



Lumber design values are in accordance with ANSI/TPI 1-2007 section 6.3  
These truss designs rely on lumber values established by others.

73

RE: MAYO-FERT-ADD - ROOF DESIGN INFO

**MiTek USA, Inc.**

6904 Parke East Blvd.  
Tampa, FL 33610-4115

**Site Information:**

Customer Info: Mayo Fertilizer Project Name: MAYO FERTILIZER ADDITION Model:

Lot/Block: Subdivision:

Address:

City: Lake city

State: florida

**Name Address and License # of Structural Engineer of Record, If there is one, for the building.**

Name: License #:

Address:

City: State:

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: FBC2010

Design Program: OnLine Plus 30.0.011

Wind Code: ASCE 7-10 Wind Speed: 120 mph

Floor Load: N/A psf

Roof Load: 40.0 psf

This package includes 2 individual, dated Truss Design Drawings and 0 Additional Drawings.

With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date
1	T4458542	R3	7/13/012
2	T4458543	R4	7/13/012



The truss drawing(s) referenced above have been prepared by MiTek Industries, Inc. under my direct supervision based on the parameters provided by Mayo Truss Company, Inc..

Truss Design Engineer's Name: Velez, Joaquin

My license renewal date for the state of Florida is February 28, 2013.

**NOTE:** The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI-1 Sec. 2.



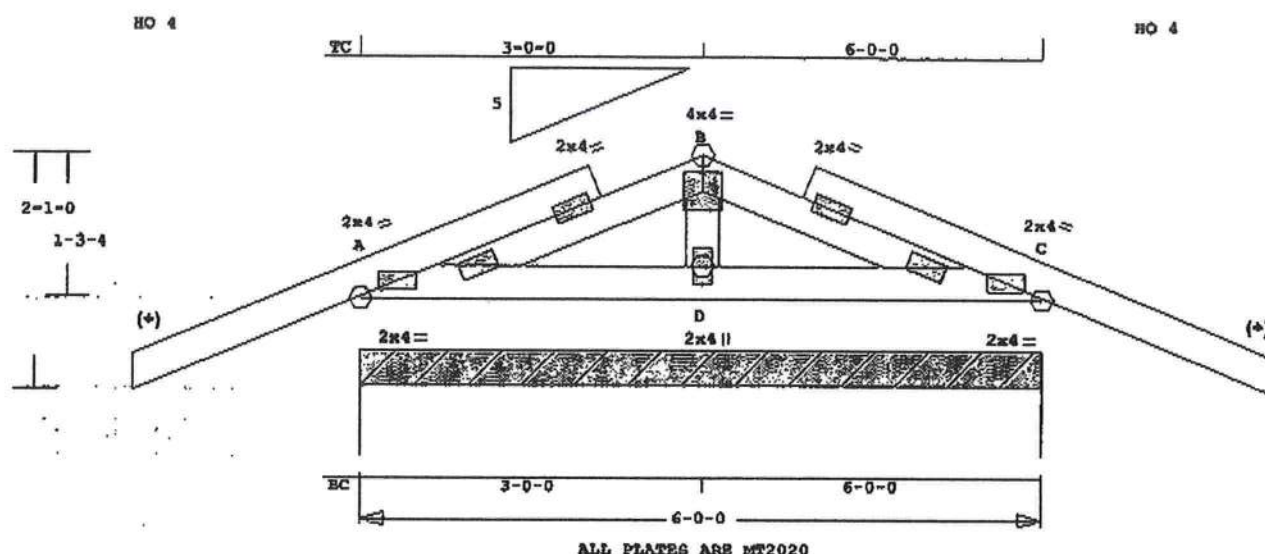
FL Cert. 6634

July 13, 2012

Velez, Joaquin

1 of 1

Job <b>MAYO-FERT-ADD</b>	Mark <b>R3</b>	Quan <b>3</b>	Type <b>TR</b>	Span <b>60000</b>	Pl-Hl <b>5</b>	Left OH <b>0</b>	Right OH <b>0</b>	Engineering <b>T4458542</b>
<b>MAYO FERTILIZER ADDITION</b>								



Scale: 0.625" = 1'

Online Plus -- Version 30.0.011  
RUN DATE: 13-JUL-12

Southern Pine lumber design values are those effective 06-01-12 by SPIB//ALSC UON

	CSI	-Size-	---Lumber---
TC	0.02	2x 4	SP-#2 (+)
BC	0.02	2x 4	SP-#2
WB	0.01	2x 4	SP-#2

Brace truss as follows:

	O.C.	From	To
TC	Cont.	0- 0- 0	6- 0- 0
or	48.0"	0- 0- 0	6- 0- 0
BC	Cont.	0- 0- 0	6- 0- 0
or	72.0"	0- 0- 0	6- 0- 0

psf-Ld	Dead	Live		
TC	10.0	20.0		
BC	10.0	0.0		
TC+BC	20.0	20.0		
Total	40.0	Spacing	24.0"	
Lumber	Duration Factor	1.25		
Plate	Duration Factor	1.25		
	Fb	Fc	Ft	Emin
TC	1.15	1.10	1.10	1.10
BC	1.10	1.10	1.10	1.10

Total Load Reactions (Lbs)  
Jt Down Uplift Horiz-  
A 371

Jt	Brg Size	Required
A	72.0"	0"-to- 72"

Plus 15 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)  
Plus 1 DL Load Case(s)

Membr	CSI	P	Lbs	Axl	CSI	End
-----Top Chords-----						
A -B	0.02		33 T	0.00	0.02	
B -C	0.02		33 T	0.00	0.02	

MiTek® Online Plus™ APPROX. TRUSS WEIGHT: 39.0 LBS

```
-----Bottom Chords-----
A -D  0.02      0 T  0.00  0.02
D -C  0.02      0 T  0.00  0.02
-----Webs-----
D -B  0.01      90 T
```

TL Defl	0.00"	in A-D	L/999
LL Defl	0.00"	in A-D	L/999
Shear //	Grain	in A-B	0.06

Plates for each ply each face.						
Plate - MT20 20 Ga, Gross Area						
Plate - MT2X 20 Ga, Gross Area						
Jt Type	Plt Size	X	Y	Jb1		
A	MT20	2.0x	4.0	Ctr	Ctr	0.68
B	MT20	4.0x	4.0	Ctr	Ctr	0.44
C	MT20	2.0x	4.0	Ctr	Ctr	0.68
D	MT20	2.0x	4.0	Ctr	Ctr	0.12

REVIEWED BY:  
MiTek Industries, Inc.  
6904 Parke East Blvd.  
Tampa, FL 33610

REFER TO ONLINE PLUS GENERAL  
NOTES AND SYMBOLS SHEET FOR  
ADDITIONAL SPECIFICATIONS.

NOTE:  
Trusses Manufactured by:  
Mayo Truss Co. Inc.  
Analysis Conforms To:  
FBC2010  
TPI 2007

Design checked for 10 psf non-concurrent LL on BC.

Trusses designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified Building Designer as per

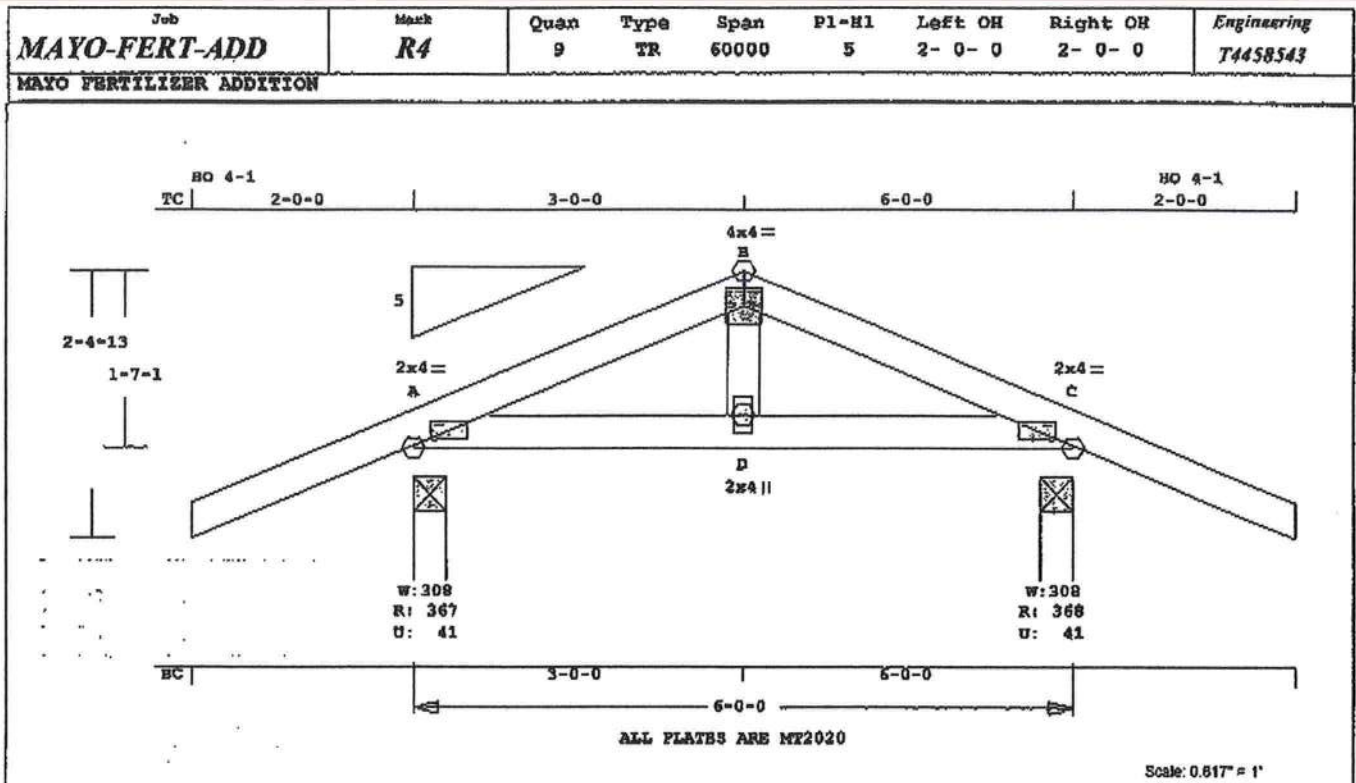
ANSI/TPI 1.  
Wind Loads - ANSI / ASCE 7-10  
Truss is designed as  
Components and Claddings\*  
for Exterior zone location.  
wind speed: 120 mph  
Risk Category : II  
Mean Roof Height: 15-0  
Exposure Category: B  
Building Type: Enclosed  
TC Dead Load: 6.0 psf  
BC Dead Load: 6.0 psf  
Max comp. force 88 Lbs  
Max tens. force 90 Lbs  
Connector Plate Fabrication  
Tolerance = 20%  
This truss is designed for a  
creep factor of 1.5 which  
is used to calculate total  
load deflection.



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July 13, 2012





Online Plus -- Version 30.0.011  
 RUN DATE: 13-JUL-12

Southern Pine lumber design  
 values are those effective  
 06-01-12 by SP18//ALSC UON

CSI -Size- Lumber-----  
 TC 0.14 2x 4 SP-#2  
 BC 0.08 2x 4 SP-#2  
 WB 0.02 2x 4 SP-#2

Brace truss as follows:

	O.C.	From	To
TC Cont.	0- 0- 0	6- 0- 0	
or 48.0"	0- 0- 0	6- 0- 0	
BC Cont.	0- 0- 0	6- 0- 0	
or 72.0"	0- 0- 0	6- 0- 0	

psf-Ld	Dead	Live
TC	10.0	20.0
BC	10.0	0.0
TC+BC	20.0	20.0
Total	40.0	Spacing 24.0"
Lumber Duration Factor	1.25	
Plate Duration Factor	1.25	
	Fb	Fc
TC	1.15	1.10
BC	1.10	1.10

Total Load Reactions (Lbs)

Jt	Down	Uplift	Horiz
A	368	42 U	
C	368	42 U	

Jt	Brg Size	Required
A	3.5"	1.5"
C	3.5"	1.5"

Plus 15 Wind Load Case(s)  
 Plus 1 UBC LL Load Case(s)  
 Plus 1 DL Load Case(s)

Membr	CSI	F Lbs	Axl-CSI-Bnd
-----Top Chords-----			
A-B	0.14	465 T	0.07 0.07
B-C	0.14	465 T	0.07 0.07
-----Bottom Chords-----			
A-D	0.08	377 C	0.05 0.03
D-C	0.08	377 C	0.05 0.03

Mitek Online Plus™ APPROX. TRUSS WEIGHT: 34.1 LBS

-----Webs-----  
 D-B 0.02 177 C

TL Defl -0.01" in A-D L/999  
 LL Defl 0.00" in A-D L/999  
 Shear // Grain in A-B 0.09

Plates for each ply each face.  
 Plate - MT20 20 Ga, Gross Area  
 Plate - MT2H 20 Ga, Gross Area  
 Jt Type Plt Size X X JSI  
 A MT20 2.0x 4.0 Ctr Ctr 0.68  
 B MT20 4.0x 4.0 Ctr Ctr 0.44  
 C MT20 2.0x 4.0 Ctr Ctr 0.68  
 D MT20 2.0x 4.0 Ctr Ctr 0.12

REVIEWED BY:

Mitek Industries, Inc.  
 6904 Parke East Blvd.  
 Tampa, FL 33610

REFER TO ONLINE PLUS GENERAL  
 NOTES AND SYMBOLS SHEET FOR  
 ADDITIONAL SPECIFICATIONS.

NOTES:

Trusses Manufactured by:  
 Mayo Truss Co. Inc.

Analysis Conforms To:

FBC2010

TPI 2007

OR Loading

Soffit psf 2.0

This truss has been designed  
 for 20.0 psf LL on the B.C.  
 in areas where a rectangle  
 3- 6- 0 tall by  
 2- 0- 0 wide  
 will fit between the B.C.  
 and any other member.

Design checked for 10 psf non-  
 concurrent LL on BC.

Wind Loads - ANSI / ASCE 7-10

Truss is designed as

Components and Claddings\*

for Exterior zone location.

Wind Speed: 120 mph

Risk Category : II

Mean Roof Height: 15-0

Exposure Category: B  
 Building Type: Enclosed  
 TC Dead Load: 6.0 psf  
 BC Dead Load: 6.0 psf  
 User-defined wind-exposed BC  
 regions --From-- --To--  
 0- 0- 0 6- 0- 0  
 Max comp. force 377 Lbs  
 Max tens. force 465 Lbs  
 Connector Plate Fabrication  
 Tolerance = 20%  
 This truss is designed for a  
 creep factor of 1.5 which  
 is used to calculate total  
 load deflection.

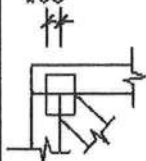


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July 13, 2012

## ONLINE PLUS GENERAL NOTES & SYMBOLS

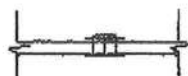
108



### PLATE LOCATION

Center plates on joints unless otherwise noted in plate list or on drawing. Dimensions are given in inches (i.e. 1 1/2" or 1.5") or IN-16ths (i.e. 108).

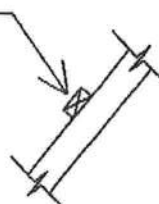
### FLOOR TRUSS SPLICE (3X2, 4X2, 6X2)



(W) = Wide Face Plate  
(N) = Narrow Face Plate

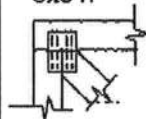
### LATERAL BRACING

Designates the location for continuous lateral bracing (CLB) for support of individual truss members only. CLBs must be properly anchored or restrained to prevent simultaneous buckling of adjacent truss members.



### PLATE SIZE AND ORIENTATION

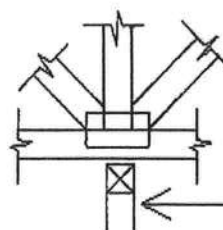
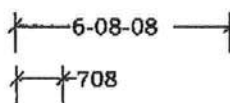
3x5 11



The first dimension is the width measured perpendicular to slots. The second dimension is the length measured parallel to slots. Plate orientation, shown next to plate size, indicates direction of slots in connector plates.

### DIMENSIONS

All dimensions are shown in FT-IN-SX (i.e. 6'-8.5" or 6-08-08). Dimensions less than one foot are shown in IN-SX only (i.e. 708).



W = Actual Bearing Width (IN-SX)  
R = Reaction (lbs.)  
U = Uplift (lbs.)

### BEARING

When truss is designed to bear on multiple supports, interior bearing locations should be marked on the truss. Interior support or temporary shoring must be in place before trusses are installed. If necessary, shim bearings to assure solid contact with truss.

Metal connector plates shall be applied on both faces of truss at each joint. Center the plates, unless indicated otherwise. No loose knots or wane in plate contact area. Splice only where shown. Overall spans assume 4" bearing at each end, unless indicated otherwise. Cutting and fabrication shall be performed using equipment which produces snug-fitting joints and plates. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication and the attached truss designs are not applicable for use with fire retardant lumber and some preservative treatments. Nails specified on Truss Design Drawings refer to common wire nails, except as noted. The attached design drawings were prepared in accordance with "National Design Specifications for Wood Construction" (AF & PA), "National Design Standard for Metal Plate Connected Wood Truss Construction" (ANSI/TPI 1), and HUD Design Criteria for Trussed Rafters.

Mitek Industries Inc. bears no responsibility for the erection of trusses, field bracing or permanent truss bracing. Refer to "Building Component Safety Information" (BCSI 1) as published by Truss Plate Institute, 218 North Lee Street, Suite 312, Alexandria, Virginia 22314. Persons erecting trusses are cautioned to seek professional advice concerning proper erection bracing to prevent toppling and "dominoing". Care should be taken to prevent damage during fabrication, storage, shipping and erection. Top and bottom chords shall be adequately braced in the absence of sheathing or rigid ceiling, respectively. It is the responsibility of others to ascertain that design loads utilized on these drawings meet or exceed the actual dead loads imposed by the structure and the live loads imposed by the local building code or historical climatic records. When truss hangers are specified on the Truss Design Drawing, they must be installed per manufacturer's details and specifications.

FURNISH A COPY OF THE ATTACHED TRUSS DESIGN DRAWINGS TO ERECTION CONTRACTOR. IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER TO REVIEW THESE DRAWINGS AND VERIFY THAT DATA, INCLUDING DIMENSIONS & LOADS, CONFORM TO ARCHITECTURAL PLAN / SPECS AND THE TRUSS PLACEMENT DIAGRAM FURNISHED BY THE TRUSS MANUFACTURER.



### MiTek USA, Inc.

6904 Parke East Blvd.  
Tampa, FL 33610-4115

Tel: 813-972-1135  
Fax: 813-971-6117





Lumber design values are in accordance with ANSI/TPI 1-2007 section 6.3  
These truss designs rely on lumber values established by others.

RE: MAYO-FERT-ADD -

**MiTek USA, Inc.**

6904 Parke East Blvd.  
Tampa, FL 33610-4115

**Site Information:**

Customer Info: Mayo Fertilizer Project Name: MAYO FERTILIZER ADDITION Model:  
Lot/Block: Subdivision:  
Address:  
City: Lake city State: Florida

**Name Address and License # of Structural Engineer of Record, If there is one, for the building.**

Name: License #:  
Address:  
City: State:

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: FBC2010 Design Program: OnLine Plus 30.0.011  
Wind Code: ASCE 7-10 Wind Speed: 120 mph Floor Load: N/A psf  
Roof Load: 40.0 psf

This package includes 2 individual, dated Truss Design Drawings and 0 Additional Drawings.  
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date
1	T4453383	R1	7/6/012
2	T4453384	R2	7/6/012



The truss drawing(s) referenced above have been prepared by MiTek Industries, Inc. under my direct supervision based on the parameters provided by Mayo Truss Company, Inc..

Truss Design Engineer's Name: Albani, Thomas

My license renewal date for the state of Florida is February 28, 2013.

**NOTE:** The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI-1 Sec. 2.



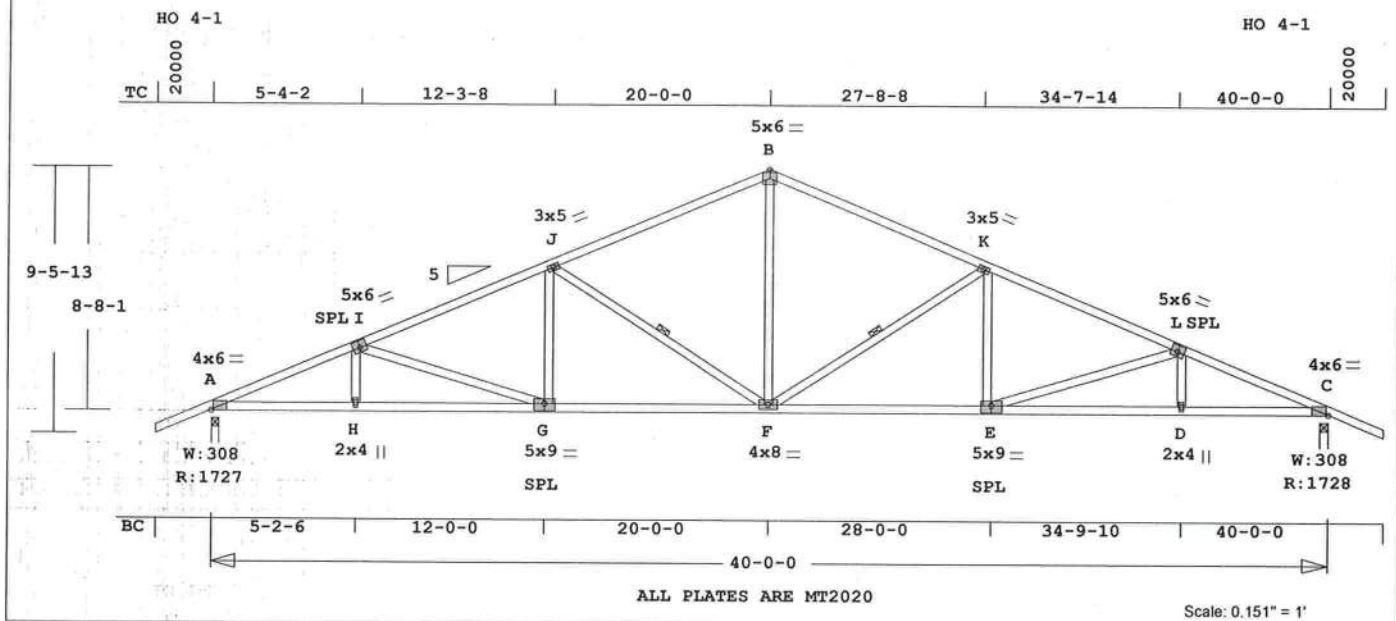
FL Cert. 6634

July 6, 2012

Albani, Thomas

1 of 1

Job	Mark	Quan	Type	Span	Pl-H1	Left OH	Right OH	Engineering
<b>MAYO-FERT-ADD</b>	<b>R1</b>	20	TR	400000	5	2- 0- 0	2- 0- 0	<b>T4453383</b>
<b>MAYO FERTILIZER ADDITION</b>								



Online Plus -- Version 30.0.011  
RUN DATE: 06-JUL-12

Southern Pine lumber design  
values are those effective  
06-01-12 by SPIB//ALSC UON  
CSI -Size- ---Lumber---  
TC 0.90 2x 4 SP-#2  
BC 0.90 2x 4 SP-#2  
WB 0.52 2x 4 SP-#2

Brace truss as follows:  
O.C. From To  
TC Cont. 0- 0- 0 40- 0- 0  
BC Cont. 0- 0- 0 40- 0- 0  
or 96.0" 0- 0- 0 40- 0- 0  
Continuous Lateral Restraint  
req'd at mid-point of webs:  
J - F F - K  
Attach CLR with (2)-10d nails  
at each web.  
Refer to BCSI for diagonal  
restraint requirements.

psf-Ld	Dead	Live
TC	10.0	20.0
BC	10.0	0.0
TC+BC	20.0	20.0
Total	40.0	Spacing 24.0"
Lumber	Duration Factor 1.25	
Plate	Duration Factor 1.25	
	Fb	Fc Ft Emin
TC	1.15	1.10 1.10 1.10
BC	1.10	1.10 1.10 1.10

Total Load Reactions (Lbs)  
Jt Down Uplift Horiz-  
A 1728 118 R  
C 1728 118 R

Jt	Brg Size	Required
A	3.5"	2.0"
C	3.5"	2.0"

Plus 21 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)  
Plus 1 DL Load Case(s)

Membr	CSI	P Lbs	Ax1-CSI-Bnd
-----Top Chords-----			
A -I	0.44	3494 C	0.19 0.25
I -J	0.73	2900 C	0.12 0.61
J -B	0.90	2088 C	0.25 0.65
B -K	0.90	2088 C	0.25 0.65
K -L	0.73	2900 C	0.12 0.61
L -C	0.44	3494 C	0.19 0.25

MiTek® Online Plus™ APPROX. TRUSS WEIGHT: 267.2 LBS

-----Bottom Chords-----					
A -H	0.87	3225 T	0.68	0.19	
H -G	0.90	3225 T	0.68	0.22	
G -F	0.78	2687 T	0.57	0.21	
F -E	0.78	2687 T	0.57	0.21	
E -D	0.90	3225 T	0.68	0.22	
D -C	0.87	3225 T	0.68	0.19	
-----Webs-----					
H -I	0.04	208 T			
I -G	0.52	564 C			
G -J	0.08	441 T			
J -F	0.37	909 C			1 Br
F -B	0.26	1148 T			
F -K	0.37	909 C			1 Br
E -K	0.08	441 T			
E -D	0.52	564 C			
D -L	0.04	208 T			

TL Defl -0.64" in F -E L/733  
LL Defl -0.24" in G -F L/999  
Shear // Grain in J -B 0.29

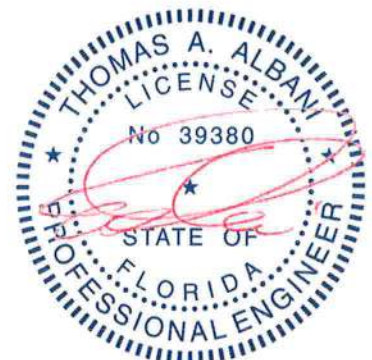
Plates for each ply each face.  
Plate - MT20 20 Ga, Gross Area  
Plate - MT2H 20 Ga, Gross Area  
Jt Type Plt Size X Y JSI  
A MT20 4.0x 6.0 Ctr 0.1 0.85  
I MT20 5.0x 6.0-0.2 0.5 0.68  
J MT20 3.0x 5.0 Ctr Ctr 0.37  
B MT20 5.0x 6.0 Ctr Ctr 0.77  
K MT20 3.0x 5.0 Ctr Ctr 0.37  
L MT20 5.0x 6.0 0.2 0.5 0.68  
C MT20 4.0x 6.0 Ctr 0.1 0.85  
H MT20 2.0x 4.0 Ctr Ctr 0.34  
G MT20 5.0x 9.0 Ctr-0.5 0.80  
F MT20 4.0x 8.0 Ctr Ctr 0.43  
E MT20 5.0x 9.0 Ctr-0.5 0.80  
D MT20 2.0x 4.0 Ctr Ctr 0.34

REVIEWED BY:  
MiTek Industries, Inc.  
6904 Parke East Blvd.  
Tampa, FL 33610

REFER TO ONLINE PLUS GENERAL  
NOTES AND SYMBOLS SHEET FOR  
ADDITIONAL SPECIFICATIONS.

NOTES:  
Trusses Manufactured by:  
Mayo Truss Co. Inc.  
Analysis Conforms To:  
FBC2010  
TPI 2007  
OH Loading  
Soffit psf 2.0

This truss has been designed  
for 20.0 psf LL on the B.C.  
in areas where a rectangle  
3- 6- 0 tall by  
2- 0- 0 wide  
will fit between the B.C.  
and any other member.  
Design checked for 10 psf non-  
concurrent LL on BC.  
Wind Loads - ANSI / ASCE 7-10  
Truss is designed as  
Components and Claddings\*  
for Exterior zone location.  
Wind Speed: 120 mph  
Risk Category : II  
Mean Roof Height: 15-0  
Exposure Category: B  
Building Type: Enclosed  
TC Dead Load: 6.0 psf  
BC Dead Load: 6.0 psf  
Max comp. force 3494 Lbs  
Max tens. force 3225 Lbs  
Connector Plate Fabrication  
Tolerance = 20%  
This truss is designed for a  
creep factor of 1.5 which  
is used to calculate total  
load deflection.



FL Cert. 6634

July 6, 2012



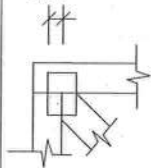
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FL Cert. 6634



## ONLINE PLUS GENERAL NOTES & SYMBOLS

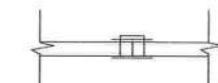
108



### PLATE LOCATION

Center plates on joints unless otherwise noted in plate list or on drawing. Dimensions are given in inches (i.e. 1 1/2" or 1.5") or IN-16ths (i.e. 108)

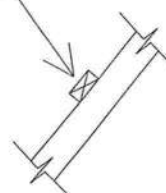
### FLOOR TRUSS SPLICE ( 3X2, 4X2, 6X2 )



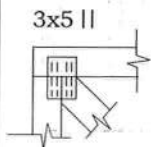
(W) = Wide Face Plate  
(N) = Narrow Face Plate

### LATERAL BRACING

Designates the location for continuous lateral bracing (CLB) for support of individual truss members only. CLBs must be properly anchored or restrained to prevent simultaneous buckling of adjacent truss members.



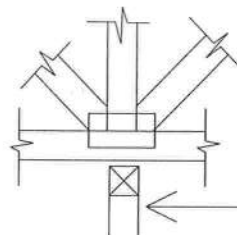
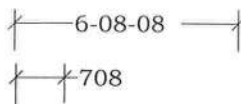
### PLATE SIZE AND ORIENTATION



The first dimension is the width measured perpendicular to slots. The second dimension is the length measured parallel to slots. Plate orientation, shown next to plate size, indicates direction of slots in connector plates.

### DIMENSIONS

All dimensions are shown in FT-IN-SX (i.e. 6'-8.5" or 6-08-08 ). Dimensions less than one foot are shown in IN-SX only (i.e. 708).



### BEARING

When truss is designed to bear on multiple supports, interior bearing locations should be marked on the truss. Interior support or temporary shoring must be in place before trusses are installed. If necessary, shim bearings to assure solid contact with truss.

W = Actual Bearing Width (IN-SX)  
R = Reaction (lbs.)  
U = Uplift (lbs.)

Metal connector plates shall be applied on both faces of truss at each joint. Center the plates, unless indicated otherwise. No loose knots or wane in plate contact area. Splice only where shown. Overall spans assume 4" bearing at each end, unless indicated otherwise. Cutting and fabrication shall be performed using equipment which produces snug-fitting joints and plates. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication and the attached truss designs are not applicable for use with fire retardant lumber and some preservative treatments. Nails specified on Truss Design Drawings refer to common wire nails, except as noted. The attached design drawings were prepared in accordance with " National Design Specifications for Wood Construction" (AF & PA ), " National Design Standard for Metal Plate Connected Wood Truss Construction" (ANSI/TPI 1), and HUD Design Criteria for Trussed Rafters.

Mitek Industries Inc. bears no responsibility for the erection of trusses, field bracing or permanent truss bracing. Refer to "Building Component Safety Information" (BCSI 1) as published by Truss Plate Institute, 218 North Lee Street, Suite 312, Alexandria, Virginia 22314. Persons erecting trusses are cautioned to seek professional advice concerning proper erection bracing to prevent toppling and " dominoing ". Care should be taken to prevent damage during fabrication, storage, shipping and erection. Top and bottom chords shall be adequately braced in the absence of sheathing or rigid ceiling, respectively. It is the responsibility of others to ascertain that design loads utilized on these drawings meet or exceed the actual dead loads imposed by the structure and the live loads imposed by the local building code or historical climatic records. When truss hangers are specified on the Truss Design Drawing, they must be installed per manufacturer's details and specifications.

FURNISH A COPY OF THE ATTACHED TRUSS DESIGN DRAWINGS TO ERECTION CONTRACTOR. IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER TO REVIEW THESE DRAWINGS AND VERIFY THAT DATA, INCLUDING DIMENSIONS & LOADS, CONFORM TO ARCHITECTURAL PLAN / SPECS AND THE TRUSS PLACEMENT DIAGRAM FURNISHED BY THE TRUSS MANUFACTURER.



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