

TOP	CHORD	2X4	SO.	PINE	#2	or	Better
BOT	CHORD	2X4	SO.	PINE	#2	or	Better
	WEBS	2X4	SO.	PINE	#3	or	Better

120 MPH MAX

Setback 7' or Less

PROVIDE UPLIFT CONNECTIONS AT BEARINGS AS INDICATED.

UPLIFT: 400# or Less

UPLIFT BASED ON 7.2 PSF TOTAL DEAD LOAD. WIND
SPEED=120 "C" MPH. MEAN HGT=28 FT. ENCLOSED. (ASCE 7-02)

PROVIDE UPLIFT CONNECTIONS AT BEARINGS AS INDICATED. TILE

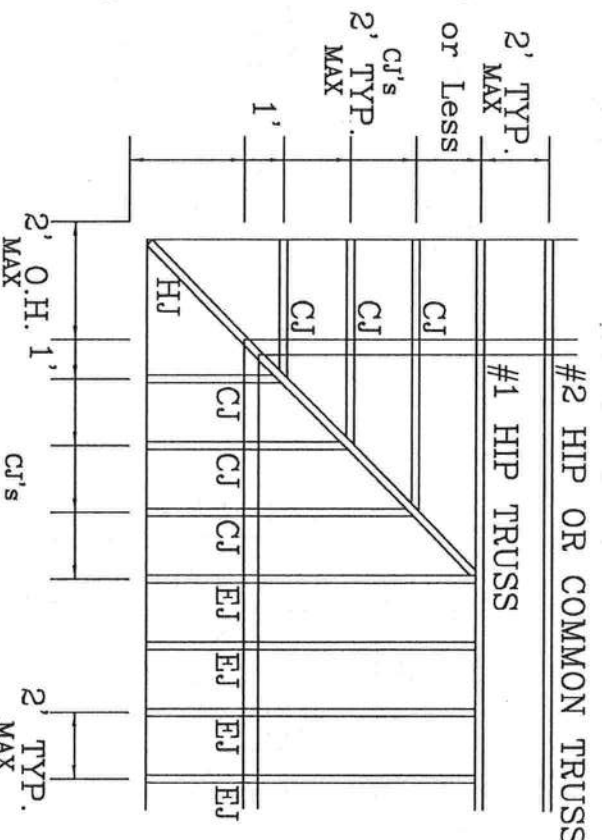
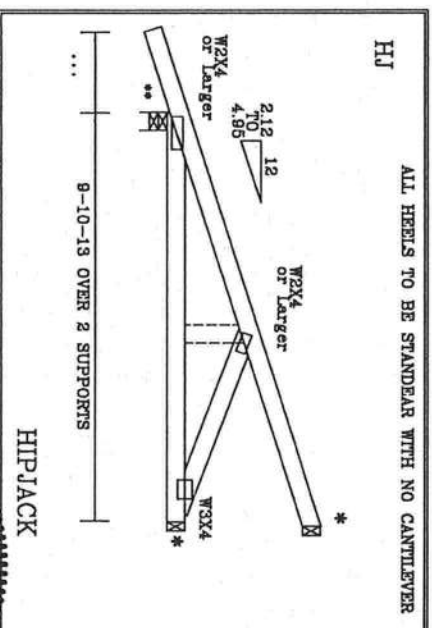
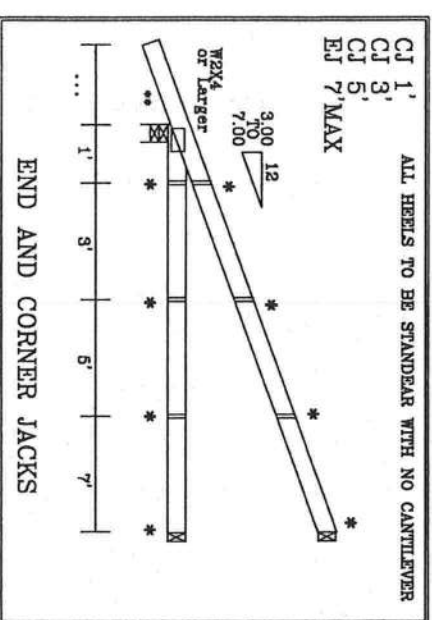
UPLIFT: 400# or Less

UPLIFT BASED ON 15.0 PSF TOTAL DEAD LOAD. WIND
SPEED=120 "C" MPH. MEAN HGT (of jacks)=28 FT. ENCLOSED. (ASCE 7-02)

PROVIDE UPLIFT CONNECTIONS AT BEARINGS AS INDICATED.

UPPLIFT: 400# or Less

UPLIFT BASED ON 7.2 PSF TOTAL DEAD LOAD. WIND
SPEED=120 "B" MPH. MEAN HGT (of jacks)=28 FT. ENCLOSED. (ASCE 7-02)



*(3) 16d TOENAILS

SEE FOR THE DOWN

END AND CORNER JACKS

HIPJACK

UPLIFT VALUES DO TAKE INTO ACCOUNT PORCHES EXPOSED
BC LIVE LOAD IS NON CONCURRENT 10*

CORNER SET
SETBACK

7'0" MAX

AND/OR AVAILING. THE TRUSSES REQUIRING EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BC-1 -04-0 BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY TPI (TRUSS PLATE INSTITUTE), 988 DOWNSIDE DR., SUITE 200, MADISON, WI 53719) AND VITA (VITA CYCLOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIDGE CEILING.

PRODUCTS: FURNISH COPY OF THIS DESIGN TO INSTALLATION CONTRACTOR. ALPINE ENGINEERED PRODUCTS, INC. 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. DESIGN CONDITIONS WITH APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION), UBC (UNIFORM BUILDING CODE), AND VITA (VITA CYCLOD TRUSS COUNCIL OF AMERICA) SHALL APPLY. PLATES TO EACH FACE OF TRUSS AND UNLESS OTHERWISE LOCATED LOCAL JOINTS IN THIS DESIGN, POSITION PER DRAWINGS BELOW. ANY INSPECTION OF PLATES FOLLOWED BY BID SHALL BE THE RESPONSIBILITY OF THE BIDDING PROCESS. THE BIDDING PROCESS SHALL BE THE RESPONSIBILITY OF THE PROFESSIONAL ENGINEERING RESPONSIBILITY AGENCY FOR THE TRUSS COMPONENT DESIGN SHOWN. SUSTAINABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING OWNER. PER ANSI/TPI 1 SEC. 2.

CONS. ENGINEERS, P.A.

1406 SW 4TH AVENUE
FT. LAUDERDALE, FL 33304-2081

NO. 34869



STATE OF

OFFICE OF THE ATTORNEY GENERAL
STATE OF NEW YORK
ALBANY

ESTABLISHED 1892

PROFESSIONAL ENGINEER

STATION	TIME	TYPE	MAX	PSF
TC	20	TC	MAX	PSF
TC	20	TC	MAX	PSF
BC	10*	BC	MAX	PSF
BC	5	BC	MAX	PSF
DL	20	DL	MAX	PSF
DL	20	DL	MAX	PSF

REF	7'MAX STBK CS
DATE	Jun./27/2008
DRWG	
-ENG	

REVIEWED
By Julius Ige at 10:52 am Jun 27 2008

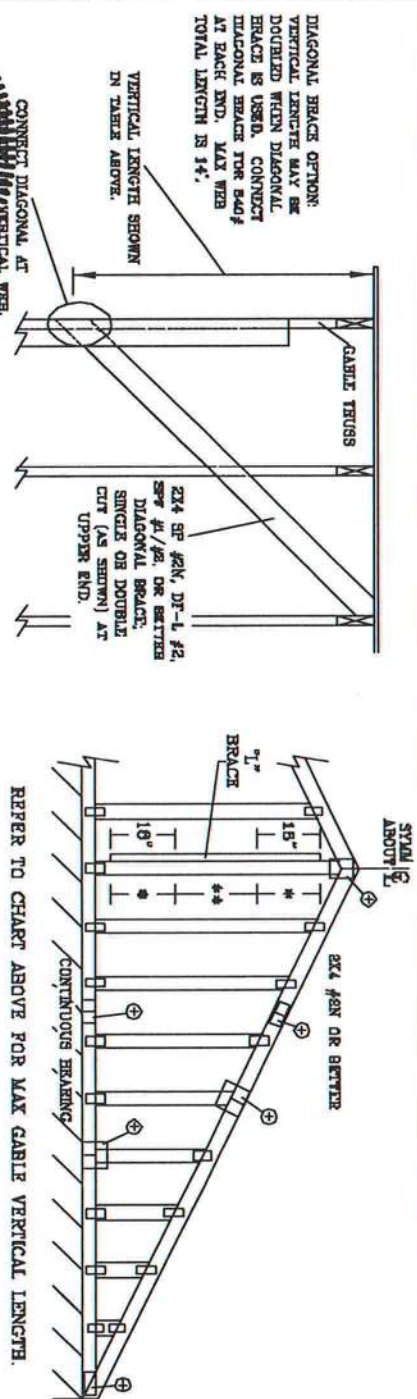
DUR. FAC. 1.25
SPACING 2' MAX

MAX GABLE VERTICAL LENGTH		BRACE		NO		(1) 1X4 "L" BRACE *		(1) 2X4 "L" BRACE *		(2) 2X4 "L" BRACE **		(1) 2X6 "L" BRACE *		(2) 2X8 "L" BRACE **	
CABLE TRUSS SPACING / SPECIES	GRADE	BRACE	NO	GROUP A		GROUP B		GROUP A		GROUP B		GROUP A		GROUP B	
				12" O.C.		16" O.C.		24" O.C.		12" O.C.		16" O.C.		24" O.C.	
SPF	#1 / #2	STUD	STANDARD	3' 4"		3' 3"		3' 3"		3' 3"		3' 3"		3' 3"	
				6' 10"		6' 11"		6' 11"		6' 11"		6' 11"		6' 11"	
HF	#1	#2	STANDARD	4' 11"		4' 11"		4' 11"		4' 11"		4' 11"		4' 11"	
				4' 11"		4' 11"		4' 11"		4' 11"		4' 11"		4' 11"	
SP	#1	#2	STANDARD	3' 3"		3' 3"		3' 3"		3' 3"		3' 3"		3' 3"	
				3' 3"		3' 3"		3' 3"		3' 3"		3' 3"		3' 3"	
DFL	#1	#2	STANDARD	3' 6"		3' 6"		3' 6"		3' 6"		3' 6"		3' 6"	
				3' 6"		3' 6"		3' 6"		3' 6"		3' 6"		3' 6"	
SPF	#1 / #2	#3	STUD	3' 10"		3' 10"		3' 10"		3' 10"		3' 10"		3' 10"	
				3' 10"		3' 10"		3' 10"		3' 10"		3' 10"		3' 10"	
HF	#1	#2	STANDARD	3' 6"		3' 6"		3' 6"		3' 6"		3' 6"		3' 6"	
				3' 6"		3' 6"		3' 6"		3' 6"		3' 6"		3' 6"	
SP	#1	#2	STANDARD	3' 6"		3' 6"		3' 6"		3' 6"		3' 6"		3' 6"	
				3' 6"		3' 6"		3' 6"		3' 6"		3' 6"		3' 6"	
DFL	#1	#2	STANDARD	3' 10"		3' 10"		3' 10"		3' 10"		3' 10"		3' 10"	
				3' 10"		3' 10"		3' 10"		3' 10"		3' 10"		3' 10"	

BRACING GROUP SPECIES AND GRADES:	
GROUP A:	
SPRUCE-PINE-FIR	GROUP B:
#1 / #2	#1 / #2
STUD	STUD
STANDARD	STANDARD
DOUGLAS FIR-LARCH	DOUGLAS FIR-LARCH
#1	#1
STUD	STUD
STANDARD	STANDARD

CABLE TRUSS DETAIL NOTES:

LIVE LOAD DEFLECTION CRITERIA IS $L/240$.
 PROVIDE UPLIFT CONNECTIONS PER 136 F.W. OVER
 CONTINUOUS BEARING (6 PSF TO DEAD LOAD).
 CABLE END SUPPORTS LOAD FROM 4' 0"
 OUTLINE WITH 2' 0" OVERHANG, OR 12"
 PLYWOOD OVERHANG.
 ATTACH EACH "L" BRACE WITH 10d NAILS.
 * FOR (1) "L" BRACE, SPACE NAILS AT 8" O.C.
 IN 18" END ZONES AND 4" O.C. BETWEEN ZONES.
 ** FOR (2) "L" BRACES: SPACE NAILS AT 8" O.C.
 IN 18" END ZONES AND 6" O.C. BETWEEN ZONES.
 "L" BRACING MUST BE A MINIMUM OF 80% OF WEB
 MEMBER LENGTH.



CABLE VERTICAL PLATE SIZES	
VERTICAL LENGTH	NO SPICES
LESS THAN 4' 0"	1X4 OR 2X3
GREATER THAN 4' 0", BUT LESS THAN 11' 8"	2X4
GREATER THAN 11' 8"	2X6

DIAGONAL BRACE OPTION:
 VERTICAL LENGTHS MAY BE
 DOUBLED WHEN DIAGONAL
 BRACE IS USED. CONNECT
 DIAGONAL BRACE FOR EACH
 AT EACH END. MAX WEB
 TOTAL LENGTH IS 14'.
 VERTICAL LENGTH SHOWN
 IN TABLE ABOVE.
 CONNECT DIAGONAL AT
 VERTICAL WEB.

JULIUS LEE'S
 CONSULTING ENGINEERS P.A.
 1455 9TH AVE. APT. 200
 DEER BEACH, FL 33441-9161

REF	ASCE 7-02-CAB13015
DATE	11/26/03
DRWG. MTRX STD. CABLE 15 E ET	
ENG	



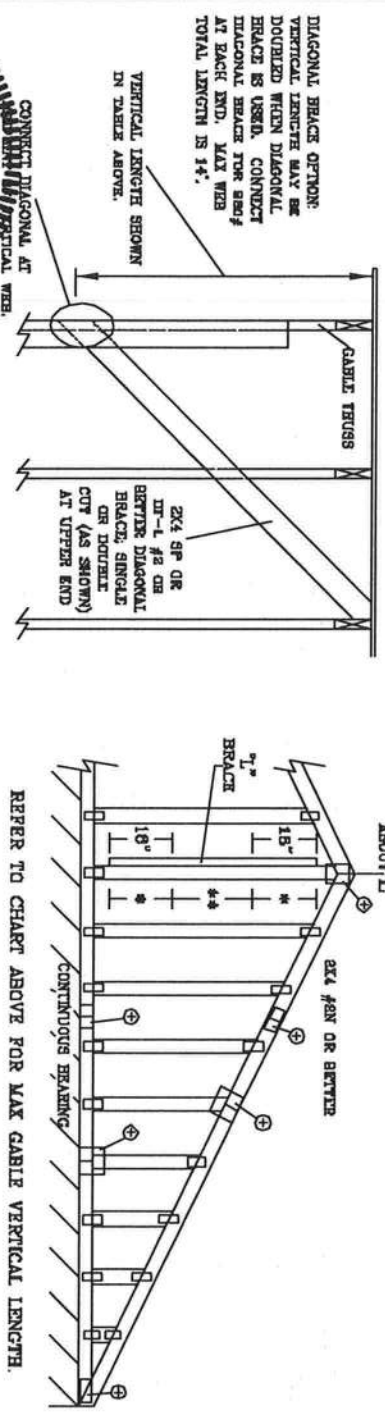
REVIEWED
 By Julius Lee at 12:00 pm, Jun 11, 2008

No. 34869
 STATE OF FLORIDA

MAX. TOT. LD. 60 PSF
 MAX. SPACING 24.0"

ASCE 7-02: 130 MPH WIND SPEED, 30' MEAN HEIGHT, ENCLOSED, I = 1.00, EXPOSURE C

MAX GABLE VERTICAL LENGTH																		
CABLE VERTICAL SPACING	2x4 SPECIES	BRACE GRADE	NO BRACES	(1) 1x4 "L" BRACE *		(1) 2x4 "L" BRACE *		(2) 2x4 "L" BRACE **		(1) 2x6 "L" BRACE *		(2) 2x6 "L" BRACE *		GROUP B				
				GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B							
24" O.C.	SPF	#1 / #2	3' 2"	5' 6"	6' 8"	6' 6"	6' 9"	7' 10"	8' 0"	10' 3"	10' 7"	12' 3"	12' 7"					
			#8	3' 1"	4' 5"	4' 5"	5' 10"	5' 10"	7' 10"	7' 10"	9' 1"	9' 1"	12' 3"	12' 3"				
			STUD	3' 1"	4' 6"	4' 5"	5' 10"	6' 10"	7' 10"	7' 10"	9' 1"	9' 1"	12' 3"	12' 3"				
	HF	STANDARD	2' 11"	3' 6"	3' 9"	6' 0"	5' 0"	6' 9"	6' 9"	7' 10"	7' 10"	10' 7"	10' 7"					
			#1	3' 6"	5' 6"	5' 11"	6' 8"	7' 0"	7' 10"	8' 5"	10' 3"	11' 1"	12' 3"	13' 2"				
			#2	3' 6"	5' 6"	5' 11"	6' 6"	7' 0"	7' 10"	8' 5"	10' 3"	11' 1"	12' 3"	13' 2"				
	SP	#3	3' 3"	3' 3"	4' 6"	4' 6"	6' 0"	6' 0"	7' 10"	8' 1"	9' 4"	9' 4"	12' 3"	12' 6"				
			STUD	3' 3"	4' 6"	4' 6"	5' 11"	6' 0"	7' 10"	8' 0"	9' 3"	9' 3"	12' 3"	12' 6"				
			STUD	3' 3"	4' 6"	4' 6"	5' 11"	6' 0"	7' 10"	8' 0"	9' 3"	9' 3"	12' 3"	12' 6"				
	DFL	STANDARD	3' 0"	3' 10"	3' 10"	6' 1"	5' 1"	7' 6"	8' 11"	8' 11"	9' 2"	11' 6"	12' 1"	14' 0"				
#1 / #2			3' 8"	5' 6"	6' 6"	7' 8"	7' 2"	8' 11"	8' 11"	9' 2"	11' 6"	12' 1"	14' 0"					
#8			3' 7"	5' 5"	5' 5"	7' 2"	7' 2"	8' 11"	8' 11"	11' 1"	11' 1"	14' 0"	14' 0"					
16" O.C.	SPF	STUD	3' 7"	5' 6"	6' 5"	7' 2"	7' 2"	8' 11"	8' 11"	11' 1"	11' 1"	14' 0"	14' 0"					
			STUD	3' 7"	5' 6"	6' 5"	7' 2"	7' 2"	8' 11"	8' 11"	11' 1"	11' 1"	14' 0"	14' 0"				
			STANDARD	3' 7"	4' 6"	4' 6"	6' 2"	6' 2"	8' 3"	8' 3"	9' 7"	9' 7"	12' 11"	12' 11"				
	HF	STANDARD	#1	4' 0"	6' 4"	6' 10"	7' 8"	8' 1"	8' 11"	9' 7"	11' 9"	12' 8"	14' 0"	14' 0"				
			#2	3' 11"	6' 4"	6' 10"	7' 8"	8' 1"	8' 11"	9' 7"	11' 9"	12' 8"	14' 0"	14' 0"				
			#3	3' 9"	5' 7"	6' 7"	7' 4"	7' 4"	8' 11"	9' 6"	11' 5"	11' 6"	14' 0"	14' 0"				
	DFL	STUD	3' 8"	5' 6"	5' 6"	7' 3"	7' 3"	8' 11"	9' 5"	11' 4"	11' 4"	14' 0"	14' 0"					
			STUD	3' 8"	5' 6"	5' 6"	7' 3"	7' 3"	8' 11"	9' 5"	11' 4"	11' 4"	14' 0"	14' 0"				
			STANDARD	3' 8"	4' 9"	4' 9"	6' 3"	6' 3"	8' 5"	8' 5"	9' 9"	9' 9"	13' 3"	13' 3"				
	12" O.C.	SPF	#1 / #2	4' 0"	6' 11"	7' 2"	6' 3"	8' 6"	9' 10"	10' 1"	12' 11"	12' 11"	14' 0"	14' 0"				
#3				3' 11"	6' 3"	6' 3"	8' 3"	8' 3"	9' 10"	9' 10"	12' 11"	12' 11"	14' 0"	14' 0"				
STUD				3' 11"	6' 3"	6' 3"	8' 3"	8' 3"	9' 10"	9' 10"	12' 11"	12' 11"	14' 0"	14' 0"				
HF		STANDARD	3' 11"	5' 4"	5' 4"	7' 1"	7' 1"	9' 6"	9' 6"	11' 1"	11' 1"	14' 0"	14' 0"					
			#1	4' 5"	6' 11"	7' 5"	8' 3"	8' 11"	9' 10"	10' 7"	12' 11"	12' 11"	14' 0"	14' 0"				
			#2	4' 4"	6' 11"	7' 6"	8' 3"	8' 11"	9' 10"	10' 7"	12' 11"	12' 11"	14' 0"	14' 0"				
SP		#3	4' 2"	6' 6"	6' 5"	8' 3"	8' 6"	9' 10"	10' 4"	12' 11"	12' 11"	14' 0"	14' 0"					
			STUD	4' 2"	6' 4"	6' 4"	8' 3"	8' 6"	9' 10"	10' 4"	12' 11"	12' 11"	14' 0"	14' 0"				
			STUD	4' 2"	6' 4"	6' 4"	8' 3"	8' 6"	9' 10"	10' 4"	12' 11"	12' 11"	14' 0"	14' 0"				
DFL		STANDARD	4' 0"	5' 6"	5' 6"	7' 3"	7' 3"	9' 9"	9' 9"	11' 4"	11' 4"	14' 0"	14' 0"					

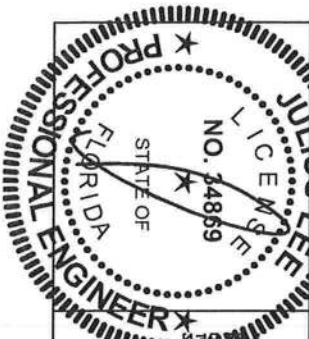


CABLE VERTICAL PLATE SIZES	
VERTICAL LENGTH	NO SPICE
LESS THAN 4' 0"	1X4 OR 2X4
GREATER THAN 4' 0" BUT LESS THAN 11' 6"	2X4
GREATER THAN 11' 6"	2X6

ATTACH EACH "L" BRACE WITH 104 NAILS.
 * FOR (1) "L" BRACE, SPACE NAILS AT 8" O.C.
 ** 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.

LIVE LOAD DEADLOAD COMBINATION IS L/240.
 PROVIDE UPLIFT CONNECTIONS PER 150 PSF OVER CONTINUOUS BEARING (6 PSF TO DEAD LOAD).
 CABLE END SUPPORTS LOAD FROM 4' 0" OUTLINE WITH 8' 0" OVERHANG, OR 12" PLYWOOD OVERHANG.

BRACING GROUP SPECIES AND GRADES:	
GROUP A:	
SPECIES-PINE-18	18P-PINE
#1 / #2	STUD
#3	STUD
STUD	STUD
STANDARD	STANDARD
GROUP B:	
SPECIES-PINE-18	18P-PINE
#1 / #2	STUD
#3	STUD
STUD	STUD
STANDARD	STANDARD



REVIEWED
 By Julius Lee at 12:00 pm, Jun 11, 2008

NOTES:
 1. TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND ERECTING. REFER TO BCST-1-93 BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY THE TRUSS MANUFACTURERS ASSOCIATION, 2825 ENTERPRISE DR., SUITE 200, MARIETTA, GA 30067.
 2. ALL TRUSSES MUST BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH THE TRUSS MANUFACTURERS ASSOCIATION (TMA) STANDARD SPECIFICATIONS FOR THE DESIGN AND MANUFACTURE OF WOOD TRUSSES.
 3. ALL TRUSSES MUST BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH THE TRUSS MANUFACTURERS ASSOCIATION (TMA) STANDARD SPECIFICATIONS FOR THE DESIGN AND MANUFACTURE OF WOOD TRUSSES.

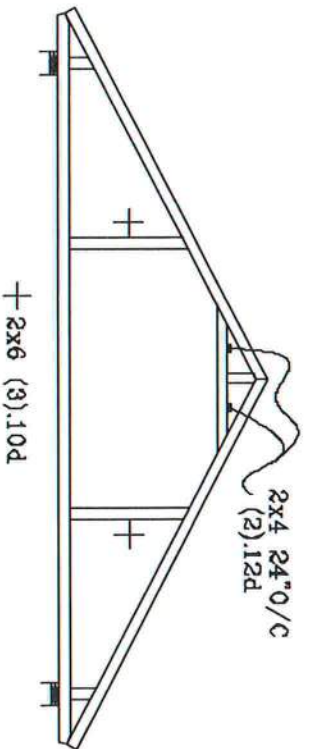
JULIUS LEE'S
 CONSULTING ENGINEERS P.A.
 1456 SW 4th AVENUE
 DEERFIELD BEACH, FL 33442-2611

No. 34869
 STATE OF FLORIDA

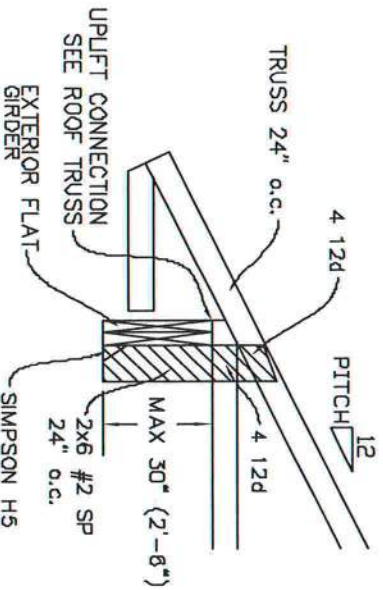
MAX. TOT. LD. 60 PSF
 MAX. SPACING 24.0"

REF. ASCE 7-02-GAB10390
 DATE 11/26/03
 DWG. DATE STD. GAB1 30 E 17
 -ENG

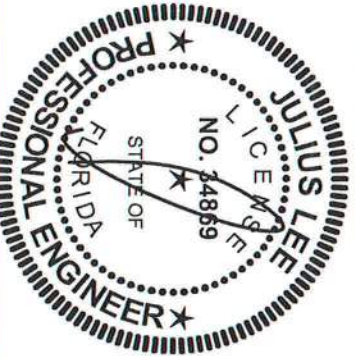
TYPICAL ATTIC TRUSS BRACING



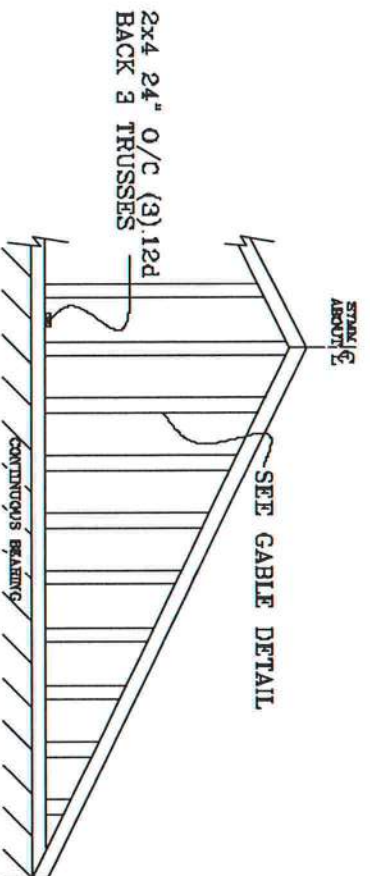
TYPICAL ALTERNATE BRACING DETAIL FOR EXTERIOR FLAT GIRDER TRUSS



REVIEWED
By Julius Lee at 11:59 am, Jun 11, 2008

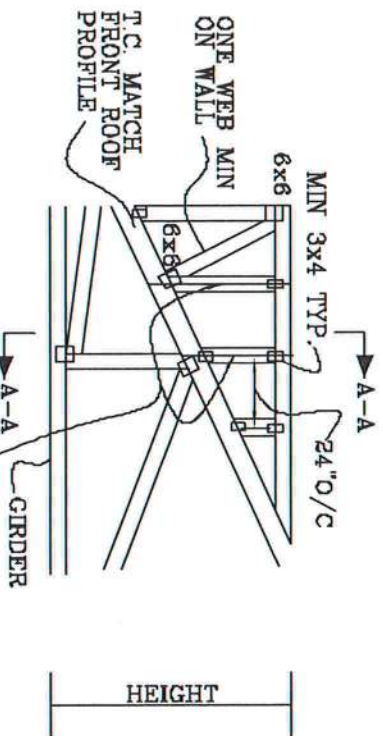


GABLE END TRUSS DETAIL



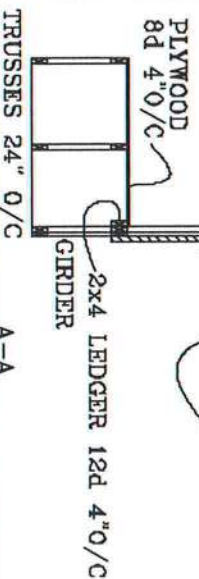
MINIMUM BC BRACING ON GABLE TRUSS, OTHER PERMANENT BRACING DESIGNS BY ARCHITECT OR BOB

TYPICAL WALL GIRDER VERTICAL WEB BRACING DETAIL



SEE ROOF TRUSSES FOR UPLIFT
ROOF 24" O/C

SEE GABLE END DETAIL FOR T-BRACE BEHIND EACH VERTICAL



JULIUS LEE'S
CONS. ENGINEERS P.A.
1456 SW 45th AVENUE
DIKELEY BEACH, FL 33444-2161

No: 34859
STATE OF FLORIDA

TOP CHORD 2X4 #2 OR BETTER
BOT CHORD 2X4 #2 OR BETTER
WEBS 2X4 #3 OR BETTER

PIGGYBACK DETAIL

REFER TO SEALED DESIGN FOR DASHED PLATES.

SPACE PIGGYBACK VERTICALS AT 4' OC MAX.

TOP AND BOTTOM CHORD SPLICES MUST BE STAGGERED SO THAT ONE SPLICE IS NOT DIRECTLY OVER ANOTHER.

PIGGYBACK BOTTOM CHORD MAY BE OMITTED. ATTACH VERTICAL WEBS TO TRUSS TOP CHORD WITH 1.5X3 PLATE.

ATTACH PURLINS TO TOP OF FLAT TOP CHORD. IF PIGGYBACK IS SOLID LUMBER OR THE BOTTOM CHORD IS OMITTED, PURLINS MAY BE APPLIED BENEATH THE TOP CHORD OF SUPPORTING TRUSS.

REFER TO ENGINEER'S SEALED DESIGN FOR REQUIRED PURLIN SPACING.

THIS DETAIL IS APPLICABLE FOR THE FOLLOWING WIND CONDITIONS:

110 MPH WIND, 30' MEAN HGT, ASCE 7-02, CLOSED BLDG, LOCATED ANYWHERE IN ROOF, 1 MI FROM COAST

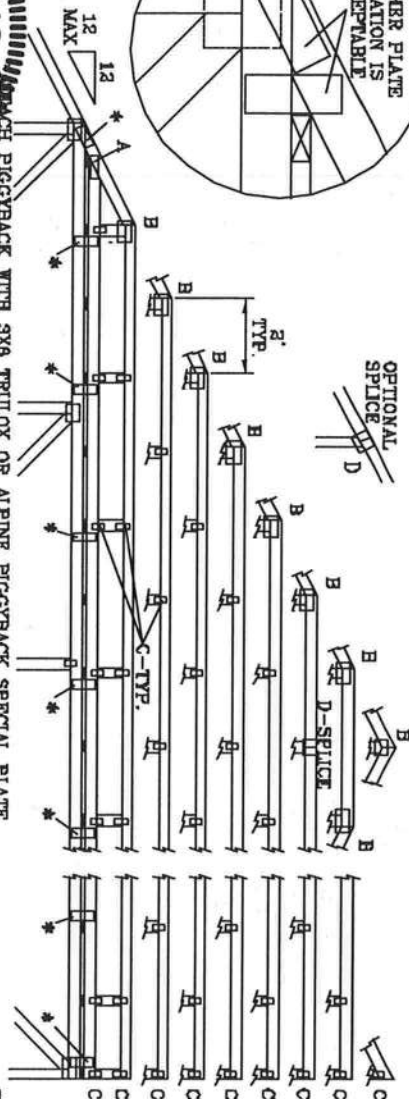
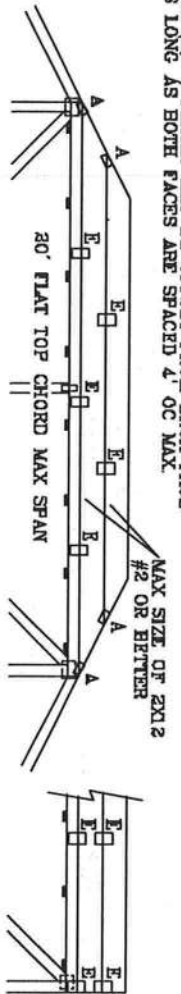
CAT I, EXP C, WIND TC DL=5 PSF, WIND BC DL=5 PSF

110 MPH WIND, 30' MEAN HGT, ENC ENCLOSED BLDG, LOCATED ANYWHERE IN ROOF

WIND TC DL=5 PSF, WIND BC DL=5 PSF

FRONT FACE (E*) PLATES MAY BE OFFSET FROM BACK FACE PLATES AS LONG AS BOTH FACES ARE SPACED 4' OC MAX.

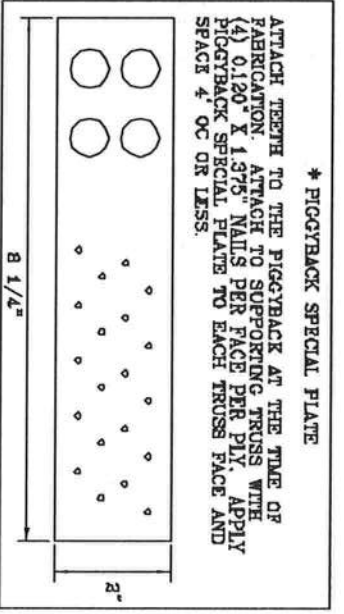
130 MPH WIND, 30' MEAN HGT, ASCE 7-02, CLOSED BLDG, LOCATED ANYWHERE IN ROOF, CAT II, EXP. C, WIND TC DL=6 PSF, WIND BC DL=6 PSF



JOINT TYPE	SPANS UP TO		
	30'	34'	38'
A	2X4	2.5X4	2.5X4
B	4X6	5X6	5X6
C	1.5X3	1.5X4	1.5X4
D	5X4	5X5	5X6
E	4X6 OR 3X6 TRUSS AT 4' OC, ROTATED VERTICALLY		

ATTACH TRUSS PLATES WITH (B) 0.120" X 1.375" NAILS, OR EQUAL, PER FACE PER PLY. (4) NAILS IN EACH MEMBER TO BE CONNECTED. REFER TO DRAWING 160 TL FOR TRUSS INFORMATION.

WEB LENGTH	WEB BRACING
0' TO 7'9"	NO BRACING
7'9" TO 10'	1X4 "T" BRACE, SAME GRADE, SPECIES AS WEB MEMBER OR BETTER, AND 80% LENGTH OF WEB MEMBER. ATTACH WITH 9d NAILS AT 4' OC.
10' TO 14'	2X4 "T" BRACE, SAME GRADE, SPECIES AS WEB MEMBER, OR BETTER, AND 80% LENGTH OF WEB MEMBER. ATTACH WITH 16d NAILS AT 4' OC.



EXAMINER: REFER TO SEAL-ED BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY THE TRUSS ASSOCIATION OF AMERICA, 1400 WEST 10TH AVE, SUITE 100, DENVER, CO 80202. THIS DRAWING IS A REPRODUCTION OF THE ORIGINAL DRAWING. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.



REVIEWED
By Julius Lee at 11:59 am, Jun 11, 2008

JULIUS LEE'S
CONS. ENGINEERS P.A.
1400 W. 10TH AVENUE
DENVER, COLORADO 80202

No. 34869
STATE OF FLORIDA

MAX LOADING	REF
55 PSF AT	DATE 09/12/07
1.33 DUR. FAC.	DRWG/ITEK STD PIGGY
50 PSF AT	-ENG JL
1.25 DUR. FAC.	
47 PSF AT	
1.15 DUR. FAC.	
SPACING 24.0"	

THIS DRAWING REPLACES DRAWINGS 634.016 634.017 & 647.045

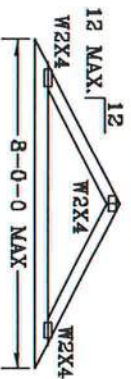
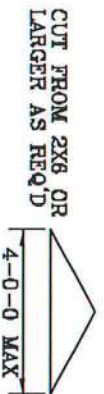
VALLEY TRUSS DETAIL

TOP CHORD 2X4 SP #2 OR SPF #4/#2 OR BETTER.
BOT CHORD 2X3(*) OR 2X4 SP #2N OR SPF #1/#2 OR BETTER.
WEBS 2X4 SP #3 OR BETTER.

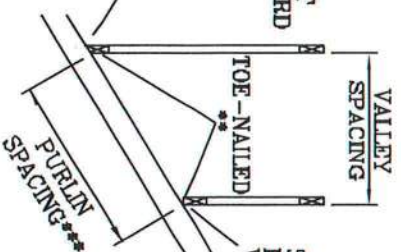
* 2X3 MAY BE RIPPED FROM A 2X6 (PITCHED OR SQUARE).

** ATTACH EACH VALLEY TO EVERY SUPPORTING TRUSS WITH:

- (2) 16d BOX (0.135" X 3.5") NAILS TOE-NAILED FOR FBC 2004 110 MPH, ASCE 7-02 110 MPH WIND OR (3) 16d FOR ASCE 7-02 130 MPH WIND, 15' MEAN HEIGHT, ENCLOSED BUILDING, EXP. C. RESIDENTIAL, WIND TC DL=5 PSF.



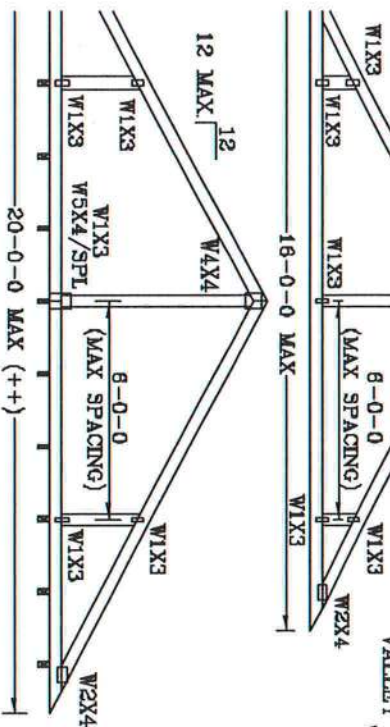
PITCHED CUT
BOTTOM CHORD
VALLEY



SQUARE CUT
BOTTOM CHORD
VALLEY

OPTIONAL STUB
END DETAIL

OPTIONAL HIP
JOINT DETAIL



20'-0" MAX (++)
TRUSSES AT 24" OC MAXIMUM SPACING.

UNLESS SPECIFIED ON ENGINEER'S SEALED DESIGN, APPLY 1X4 "T"-BRACE, 80% LENGTH OF WEB, VALLEY WEB, SAME SPECIES AND GRADE OR BETTER, ATTACHED WITH 8d BOX (0.113" X 2.6") NAILS AT 6" OC, OR CONTINUOUS LATERAL BRACING, EQUALLY SPACED, FOR VERTICAL VALLEY WEBS GREATER THAN 7'9".

MAXIMUM VALLEY VERTICAL HEIGHT MAY NOT EXCEED 12'0".

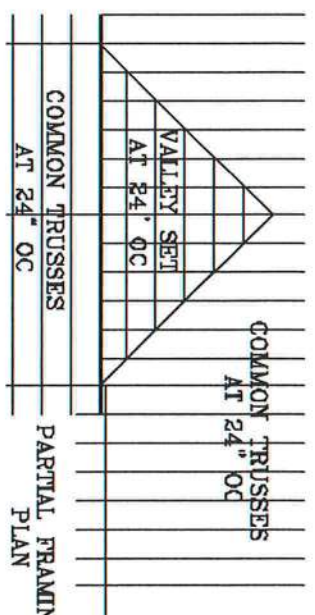
TOP CHORD OF TRUSS BENEATH VALLEY SET MUST BE BRACED WITH PROPERLY ATTACHED, RATED SHEATHING APPLIED PRIOR TO VALLEY TRUSS INSTALLATION

OR
PURLINS AT 24" OC OR AS OTHERWISE SPECIFIED ON ENGINEERS' SEALED DESIGN

OR
BY VALLEY TRUSSES USED IN LIEU OF PURLIN SPACING AS SPECIFIED ON ENGINEERS' SEALED DESIGN.

*** NOTE THAT THE PURLIN SPACING FOR BRACING THE TOP CHORD OF THE TRUSS BENEATH THE VALLEY IS MEASURED ALONG THE SLOPE OF THE TOP CHORD.
++ LARGER SPANS MAY BE BUILT AS LONG AS THE VERTICAL HEIGHT DOES NOT EXCEED 12'0".

BOTTOM CHORD MAY BE SQUARE OR PITCHED CUT AS SHOWN.



COMMON TRUSSES
AT 24" OC

PARTIAL FRAMING
PLAN

VARIOUS TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO THE 1-20 BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY THE TRUSS ASSOCIATION, 1455 SW 4TH AVENUE, SUITE 200, MAJESSE, VA 52749 AND VITA CYCLO TRUSS COUNCIL, AMERICA, 4000 ENTERPRISE LN, MADISON, WI 53719 FOR SAFETY PRACTICES PRIOR TO PERFORMING TRUSS FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED LATERAL BRACING. PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID DESIGN.

JULIUS LEE'S
CONS. ENGINEERS P.A.

1455 SW 4TH AVENUE
SUITE 200
MAJESSE, VA 52749-0201

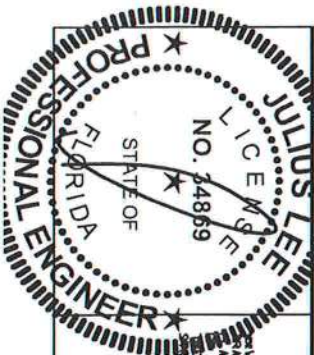
TC IL	20	20	PSF	REF	VALLEY DETAIL
TC DL	7	15	PSF	DATE	11/26/03
BC DL	5	5	PSF	DRWG	VALTRUSS1103
BC IL	0	0	PSF	-ENG	JL
TOT. LD.	32	40	PSF		

DURFAC	1.25	1.25
SPACING	24"	

No. 34868
STATE OF FLORIDA

REVIEWED

By Julius Lee at 11:59 am, Jun 11, 2008



TOE-NAIL DETAIL

TOE-NAILS TO BE DRIVEN AT AN ANGLE OF APPROXIMATELY THIRTY DEGREES WITH THE PIECE AND STARTED APPROXIMATELY ONE-THIRD THE LENGTH OF THE NAIL FROM THE END OF THE MEMBER.

PER ANSI/AF&PA NDS-2001 SECTION 12.4.1 - EDGE DISTANCE, END DISTANCE, SPACING: "EDGE DISTANCES, END DISTANCES AND SPACINGS FOR NAILS AND SPIKES SHALL BE SUFFICIENT TO PREVENT SPLITTING OF THE WOOD."

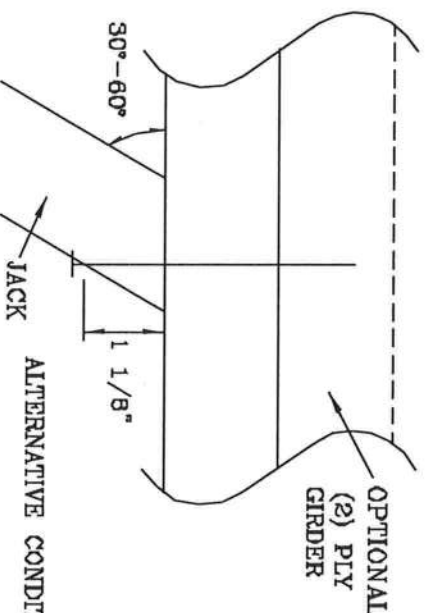
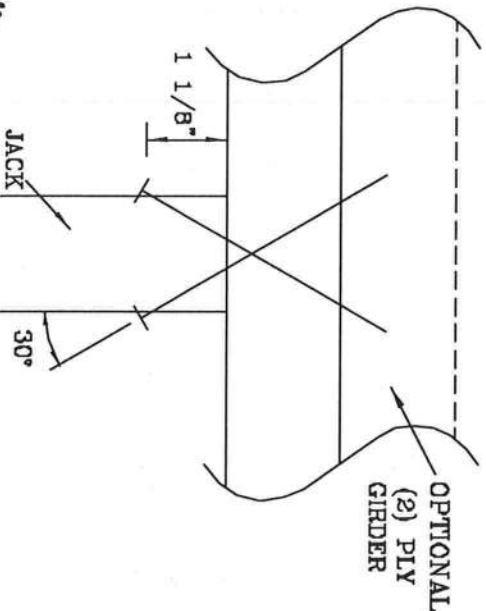
THE NUMBER OF TOE-NAILS TO BE USED IN A SPECIFIC APPLICATION IS DEPENDENT UPON PROPERTIES FOR THE CHORD SIZE, LUMBER SPECIES, AND NAIL TYPE. PROPER CONSTRUCTION PRACTICES AS WELL AS GOOD JUDGEMENT SHOULD DETERMINE THE NUMBER OF NAILS TO BE USED.

THIS DETAIL DISPLAYS A TOE-NAILED CONNECTION FOR JACK FRAMING INTO A SINGLE OR DOUBLE PLY SUPPORTING GIRDER.

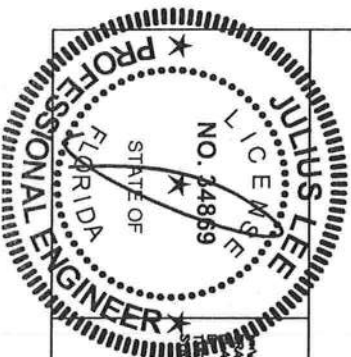
MAXIMUM VERTICAL RESISTANCE OF 16d (0.162"x3.5") COMMON TOE-NAILS

NUMBER OF TOE-NAILS	SOUTHERN PINE		DOUGLAS FIR-LARCH		HEM-FIR		SPRUCE PINE FIR	
	1 PLY	2 PILES	1 PLY	2 PILES	1 PLY	2 PILES	1 PLY	2 PILES
2	187#	256#	181#	234#	156#	203#	154#	189#
3	296#	383#	271#	351#	234#	304#	230#	298#
4	394#	511#	361#	468#	312#	406#	307#	397#
5	493#	639#	452#	585#	390#	507#	384#	496#

ALL VALUES MAY BE MULTIPLIED BY APPROPRIATE DURATION OF LOAD FACTOR.



THIS DRAWING REPLACES DRAWING 784040



VARIOUS TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BEST PRACTICES FOR TRUSS BRACING, PUBLISHED BY THE TRUSS COUNCIL OF AMERICA, 6800 ENTERPRISE LN, NATION, VT 50719 FOR SAFETY PRACTICES PRIOR TO PERFORMING BRACING FUNCTIONS. UNLESS OTHERWISE INDICATED, TYPING SHALL HAVE PROPERLY ATTACHED PHOTOGRAPHIC PANELS AND BRITISH ORIGIN SHALL HAVE A PROPERLY ATTACHED PHOTOGRAPHIC PANEL.

REVIEWED
By Julius Lee at 11:59 am, Jun 11, 2008

JULIUS LEE'S
CONS. ENGINEERS P.A.
1490 ST 4TH AVENUE
DELRAY BEACH, FL 33444-2161

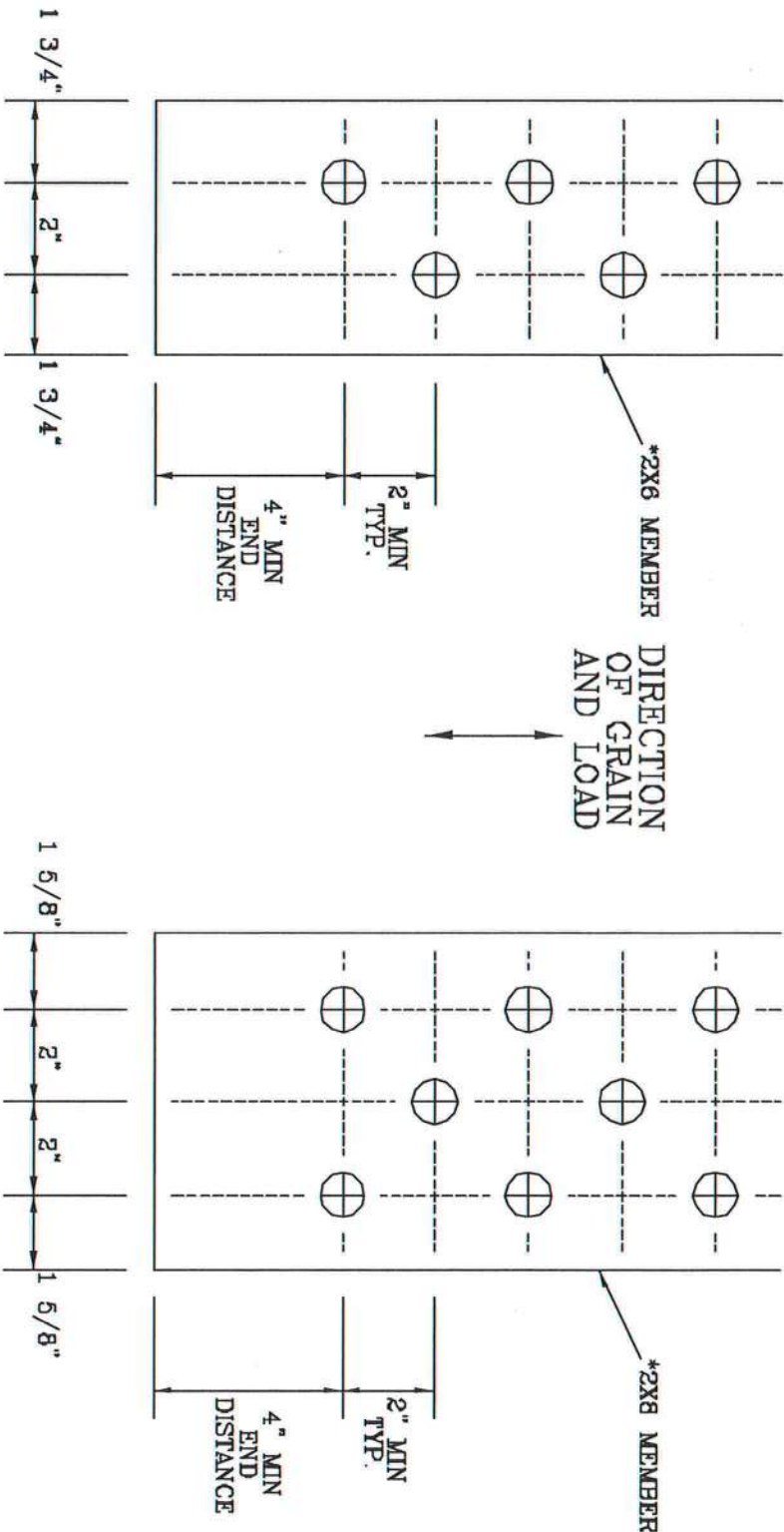
No. 34869
STATE OF FLORIDA

TC LL	PSF	REF	TOE-NAIL
TC DL	PSF	DATE	09/12/07
BC DL	PSF	DRWG	CNTONALL103
BC LL	PSF	-ENG	JL
TOT. LD.	PSF		
DUR. FAC.	1.00		
SPACING			

1/2" DIAMETER BOLT SPACING FOR LOAD APPLIED PARALLEL TO GRAIN.

* GRADE AND SPECIES AS SPECIFIED ON THE ALPINE DESIGN.
BOLT HOLES SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN BOLT DIAMETER.

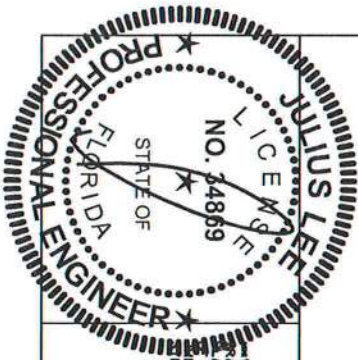
TYPICAL LOCATION OF 1/2" DIAMETER THRU BOLTS. BOLT QUANTITIES AS NOTED ON SEALED DESIGN MUST BE APPLIED IN ONE OF THE PATTERNS SHOWN BELOW.
WASHERS REQUIRED UNDER BOLT HEAD AND NUT



2X6 DETAIL

2X8 DETAIL

THIS DRAWING REPLACES DRAWING A628.016



VARIOUS TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, UNLOADING AND ERECTION. REFER TO THE TRUSS BUILDING DEPARTMENT SAFETY INFORMATION, PUBLISHED BY THE TRUSS ASSOCIATION OF AMERICA, 1000 WEST 10TH AVENUE, SUITE 100, DENVER, CO 80202. THESE FUNCTIONS, UNLESS OTHERWISE INDICATED, THE TRUSS SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BATTEN CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

REVIEWED
By Julius Lee at 11:59 am, Jun 11, 2008

JULIUS LEE'S
CONS. ENGINEERS P.A.
1400 ST 4TH AVENUE
DUNBAR BRIDGE, FL 33444-2461

No. 34869
STATE OF FLORIDA

TC LL	PSF	REF	BOLT SPACING
TC DL	PSF	DATE	11/26/03
BC DL	PSF	DRWG	CNBOLTSF1103
BC LL	PSF	-ENG	JL
TOT. LD.	PSF		
DUR. FAC.			
SPACING			

TRULOX CONNECTION DETAIL

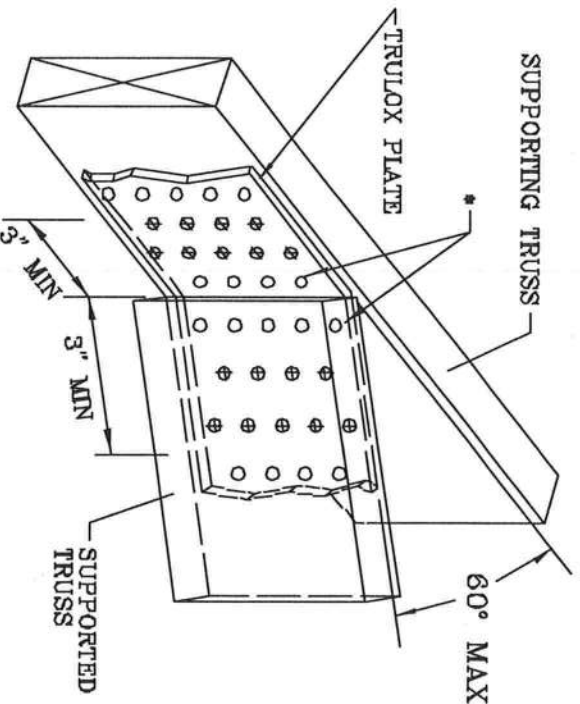
11 GAUGE (0.120" X 1.375") NAILS REQUIRED FOR TRULOX PLATE ATTACHMENT. FILL ROWS COMPLETELY WHERE SHOWN (Φ).

* NAILS MAY BE OMITTED FROM THESE ROWS.

THIS DETAIL MAY BE USED WITH SO. PINE, DOUGLAS-FIR OR HEM-FIR CHORDS WITH A MINIMUM 1.00 DURATION OF LOAD OR SPRUCE-PINE-FIR CHORDS WITH A MINIMUM 1.15 DURATION OF LOAD. CHORD SIZE OF BOTH TRUSSES MUST EXCEED THE TRULOX PLATE WIDTH.

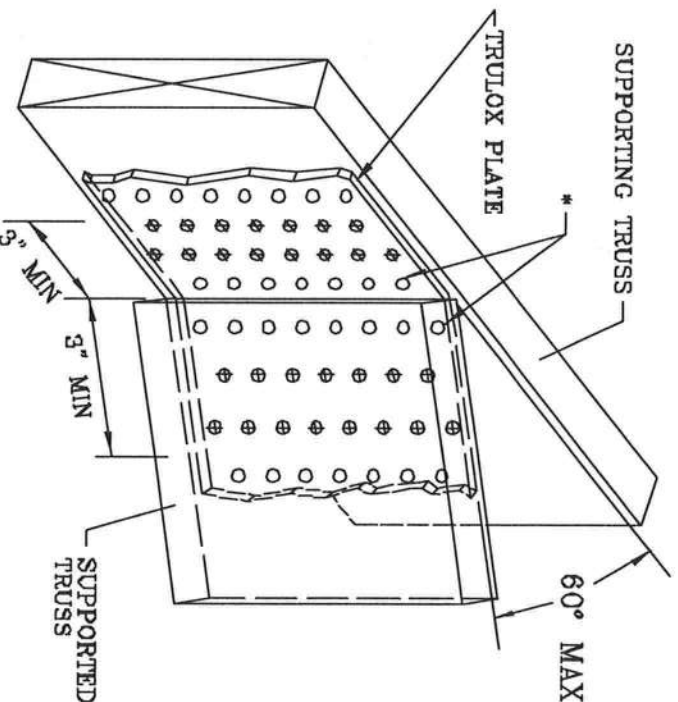
TRULOX PLATE IS CENTERED ON THE CHORDS AND BENT BETWEEN NAIL ROWS.

REFER TO ENGINEER'S SEALED DESIGN REFERENCING THIS DETAIL FOR LUMBER, PLATES, AND OTHER INFORMATION NOT SHOWN.



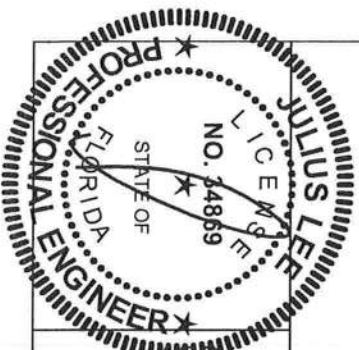
MINIMUM 3X6 TRULOX PLATE

TRULOX PLATE SIZE	REQUIRED NAILS PER TRUSS	MAXIMUM LOAD UP OR DOWN
3X6	9	350#
6X6	15	980#



MINIMUM 5X6 TRULOX PLATE

THIS DRAWING REPLACES DRAWINGS 1,158,986 1,158,988/R 1,154,844 1,152,217 1,152,017 1,159,154 & 1,151,524



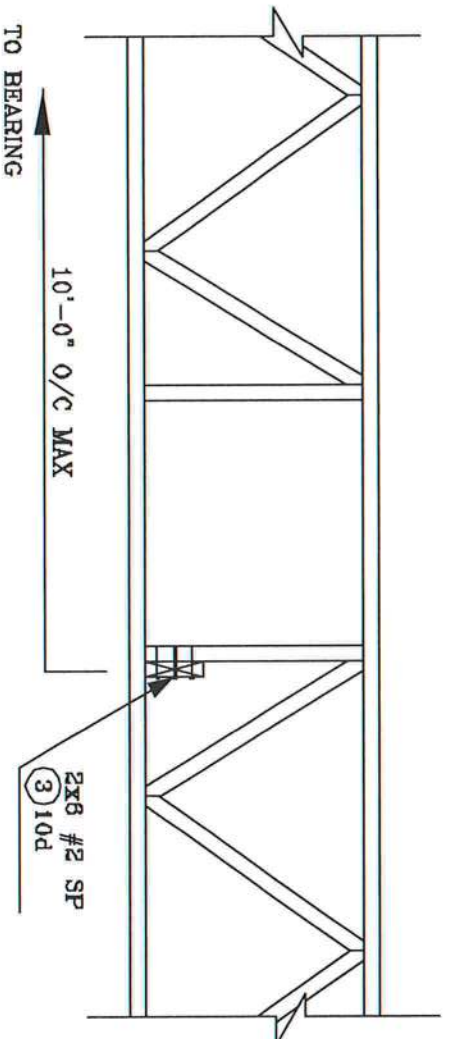
WARNING: TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND MAINTAINING. TRUSSES ARE NOT TO BE USED FOR ANY OTHER PURPOSES. THE USER SHALL BE RESPONSIBLE FOR THE PROPER DESIGN, FABRICATION, AND MAINTENANCE OF THE TRUSS. THE USER SHALL BE RESPONSIBLE FOR THE PROPER DESIGN, FABRICATION, AND MAINTENANCE OF THE TRUSS. THE USER SHALL BE RESPONSIBLE FOR THE PROPER DESIGN, FABRICATION, AND MAINTENANCE OF THE TRUSS.

JULIUS LEE'S
CONS. ENGINEERS P.A.
1455 SW 4TH AVENUE
DEALTY BEACH, FL 33444-2181

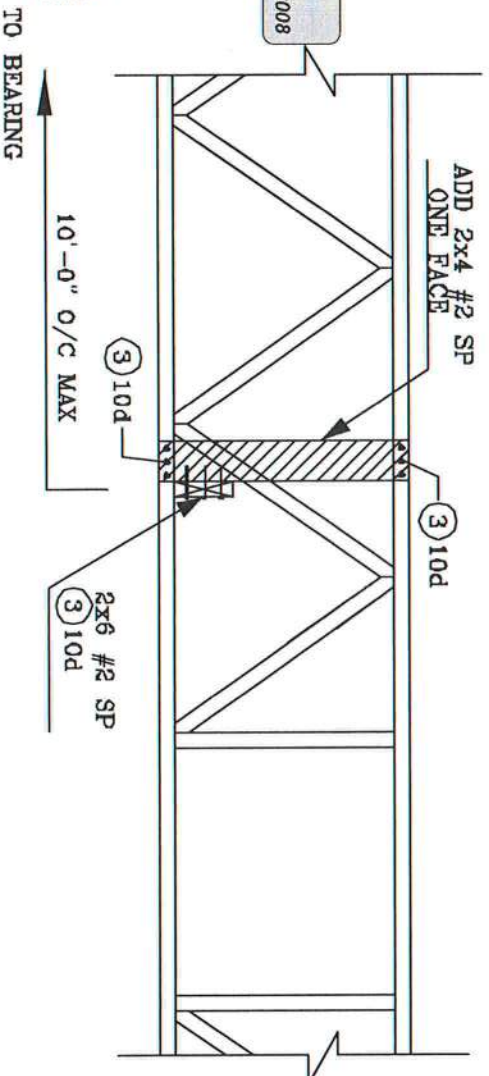
No. 34869
STATE OF FLORIDA

REF	TRULOX
DATE	11/26/03
DRWG	CNTRULOX1103
ENG	JL

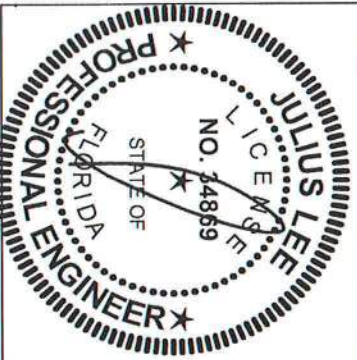
STRONG BACK DETAIL SYSTEM-42 OR FLAT TRUSS



ALTERNATE DETAIL FOR STRONG BACK WITH VERTICAL NOT LINING UP



REVIEWED
By Julius Lee at 11:58 am, Jun 11, 2008



JULIUS LEE'S
CONS. ENGINEERS P.A.
1456 SW 4th Avenue
Opa-locka Branch, FL 33064-2161

No. 34869
STATE OF FLORIDA

MULTIPLE-MEMBER CONNECTIONS FOR SIDE-LOADED BEAMS

Maximum Uniform Load Applied to Either Outside Member (PLF)

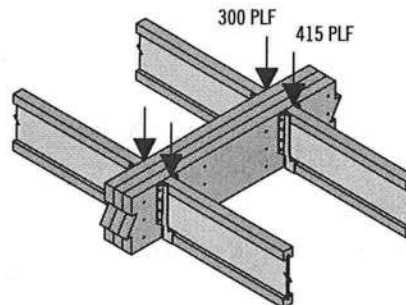
Connector Type	Number of Rows	Connector On-Center Spacing	Connector Pattern					
			Assembly A	Assembly B	Assembly C	Assembly D	Assembly E	Assembly F
			3 1/2" 2-ply	5 1/4" 3-ply	5 1/4" 2-ply	7" 3-ply	7" 2-ply	7" 4-ply
10d (0.128" x 3") Nail ⁽¹⁾	2	12"	370	280	280	245		
	3	12"	555	415	415	370		
1/2" A307 Through Bolts ⁽²⁾⁽⁴⁾	2	24"	505	380	520	465	860	340
		19.2"	635	475	655	580	1,075	425
		16"	760	570	785	695	1,290	505
SDS 1/4" x 3 1/2" ⁽⁴⁾	2	24"	680	510	510	455		
		19.2"	850	640	640	565		
		16"	1,020	765	765	680		
SDS 1/4" x 6" ⁽³⁾⁽⁴⁾	2	24"				455	465	455
		19.2"				565	580	565
		16"				680	695	680
USP WS35 ⁽⁴⁾	2	24"	480	360	360	320		
		19.2"	600	450	450	400		
		16"	715	540	540	480		
USP WS6 ⁽³⁾⁽⁴⁾	2	24"				350	525	350
		19.2"				440	660	440
		16"				525	790	525
3 1/2" TrussLok ⁽⁴⁾	2	24"	635	475	475	425		
		19.2"	795	595	595	530		
		16"	955	715	715	635		
5" TrussLok ⁽⁴⁾	2	24"		500	500	445	480	445
		19.2"		625	625	555	600	555
		16"		750	750	665	725	665
6 3/4" TrussLok ⁽⁴⁾	2	24"				445	620	445
		19.2"				555	770	555
		16"				665	925	665

- (1) Nailed connection values may be doubled for 6" on-center or tripled for 4" on-center nail spacing.
- (2) Washers required. Bolt holes to be 1/16" maximum.
- (3) 6" SDS or WS screws can be used with Parallam® PSL and Microllam® LVL, but are not recommended for TimberStrand® LSL.
- (4) 24" on-center bolted and screwed connection values may be doubled for 12" on-center spacing.

General Notes

- Connections are based on NDS® 2005 or manufacturer's code report.
- Use specific gravity of 0.5 when designing lateral connections.
- Values listed are for 100% stress level. Increase 15% for snow-loaded roof conditions or 25% for non-snow roof conditions, where code allows.
- ***Bold Italic*** cells indicate **Connector Pattern** must be installed on both sides. Stagger fasteners on opposite side of beam by 1/2 the required **Connector Spacing**.
- Verify adequacy of beam in allowable load tables on pages 16–33.
- 7" wide beams should be side-loaded only when loads are applied to both sides of the members (to minimize rotation).
- Minimum end distance for bolts and screws is 6".
- Beams wider than 7" require special consideration by the design professional.

Uniform Load Design Example



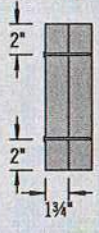


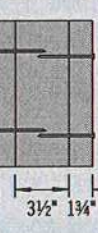

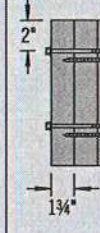
First, check the allowable load tables on pages 16–33 to verify that three pieces can carry the total load of 715 plf with proper live load deflection criteria. Maximum load applied to either outside member is 415 plf. For a 3-ply 1 3/4" assembly, two rows of 10d (0.128" x 3") nails at 12" on-center is good for only 280 plf. Therefore, use three rows of 10d (0.128" x 3") nails at 12" on-center (good for 415 plf).

Alternates:

Two rows of 1/2" bolts or SDS 1/4" x 3 1/2" screws at 19.2" on-center.

MULTIPLE-MEMBER CONNECTIONS FOR SIDE-LOADED BEAMS

Point Load—Maximum Point Load Applied to Either Outside Member (lbs)

Connector Type	Number of Connectors	Connector Pattern					
		Assembly A	Assembly B	Assembly C	Assembly D	Assembly E	Assembly F
							
		3 1/2" 2-ply	5 1/4" 3-ply	5 1/4" 2-ply	7" 3-ply	7" 2-ply	7" 4-ply
10d (0.128" x 3") Nail	6	1,110	835	835	740		
	12	2,225	1,670	1,670	1,485		
	18	3,335	2,505	2,505	2,225		
	24	4,450	3,335	3,335	2,965		
SDS Screws 1/4" x 3 1/2" or WS35 1/4" x 6" or WS6 ⁽¹⁾	4	1,915	1,435 ⁽⁴⁾	1,435	1,275	1,860 ⁽²⁾	1,405 ⁽²⁾
	6	2,870	2,150 ⁽⁴⁾	2,150	1,915	2,785 ⁽²⁾	2,110 ⁽²⁾
	8	3,825	2,870 ⁽⁴⁾	2,870	2,550	3,715 ⁽²⁾	2,810 ⁽²⁾
3 3/8" or 5" TrussLok™	4	2,545	1,910 ⁽⁴⁾	1,910	1,695	1,925 ⁽²⁾	1,775 ⁽³⁾
	6	3,815	2,860 ⁽⁴⁾	2,860	2,545	2,890 ⁽²⁾	2,665 ⁽³⁾
	8	5,090	3,815 ⁽⁴⁾	3,815	3,390	3,855 ⁽²⁾	3,550 ⁽³⁾

(1) 6" SDS or WS screws can be used with Parallam® PSL and Microllam® LVL, but are not recommended for TimberStrand® LSL.

See General Notes on page 38

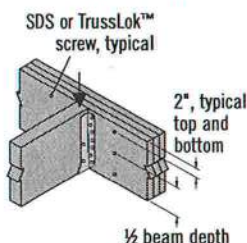
(2) 6" long screws required.

(3) 5" long screws required.

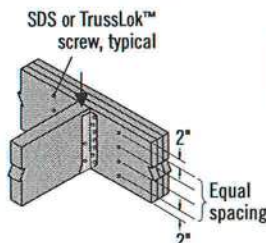
(4) 3 1/2" and 3 3/8" long screws must be installed on both sides.

Connections

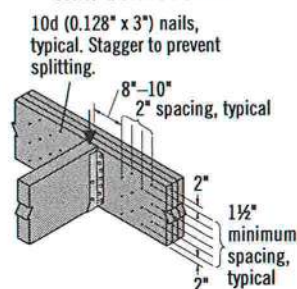
4 or 6 or Screw Connection



8 Screw Connection

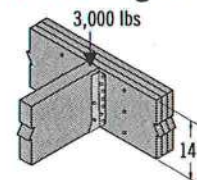


Nail Connection



There must be an equal number of nails on each side of the connection

Point Load Design Example



First, verify that a 3-ply 1 3/4" x 14" beam is capable of supporting the 3,000 lb point load as well as all other loads applied. The 3,000 lb point load is being transferred to the beam with a face mount hanger. For a 3-ply 1 3/4" assembly, eight 3 3/8" TrussLok™ screws are good for 3,815 lbs with a face mount hanger.

MULTIPLE-MEMBER CONNECTIONS FOR TOP-LOADED BEAMS

1 3/4" Wide Pieces

- Minimum of three rows of 10d (0.128" x 3") nails at 12" on-center.
- Minimum of four rows of 10d (0.128" x 3") nails at 12" on-center for 14" or deeper.
- If using 12d–16d (0.148"–0.162" diameter) nails, the number of nailing rows may be reduced by one.
- Minimum of two rows of SDS, WS, or TrussLok™ screws at 16" on-center. Use 3 3/8" minimum length with two or three plies; 5" minimum for 4-ply members. 6" SDS and WS screws are not recommended for use with TimberStrand® LSL. For 3- or 4-ply members, connectors must be installed

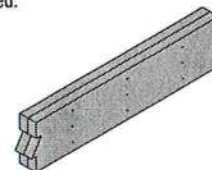
on both sides. Stagger fasteners on opposite side of beam by 1/2 of the required connector spacing.

- Load must be applied evenly across entire beam width. Otherwise, use connections for side-loaded beams.

3 1/2" Wide Pieces

- Minimum of two rows of SDS, WS, or TrussLok™ screws, 5" minimum length, at 16" on-center. 6" SDS and WS screws are not recommended for use with TimberStrand® LSL. Connectors must be installed on both sides. Stagger fasteners on opposite side of beam by 1/2 of the required connector spacing.

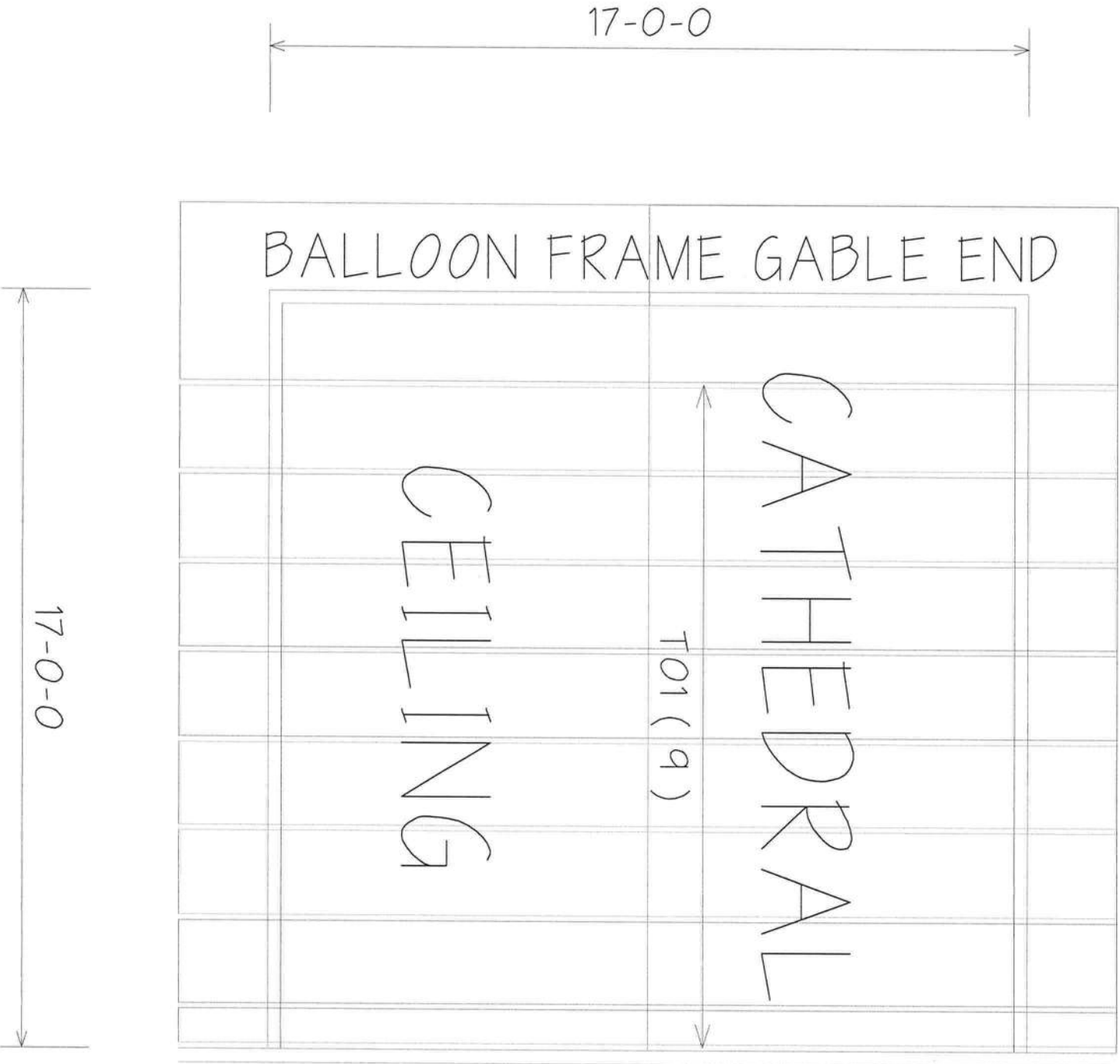
- Load must be applied evenly across entire beam width. Otherwise, use connections for side-loaded beams.
- Minimum of two rows of 1/2" bolts at 24" on-center staggered.



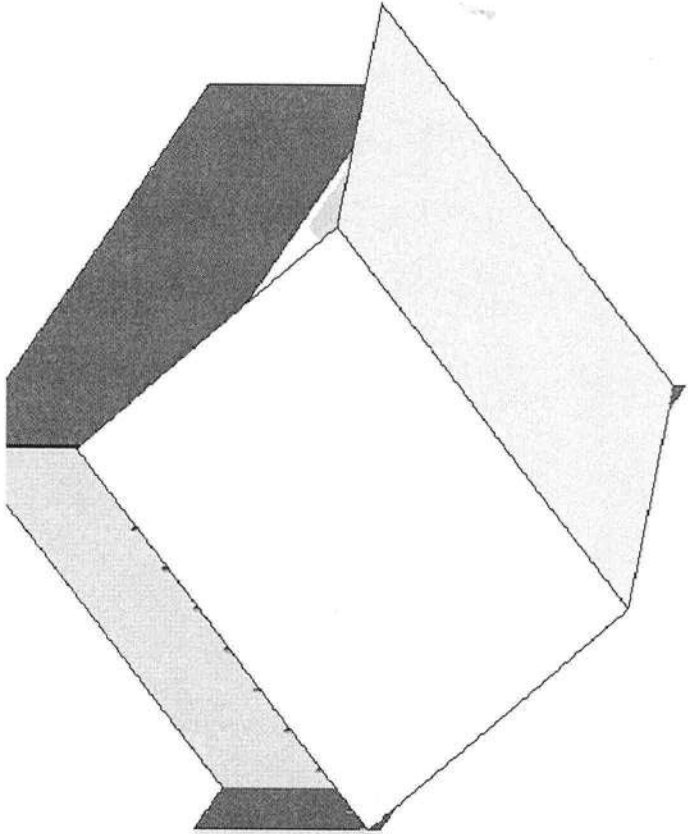
Multiple pieces can be nailed or bolted together to form a header or beam of the required size, up to a maximum width of 7"

L6

17-0-0



6/12 ROOF PITCH
3/12 CLG. PITCH
24" O/H



BEARING HEIGHT SCHEDULE

9'-0"

NOTES:

- 1) REFER TO HB 91 RECOMMENDATIONS FOR HANDING INSTALLATION AND TEMPORARY BRACING. REFER TO ENGINEERED DRAWINGS FOR PERMANENT BRACING REQUIRED.
- 2) ALL TRUSSES (INCLUDING TRUSSES UNDER VALLEY FRAMING) MUST BE COMPLETELY DECKED OR REFER TO DETAIL V03 FOR ALTERNATE BRACING REQUIREMENTS.
- 3) ALL VALLEYS ARE TO BE CONVENTIONALLY FRAMED BY BUILDER.
- 4) ALL TRUSSES ARE DESIGNED FOR 2' O.C. MAXIMUM SPACING, UNLESS OTHERWISE NOTED.
- 5) ALL WALLS SHOWN ON PLACEMENT PLAN ARE CONSIDERED TO BE LOAD BEARING, UNLESS OTHERWISE NOTED.
- 6) 5X12 TRUSSES MUST BE INSTALLED WITH THE TOP BEING UP.
- 7) ALL ROOF TRUSS HANGERS TO BE SHIMSON UNLESS OTHERWISE NOTED. ALL FLOOR TRUSS HANGERS TO BE SHIMSON UNLESS OTHERWISE NOTED.
- 8) BEAMHEADS/ENDITEL (PER) TO BE FINISHED BY BUILDER.

SHOP DRAWING APPROVAL

THIS LAYOUT IS THE SOLE SOURCE FOR FABRICATION OF TRUSSES AND JOISTS. ALL PREVIOUS ARCHITECTURAL OR OTHER TRUSS LAYOUTS, REVISIONS AND APPROVAL OF THIS LAYOUT MUST BE RECEIVED BEFORE ANY TRUSSES WILL BE BUILT. VERIFY ALL CONDITIONS TO INSURE AGAINST CHANGES THAT WILL RESULT IN EXTRA CHARGES TO YOU.

Request Plans by Date _____

Approved by _____ Date _____



Bumell
PHONE: 904-437-3344 FAX: 904-437-3444
Jacksonville
PHONE: 904-772-6100 FAX: 904-772-1973
Lake City
PHONE: 386-755-6894 FAX: 386-755-7973
Sanford
PHONE: 407-322-0099 FAX: 407-322-9993

CONNIE STUART

DATE:	REVISION:
ADDITION	NTS
FILE:	301354
CUSTOM:	K.L.H.

