1.5X4 III

1.5X4 III

1.5X4 III

1.5X4 III

1.5X4 III

1.5X4 III

1.5X4 III

R=1233 U=0

RL=100/-122 H-Simpson LUS26

Supported Member Face: (4)

Supporting Member Face: (4)

Supporting Member: (1) 2x6 SP M-26

Note: All Plates Are 3X4 Except As Shown.

Design Crit: FBC2010Res/TPI-2007 (STD)

FT/RT=10%(0%)/0(0)

PLT TYP. 18 Gauge HS, Wave

Scale = .25"/Ft.

\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET

FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

\*\*IMPORTANT\*\* Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety Information, by TPI and AISC) for best 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 shall have bracing installed per BCSI sections B3, B7 or B10, as applicable.

The Building Components Group Inc. (BCSI) shall not be responsible for any deviation from this design, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installing, bracing of trusses. Apply plates to each face of truss and position as shown above and on the joint details, unless noted otherwise. Permanent bracing shall be provided on the joint details. The responsibility of the building designer per ANSI/TPI 1 Sec.2. For more information see: This job's general notes page; ITR-BCG: www.itrbcg.com; TPI: www.tpiinc.org; NICA: www.nicaindustrial.com.

ICC: www.iccsafe.org

ALPINE

RTW Building Components Group Inc.

Haines City, FL 33844

FL COA #0 278



|          |          |               |        |             |          |
|----------|----------|---------------|--------|-------------|----------|
| TC LL    | 20.0 PSF | FL/-4/-1-/R/- | REF    | R487--      | 26433    |
| TC DL    | 10.0 PSF |               | DATE   | 03/23/12    |          |
| BC DL    | 10.0 PSF |               | DRW    | HCU8487     | 12083010 |
| BC LL    | 0.0 PSF  |               | HC-ENG | TCE/DF      |          |
| TOT.LD.  | 40.0 PSF |               | SEQN-  | 279489      | REV      |
| DUR.FAC. | 1.25     |               |        |             |          |
| SPACING  | 24.0"    |               | JREF-  | 1UKN487_Z01 |          |



|     |       |     |    |      |
|-----|-------|-----|----|------|
| Top | chord | 2x4 | SP | M-30 |
| Bot | chord | 2x4 | SP | M-30 |
|     | webs  | 2x4 | SP | #3   |

left end vertical not exposed to wind pressure.

† = recommended connection based on manufacturer tested capacities and calculations. Conditions may exist that require different connections than indicated. Refer to manufacturer publication for additional information.

(H1) = (J) Hanger not calculated (1) 2x6 SP M-26 supporting member.

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

WMFRS loads based on trusses located at least 15.00 ft. from roof edge.

120 mph wind, 15.00 ft mean hgt., ASCE 7-10, CLOSED bldg, not located within 9.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-)=0.18

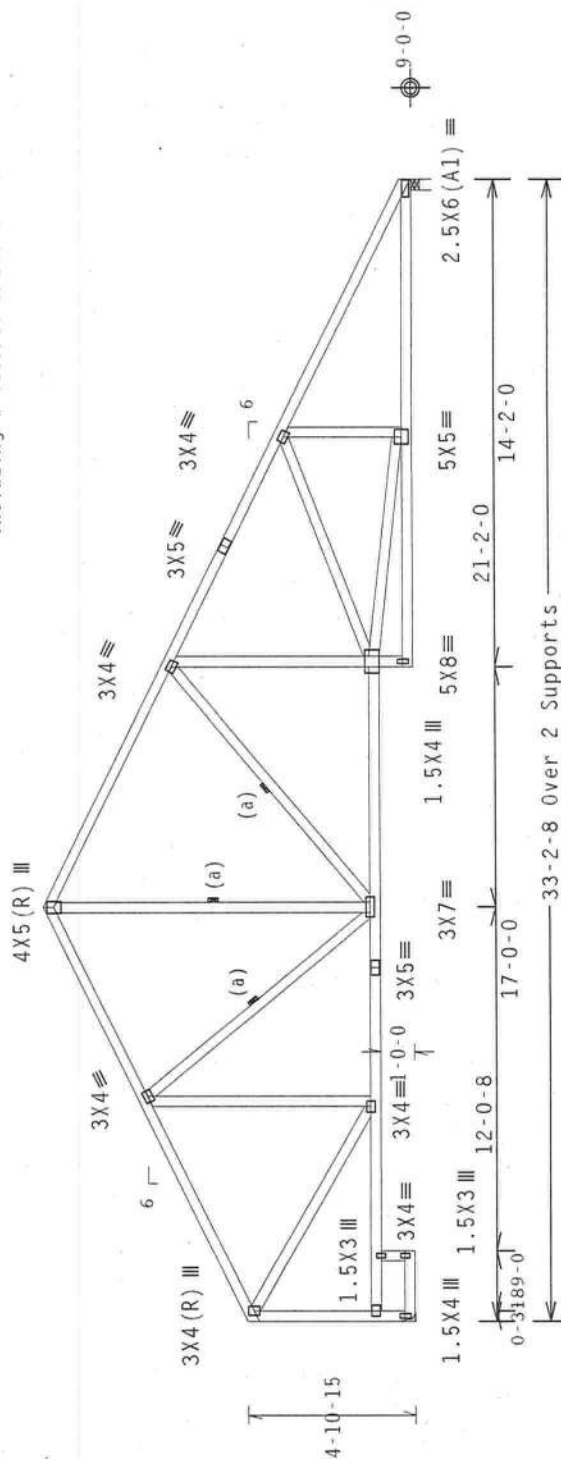
Wind Loads and reactions based on MWFRS with additional C&C member design.

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.

(a) Continuous lateral bracing equally spaced on member.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

Laterally brace Bottom Chord above filler at 24" oc, including a lateral brace at chord ends.

 $R=1361 \quad U=0$ 

HUS26 H= Simpson -140 H= Simpson 109/-140 HUS26

Supported Member Face: (4) 0.148"x3" nails

Supporting Member Face: (14) 0.148"x3" nails

Supporting Member : (1) 2x6 SP #2

Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10%(0%)/0(0)

Scale = .1875"/Ft.

FL/-/4/-/-/R/-/-

10-03-11/0209.21

CZOLUKES / IPT-2007 (310)  
ET/RT=10%(0%) / 0(0)

Design Critic: Fu

va

DIT TVD W

**\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET**

**\*\*IMPORTANT\*\*** FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

Trosses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by IFI and BCSA) for design and installation instructions prior to performing these functions. Installers shall provide temporary bracing per BCSI. If installers are unable to determine proper bracing methods otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rafter ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B7, B8 or B10, as applicable.

[illegible]

FF R487 -- 26435

ATE 03/23/12

FILE 03/23/12

RW HCUSR487 12083012

IC-ENG TCE/DF

EON- 279198

OCT 16/7 MBJ

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REF- IUKN487\_Z01

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Top chord 2x6 SP M-26 : T1 2x4 SP M-30;  
Bot chord 2x6 SP M-26

Webs 2x4 SP #3 :W8 2x4 SP M-30:

Right cantilever is exposed to wind

Roof overhang supports 2.00 psf soffit load.

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

Left side jacks have 7-0-0 setback with 0-0-0 cant and 1-4-0 overhang.

End jacks have 7-0-0 setback with 0-0-0 cant and 1-4-0 overhang.

Right side jacks have 0-0-0 setback with 1-6-7 cant and 0-0-0 overhang.

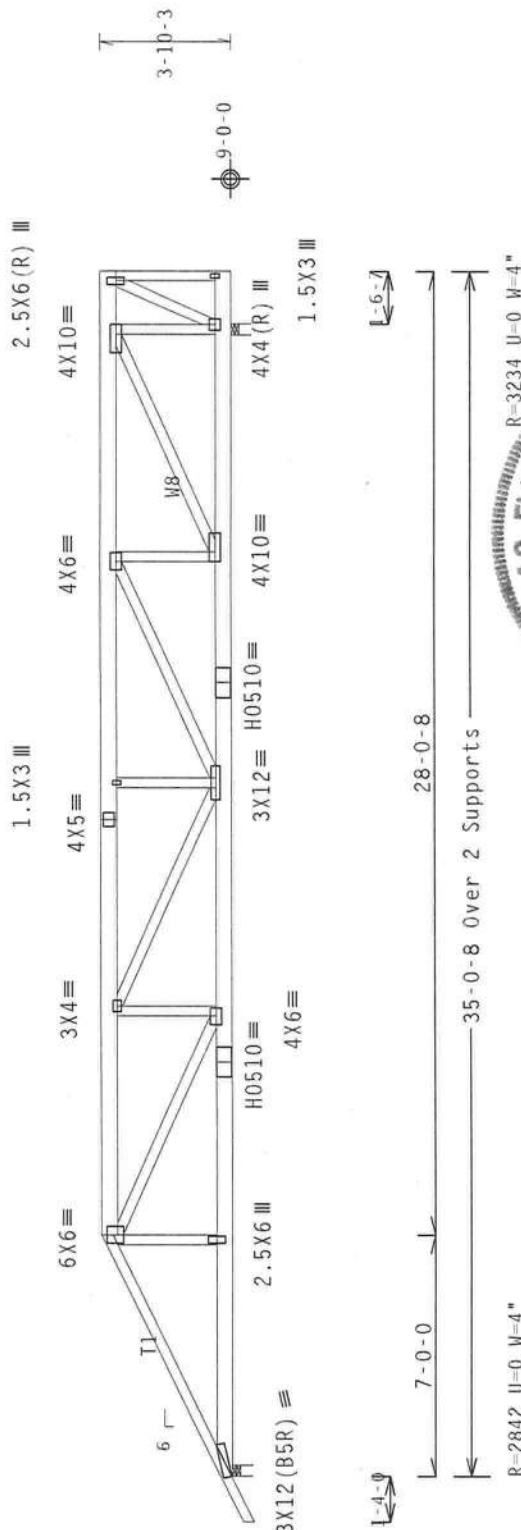
1120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-)=0.18

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

Right end vertical not exposed to wind pressure.

#1 hip supports 7-0-0 jacks with no webs.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.


$$R=3234 \quad U=0 \quad W=4''$$

2=2842 11=0 W=4"

PLT TYP. 20 Gauge HS, Wave

Design Crit: FBC2010Res/TPI-2007(STD)  
 $FT/RT=10\%(0\%)/0(0)$ 
$$\text{FT/RT} = 10\% (0\%) / 0(0)$$

0.03.11.0209.21 QTY:

Scale = .1875"/Ft.

**\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET**  
**FOR THIS QUESTION TO ALL CONTRACTORS INCLUDING INSTALLERS**  
**TERMOOD YAKUT\*\***

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSP's Building Component Safety Information, by API and Wiley, for a complete listing of products and specifications. Trusses are designed to be braced in compression along the top chord and shall have properly attached structural sheathing and bottom chord bracing. Top chord shall have properly attached structural sheathing and bottom chord bracing. Trusses shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint shall have bracing installed per BCSP sections B5, B7 or B10, as applicable.

[illegible]

|    |        |       |
|----|--------|-------|
| EF | R487-- | 26436 |
|----|--------|-------|

ATE 03/23/12

FILE 03/23/12

RW HCUSR487 12083013

C-ENG TCE/DF

EON- 279249

CH 37C/7 11831

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REF- IUKN487\_Z01

|     |       |     |    |      |
|-----|-------|-----|----|------|
| Top | chord | 2x4 | SP | M-30 |
| Bot | chord | 2x4 | SP | M-30 |
|     | webs  | 2x4 | SP | #3   |

120 mph wind, 15.00 ft mean ht., ASCE 7-10, CLOSED bldg, not located within 9.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-)=0.18

Right cantilever is exposed to wind

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

Roof overhang supports 2.00 psf soffit load.

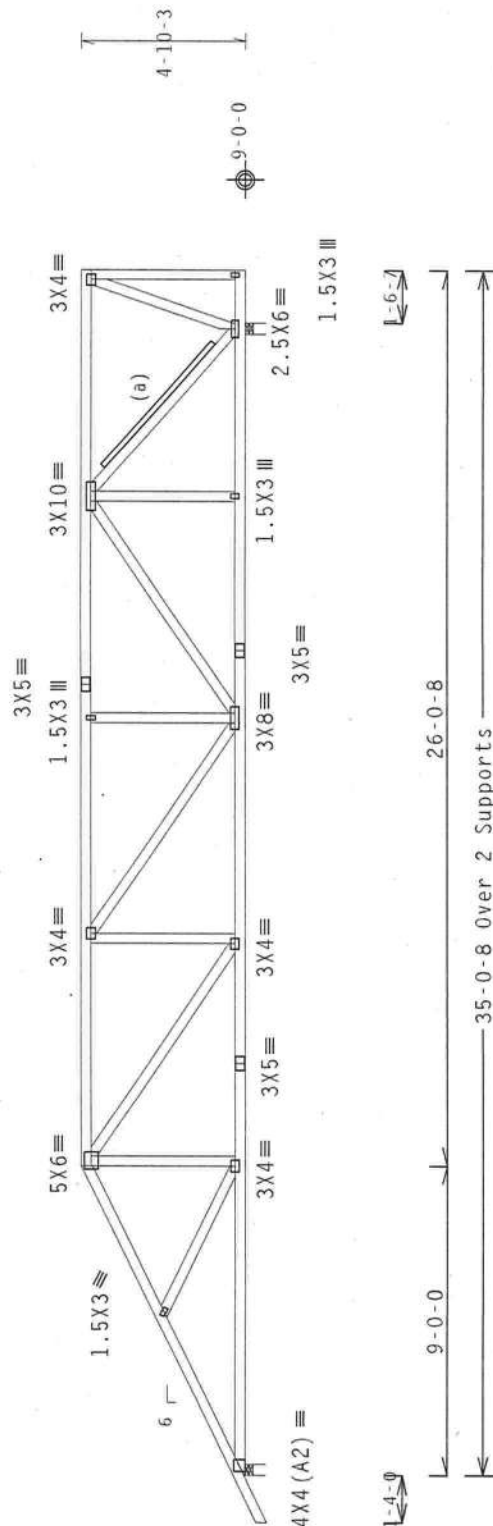
(a) 2x4 #3 or better "T" brace. 80% length of web member. Attach with 16d Box or Gun (0.135"x3.5",min.) nails @ 6" OC.

Right end vertical not exposed to wind pressure.

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

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



R=1468 H=0 W=4"

RL=85/-32

R=1509 U=5 W=4"

Design Crit: FBC2010Res/TPI-2007 (STD)

FT/RT=10%(0%)/0(0)

Scale = .1875"/Ft.

FL/-/4/-/-/R/-

10.03.11/0209.21/0TY 1

FT/RT=10%(0%) / 0(0)

PLT TYP. Wave

**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET!

[illegible]

LTV Building Components Group Inc., (LTVBC) shall not be responsible for any deviation from the design shown on drawings or specifications. LTVBC shall not be responsible for any failure to build the truss in accordance with ANSI/TPI 1, or for handling, shipping, installing or erecting the truss. Apply plates to each face of truss and position as shown above and on the sheet titled "Truss Details". Unless noted otherwise, refer to drawing 1609-Z for standard plate positions. A steel engineer's stamp indicating acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure is the responsibility of the building designer please contact TPI at 800-TPI-1300-2. For more information see: This July's Truss News, page 14-16; <http://www.tpi.com>; TPI; [info@tpi.com](mailto:info@tpi.com); [800-755-3837](tel:8007553837).

OFF D107 26107

R487-- 26437

DATE 03/23/12

1000000

RW HCUSK467 12083014

IC-ENG TCE/DF

EON- 279256

|  |   |
|--|---|
|  | 9 |
|  | 8 |
|  | 7 |
|  | 6 |
|  | 5 |
|  | 4 |
|  | 3 |
|  | 2 |
|  | 1 |

---

REF- IUKN487\_Z01



| Top | chord | 2x4 | SP | M-30 | :11 | 2x4 | SP | #1: |
|-----|-------|-----|----|------|-----|-----|----|-----|
| Bot | chord | 2x4 | SP | M-30 |     |     |    |     |
|     | webs  | 2x4 | SP | #3   |     |     |    |     |

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 9.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-)=0.18

Right cantilever is exposed to wind

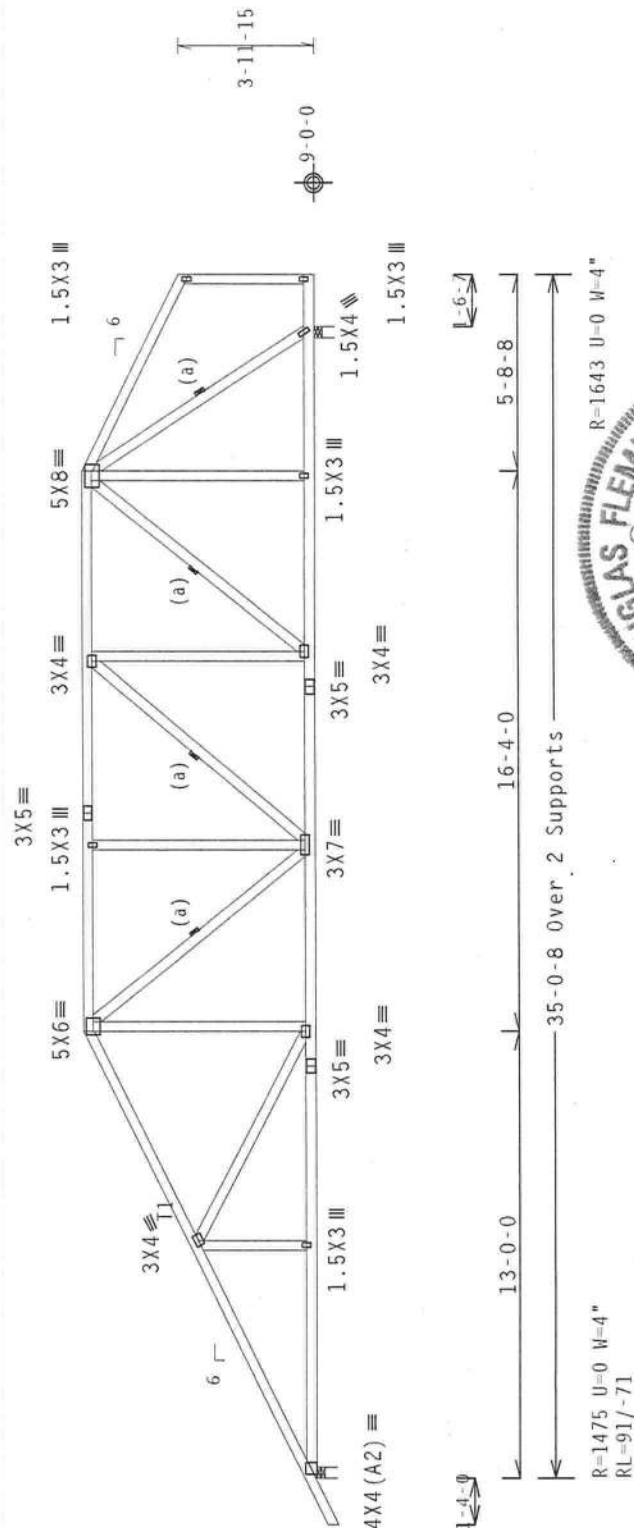
Wind loads and reactions based on MWFRS with additional C&C member design.

Roof overhang supports 2.00 psf soffit load.

(a) Continuous lateral bracing equally spaced on member.

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



R=1643 U=0 W=4"

Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10%(0%)/0(0)

Scale = .1875"/Ft.

FL/-/4/-/-/R/-

09.21 QTY:

10.08.11.0

FT/RT=10% (0%) / 0 (0)

Design Critic:

PIT TYP. Wave

**\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET!**

[illegible]

LTV Building Components Group Inc. (LBCG) shall not be responsible for any deviation from the design shown on drawings or specifications, or any failure to build the truss in conformance with AISI/TPI 1, or for handling, shipping, installation, erection, or bracing of trusses. Apply labels to each face of truss and position as shown above and on the bottom chord of truss. Labels shall include the following information: Manufacturer's name, size, weight, bearing capacity, details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions. A seal on the drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure is the responsibility of the building designer per AISI/TPI 1 Sec.2. For more information see: This job sheet and general notes pages 11e-Bldg; and LBCG; www.lbcgroup.com; WCA; www.wcausa.com.

**ALPINE**  
**ITW Building Components Group Inc.**  
Haines City, FL 33844  
Tel. 800 440 3780

Haines City, FL 33844  
FL COA #0 379

aines City, FL 33829  
FL COA #0078

aines City, FL CO

## Exercises

### III

(12-063--Fill in later BRYAN ZECHE/LEQUE --, \*\* - HS15B)

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

Right cantilever is exposed to wind

Roof overhang supports 2.00 psf soffit load.

(a) Continuous lateral bracing equally spaced on member.

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

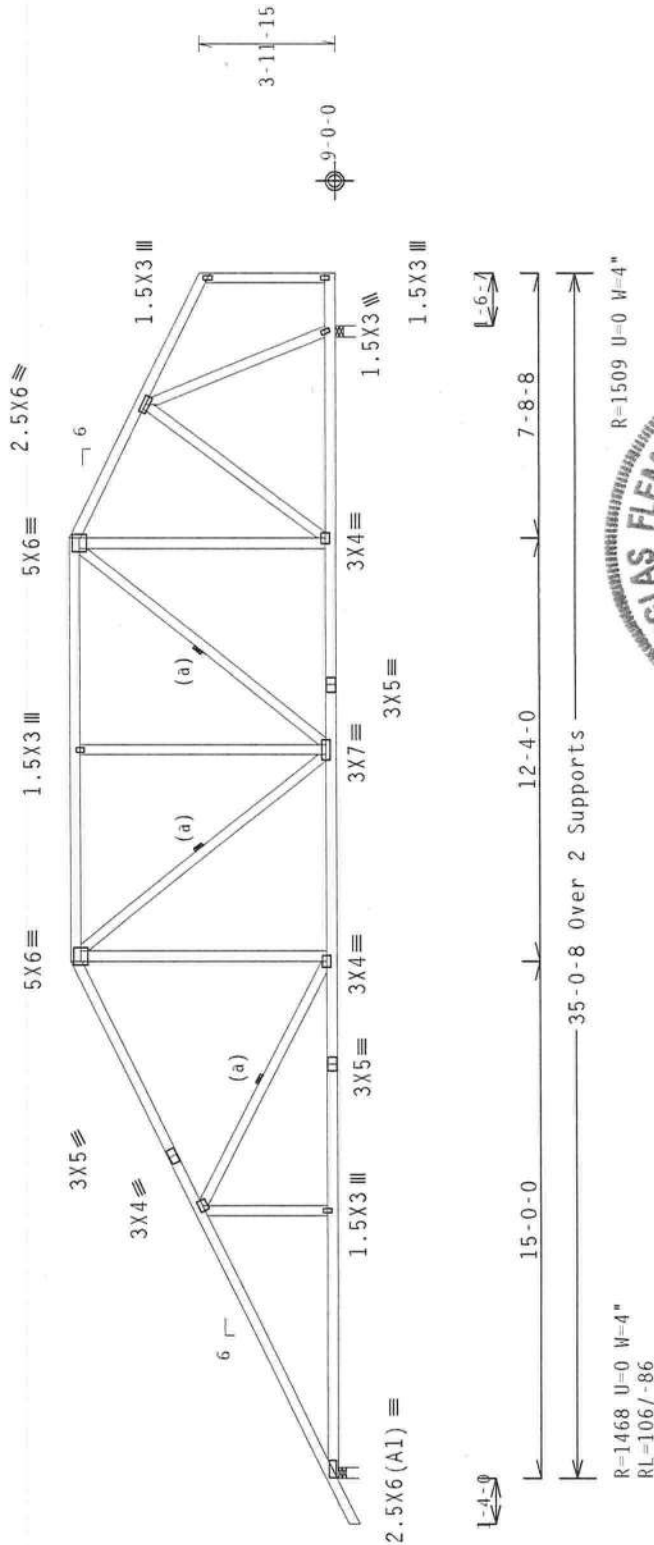
120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 9.00 ft from roof edge. RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf.  $G_{CPI} (+/-) = 0.18$

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

Right end vertical not exposed to wind pressure.

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

MWFRS loads based on trusses located at least 15.00 ft. from roof edge.



Design Crit: FBC2010Res/TPI-2007 (STD)

FT/RT=10% (0%) / 0 (0)

Scale = .1875"/Ft.

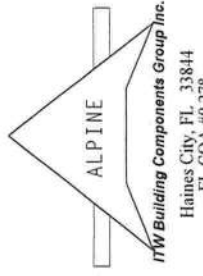
PLT TYP. Wave

\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET!

FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING 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 IPI and MICA for proper practices prior to performing these functions. Installers shall provide temporary bracing and bracing 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 web shall have bracing installed per BCSI sections B3, B7 or B10, as applicable.  
IPI Building Components Group Inc. (IPI/BCG) shall not be responsible for any deviation from the general notes page; IPI-BEG; web-1100c9-400; IPI: www.iplinst.org; MICA: www.bcsi-industry.com; ICE: www.iccsafe.org



|          |          |                            |        |             |          |
|----------|----------|----------------------------|--------|-------------|----------|
| TC LL    | 20.0 PSF | FL / - / 4 / - / - / R / - | REF    | R487 - -    | 26440    |
| TC DL    | 10.0 PSF |                            | DATE   | 03/23/12    |          |
| BC DL    | 10.0 PSF |                            | DRW    | HCUSR487    | 12083017 |
| BC LL    | 0.0 PSF  |                            | HC-ENG | TCE/DF      |          |
| TOT.LD.  | 40.0 PSF |                            | SEQN-  | 279322      |          |
| DUR.FAC. | 1.25     |                            | JREF-  | 1UKN487_Z01 |          |
| SPACING  | 24.0"    |                            |        |             |          |



ITW Building Components Group Inc.  
Haines City, FL 33844  
FL COA #0 278



|     |       |     |    |      |
|-----|-------|-----|----|------|
| Top | chord | 2x4 | SP | M-30 |
| Bot | chord | 2x4 | SP | M-30 |
|     | webs  | 2x4 | SP | #3   |

Right cantilever is exposed to wind

Roof overhang supports 2.00 psf soffit load.

(a) Continuous lateral bracing equally spaced on member.

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

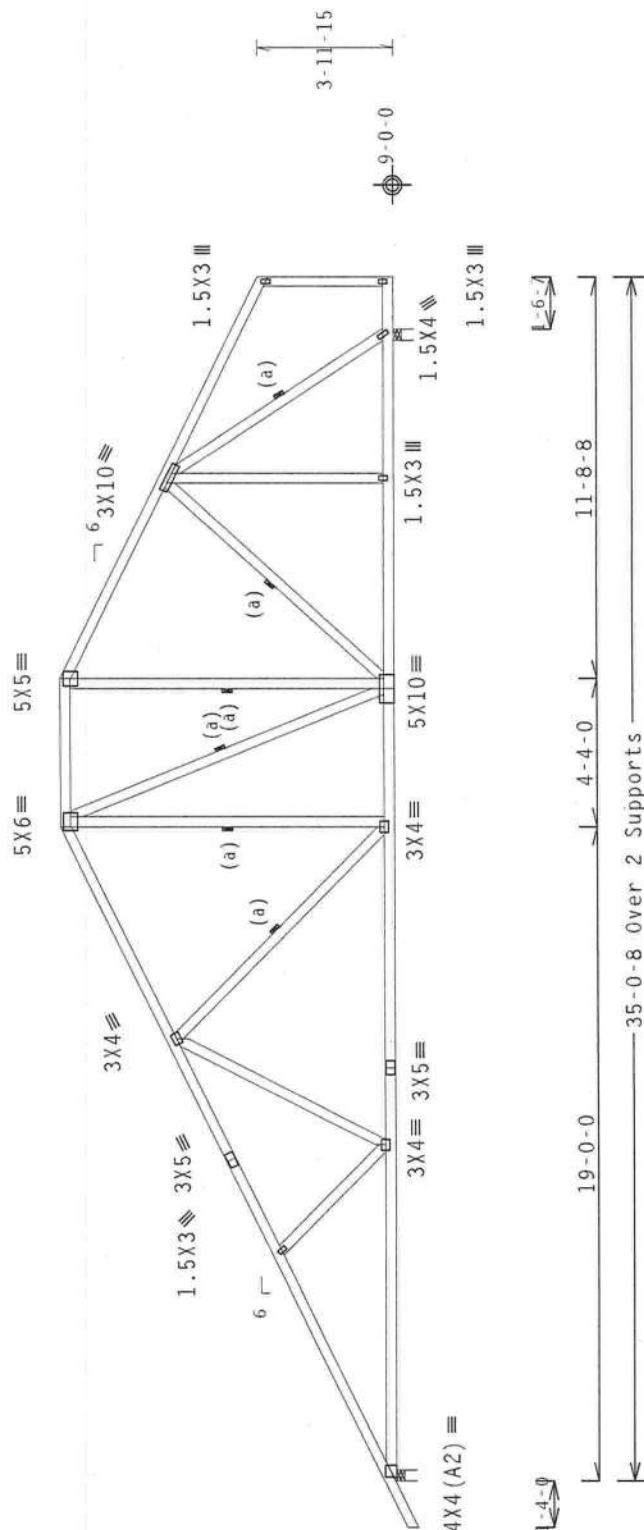
120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 9.00 ft from roof edge, RISK CAT II, EXP B, wind Tc DL=5.0 psf, wind BC DL=5.0 psf. Gcpi (+/-)=0.18

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

Right end vertical not exposed to wind pressure.

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

MMFRS loads based on trusses located at least 15.00 ft. from roof edge.



R=1475 U=0 W=4"  
RL=136/-117

Design Crit: FBC2010Res/TPI-2007 (STD)

FT/RT=10%(0%)/0(0)

Scale = .1875"/Ft.

QTY: 1 FL / - / 4 / - / - / R / -

10.9/3.11.0209.21

(0)0/(9

 $FT/RT=10\%$ 

Design Critic:

PIT TYPE: Wave

**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET

**\*IMPORTANT\*** FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

Frassers require extreme care in rebar/cutting, handling, shipping, installation and bracing. Refer to the latest edition of BSI (Building Components Safety Information), by IP1 and HICA for safety practices prior to performing these functions. Installers shall provide temporary bracing for all holes made in a property attached rebar setting. Locations shown for permanent lateral restraint of steel shall have bracing installed per B624 sections B3, B7 or B10, as applicable.

The Building Components Group Inc., (Liquids) shall not be responsible for any deviation from the design or manufacturing process, failure to build the truss in conformance with ANSI/IPI 1, or for handling, shipping, installation, storage, or packaging of parts. Apply plates to each face of truss and position as shown above and on the Joint Detail below. Indicate details, unless noted otherwise. Refer to drawings I069-Z For standard plate positions. A seal over the bearing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The user assumes all liability for any other construction features. This job must comply with ANSI/IPI 1, Section 2. For more information see: This Job-  
Engineering notes pages: 18  
ANSI/IPI 1; www.tlbbag.com; IPI: www.ipi.net.org; WCA: www.sbc-industry.com;  
www.lccsafef.org

**ALPINE**  
**ITW Building Components Group Inc.**  
Haines City, FL 33844  
FL COA #0278

Jaines City, FL 33844  
FL COA #0278

---

(12-063--Fill) in later BRYAN ZECHER/LEGUE --, \*\* - C)

|     |       |     |    |      |
|-----|-------|-----|----|------|
| Top | chord | 2x4 | SP | M-30 |
| Bot | chord | 2x4 | SP | M-30 |
|     | webs  | 2x4 | SP | #3   |

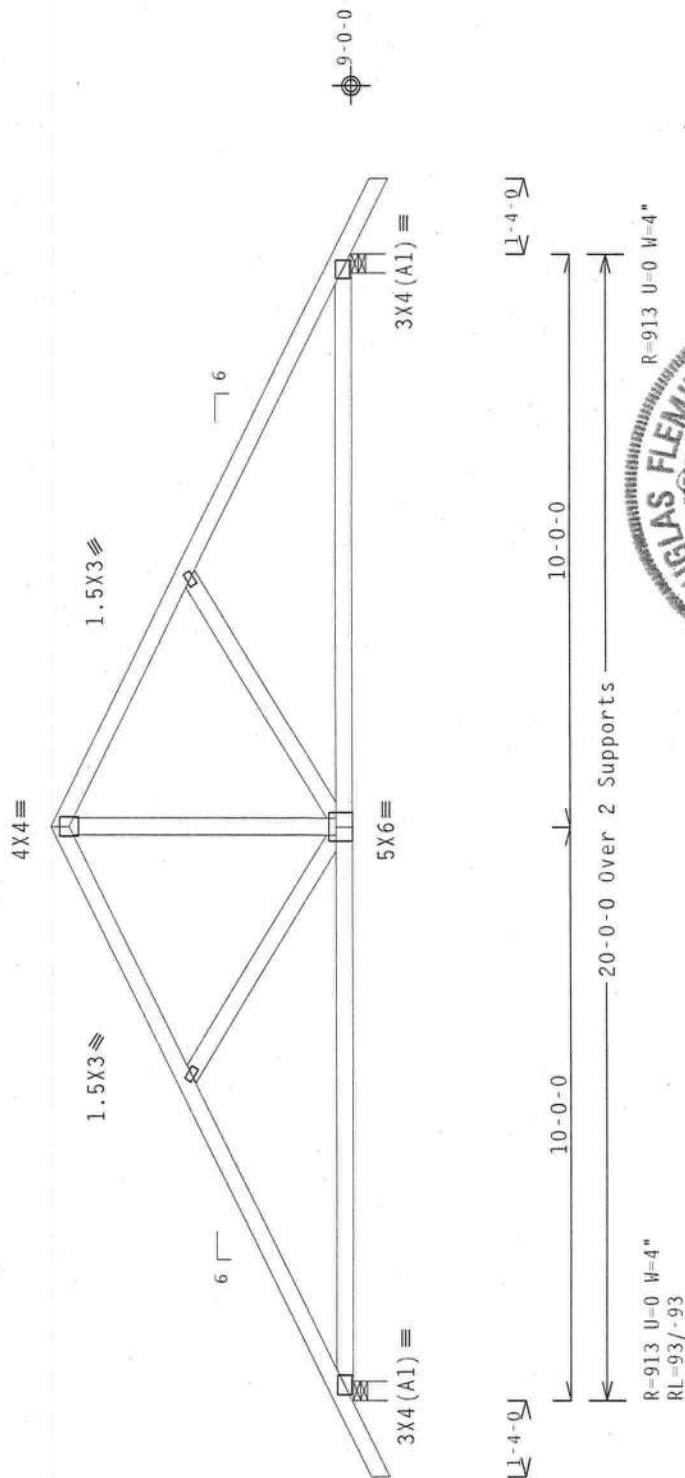
1120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-) = 0.18

Roof overhang supports 2.00 psf soffit load.

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

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



R=913 U=0 W=4"  
RL=93/-93

 $R=913 \quad H=0 \quad W=4''$ 

PLT TYP. Wave

Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10%(0%)/0(0)

Scale = .3125"/Ft.

FL/-/4/-/-/R/-

03.11.2009.21.00:00

FT/RT=10%(0%)/0(0)

Design Crit:

PLT TYP. Wave

**\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET!  
FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.**

**••• IMPORTANT •••**

[illegible]

Trusses require extreme care in fabrication, handling, shipping, installing and bracing. The contractor is responsible for determining the proper bracing system for the trusses and for the proper bracing of the trusses. Trusses shall be braced in accordance with the following:

- a. Trusses shall be braced in accordance with the following:
- b. Trusses shall be braced in accordance with the following:
- c. Trusses shall be braced in accordance with the following:
- d. Trusses shall be braced in accordance with the following:
- e. Trusses shall be braced in accordance with the following:
- f. Trusses shall be braced in accordance with the following:
- g. Trusses shall be braced in accordance with the following:
- h. Trusses shall be braced in accordance with the following:
- i. Trusses shall be braced in accordance with the following:
- j. Trusses shall be braced in accordance with the following:
- k. Trusses shall be braced in accordance with the following:
- l. Trusses shall be braced in accordance with the following:
- m. Trusses shall be braced in accordance with the following:
- n. Trusses shall be braced in accordance with the following:
- o. Trusses shall be braced in accordance with the following:
- p. Trusses shall be braced in accordance with the following:
- q. Trusses shall be braced in accordance with the following:
- r. Trusses shall be braced in accordance with the following:
- s. Trusses shall be braced in accordance with the following:
- t. Trusses shall be braced in accordance with the following:
- u. Trusses shall be braced in accordance with the following:
- v. Trusses shall be braced in accordance with the following:
- w. Trusses shall be braced in accordance with the following:
- x. Trusses shall be braced in accordance with the following:
- y. Trusses shall be braced in accordance with the following:
- z. Trusses shall be braced in accordance with the following:

◁

LTM Building Components Group Inc. (LTBC) shall not be responsible for any deviation from standard practice or any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation, or any other failure of the trusses. Applied plates to each face of truss and position as shown above and on the back of this drawing are required. The manufacturer shall ensure that all components meet the design requirements stated herein, unless otherwise noted. Refer to drawings 160N-2 for standard plate positions. A seal of approval or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure is the responsibility of the building designer per ANSI/TPI 1 sec.2. There are no connections shown. Inquiries may be directed to LTBC at [ltbc@ltsinc.com](mailto:ltbc@ltsinc.com), [www.ltsinc.com](http://www.ltsinc.com), 875-955-2222, or 800-353-8242.

**ALPINE**  
**ITW Building Components Group Inc.**  
Haines City, FL 33844  
FL COA #0 278

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PL COA #0278

(12-063--Fill in later BRYAN ZECHE/LEGUE --, \*\* - C1)

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

Roof overhang supports 2.00 psf soffit load.

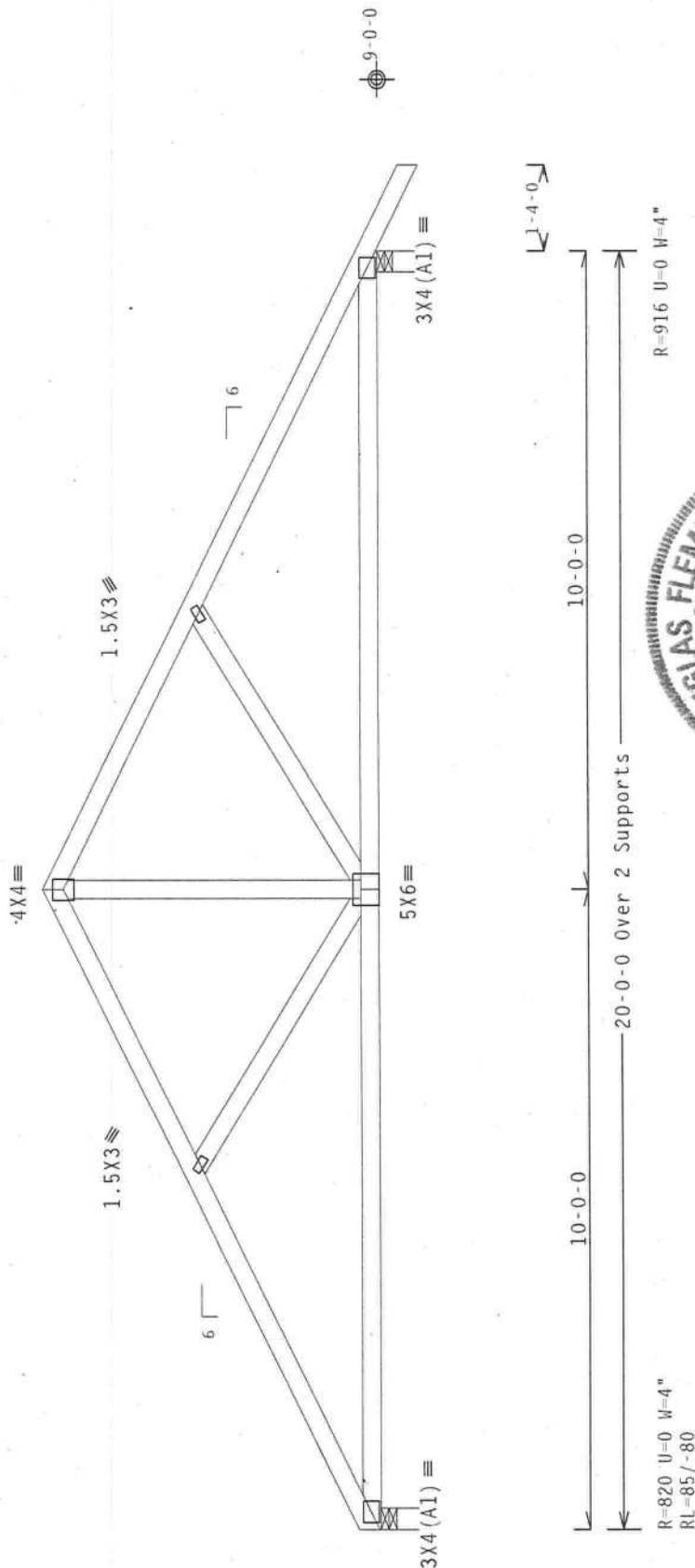
Bottom chord checked for 10.00 psf non-concurrent live load.

MWFRS loads based on trusses located at least 7.50 ft. from roof edge.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 4.50 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi(+/-)=0.18

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



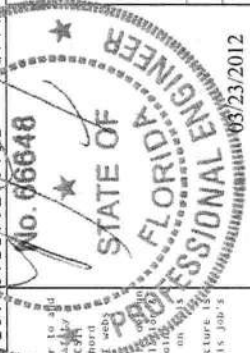
PLT TYP. Wave

Design Crit: FBC2010Res/TPI-2007 (STD)

FT/RT=10% (0%) / 0 (0)

Scale = .375" / Ft.

|          |          |        |                   |
|----------|----------|--------|-------------------|
| TC LL    | 20.0 PSF | REF    | R487 - 26444      |
| TC DL    | 10.0 PSF | DATE   | 03/23/12          |
| BC DL    | 10.0 PSF | DRW    | HCUSR487 12083021 |
| BC LL    | 0.0 PSF  | HC-ENG | TCE/DF            |
| TOT.LD.  | 40.0 PSF | SEQN-  | 279351            |
| DUR.FAC. | 1.25     |        |                   |
| SPACING  | 24.0"    | JREF - | 1UKN487_Z01       |



**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET.  
FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING 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 IPI and WICA for best 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 shall have bracing installed per BCSI sections B5, B7 or B10, as applicable.  
ITW Building Components Group Inc. (ITWBCG) shall not be responsible for any deviation from this design for any failure to build the truss in accordance with ANSI/TPI 1, or for handling, shipping, installing or bracing of trusses. Apply plates and bracing as shown. Refer to ITWBCG for standard plate positions. A seal on the drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design 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; ITW-BCG: www.itwbcg.com; TPI: www.tpiinst.org; WICA: www.sbcindustry.com; ICC: www.iccsafe.org



|     |       |     |    |      |
|-----|-------|-----|----|------|
| Top | chord | 2x4 | SP | M-30 |
| Bot | chord | 2x4 | SP | M-30 |
|     | webs  | 2x4 | SP | #3   |

Stack Chord SC1 2x4 SP M-30:

Roof overhang supports 2.00 psf soffit load.

Cable end supports 8" max rake overhang.

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

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

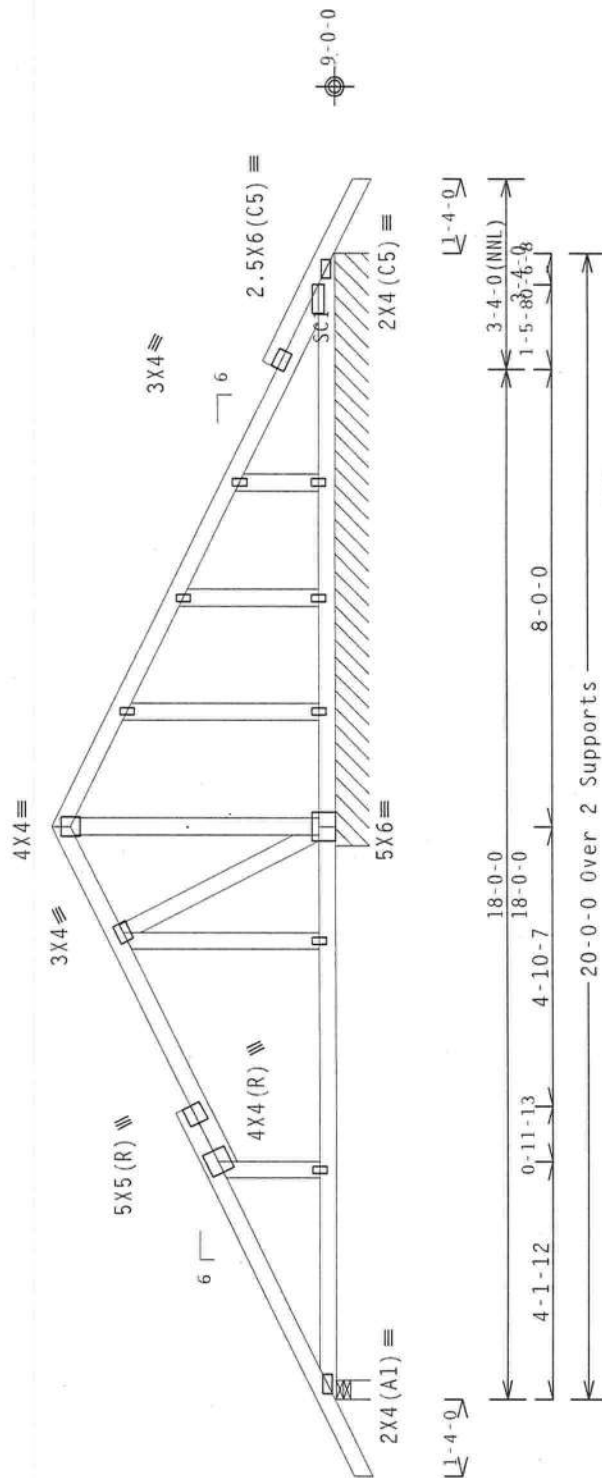
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi(+/-)0.18

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

See DWGS A12015ENC100212, GBLLETIN0212, & GABRST100212 for more requirements.

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



R=545 U=6 W=4"  
RL=93/-92

R=180 PLF U=0 PLF W=10-4-0

Note: All Plates Are 1.5X3 Except As Shown.

Design Crit: FBC2010Res/TPI-2007 (STD)

FT/RT=10%(0%)/0(0)

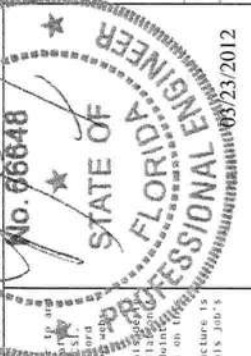
FL/-/4/-/-/R/-  
Scale = .3125"/Ft.

**\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET!  
FURNISH THIS DESIGN TO ALL CONTRACTORS, INCLUDING INSTALLERS.**

**IMPORTANCE:** FURNISH THIS SECTION TO ALL CONTRACTORS INCLUDING INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Follow the latest edition of BCSI (Building Components System) by TPI and WICA for all practices prior to performing these functions. Installers must be properly trained and must have a properly attached rigid ceiling. Locations shown for permanent lateral restraint must all have bracing installed per BCSI sections B3, B7 or B10, as applicable.

The Building Concepts Group Inc. (BUCG) shall be responsible for any deviation from this design. The contractor shall be responsible for any failure to build the truss in accordance with ANSI TP1-1, or for handling, shipping, installation, or erection of the truss. The contractor shall be responsible for any deviation from the details, unless noted otherwise. Refer to drawings 1600-2 for standard plate positions. A seal on the drawing or cover plate listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure is the responsibility of the user. For more information, contact BUCG at: 1155 Jolly Road, Suite 100, Westborough, MA 01581; Tel: 508/336-1155; Fax: 508/336-1156; E-mail: [info@bucg.com](mailto:info@bucg.com); TP1: [www.tp1.net](http://www.tp1.net); WCA: [www.sdcindustry.com](http://www.sdcindustry.com); [www.1600sdc.org](http://www.1600sdc.org).



|          |       |     |        |                  |
|----------|-------|-----|--------|------------------|
| TC LL    | 20.0  | PSF | REF    | R487 - - 26445   |
| TC DL    | 10.0  | PSF | DATE   | 03/23/12         |
| BC DL    | 10.0  | PSF | DRW    | HCSR487 12083022 |
| BC LL    | 0.0   | PSF | HC-ENG | TCE/DF           |
| TOT.LD.  | 40.0  | PSF | SEQN-  | 279364           |
| DUR.FAC. | 1.25  |     |        |                  |
| SPACING  | 24.0" |     | JREF-  | 1UKN487_Z01      |

|     |       |     |    |      |
|-----|-------|-----|----|------|
| Top | chord | 2x4 | SP | M-30 |
| Bot | chord | 2x4 | SP | M-30 |
|     | webs  | 2x4 | SP | #3   |

Stack Chord SC1 2x4 SP M-30::Stack Chord SC2 2x4 SP M-30:

Roof overhang supports 2.00 psf soffit load.

See DWGS A12015ENC100212, GBLLETIN0212, & GABRST100212 for more requirements.

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

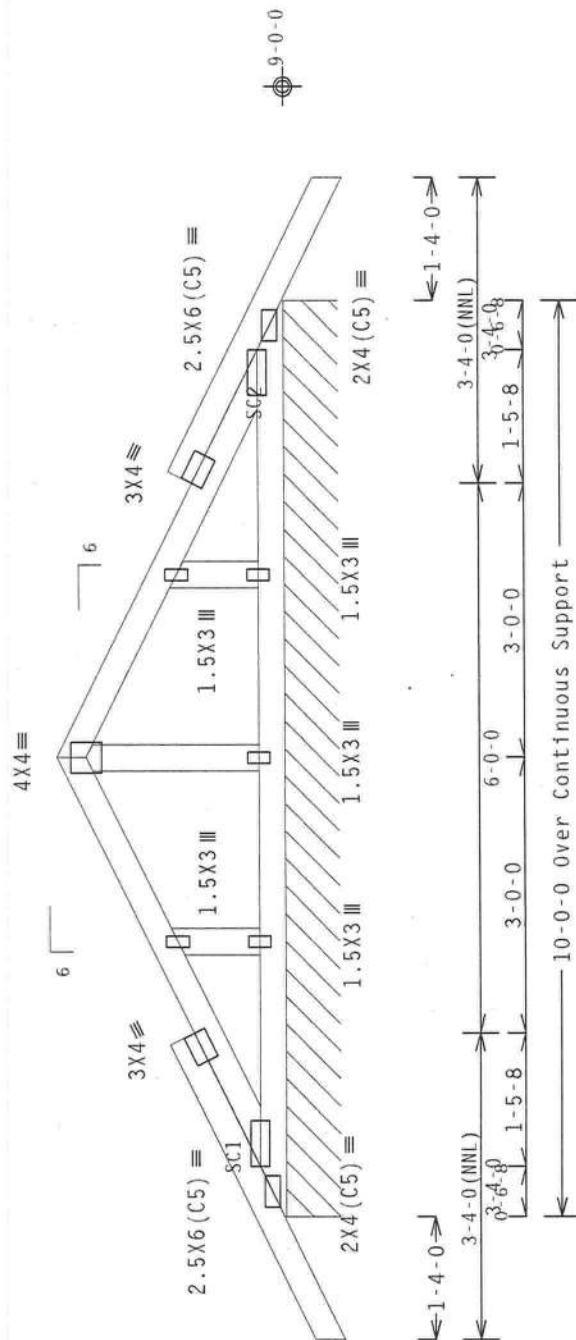
Bottom chord checked for 10.00 psf non-concurrent live load.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

1120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi(+/-)0.18

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

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



R=118 PLF U=0 PLF W=10-0-0  
RL=6/-6 PLF

Design Crit: FBC2010Res/TPI-2007(STD)  
FT/RT=10%(0%)/0(0)

PLT TYP.: Wave

FL/-/4/-/-/R/-

Scale = .5"/Ft.

|          |          |          |
|----------|----------|----------|
| REF      | R487--   | 26446    |
| DATE     | 03/23/12 |          |
| DRW      | HCU8R487 | 12083023 |
| HC-ENG   | TCE/DF   |          |
| SEQN-    | 279335   |          |
| 20.0 PSF |          |          |
| 10.0 PSF |          |          |
| 10.0 PSF |          |          |
| 0.0 PSF  |          |          |
| 40.0 PSF |          |          |
| 1.25     |          |          |
| 24.0"    |          |          |

No. 66648

STATE OF FLORIDA

PROFESSIONAL ENGINEER

03/23/2012

**\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET.**  
**\*\*IMPORTANT\*\* FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.**

Trusses require extreme care in fabricating, handling, shipping, installation and bracing. Be sure to read and follow the latest edition of BCSI (Building Component Safety Institute) specifications for the design and installation of BCSI trusses. The following information is provided for the contractor's use. The contractor shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint shall have bracing installed per BCSI sections B3, B7 or B10, as applicable.

The Building Components Group Inc. (LTD) shall not be responsible for any deviation from the design, failure to build the truss in accordance with ANSI/TPI 1, or for handling, shipping, installation, bracing or details, unless noted otherwise. Refer to drawings 1600-2 for standard plate positions. A seal drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2. For more information see: the general notes page: 114-062; or <http://www.bcsigroup.com>; BCSI; or the industry code.



**ALPINE**  
**ITW Building Components Group Inc.**  
 Haines City, FL 33844

|     |       |     |    |      |
|-----|-------|-----|----|------|
| Top | chord | 2x4 | SP | M-30 |
| Bot | chord | 2x4 | SP | M-30 |
|     | webs  | 2x4 | SP | #3   |

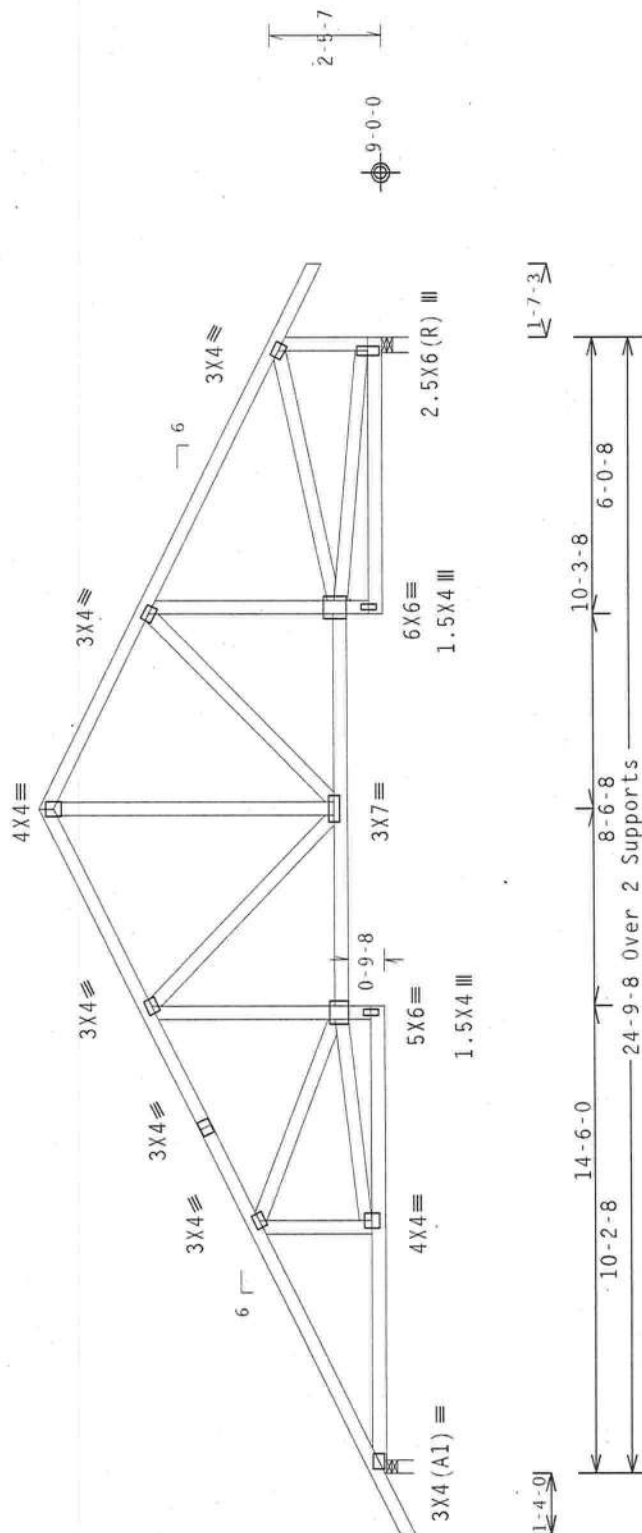
120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-)=0.18

Roof overhang supports 2.00 psf soffit load.

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

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



R=1116 U=0 W=3.5"  
RL=121/-104

Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10%(0%) / 0(0)

PLT TYP. Wave

Scale = .25"/Ft.

**\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET**

**\*\*IMPORTANT\*\*** FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

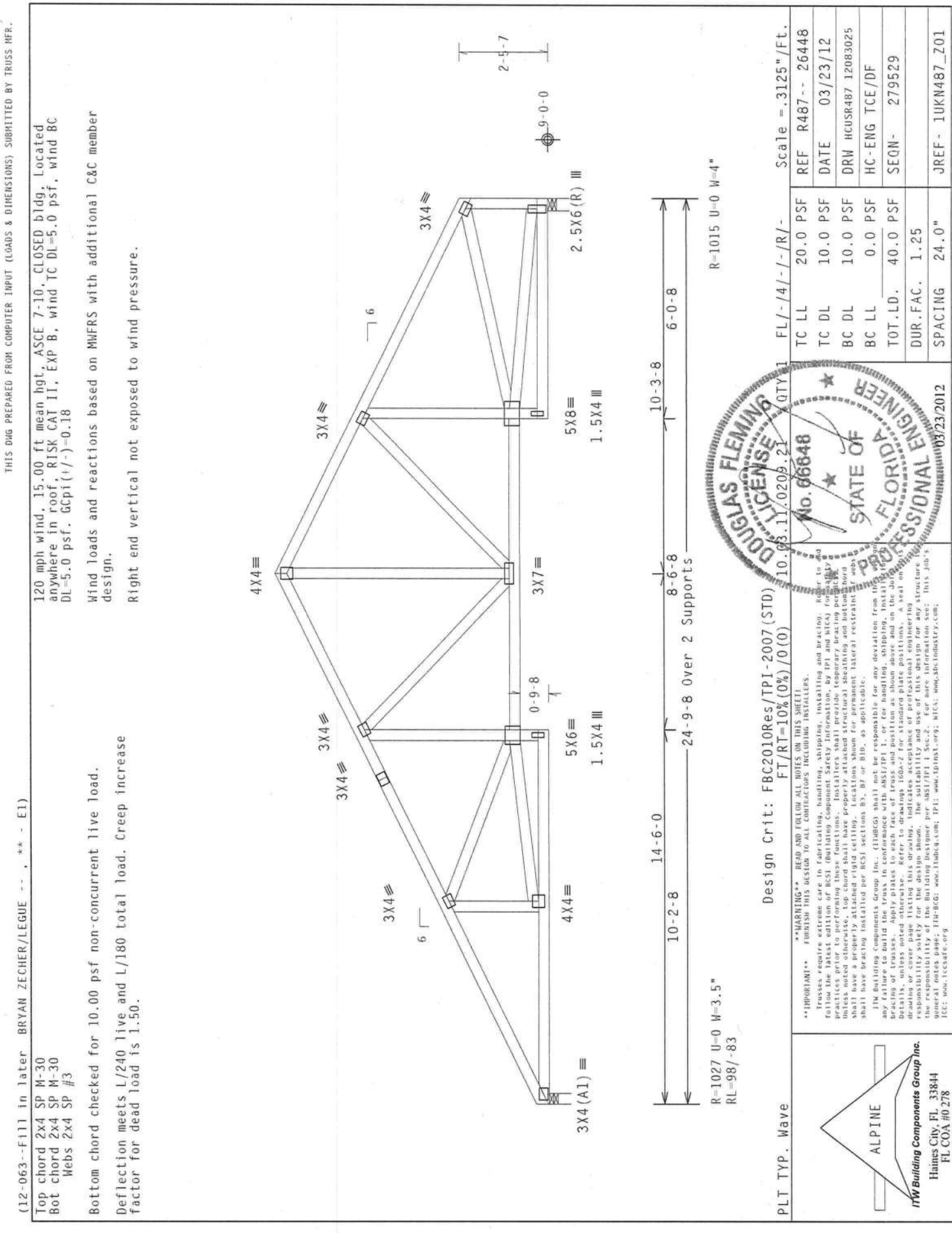
Process require extreme care in fabricating, handling, shipping, installation and bracing. Refer to the following information for details. Follow the latest edition of BCSP Building Component Safety Information, by IPI and WICA for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSP practices noted otherwise. Top chord shall have property attached structural sheathing and bottom chord shall have a property attached rigid ceiling. Locations shown for permanent lateral restraint. We shall have bracing installed per BCSP sections B3, B7 or B10, as applicable.

[illegible]

**ALPINE**  
**ITW Building Components Group Inc.**  
Haines City, FL 33844  
FI COA #0 778

Haines City, FL 33844  
FL COA #0 278

JREF- 1UKN487 701



THIS DMG PREPARED FROM COMPUTER INPUT (LOADS & DIMENSIONS) SUBMITTED BY TRUSS MFR.

(12-063--Fill) in later BRYAN ZECHER/LEGUE --, \*\* - E1)

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg. Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18

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

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

Right end vertical not exposed to wind pressure.

R=1027 U=0 W=3.5"  
RL=98/-83

R=1015 U=0 W=4"

Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10%(0%)/0(0)

Scale = .3125"/Ft.

PLT TYP. Wave

|                                                                                                                                |                   |  |       |                            |          |          |        |                   |
|--------------------------------------------------------------------------------------------------------------------------------|-------------------|--|-------|----------------------------|----------|----------|--------|-------------------|
| <br>Haines City, FL 33844<br>FL COA #0278 | 10-03-11 10:09:21 |  | QTY 1 | FL / - / 4 / - / - / R / - | TC LL    | 20.0 PSF | REF    | R487-- 26448      |
|                                                                                                                                | 10-03-11 10:09:21 |  |       |                            | TC DL    | 10.0 PSF | DATE   | 03/23/12          |
|                                                                                                                                | 10-03-11 10:09:21 |  |       |                            | BC DL    | 10.0 PSF | DRW    | HCUSR487 12083025 |
|                                                                                                                                | 10-03-11 10:09:21 |  |       |                            | BC LL    | 0.0 PSF  | HC-ENG | TCE/DF            |
|                                                                                                                                | 10-03-11 10:09:21 |  |       |                            | TOT.LD.  | 40.0 PSF | SEQN-  | 279529            |
|                                                                                                                                | 10-03-11 10:09:21 |  |       |                            | DUR.FAC. | 1.25     | JREF-  | 1UKN487_Z01       |
| SPACING 24.0"                                                                                                                  |                   |  |       |                            |          |          |        |                   |



**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET  
FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

**\*\*IMPORTANT\*\*** Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Follow the latest edition of BCSI (Building Component Safety Information, by TPI and BCSA) for best practices prior to performing these functions. Installers shall provide temporary bracing perpendicular to the top chord. Top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint shall have bracing installed per BCSI sections 85, 87 or 81b, as applicable.

ITW Building Components Group Inc. (ITWBCG) shall not be responsible for any deviation from information any failure to build the truss in conformance with ABSI/TPI 1, or for handling, shipping, installing, bracing of trusses. Apply plates to each face of top chord in position as shown and on the joint between top chord and web. ITWBCG shall not be responsible for any deviation from information on drawing or cover page listing this drawing. The suitability and use of this design for any structure is the responsibility of the building designer per ABSI/TPI 1 Sec.2. For more information see: This job's general notes page. ITWBCG: www.itwbcg.com; TPI: www.tpi.net.org; BCSA: www.bcsa-industry.com; ICC: www.iccsafe.org

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, Exp B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-)=0.18

Roof overhang supports 2.00 psf soffit load.

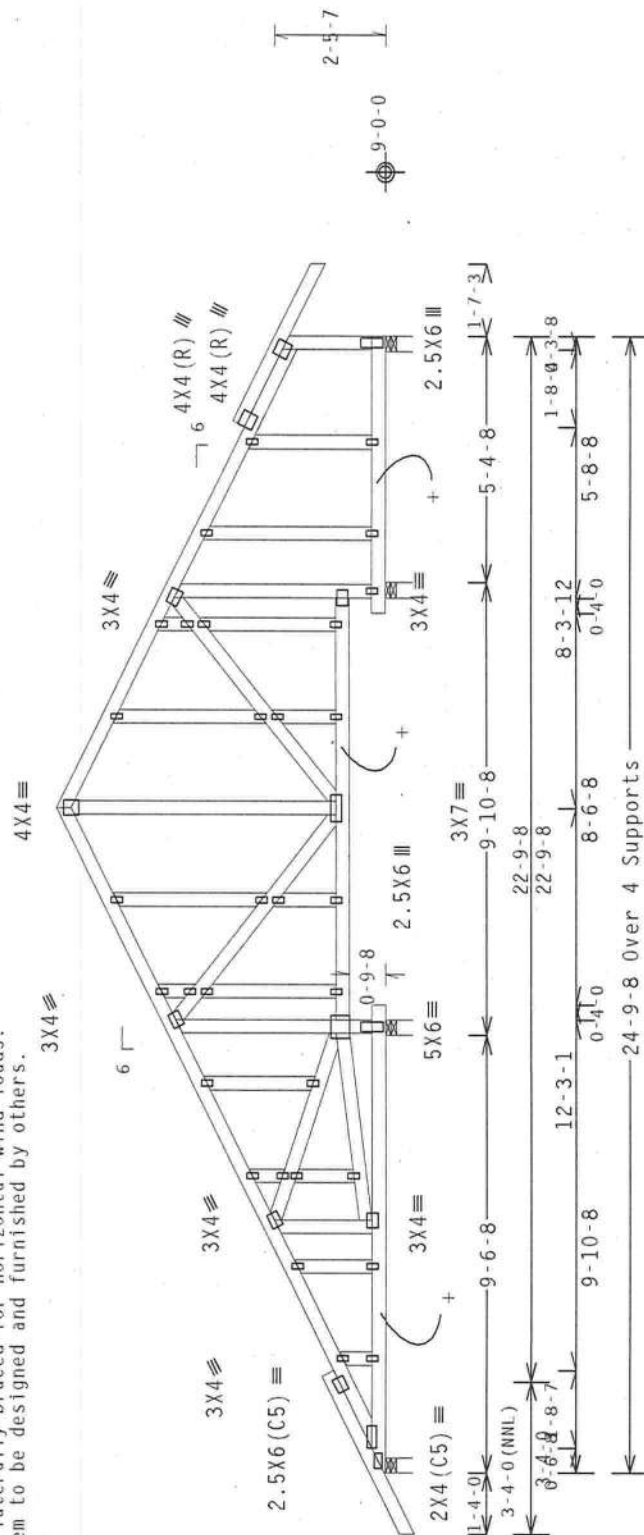
Wind loads and reactions based on MWFRS with additional C&C member design.

Gable end supports 8" max rake overhang.

See DWGS A12015ENC100212, GBLLETIN0212, & GABRST100212 for more requirements.

Stacked top chord must NOT be notched or cut in area (NML). Dropped top chord braced at 24" o.c. intervals. Attach stacked top chord (5C) to dropped top chord in notchable area using 3x4 tie-plates 24" o.c. center-plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in notchable area using 3x6.

# Member to be laterally braced for horizontal wind loads. Bracing system to be designed and furnished by others.



$P=557$   $II=0$   $W=4''$

RL=119/-104

Note: All Plates Are 1.5X3 Except As Shown.

Design Crit: FBC2010Res/TPI-2007 (STD)

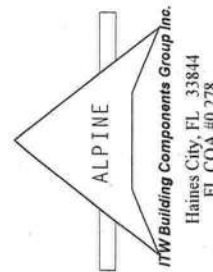
Design Crit.: (DEFLECTIONS) (H1) (L200) (G15)  
 Scaled = .25" / FT.  
 FLT TYP. Wave  
 RTV: 10.09.11 0209.21  
 FT/RT=10%(0)/0(0)  
 FL/-4/-1/-R/-

**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET

Trusses require extreme care in fabrication, shipping, installation and bracing. Performers will follow the latest edition of BCSI (Building Component Specification, by TPI and WCA) for design practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Locations 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 eave shall have bracing installed per BCSI sections B3, B7 or B10, as applicable.

The Building Components Group Inc. (Hedge) shall be responsible for any deviation from this drawing or failure to build the truss in conformance with AISC/TPI 1, or for handling, shipping, installation, erecting or failure to place each face of truss and position as shown above and on the joint details, unless noted otherwise. Refer to drawings 1609-2 for standard plate positions. A seal on the bottom cover plate indicating this drawing. Indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure is the responsibility of the building designer per AISC/TPI 1 Sec.2. For more information see: This Job's specifications and Hedge; web: <http://www.bci-inc.com>, TPI: [ase@tpi.org](mailto:ase@tpi.org), WFL: [wfl@tpi.org](mailto:wfl@tpi.org)

www.1609-2.pdf



|          |          |                      |
|----------|----------|----------------------|
| TC LL    | 20.0 PSF | REF R487-- 26449     |
| TC DL    | 10.0 PSF | DATE 03/23/12        |
| BC DL    | 10.0 PSF | DRW HCUR487 12083026 |
| BC LL    | 0.0 PSF  | HC-ENG TCE/DF        |
| TOT.LD.  | 40.0 PSF | SEQN- 279548         |
| DUR.FAC. | 1.25     |                      |
| SPACING  | 24.0"    | JREF- 1UKN487 Z01    |

(12-063--Fill in later BRYAN ZECHER/LEGUE --, \*\* - F7F)

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

End verticals not exposed to wind pressure.

Girder supports 7'-0" span to TC/BC split one face and 2'-0" span to TC/BC split opposite face.

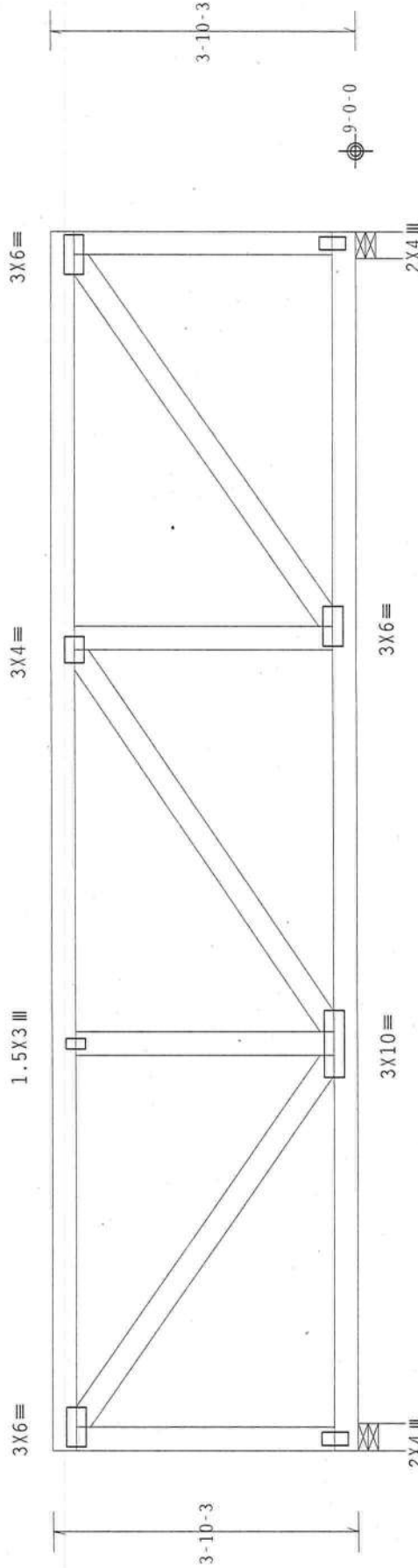
Truss must be installed as shown with top chord up.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-)=0.18

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

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



15'-2-0 Over 2 Supports

R=1405 U-0 W-4"

R=1405 U=0 W=4"

PLT TYP. Wave

Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10% (0%) / 0 (0)

Scale = .5"/Ft.

FL/- /4/- /- /R/-

TC LL 20.0 PSF  
TC DL 10.0 PSF  
BC DL 10.0 PSF  
BC LL 0.0 PSF  
TOT.LD. 40.0 PSF  
DUR.FAC. 1.25  
SPACING 24.0"

REF R487-- 26450  
DATE 03/23/12  
DRW HCUSR487 12083028  
HC-ENG TCE/DF  
SEON- 279368  
JREF- 1UKN487\_201

**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET!  
FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.  
**\*\*IMPORTANT\*\*** Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety Information, by TPI and WCA) for best 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 shall have bracing installed per BCSI sections B3, B7 or B10, as applicable.  
TPI Building Components Group Inc. (TIBC) shall not be responsible for any deviation from this design for any failure to build the truss in accordance with ANSI/TPI 1, or for handling, shipping, installing, bracing of trusses. Apply plates to each face of truss as shown above and on the joint between members. Trusses shall be installed in accordance with the latest edition of BCSI. The responsibility of the building designer per ANSI/TPI 1 Sec.2. For more information see: This job's general notes page. TIB-BCG: www.tibbcg.com; TPI: www.tpi101st.org; WCA: www.bcsiindustry.com; ICC: www.iccsafe.org

**ALPINE**

**ITW Building Components Group Inc.**  
Haines City, FL 33844  
FL COA #0278



(12-063--Fill in later BRYAN ZECHER/LEQUE -- \*\* - F9F)

Top chord 2x4 SP M-30  
Bot chord 2x6 SP M-26  
Webs 2x4 SP #3 #2, W4, W10, W12 2x4 SP M-30:

Special loads  
----- (Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)  
TC- From 60 plf at 0.00 to 60 plf at 15.17  
BC- From 10 plf at 0.00 to 10 plf at 15.17  
BC- 1361.50 lb Conc. Load at 1.73, 3.73, 5.73, 13.73  
14.60  
BC- 1238.84 lb Conc. Load at 7.73  
BC- 1339.00 lb Conc. Load at 9.73, 11.73

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

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

Brg blocks: 0.131"x3" nails  
brg x-loc #blocks length/blk #nails/blk wall plate  
2 14.833' 1 12" 8 Rigid Surface  
Brg block to be same size and species as bottom chord.  
Refer to drawing CNAISP0109 for more information.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18

End verticals not exposed to wind pressure.

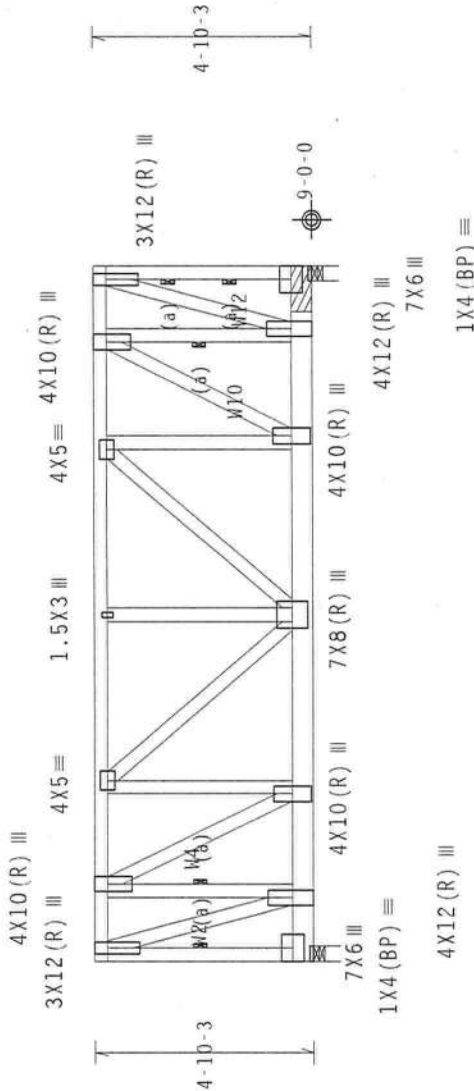
Max JT VERT DEFL: LL: 0.12" DL: 0.17" recommended camber 1/4"

(a) Continuous lateral bracing equally spaced on member.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

Truss must be installed as shown with top chord up.

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



15-2-0 Over 2 Supports  
R=5182 U=24 W=4  
R=6504 U=31 W=4

PLT TYP. Wave

Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10% (0%) / 0 (0)

Scale = .25" / Ft.

FL / - / 4 / - / - / R / -

TC LL 20.0 PSF

TC DL 10.0 PSF

BC DL 10.0 PSF

BC LL 0.0 PSF

TOT.LD. 40.0 PSF

DUR.FAC. 1.25

|        |             |          |
|--------|-------------|----------|
| REF    | R487--      | 26451    |
| DATE   | 03/23/12    |          |
| DRW    | HCUSR487    | 12083029 |
| HC-ENG | TCE/DF      |          |
| SEQN-  | 2374        | REV      |
| JREF-  | 1UKN487_Z01 |          |

DOUGLAS FLEMING  
LICENSE  
No. 66648  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER

PLT TYP. Wave  
Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10% (0%) / 0 (0)

ALPINE  
Haines City, FL 33844  
FL COA #0 278

PLT TYP. Wave  
Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10% (0%) / 0 (0)

|     |       |     |    |      |
|-----|-------|-----|----|------|
| Top | chord | 2x4 | SP | M-30 |
| Bot | chord | 2x4 | SP | M-30 |
|     | webs  | 2x4 | SP | #3   |

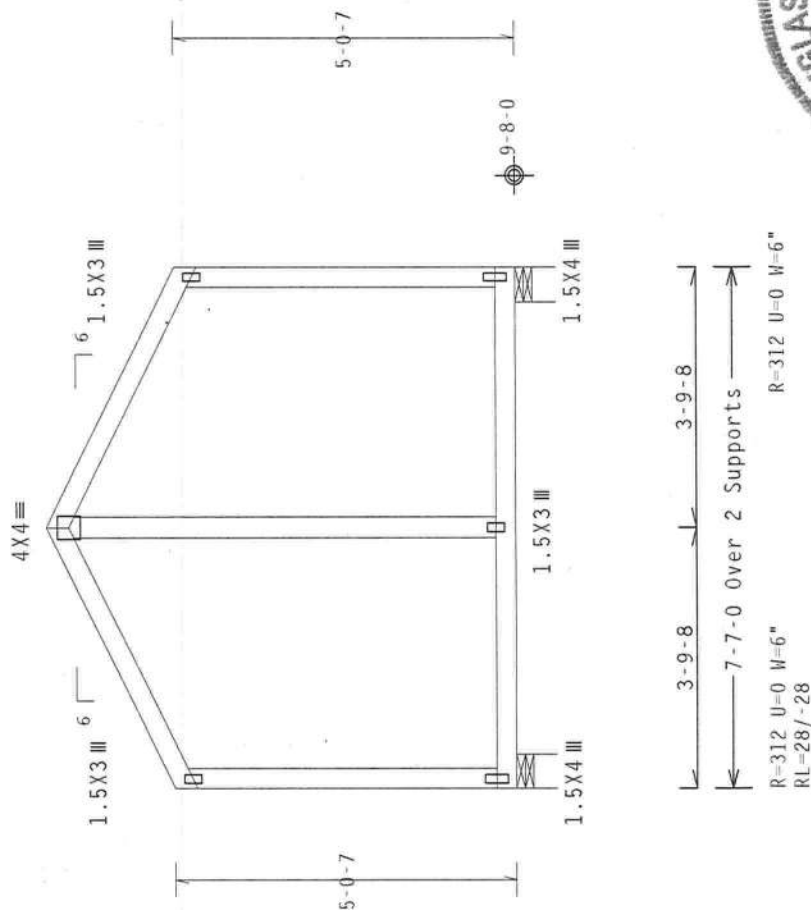
1120 mph wind, 15.65 ft mean hgt, ASCE 7-10, CLOSED bldg. Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi(+/-)=0.18

End verticals not exposed to wind pressure.

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

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



PLT TYP. Wave

Design Crit: FBC2010Res/TPI-2007(STD)  
FT/RT=10%(0%)/0(0)

Scale = .375"/Ft.

|          |       |     |                       |
|----------|-------|-----|-----------------------|
| TC LL    | 20.0  | PSF | REF R487 - - 26452    |
| TC DL    | 10.0  | PSF | DATE 03/23/12         |
| BC DL    | 10.0  | PSF | DRW HCUSR487 12083030 |
| BC LL    | 0.0   | PSF | HC-ENG TCE/DF         |
| TOT.LD.  | 40.0  | PSF | SEQN- 279455          |
| DUR.FAC. | 1.25  |     |                       |
| SPACING  | 24.0" |     | JREF- 1UKN487_Z01     |

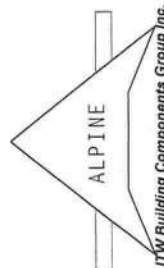
**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET!  
FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

**\*\*IMPORTANT\*\***

**IMPORTANT:** FURNISH THIS DESIGN TO ALL CONTACTS INCLUDING INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the following information for the latest edition of BCSI Building Component Safety Information, by IPI and MICA for more details on the design and installation of trusses. Installers shall provide temporary bracing for all trusses until permanent bracing is installed. Trusses shall be installed in accordance with the design and bracing details shown on the drawings. Trusses are not to be used for permanent lateral restraint until they have been braced in accordance with the design and bracing details shown on the drawings. BCSI sections B3, B7 or B10, as applicable.

The Building Components Group Inc., (HUBCO) shall be responsible for any deviation from the design shown on drawings or specifications. HUBCO shall be responsible for the selection, procurement, packaging of materials, apply plates to each face of truss and position as shown above and on the following details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions. A seal on drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure is the responsibility of the Building Designer per AISI TPI 1 Sec.2. For more information see: This job's general notes page; HUBCO: [www.hubco.com](http://www.hubco.com); AISI: [aisitpi.org](http://aisitpi.org); MCA: [mca-steelusa.com](http://mca-steelusa.com).



ITW Building Components Group Inc.

Haines City, FL 33844  
FL COA #0 278

03/23/2012

24.0"

JREF- 1UKN487\_Z01

(12-063--Fill) in later BRYAN ZECHER/LEGUE --, \*\* - 61)

Top chord 2x4 SP M-30  
Bot chord 2x6 SP M-26  
Webs 2x4 SP #3

Special loads

----- (Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)  
TC- From 62 plf at 0.00 to 62 plf at 3.79  
TC- From 62 plf at 3.79 to 62 plf at 7.58  
BC- From 20 plf at 0.00 to 20 plf at 7.58  
BC- 1230.00 lb Conc. Load at 1.81  
BC- 1310.00 lb Conc. Load at 3.81, 5.81

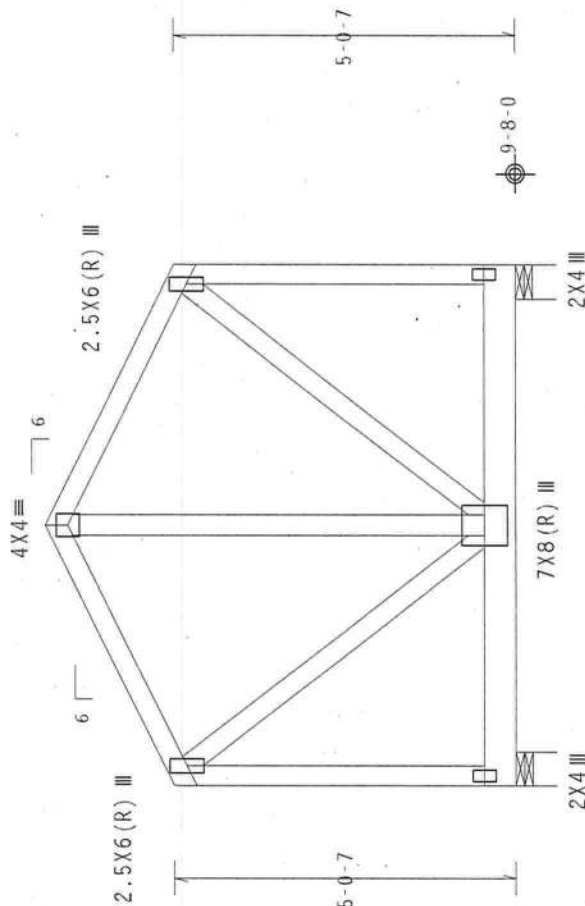
120 mph wind, 15.65 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18

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

End verticals not exposed to wind pressure.

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



3-9-8 3-9-8  
7-7-0 Over 2 Supports  
R=2206 U=25 W=6"  
R=2269 U=25 W=6"

Design Crit: FBC2010Res/TPI-2007 (STD)

FT/RT=10% (0%) / 0 (0)

PLT TYP. Wave

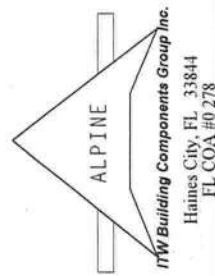
|                            |                       |
|----------------------------|-----------------------|
| FL / - / 4 / - / - / R / - | Scale = .375" / Ft.   |
| TC LL 20.0 PSF             | REF R487 -- 26453     |
| TC DL 10.0 PSF             | DATE 03/23/12         |
| BC DL 10.0 PSF             | DRW HCUSR487 12083031 |
| BC LL 0.0 PSF              | HC-ENG TCE/DF         |
| TOT.LD. 40.0 PSF           | SEQN- 2381 REV        |
| DUR.FAC. 1.25              | JREF- 1UKN487_Z01     |
| SPACING 24.0"              |                       |



\*\*\*WARNING\*\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET!  
FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI Building Component Safety Information, by TPI and WCA for BCSI 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 shall have bracing installed per BCSI sections B3, B7 or B10, as applicable.

ITW Building Components Group Inc. (ITWBCG) shall not be responsible for any deviation from this design or any failure to build the truss in conformance with AWSI/TPI 1, or for handling, shipping, installation, bracing of trusses. Apply plates to each end of top chord and bottom chord. A seal on the drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure is the responsibility of the Building Designer per AWSI/TPI 1 Sec.2. For more information see: This job's general notes page; ITW-BCG; www.itwbcg.com; TPI: www.tpinet.org; WCA: www.sbcindustry.com; ICC: www.iccsafe.org



(12-063--Fill in later BRYAN ZECHER/LEGUE --, \*\* - C.J1)

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30

Roof overhang supports 2.00 psf soffit load.

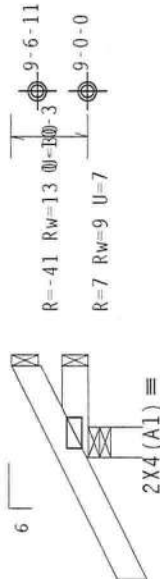
Bottom chord checked for 10.00 psf non-concurrent live load.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg. Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-)=0.18

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

Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Top chord.  
Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Bot chord.



1-4-0

1-0-0 over 03 supports

R-222 U=17 W=4"

Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10%(0%) / 0 (0)

PLT TYP. Wave

Scale = .5"/Ft.

FL/-4/-1-/R/-

TC LL 20.0 PSF  
TC DL 10.0 PSF  
BC DL 10.0 PSF  
BC LL 0.0 PSF  
TOT.LD. 40.0 PSF  
DUR.FAC. 1.25  
SPACING 24.0"

|        |             |          |
|--------|-------------|----------|
| REF    | R487--      | 26454    |
| DATE   | 03/23/12    |          |
| DRW    | HCUSR487    | 12083032 |
| HC-ENG | TCE/DF      |          |
| SEQN-  | 278881      |          |
| JREF   | 1UKN487_Z01 |          |

|          |          |
|----------|----------|
| TC LL    | 20.0 PSF |
| TC DL    | 10.0 PSF |
| BC DL    | 10.0 PSF |
| BC LL    | 0.0 PSF  |
| TOT.LD.  | 40.0 PSF |
| DUR.FAC. | 1.25     |
| SPACING  | 24.0"    |



**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET!  
FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.  
**\*\*IMPORTANT\*\*** 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 NICA) for best 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 or web shall have bracing installed per BCSI sections B3, B7 or B10, as applicable.  
IITW Building Components Group Inc. (IITWBCG) shall not be responsible for any deviation from the design or any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installing or bracing of trusses. Apply plates to each face of truss and position as shown above and on the joining of trusses. Trusses shall be braced in accordance with the design shown. The suitability and use of this design 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; IITW-BCG: www.iitwbcg.com; TPI: www.tpiinst.org; NICA: www.sbcindustry.com; ICC: www.iccsafe.org

**ALPINE**  
IITW Building Components Group Inc.  
Haines City, FL 33844  
FL COA #0278

(12-063--Fill in later BRYAN ZECHER/LEGUE -- \*\* - C.J3)

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30

Roof overhang supports 2.00 psf soffit load.

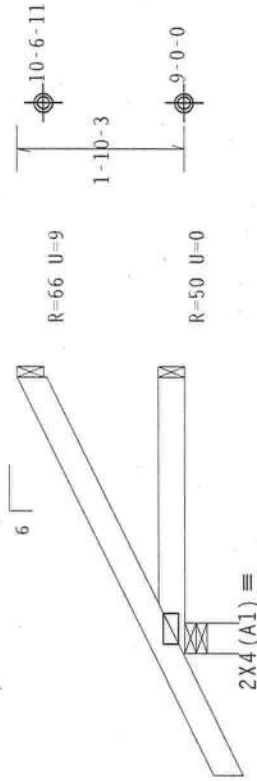
Bottom chord checked for 10.00 psf non-concurrent live load.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. 6Cpi(+/-)=0.18

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

Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Top chord.  
Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Bot chord.



1-4-0

3-0-0 over 3-0-0 Supports

R=244 U=0 W=4"  
RL=35

Design Crit: FBC2010Res/TP1-2007 (STD)  
FT/RT=10%(0%) / 0(0)

PLT TYP. Wave

Scale = .5"/Ft.

FL / - / 4 / - / R / -

10-6-11-0209-21

10-6-11-0209-21

10-6-11-0209-21

10-6-11-0209-21

10-6-11-0209-21

|                                                                                                                                                                      |                                                                                                    |  |  |  |                       |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|--|--|--|-----------------------|--|--|--|--|
| <br>Haines City, FL 33844<br>FL COA #0278<br>ITW Building Components Group Inc. | Douglas Fleming<br>LICENSE<br>No. 66848<br>STATE OF FLORIDA<br>PROFESSIONAL ENGINEER<br>03/23/2012 |  |  |  | REF R487-- 26455      |  |  |  |  |
|                                                                                                                                                                      | 10-6-11-0209-21                                                                                    |  |  |  | DATE 03/23/12         |  |  |  |  |
|                                                                                                                                                                      | 10-6-11-0209-21                                                                                    |  |  |  | DRW HCUSR487 12083033 |  |  |  |  |
|                                                                                                                                                                      | 10-6-11-0209-21                                                                                    |  |  |  | HC-ENG TCE/DF         |  |  |  |  |
|                                                                                                                                                                      | 10-6-11-0209-21                                                                                    |  |  |  | SEQN- 278884          |  |  |  |  |
| DUR. FAC. 1.25                                                                                                                                                       |                                                                                                    |  |  |  | JREF- 1UKN487_201     |  |  |  |  |
| SPACING 24.0"                                                                                                                                                        |                                                                                                    |  |  |  |                       |  |  |  |  |

| Top | chord | 2x4 | SP | M-30 |
|-----|-------|-----|----|------|
| Bot | chord | 2x4 | SP | M-30 |

Roof overhang supports 2.00 psf soffit load.

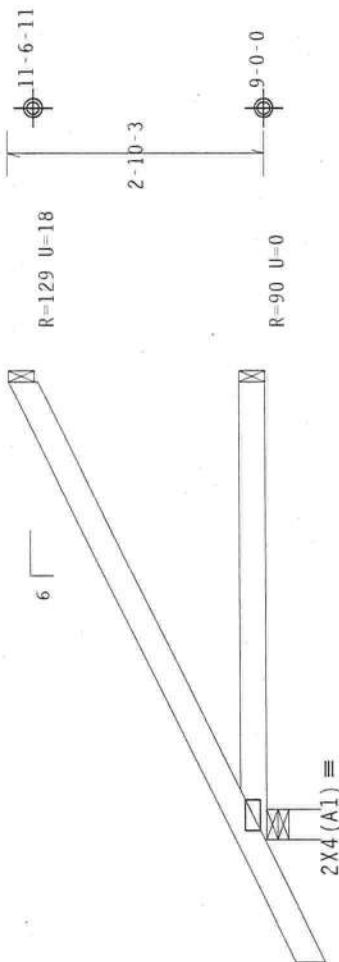
Bottom chord checked for 10.00 psf non-concurrent live load.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

120 mph wind, 15.00 ft mean hgt., ASCE 7-10, CLOSED bldg, not located within 4.50 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-)=0.18

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

Provide ( 2 ) 16d common nails (0.162"x3.5"), toe nailed at Top chord.  
Provide ( 2 ) 16d common nails (0.162"x3.5"), toe nailed at Bot chord.



1-4-07

5-0-0  
5-0-0 Over 3 Supports

R=316 U=0 W=4"  
RL=52/-21

Design Crit: FBC2010Res/TPI-2007(STD)  
FT/RT=10%(0%)/0(0)

PLT TYP. Wave

FL/-/4/-/-/R/-

Scale = .5"/Ft.

REF R487-- 26456

DATE 03/23/12

DRIW 08/29/12

DRIW 08/29/12

URW HCU5K487 IZ083034

HC-ENG TCE/DF

SEQN- 278887

JREF- 1UKN487\_Z01

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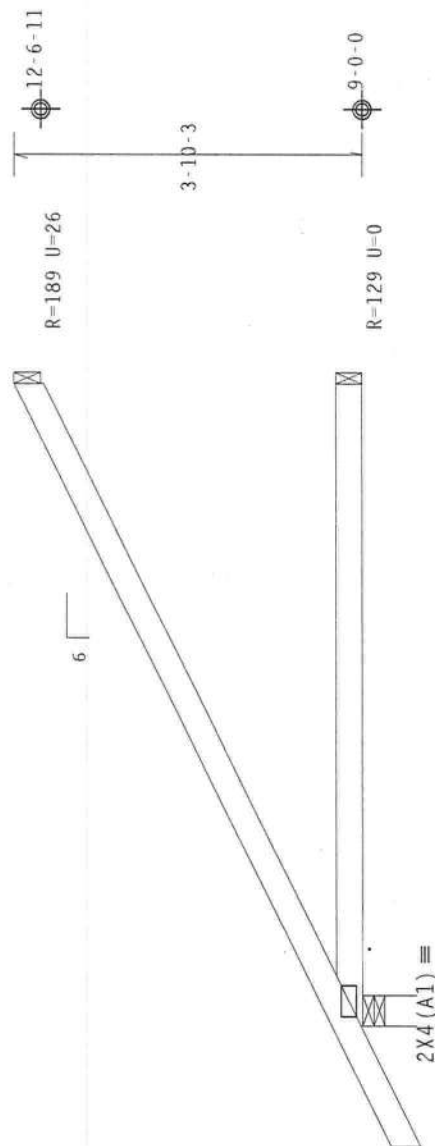
Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30

Roof overhang supports 2.00 psf soffit load.

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Top chord.  
Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Bot chord.



1-4-0-1

7-0-0 Over 3 Supports

R=394 U=0 W=4"  
RL=68/-25

Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10%(0%)/0(0)

PLT TYP. Wave

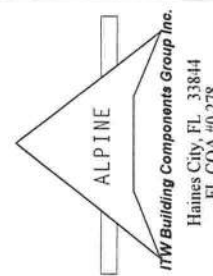
FL/-/4/-/-/R/-

Scale = .5"/Ft.

**\*WARNING\*** READ AND FOLLOW ALL NOTES ON THIS SHEET  
**\*IMPORTANT\*** FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

[illegible]

The Building Components Group, Inc. (BUCOG) shall not be responsible for any deviation from this drawing. The manufacturer shall be responsible for any failure to build the truss in conformance with ANSI/PPI 1, or for handling, shipping, installation, or erecting of the truss. Apply plates to each rafter of truss and position as shown above and on the joint details, unless noted otherwise. Refer to drawings 1606-Z for standard plate positions. A seal on the drawing or covering or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure is the responsibility of the building designer per ANSI/PPI 1 Sec.2. For more information see: this job's general notes page; H-14602; and H-14603; or PPI: amppri1st01;or; WICS: manu36c1info01sec; this job's general notes page; H-14602; and H-14603; or PPI: amppri1st01; or; WICS: manu36c1info01sec.



Haines City, FL 33844  
FL COA #0 278

JREF- 1UKN487\_Z01

|     |       |     |    |      |
|-----|-------|-----|----|------|
| Top | chord | 2x4 | SP | M-30 |
| Bot | chord | 2x4 | SP | M-30 |
|     | webs  | 2x4 | SP | #3   |

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 9.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf, GCpi(+/-)=0.18

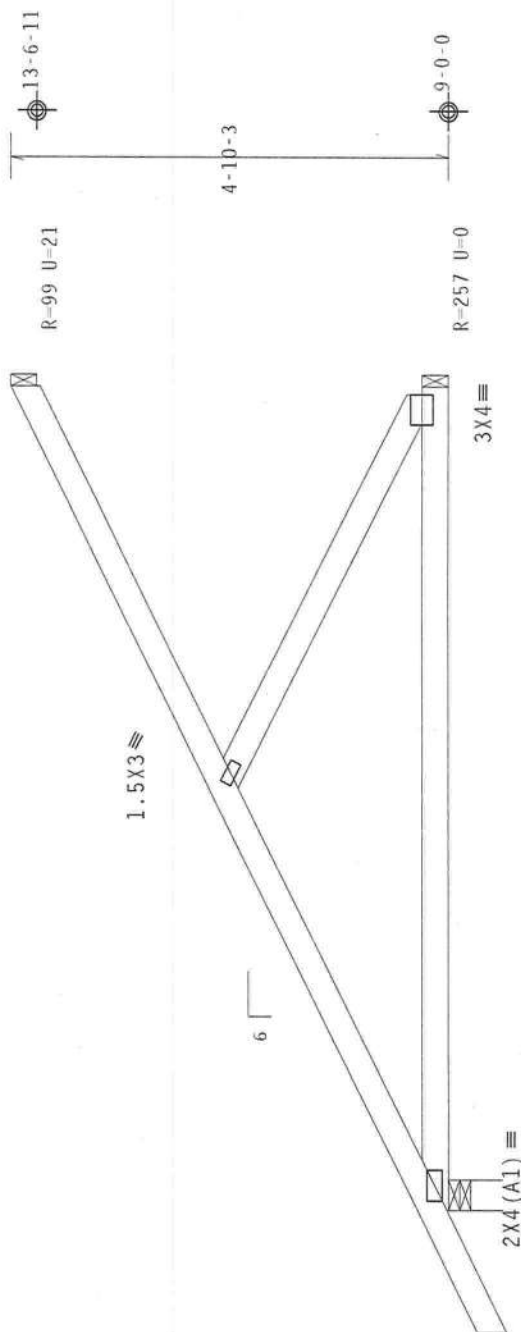
Roof overhang supports 2.00 psf soffit load.

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

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

Provide ( 2 ) 16d common nails (0.162"x3.5"), toe nailed at Top chord.  
Provide ( 2 ) 16d common nails (0.162"x3.5"), toe nailed at Bot chord.



1-4-07

9-0-0 Over 3 Supports

R=474 U=0 W=4"  
RL=85/-29

Design Crit: FBC2010Res/TPI-2007(STD)  
FT/RT=10%(0%)/0(0)

PLT TYP. Wave

11 FL/-/4/-/-/R/-

Scale = .5"/Ft.

**\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET.**  
**\*\*IMPORTANT\*\* FURNISH THIS SECTION TO ALL CONTRACTORS INCLUDING INSTALLERS.**

Trusses require extreme care in fabrication, handling, shipping, installing and bracing. Refer to and comply with the latest edition of BCSI (Building Component Safety Information), by FPI and WFLA (Wood Frame Light Alloy) for complete details. Trusses shall be fabricated in accordance with the following conditions 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 restraining web members shall have a properly attached rigid ceiling. Conditions shown for permanent lateral restraining web members shall have a properly attached rigid ceiling. BCS sections B3, RFR B10, as applicable.

No. 66848

|       |          |
|-------|----------|
| TC LL | 20.0 PSF |
|-------|----------|

EF R487 - - 26458

TC DL 10.0 PSF

DATE 03/23/12

BC DL 10.0 PSF

ORW HCUSR487 12083035

BC LL 0.0 PSF

IC-ENG TCE/DF

|         |          |
|---------|----------|
| TOT.LD. | 40.0 PSF |
|---------|----------|

EQN- 278895

|          |      |
|----------|------|
| DUR.FAC. | 1.25 |
|----------|------|

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03/23/2012

general notes page; IIR-BCG; [www.iubq.com](http://www.iubq.com); IPI; [www.ipinst.org](http://www.ipinst.org); NICA; [www.adc-industry.com](http://www.adc-industry.com); ICC; [www.iccsafe.org](http://www.iccsafe.org)

FL COA #0 278

(12-063--fill in later BRYAN ZECHER/LEGUE -- \*\* - HJ7)

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

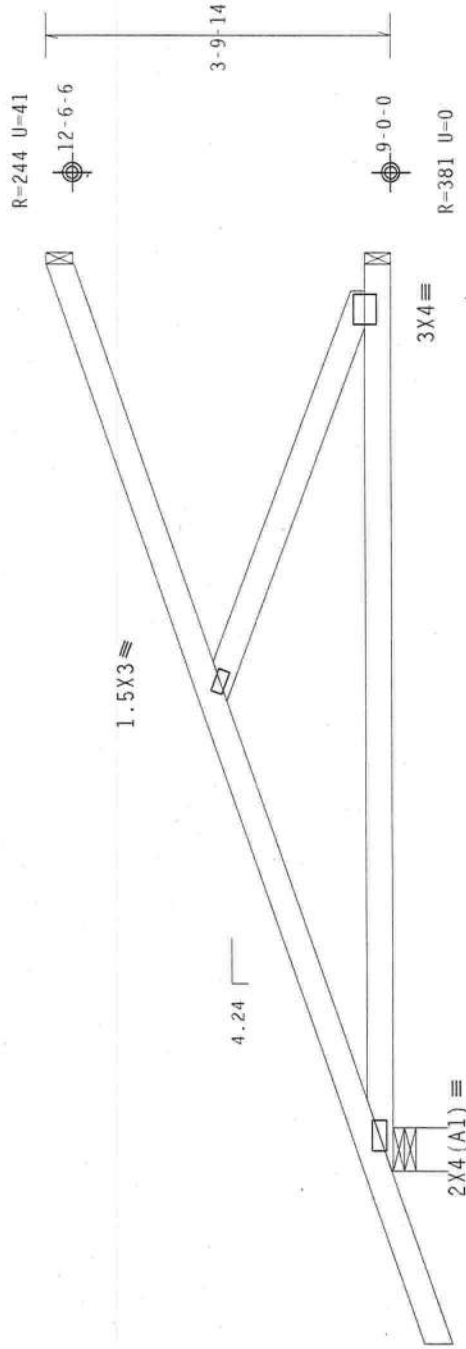
Hipjack supports 7'-0" set back jacks with no webs.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18

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

Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Top chord.  
Provide ( 3 ) 16d common nails(0.162"x3.5"), toe nailed at Bot chord.



← 1-10-10 →  
R-439 U-5 W-5.656"  
9-10-13 Over 3 Supports

Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10%(0%) / 0(0)

PLT TYP. Wave

Scale = 5"/Ft.

FL/- /4/- /- /R/-

10.08.11.0209.21

QTY. 1

REF R487-- 26459

DATE 03/23/12

DRW HCUR487 12083036

HC-ENG TCE/DF

SEQN- 278898

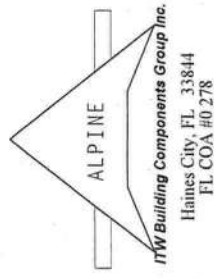
JREF- 1UKN487\_Z01

DUR. FAC. 1.25

SPACING 24.0"



**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET  
FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.  
**\*\*IMPORTANT\*\*** Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI Building Component Safety Information, by IPI and WCA, for best 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 shall have bracing installed per BCSI sections B3, B7 or B10, as applicable.  
IPI Building Components Group Inc. (IPI/BCG) shall not be responsible for any deviation from this design or any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installing or bracing of trusses. Apply plates to each face of truss and position as shown above and on the joint details, unless noted otherwise. Refer to drawings for additional details. The acceptability of the design is the responsibility of the building designer per ANSI/TPI 1 Sec. 2. For more information see: This job's general notes page; IPI-BCG; www.ipibcg.com; IPI: www.tpinet.org; WCA: www.bcsindustry.com; ICC: www.iccsafe.org



(12-063--Fill in later BRYAN ZECHER/LEGUE -- , \*\* - HJ9)

|     |       |     |    |      |
|-----|-------|-----|----|------|
| Top | chord | 2x4 | SP | M-30 |
| Bot | chord | 2x4 | SP | M-30 |
|     | webs  | 2x4 | SP | #3   |

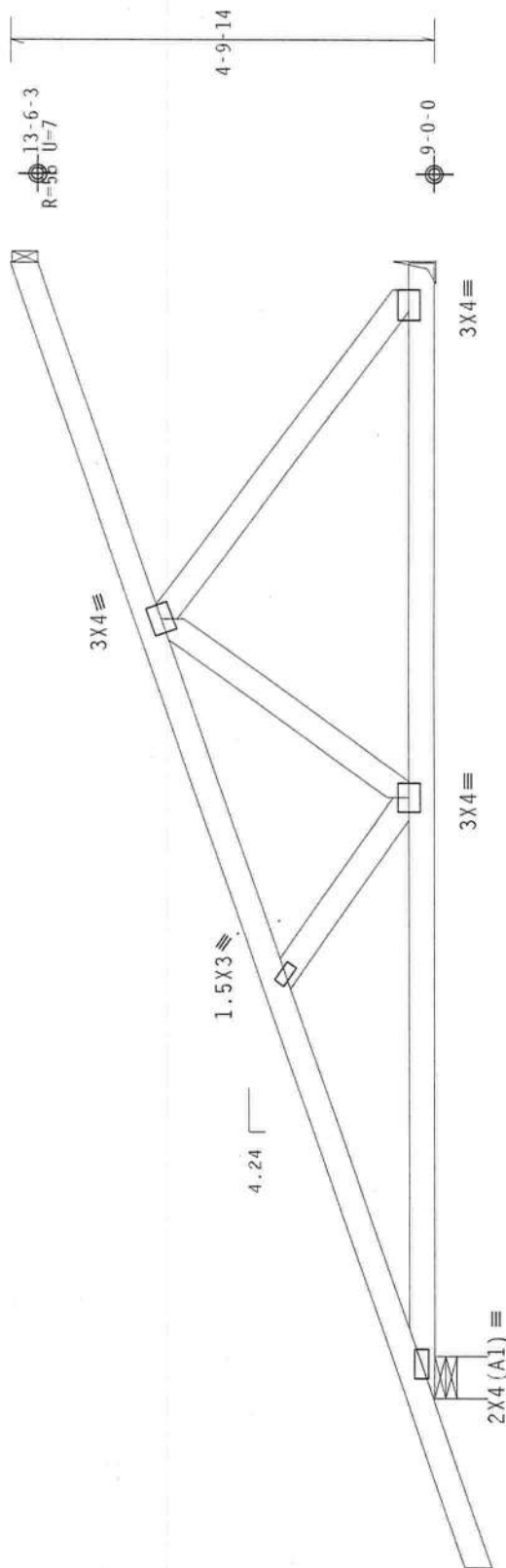
Hipjack supports 9-0-0 setback jacks. Jacks up to 7' have no webs. Longer jacks supported to BC.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

120 mph wind, 15.00 ft mean hgt., ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, Exp B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-)=0.18

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

Provide (2) 16d common nails(0.162"x3.5"), toe nailed at Top chord.



1-10-10

12-8-12 Over 3 Supports

R=648 II=3 W=5 657"

R=996 U=0

PLT TYP. Wave

Design Crit: FBC2010Res/TPI-2007 (STD)

 $FT/RT=10\%(0\%)/0(0)$ 

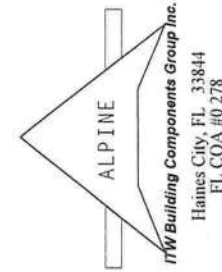
FL/-/4/-/-/R/-

Scale = .5"/Ft.

**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET!  
FURNISH THIS DESIGN TO ALL CONTRACTORS, INCLUDING INSTALLERS.

Trosses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI building Component Safety Information by IPI and WICA for details concerning proper installation and bracing of trosses.

To prevent sagging or twisting of the trosses, they shall be supported at intervals of 80 feet maximum. Upward and downward bracing shall be provided at each support point. The trosses shall have a properly attached vertical ceiling, locations shown for permanent lateral restraint, and shall have bracing installed per BCSJ sections 83, 84 or R10, as applicable.

[illegible]

|          |          |                       |
|----------|----------|-----------------------|
| TC LL    | 20.0 PSF | REF R487-- 26460      |
| TC DL    | 10.0 PSF | DATE 03/23/12         |
| BC DL    | 10.0 PSF | DRW HCU8R487 12083042 |
| BC LL    | 0.0 PSF  | HC-ENG TCE/DF         |
| TOT.LD.  | 40.0 PSF | SEQN- 2388 REV        |
| DUR.FAC. | 1.25     |                       |
| SPACING  | 24.0"    | JREF- 1UKN487_Z01     |

|           |     |    |      |
|-----------|-----|----|------|
| Top chord | 2x4 | SP | M-30 |
| Bot chord | 2x4 | SP | M-30 |
| Web       | 2x4 | SP | #3   |

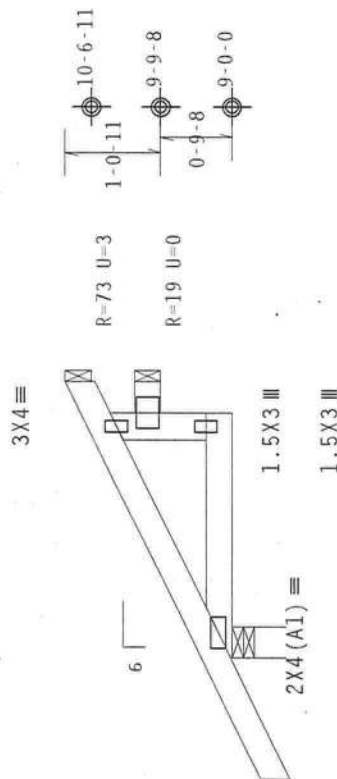
120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi(+/-)0.18

Roof overhang supports 2.00 psf soffit load.

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

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

Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Top chord.  
Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Bot chord.



→ 1 - 1 - 0

$$\overrightarrow{3-0-0} \xrightarrow{\text{Support}} \overrightarrow{2-8-0}$$

R=244 U=0 W=4"  
R1=35

Design Crit: FBC2010Res/TPI-2007(STD)  
FT/RT=10%(0%)/0(0)

PLT TYP. Wave

FL / - / 4 / - / - / R / - /

Scale = 5"/Ft.

•••••

**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET  
 TO AVOID THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS

**\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET.**

**\*\*IMPORTANT\*\* FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.**

Trusses require extreme care in fabrication, handling, shipping, installing and bracing. Refer to the latest edition of BECI Building Component Safety Information, by TPI and BACA for general instructions pertaining to trusses. Installations must follow the original design drawings and specifications. Trusses shall remain unstained, uncoated and free from any other material which may have a property attached rigid ceiling, partitions or other attached structural elements. Truss bracing shall conform to BECI sections B3, B7 or B10, as applicable.

ALPINE

WTW Building Components Group Inc.

Haines City, FL 33844  
FL COA #0 278

03/23/2012

NG 24.0"

JREF- 1UKN487 701

(12-063--Fill in later BRYAN ZECHE/LEGUE -- , \*\* - CJ5T)

|     |       |     |    |      |
|-----|-------|-----|----|------|
| Top | chord | 2x4 | SP | M-30 |
| Bot | chord | 2x4 | SP | M-30 |
|     | webs  | 2x4 | SP | #3   |

Roof overhang supports 2.00 psf soffit load.

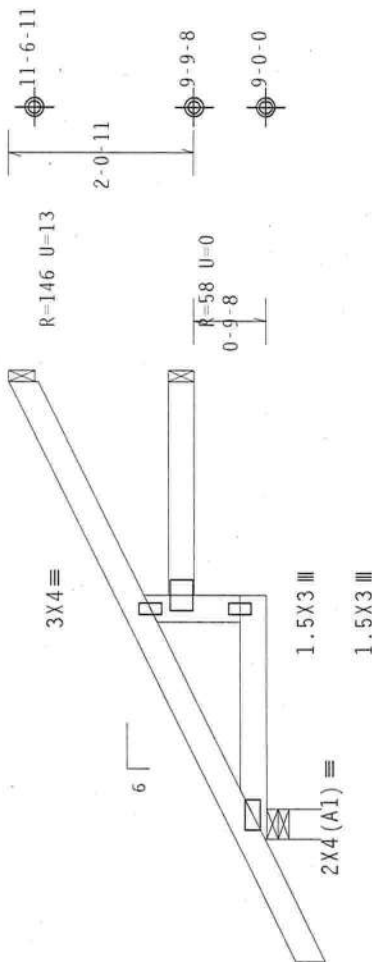
Bottom chord checked for 10.00 psf non-concurrent live load.

Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Top chord.  
Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Bot chord.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 4.50 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-)=0.18

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



7-1-0

2-8-0 2-4-0  
5-0-0 over 3 Supports

R=316 U=0 W=4"  
RL=52/-21

Design Crit: FBC2010Res/TPI-2007(STD)  
FT/RT=10%(0%)/0(0)

PLT TYP. Wave

Scale = .5"/Ft.

**\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET!**

**IMPORTANT:** Trousses require extreme care in fabrication, handling, shipping, installing and bracing. Refer to the latest edition of BCSP Building Component Safety Information, by TPI and WCA for detailed instructions prior to performing these functions. Installers shall provide necessary bracing per BCSP specifications. The manufacturer shall be responsible for providing the necessary bracing. The manufacturer shall have property attached to all ceiling locations for permanent lateral restraint. The manufacturer shall have bracing installed at BCSP ceiling locations B3, B7 and B10, as applicable.

The Building Components Group, Inc. (BUCOG) shall be responsible for any detailing from the drawings. The BUCOG will provide all the necessary information for the design of the trusses, including the location of the trusses, the size of the trusses, the type of trusses, the material used for the trusses, the connections between the trusses, the bracing system, the roof deck, the floor deck, the walls, the foundation, etc. The BUCOG will also provide the necessary information for the design of the other building components, such as the columns, beams, joists, girders, etc. The BUCOG will be responsible for the design of the entire building structure, except for the foundation, which will be designed by the geotechnical engineer.

For more information see: [www.bucog.com](http://www.bucog.com); [bucog@bucog.com](mailto:bucog@bucog.com); [1-800-769-7669](tel:+18007697669); [1-800-769-7669](tel:+18007697669).

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Job's s. 901

|     |     |
|-----|-----|
| 100 | 100 |
|-----|-----|

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 4.50 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi (+/-)=0.18

Roof overhang supports 2.00 psf soffit load.

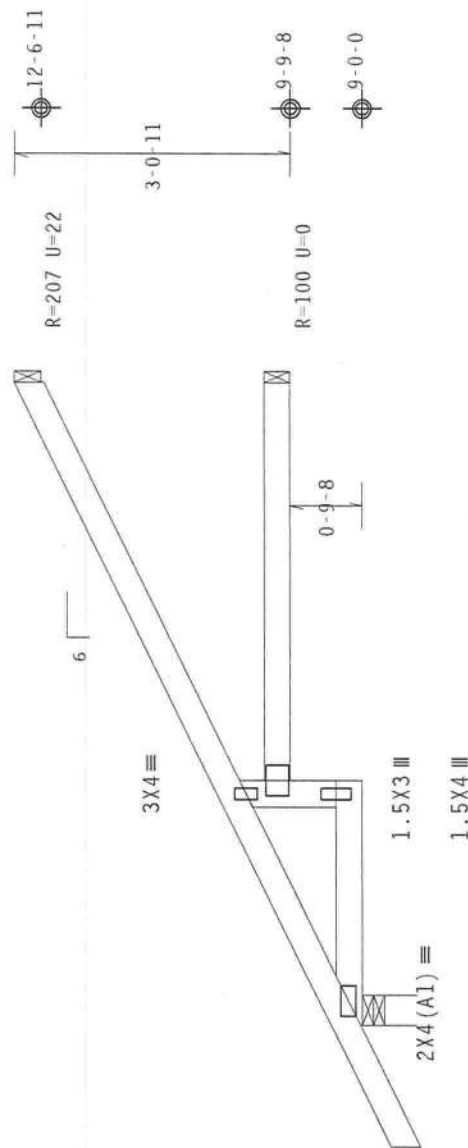
Wind loads and reactions based on MWFRS with additional C&C member design.

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

MWFRS loads based on trusses located at least 7.50 ft. from roof edge.

Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Top chord.  
Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Bot chord.



1-4-0

2-8-0 4-4-0  
7-0-0 over 3 Supports

R=394 U=0 W=4"  
RL=68/-25

Design Crit: FBC2010Res/TPI-2007(STD)  
FT/RT=10%(0%)/0(0)

PLT TYP. Wave

FL/-/4/-/-/R/-

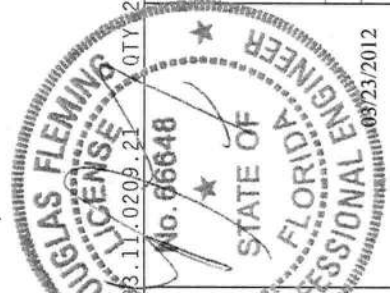
Scale = .5"/Ft.

**\*\*WARNING\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET  
FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Care must be taken to follow the latest editions of BECS (Building Engineering Council Specification) for PEI and KECA (Kaiser Engineering Council of America) practices prior to performing these functions. Installers shall provide temporary bracing for all trusses 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 a property installed per BECS sections B3, B7 or B10, as applicable.

The Building Components Group Inc., (IBBCG) shall not be responsible for any deviation from the manufacturer's instructions or failure to build the products in accordance with ANSI/TPI-1, or for handling, shipping, installing or storing materials, unless noted otherwise. Refer to drawings IGBA-2 For standard plate positions. A seal on the drawing or information on cover page listing this drafter, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure are the user's sole responsibility. IBBCG web site: [www.ibbcg.com](http://www.ibbcg.com); TPI: [tpe@tpeast.org](mailto:tpi@tpeast.org); IBCA: [www.ibca-industry.com](http://www.ibca-industry.com); New Research Org: [newresearch.org](http://newresearch.org)

**ALPINE**  
**ITW Building Components Group Inc.**  
Haines City, FL 33844  
FL COA #0 278



(12-063--Fill) in later BRYAN ZECHER/LEGUE --, \*\* - EJ9T)

Top chord 2x4 SP M-30  
Bot chord 2x4 SP M-30  
Webs 2x4 SP #3

Roof overhang supports 2.00 psf soffit load.

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

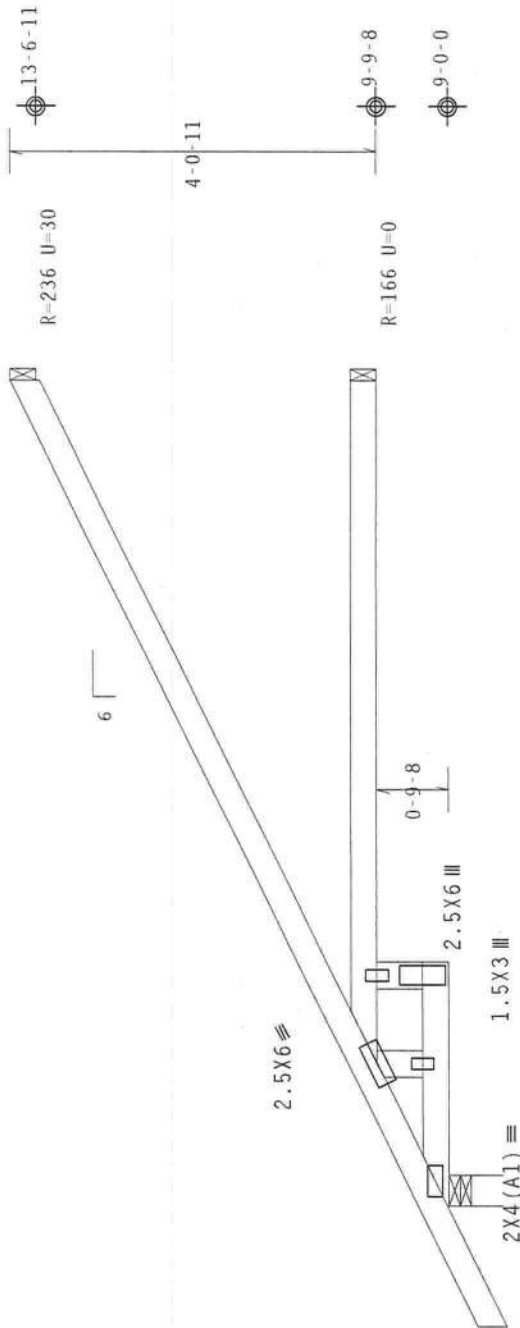
MWFRS loads based on trusses located at least 7.50 ft. from roof edge.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 9.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Top chord.  
Provide ( 2 ) 16d common nails(0.162"x3.5"), toe nailed at Bot chord.



1-4-0

1-6-8 1-1-8 6-4-0  
9-0-0 Over 3 Supports

R=474 U=0 W=4"  
RL=85/-29

Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10%(0%)/0(0)

PLT TYP. Wave

Scale = .5"/Ft.

FL/-4/-1-/R/-

10.03.11.0209.21  
No. 06648

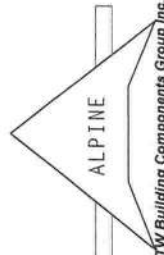
10.03.11.0209.21  
No. 06648

10.03.11.0209.21  
No. 06648

10.03.11.0209.21  
No. 06648

10.03.11.0209.21  
No. 06648

10.03.11.0209.21  
No. 06648

|                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |          |          |        |                   |
|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------|----------|--------|-------------------|
| <br>ALPINE<br>Haines City, FL 33844<br>FL COA #0 278 | **WARNING** READ AND FOLLOW ALL NOTES ON THIS SHEET.<br>FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | TC LL    | 20.0 PSF | REF    | R487 -- 26464     |
|                                                                                                                                           | Trusses require extreme care in fabricating, handling, shipping, installing and bracing. See the latest edition of BCSI (Building Component Safety Information, by TPI and WFA) for BCSI 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 trusses shall have bracing installed per BCSI sections B3, B7 or B10, as applicable.                                                                                                                                                          |  | TC DL    | 10.0 PSF | DATE   | 03/23/12          |
|                                                                                                                                           | TPI Building Components Group Inc. (TIBCG) shall not be responsible for any deviation from this design for any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation, bracing of trusses. Apply plates to each face of truss and position as shown above and on the joint details, unless noted otherwise. Refer to drawings 100-2 for standard plate positions. A seal on this drawing is provided for the installer's use to verify the integrity of the design. The seal is the responsibility of the building designer per ANSI/TPI 1 Sec. 2. For more information see: This job's general notes page; TIBCG: www.tibcg.com; TPI: www.tpinet.org; WFA: www.abctrustry.com; ICC: www.iccsafe.org |  | BC DL    | 10.0 PSF | DRW    | HCUSR487 12083040 |
|                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | BC LL    | 0.0 PSF  | HC-ENG | TCE/DF            |
|                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | TOT.LD.  | 40.0 PSF | SEQN-  | 278932            |
|                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | DUR.FAC. | 1.25     |        |                   |
|                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | SPACING  | 24.0"    | JREF - | 1UKN487_Z01       |

|     |       |     |    |      |
|-----|-------|-----|----|------|
| Top | chord | 2x4 | SP | M-30 |
| Bot | chord | 2x4 | SP | M-30 |
|     | webs  | 2x4 | SP | #3   |

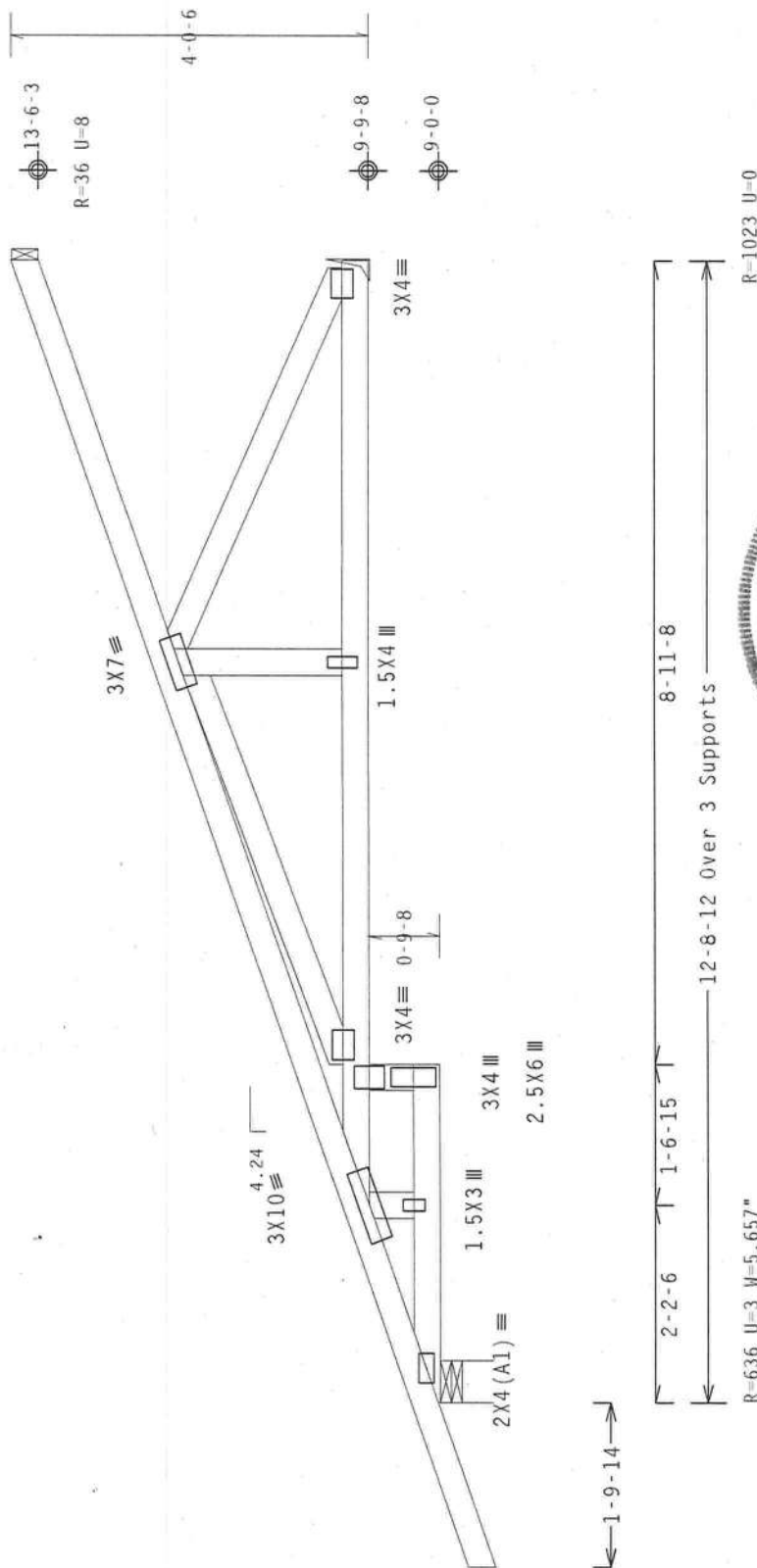
Hipjack supports 9-0-0 setback jacks. Jacks up to 7' have no webs. Longer jacks supported to BC.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, ClOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf, GCpi (+/-)=0.18

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

Provide (2) 16d common nails (0.162"x3.5"), toe nailed at Top chord.



PLT TYP. Wave

Design Crit: FBC2010Res/TPI-2007 (STD)  
FT/RT=10%(0%)/0(0)

Scale = .5"/Ft.

[illegible]

# CLB WEB BRACE SUBSTITUTION

THIS DETAIL IS TO BE USED WHEN CONTINUOUS LATERAL BRACING (CLB) IS SPECIFIED ON A TRUSS DESIGN BUT AN ALTERNATIVE WEB BRACING METHOD IS DESIRED.

## NOTES:

THIS DETAIL IS ONLY APPLICABLE FOR CHANGING THE SPECIFIED CLB SHOWN ON SINGLE PLY SEALED DESIGNS TO T-BRACING OR SCAB BRACING.

ALTERNATIVE BRACING SPECIFIED IN CHART BELOW MAY BE CONSERVATIVE, FOR MINIMUM ALTERNATIVE BRACING, RE-RUN DESIGN WITH APPROPRIATE BRACING.

| WEB MEMBER SIZE | SPECIFIED CLB BRACING | T OR L-BRACE | ALTERNATIVE BRACING  |
|-----------------|-----------------------|--------------|----------------------|
| 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 <sup>(*)</sup> |
| 2X8             | 1 ROW                 | 2X6          | 1-2X8                |
| 2X8             | 2 ROWS                | 2X6          | 2-2X6 <sup>(*)</sup> |

T-BRACE, L-BRACE AND SCAB BRACE TO BE SAME SPECIES AND GRADE OR BETTER THAN WEB MEMBER UNLESS SPECIFIED OTHERWISE ON ENGINEER'S SEALED DESIGN.

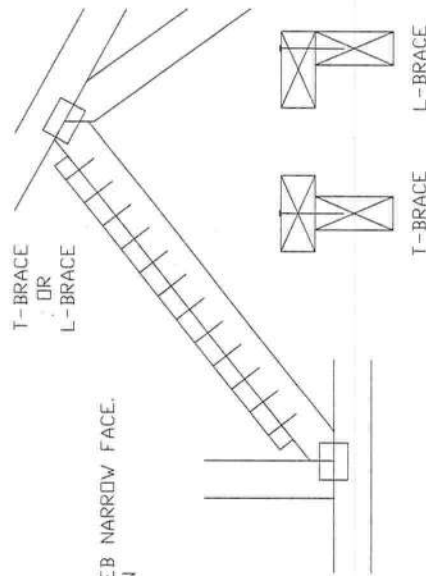
(\*) CENTER SCAB ON WIDE FACE OF WEB. APPLY (1) SCAB TO EACH FACE OF WEB.

T-BRACING

OR

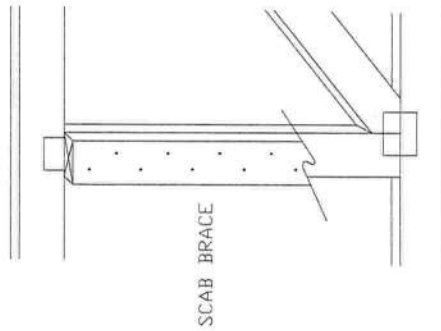
L-BRACING:

APPLY TO EITHER SIDE OF WEB NARROW FACE. ATTACH WITH 10d BOX OR GUN (0.128"x 3", MIN) NAILS. AT 6' O.C. BRACE IS A MINIMUM 80% OF WEB MEMBER LENGTH



SCAB BRACING:

APPLY SCAB(S) TO WIDE FACE OF WEB. NO MORE THAN (1) SCAB PER FACE. ATTACH WITH 10d BOX OR GUN (0.128"x 3", MIN) NAILS. AT 6' O.C. BRACE IS A MINIMUM 80% OF WEB MEMBER LENGTH



Building Components Group Inc.

Earth City, MO 63045

**\*\*\*WARNING\*\*\*** READ AND FOLLOW ALL NOTES ON THIS SHEET! Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the ITW Building Components Group Inc. (ITWBCG) website for detailed instructions on performing these functions. Installers shall provide temporary bracing per BCSI unless noted otherwise. Top chord shall have properly attached structural panels and bottom chord shall have properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3 & B7. See this job's general notes page for more information.

**\*\*\*IMPORTANT\*\*\*** FURNISH COPY OF THIS DESIGN TO INSTALLATION CONTRACTOR. ITW Building Components Group Inc. (ITWBCG) shall not be responsible for any deviation from this design, any failure to build the truss in conformance with TPI, or fabricating, handling, shipping, installing & bracing of trusses. ITWBCG connector plates are made of 2018/180A (2018/180A) ASTM A572 Grade 50 steel. Apply plates to each face of truss, positioned as shown above and as joint details. A seal on this drawing or cover page indicates acceptance and professional engineering responsibility solely for the truss component design shown. The suitability and use of this component for any building is the responsibility of the Building Designer per ANSI/TPI 1 Sec. 2.

ITW-BCG www.itwbcg.com TPI www.tpinet.com VTCO www.vtcoco.com ICC www.iccsafe.org



| REF       | CLB SUBST.   |
|-----------|--------------|
| DATE      | 1/1/09       |
| DRWG      | BRCLBSUB0109 |
| PSF       | PSF          |
| PSF       | PSF          |
| PSF       | PSF          |
| PSF       | PSF          |
| TOT. L.D. |              |
| DUR. FAC. |              |
| SPACING   |              |

# ASCE 7-10: 120 mph Wind Speed, 15' Mean Height, Enclosed, Exposure C, Kzt = 1.00

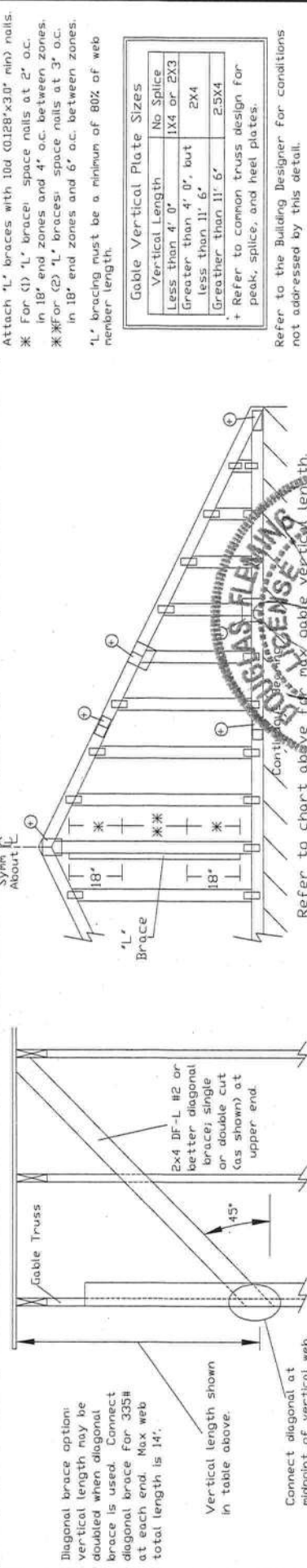
Dr: 100 mph Wind Speed, 15' Mean Height, Partially Enclosed, Exposure C, Kzt = 1.00  
 Dr: 100 mph Wind Speed, 15' Mean Height, Enclosed, Exposure D, Kzt = 1.00

**Bracing Group Species and Grades:**

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

1x4 Braces shall be SRB (Stress-Rated Board).  
 \*\*\*For 1x4 So. Pine use only Industrial S5 or Industrial 45 Stress-Rated Boards. Group B values may be used with these grades.

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



Diagonal brace option: vertical length may be doubled when diagonal brace is used. Connect diagonal brace for 335# at each end. Max web total length is 14".

Vertical length shown in table above.

Connect diagonal at midpoint of vertical web.

Refer to chart above for max gable vertical length.

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

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.

So. Pine lumber design values based on the ALSC January, 2012 rule.

Gable Vertical Plate Sizes

| Vertical Length                          | No Splice  |
|------------------------------------------|------------|
| Less than 4' 0"                          | 1X4 or 2X3 |
| Greater than 4' 0", but less than 11' 6" | 2X4        |
| Greater than 11' 6"                      | 25X4       |

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

Bracing Group Species and Grades:

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

1x4 Braces shall be SRB (Stress-Rated Board).  
 \*\*\*For 1x4 So. Pine use only Industrial S5 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 35 psf over continuous bearing (5 psf TC Dead Load).

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

ASCE 7-10: 120 mph Wind Speed, 15' Mean Height, Enclosed, Exposure C, Kzt = 1.00

Dr: 100 mph Wind Speed, 15' Mean Height, Partially Enclosed, Exposure C, Kzt = 1.00

Dr: 100 mph Wind Speed, 15' Mean Height, Enclosed, Exposure D, Kzt = 1.00

Building Components Group Inc.

Earth City, MO 63045

Professional Engineer

No. 06648

STATE OF FLORIDA

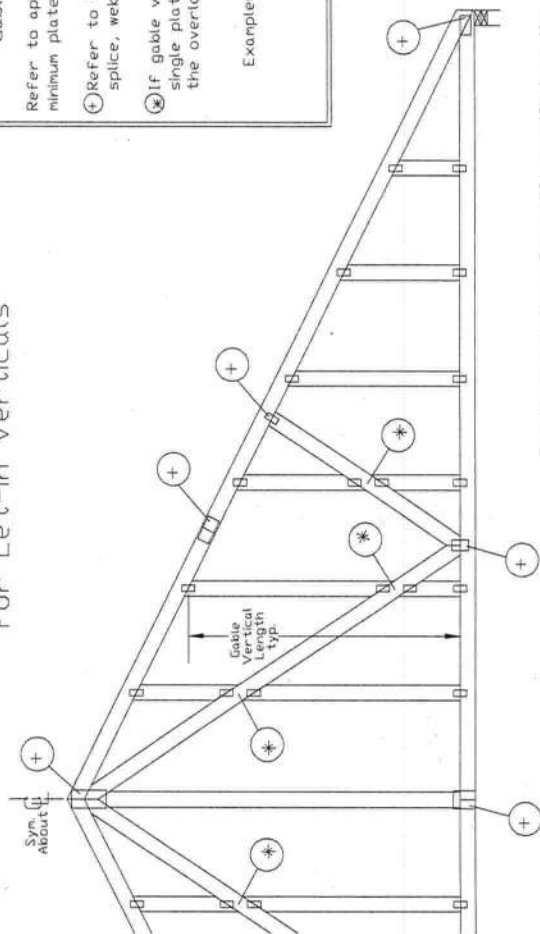
PROFESSIONAL ENGINEER

03/23/2012

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"

# Gable Detail For Let-in Verticals

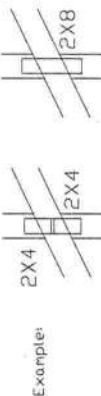


## Gable Truss Plate Sizes

Refer to appropriate ITV 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.



\*T\* Reinforcement Attachment Detail



To convert from 'L' to 'T' reinforcing members, multiply 'T' increase by length (based on appropriate ITV 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. Mem. Size | Increase |
|----------------------|----------|
| 2x4                  | 30 %     |
| 2x6                  | 20 %     |

Example:

ASCE 7-10 Wind Speed = 120 mph

Mean Roof Height = 30 ft, Kzt = 1.00

Gable Vertical = 24' o.c. SP #3

'T' Reinforcing Member Size = 2x4

'T' Brace Increase (From Above) = 30% = 1.30

(1) 2x4 'L' Brace Length = 8' 7"

Maximum 'T' Reinforced Gable Vertical Length  
1.30 x 8' 7" = 11' 2"

Provide connections for uplift specified on the engineered truss design.

Attach each 'T' reinforcing member with

End Driven Nails:

(1) Common (0.148"x3".min) Nails at 4' o.c. plus

(4) nails in the top and bottom chords.

Toenailed Nails:

(1) 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 ITV gable detail for ASCE

wind load.

ASCE 7-98 Gable Detail Drawings

A13015980109, A12015980109, A11015980109, A10015980109,

A13030980109, A12030980109, A11030980109, A10030980109

ASCE 7-02 Gable Detail Drawings

A13015020109, A12015020109, A11015020109, A10015020109,

A13030020109, A12030020109, A11030020109, A10030020109

ASCE 7-05 Gable Detail Drawings

A13015050109, A12015050109, A11015050109, A10015050109,

A13030050109, A12030050109, A11030050109, A10030050109

ASCE 7-10 Gable Detail Drawings

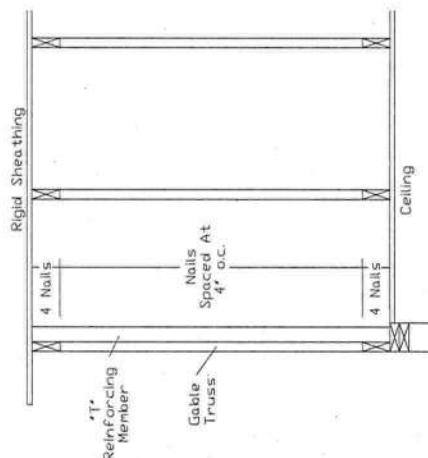
A1515ENC100212, A12015ENC100212, A11015ENC100212, A10015ENC100212,

A18015ENC100212, A20015ENC100212, A20015ENC100212, A20015ENC100212,

A1530ENC100212, A12030ENC100212, A11030ENC100212, A10030ENC100212,

A18030ENC100212, A20030ENC100212, A20030ENC100212, A20030ENC100212

See appropriate ITV gable detail for maximum wind load.



\*\*\*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 IPI and WCA for details. Unless noted otherwise, top chord shall have properly attached temporary bracing and bottom chord shall have a properly attached rigid sheathing. All trusses shall be braced on all sides at 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.

ITV Building Components Group Inc. shall not be responsible for any deviation from this drawing, and for any deviation from the design shown. 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/ASCE 1 Sec.2. For more information see this job's general notes page and these web sites: ITVBCG www.itvbcg.com IPI www.ipi.org WCA www.wcaindustry.org ITC www.itc-safe.org



Earth City, MO 63045

REF LET-IN VERT

DATE 2/16/12

DRWG GBLLETTIN0212

MAX. TOT. LD. 60 PSF

DUR. FAC. ANY

MAX. SPACING 24.0"



# ASCE 7-10: 120 mph, 30' Mean Height, Closed, Exposure C Common Residential Gable End Wind Bracing Requirements - Stiffeners

120 mph, 30ft. Mean Hgt, ASCE 7-10, Enclosed, Exp C, or  
100 mph, 30ft. Mean Hgt, ASCE 7-10, Enclosed, Exp D, or  
100 mph, 30ft. Mean Hgt, ASCE 7-10, Part, Enclosed, Exp C,  
Kzt = 1.00, Wind TC DL=5.0 psf, Wind BC DL=5.0 psf.

Lateral chord bracing requirements  
Top: Continuous roof sheathing  
Bot: Continuous ceiling diaphragm

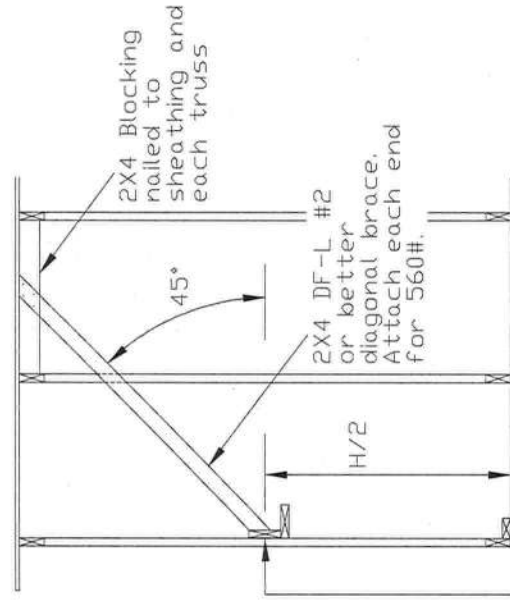
See Engineer's sealed design referencing this detail  
for lumber, plates, and other information not shown  
on this detail.

Nails: 10d box or gun (0.128"x3", min) nails.

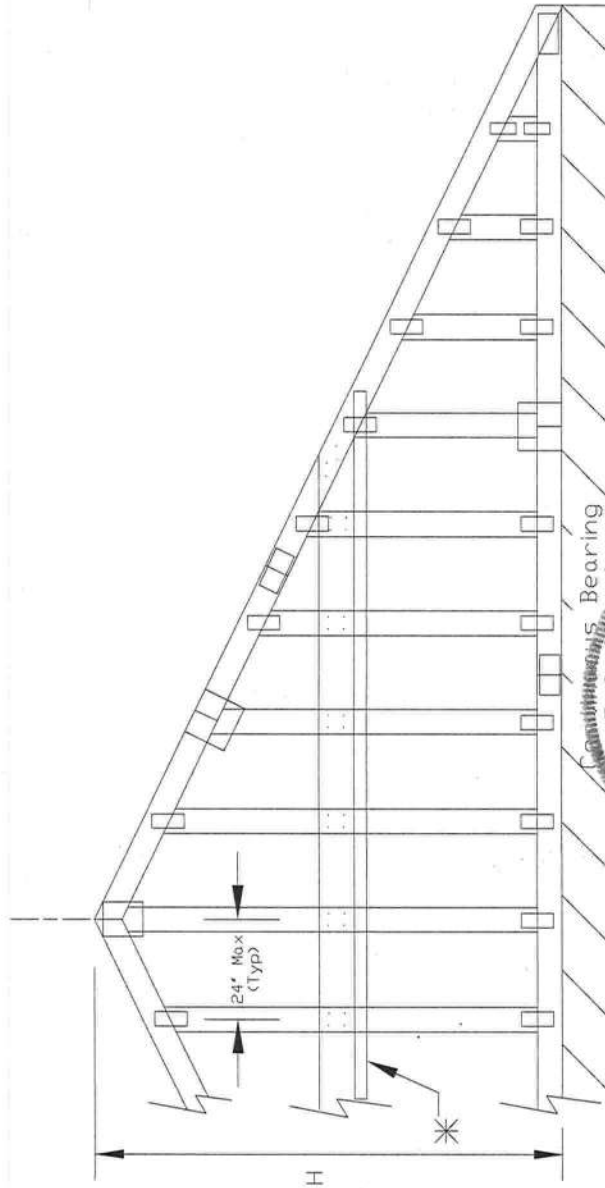
H Less than 4'6" - no stud bracing required  
H Greater than 4'6" to 7'6" in length  
provide a 2x6 stiffback at mid-height and brace stiffback  
to roof diaphragm every 6'0" (see detail below or  
refer to DRWG A12030ENC10).

H Greater than 7'6" to 12'0" max:  
provide a 2x6 stiffback at mid-height and brace  
to roof diaphragm every 4'0" (see detail below or  
refer to DRWG A12030ENC10).

\* Optional 2x L-reinforcement attached  
to stiffback with 10d box or gun  
(0.128" x 3", min.) nails @ 6" o.c.



2x6 #2 Stiffback  
attached to each  
Stud w/ (4) 10d box or gun (0.128" x 3", min.) nails.



Continuous Bearing

DOUGLAS FLEMING  
LICENSE  
No. 66648  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER

\*\*\*WARNING\*\*\* READ AND FOLLOW ALL NOTES ON THIS DRAWING  
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 WCA for details.  
Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom  
chord shall have properly attached structural sheathing. Refer to BCSI Building Component Safety Information, by TPI and WCA for details.  
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.

ITV Building Components Group Inc. shall not be responsible for any deviation from this drawing, or  
failure to follow the drawing, or for any damage to the structure, or for any loss of life or property, or  
for any other reason, arising from the use of this drawing, or for any other reason, arising from the use of this drawing, or for any other reason, arising from the use of this drawing.  
Professional engineering responsibility 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:  
TPIWCA www.tpiwca.com, TPI www.tpi.org, WCA www.wcausa.com, TPI www.tpiwca.com

**TW**  
Building Components Group Inc.

Earth City, MO 63045

REF GE WHALER

DATE 2/14/12

DRWG GABRST100212

MAX. TOT. LD. 60 PSF

MAX. SPACING

03/23/2012

## NAIL SPACING DETAIL

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

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

LOAD PERPENDICULAR TO GRAIN

A - EDGE DISTANCE AND SPACING BETWEEN STAGGERED ROWS

OF NAILS (6 NAIL DIAMETERS)

B - SPACING OF NAILS IN A ROW (12 NAIL DIAMETERS)

C - END DISTANCE (15 NAIL DIAMETERS)

LIPAD PARALLEL TO GRAIN

A - EDGE DISTANCE (6 NATI DIAMETERS)

C - SPACING OF NAILS IN A ROW AND END DISTANCE (15 NAIL DIAMETERS)

D - SPACING BETWEEN STAGGERED ROWS OF NAILS (7 1/2 NAIL DIAMETERS)

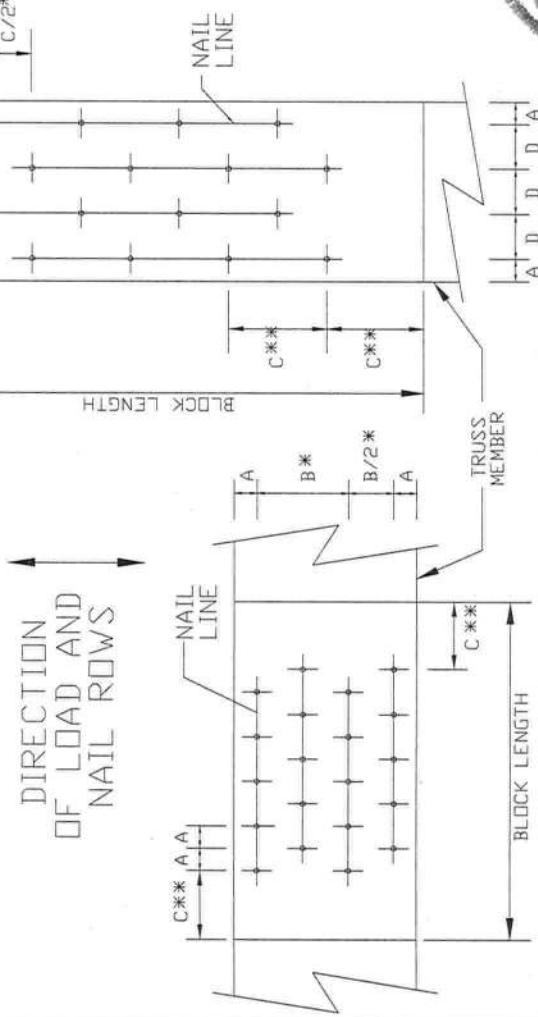
IF NATI HOLES ARE PREPARED SOME SPACING

IF NAIL HOLES ARE PREBURED, SOME SPACING MAY BE REDUCED BY THE AMOUNTS GIVEN

BELOW:

\* SPACING MAY BE REDUCED BY 50%.

\*\*\* SPACING MAY BE REDUCED BY 33%.



LOAD APPLIED PERPENDICULAR TO GRAIN

\*\*\*WARNING\*\*\* READ AND FOLLOW ALL NOTES ON THIS SHEET

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow BCS Building Component Safety Information, by TPI and VITAC 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 panels and bottom chord shall have properly attached rigid joist. Locations shown for permanent lateral restraint of webs shall have properly attached rigid joist. See this job's general notes page for more information installed per BCSI sections B3 & B7. Show this job's general notes page for more information.

**IMPORTANT: FURNISH COPY OF THIS DESIGN TO INSTALLATION CONTRACTOR**  
ITW Building Components Group, Inc. (ITWBCG) shall not be responsible for any deviation from the design, any failure to build the truss in conformance with TPI or fabricating, shipping, installing, bracing of trusses. ITWBCG connector plates are made of 3010/1604 1/4"x3/8" A36 steel and on steel details. Apply plates to each face of truss, fastened as shown above and on joint details.  
A seal on this drawing or cover page indicates acceptance and professional engineering responsibility solely for the truss component design shown. The suitability and use of this component for any ITWBCG design is the responsibility of the design engineer.  
TPI: [www.tpi.com](http://www.tpi.com) ITWBCG: [www.itwbcg.com](http://www.itwbcg.com) ICC: [www.icc-inc.com](http://www.icc-inc.com)



Building Components Group Inc.

Earth City, MO 63045

and to use of the

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

|      |              |
|------|--------------|
| REF  | NAIL SPACE   |
| DATE | 1/1/09       |
| DRWG | CNNAILSP0109 |