Bracing

BRCALHIP0699	California Hip Permanent Bracing Detail
BRCLBANC0699	Anchorage or Restraint of Lateral Bracing
BRCLBSUB0699	CLB Web Brace Substitution

CLB WEB BRACE SUBSTITUTION

THIS DETAIL IS TO BE USED WHEN CONTINUOUS LATERAL BRACING (CLB) IS SPECIFIED ON AN ALPINE 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	ALTERNATIVE BRACING T OR L-BRACE	ALTERNATIVE BRACING SCAB BRACE
2X3 OR 2X4	1 ROW	2X4	1-2X4
2X3 OR 2X4	2 ROWS	2X6	2-2X4
2X6	1 ROW	2X4	1-2X6
2X6	2 ROWS	2X6	2-2X4(*)
2X8	1 ROW	2X6	1-2X8
2X8	2 ROWS	2X6	2-2X6(*)

T-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.

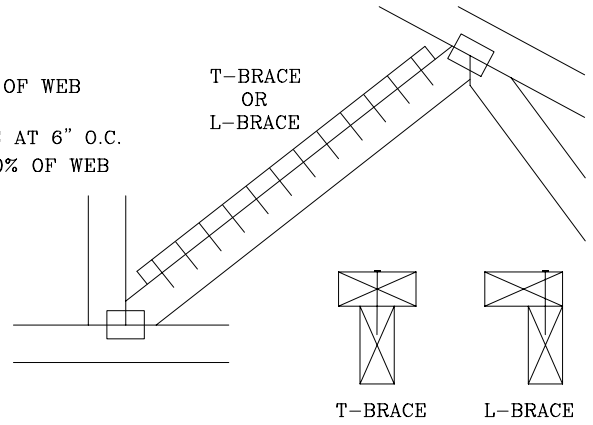
(*) CENTER SCAB ON WIDE FACE OF WEB. APPLY (1) SCAB TO EACH FACE OF WEB.

T-BRACING OR L-BRACING:

APPLY TO EITHER SIDE OF WEB NARROW FACE

ATTACH WITH 16d NAILS AT 6" O.C.

BRACE IS A MINIMUM 80% OF WEB MEMBER LENGTH



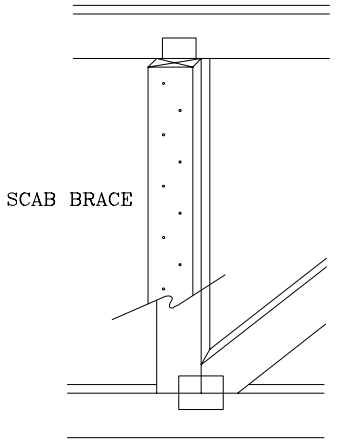
SCAB BRACING:

APPLY SCAB(S) TO WIDE FACE OF WEB.

NO MORE THAN (1) SCAB PER FACE.

ATTACH WITH 10d NAILS AT 6" O.C.

BRACE IS A MINIMUM 80% OF WEB MEMBER LENGTH



THIS DRAWING REPLACES DRAWING 579,640

ALPINE

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO HIB-91 (HANDLING INSTALLING AND BRACING), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR., SUITE 200, 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 RIGID CEILING. **IMPORTANT** FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. ALPINE ENGINEERED PRODUCTS, INC. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN; ANY FAILURE TO BUILD THE TRUSSES IN CONFORMANCE WITH TPI; OR FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING OF TRUSSES. DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPECIFICATION PUBLISHED BY THE AMERICAN FOREST AND PAPER ASSOCIATION) AND TPI. ALPINE CONNECTORS ARE MADE OF 20GA ASTM A653 GR40 GALV. STEEL EXCEPT AS NOTED. APPLY CONNECTORS TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION CONNECTORS PER DRAWINGS 160 A-Z. THE SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT DESIGN SHOWN. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY PARTICULAR BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER, PER ANSI/TPI 1-1995 SECTION 2.

TC LL	PSF	REF CLB SUBST.
TC DL	PSF	DATE 06/25/99
BC DL	PSF	DRWG BRCLBSUB0699
BC LL	PSF	-ENG MLH/KAR
TOT.L.D.	PSF	
DUR.FAC.		
SPACING		

ANCHORAGE AND RESTRAINT OF LATERAL BRACING

THIS IS A DANGEROUS CONDITION

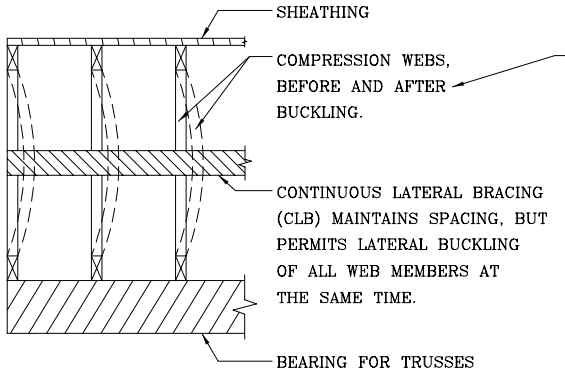


FIG. 1

TO PREVENT THIS FAILURE, ANCHOR OR RESTRAIN THE LATERAL BRACING!

USE METHOD SHOWN IN FIG. 2, 3A & 3B, OR ANOTHER STRUCTURALLY SOUND METHOD SPECIFIED BY PROFESSIONAL ENGINEER OR ARCHITECT.

THE DRAWING BELOW (FIG. 3B) SHOWS HOW TO RESTRAIN THE CONTINUOUS LATERAL BRACING (CLB – ▨). WHEN ANCHORAGE IS NOT AVAILABLE AS SHOWN IN FIG. 2 THE DIAGONAL BRACE RESTRAINT (DBR – ▨) MEMBERS ARE 2X4'S, THE ENDS OF WHICH ARE ATTACHED TO TOP & BOTTOM CHORDS. THE DIAGONAL BRACE MAY BE ATTACHED DIRECTLY TO THE CLB OR TO THE WEB OPPOSITE THE CLB. USE THE SAME NAILING SHOWN IN FIG. 3A.

FIG. 3B

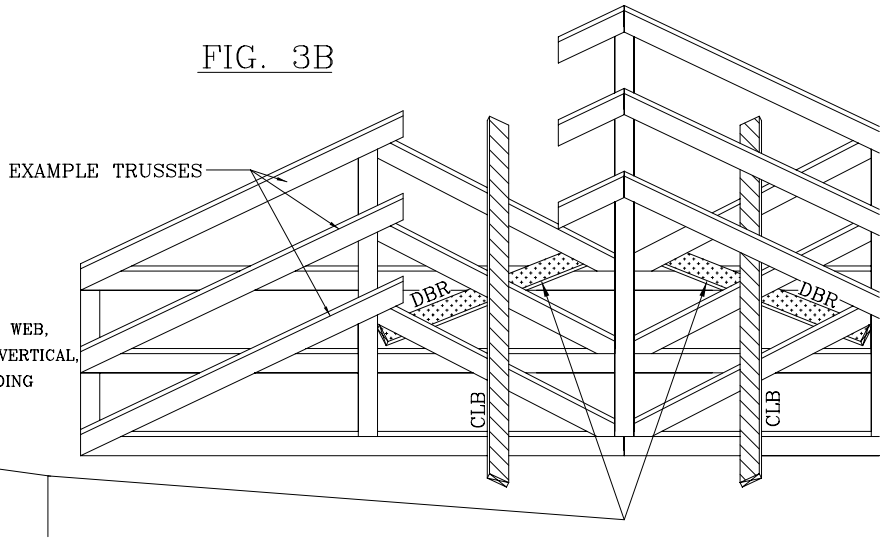


FIG. 2

ANCHORAGE BY BUILDING DESIGNER (OTHER ANCHORAGE PROVISIONS FOR OTHER TYPES OF WALLS).

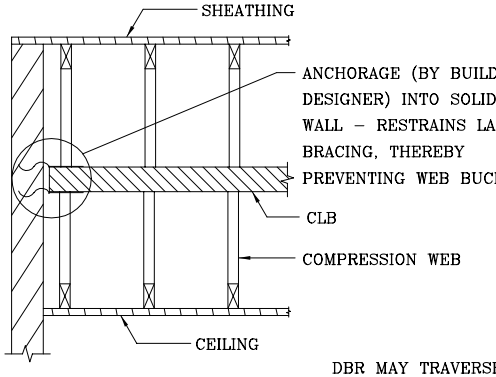
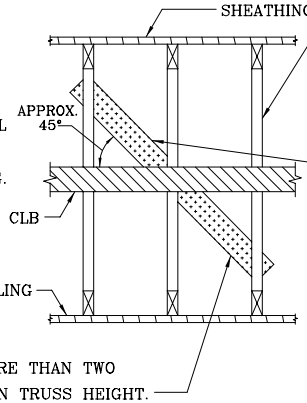


FIG. 3A

DIAGONAL BRACE RESTRAINT (DBR) WITHIN THE UNIT (3A & 3B)



DBR MAY TRAVERSE MORE THAN TWO TRUSSES, DEPENDING ON TRUSS HEIGHT.

2X4 #3 OR STUD GRADE DBR NAILED TO OPPOSITE SIDE OF WEB AND REPEATED AT APPROXIMATELY 20 FOOT INTERVALS TO RESIST LATERAL MOVEMENT. ATTACH TO WEBS WITH (2) 16d (0.162"X3.5") COMMON NAILS.

THIS DRAWING REPLACES DRAWING 137

ALPINE

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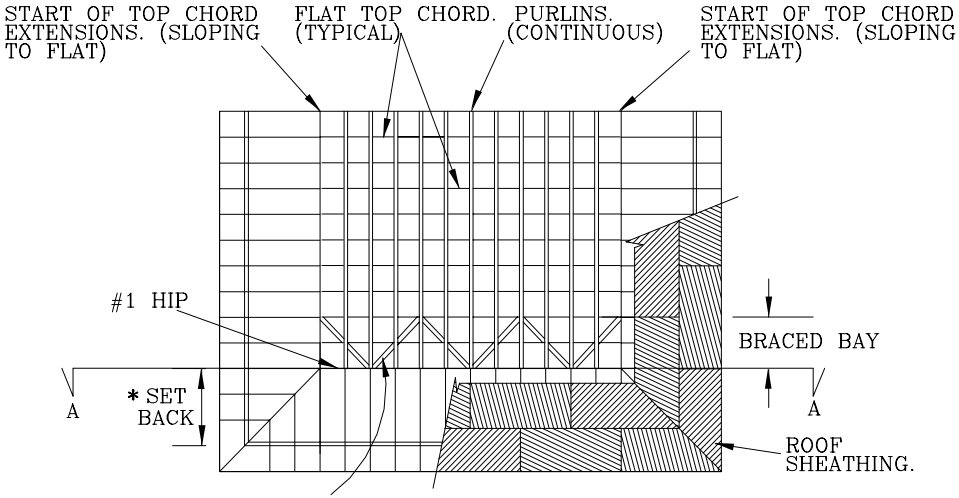
REF	BRACE RESTRAINT
DATE	06/25/99
DRWG	BRCLBANC0699
-ENG	KGF/KAR

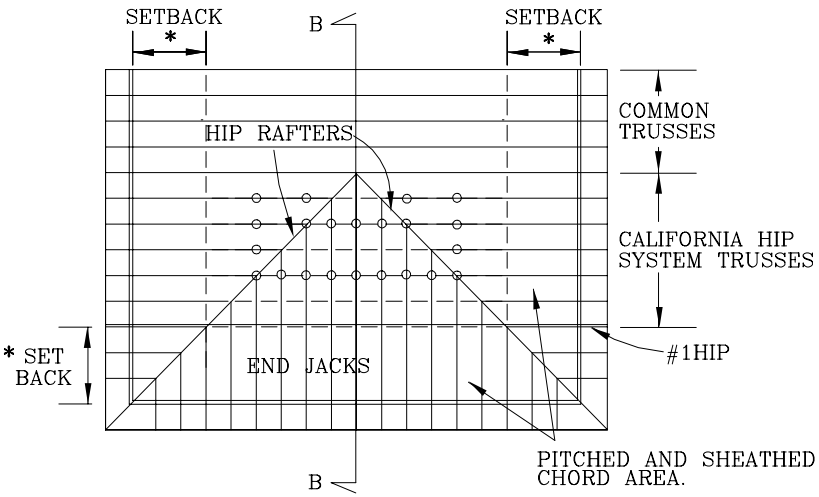
CALIFORNIA HIP PERMANENT BRACING DETAIL

PERMANENT BRACING



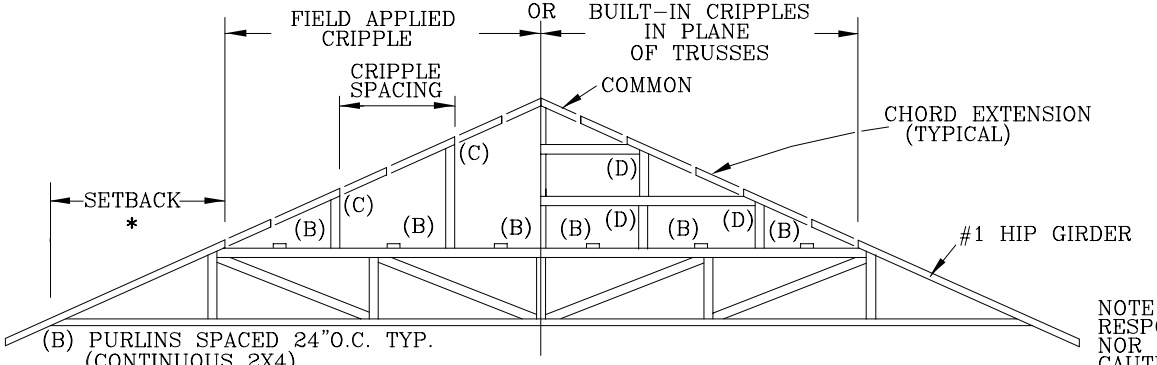
PERMANENT DIAGONALS FORM BRACED BAY. REPEAT AT ALL HIP ENDS, MAXIMUM INTERVAL EQUALS 20'. (NOTE: THE 1ST BAY OF PERMANENT DIAGONALS FORMING BRACED BAY AT THE #1 HIP CAN BE EXCLUDED WHEN ALL OF THE FOLLOWING CONDITIONS ARE MET: 1) THE CONTINUOUS TOP CHORD PURLINS ARE ATTACHED TO THE FLAT TOP CHORD OF THE #1 HIP. 2) THE END JACKS ARE SHEATHED WITH PROPERLY ATTACHED STRUCTURAL PANELS.)

CRIPPLE SUPPORT LAYOUT



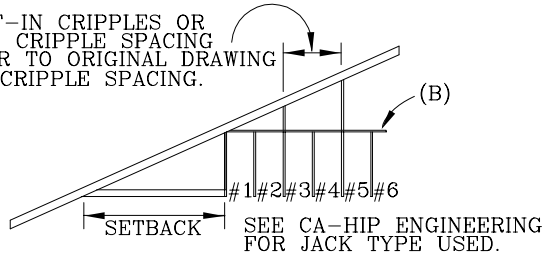
○ –CRIPPLE (C), SUPPORT LOCATIONS. SUPPORTS EXTENDED MEMBERS TO FLAT TOP CHORD (4' O.C. CRIPPLE SPACING SHOWN.) CONNECT CRIPPLE TO FLAT TOP CHORD AND EXTENDED TOP CHORD, USING 3 – 8d COMMON TOE NAILS OR 2 – 10d COMMON NAILS THROUGH FACE.

SECTION A–A



(B) PURLINS SPACED 24"O.C. TYP. (CONTINUOUS 2X4)
(C) CRIPPLES SPACED 48" O.C. TYP.
(D) BUILT–IN FILL CRIPPLES (HORIZONTAL MEMBER OPTIONAL)

SECTION B–B



NOTE: CONVENTIONAL FRAMING AND/OR CRIPPLES ARE NOT THE RESPONSIBILITY OF THE TRUSS DESIGNER, PLATE MANUFACTURER, NOR TRUSS FABRICATOR. PERSONS ERECTING THE TRUSSES ARE CAUTIONED TO SEEK ADVICE OF A LOCAL PROFESSIONAL ENGINEER REGARDING CONVENTIONAL FRAMING.

*NOTE: SEE ORIGINAL DESIGN FOR SETBACK, LUMBER, PLATING, LOADING AND DURATION FACTOR REQUIRED.

THIS DRAWING REPLACES DRAWING CD110

ALPINE

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TC LL		PSF
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TOT.L.D.	*	PSF
DUR.FAC.	*	
SPACING	*	

REF	CALIF. BRACE
DATE	06/25/99
DRWG	BRCALHIP0699
	-ENG