

*** TRUSS MANUFACTURER MUST BE INFORMED***
THERE IS A 3500# AXIAL FORCE (SNOW)
IN THE KNEE BRACE
A VT PE STAMPED TRUSS DESIGN, SHOWING THIS LOAD
SHALL BE SUBMITTED TO VT NRCS PRIOR TO THE
START OF CONSTRUCTION

DESIGN ASSUMPTIONS

GROUND SNOW LOAD:	60 PSF
EXPOSURE CATEGORY	1.0
THERMAL FACTOR:	1.2
IMPORTANCE FACTOR:	0.8
SLOPE FACTOR:	1.0
TERRAIN CATEGORY	"B" (WOODED TERRAIN, OR OBSTRUCTIONS)
ROOF EXPOSURE:	PARTIALLY EXPOSED
BASIC WIND SPEED:	90 MPH
BUILDING TYPE:	ENCLOSED
IMPORTANCE FACTOR:	0.87
EXPOSURE CATEGORY:	1.0
GUST FACTOR:	0.85
EXPOSURE COEF. K_z :	1.0 (NO ESCARPMENT, 20' RIDGE OR 30' HILL)
TOPOGRAPHIC FACTOR, K_{zt} :	0.85
DIRECTIONALITY FACTOR, K_d :	0.85
ROOF DEAD LOAD:	5 PSF
ROOF LIVE LOAD:	20 PSF
BEDEDDED PACK MANURE:	40 PCF "AT REST" EPP (MAX. 48" HIGH)
MIN. REQUIRED SOIL BEARING:	3000 PSF (SILTY SAND SOILS)
MIN. LATERAL SOIL PRESSURE	200 PSF (SILTY SAND SOILS)

NOTES

- ALL CONNECTIONS SHALL BE AS SHOWN. IF SPLITTING OCCURS WITH NAILS THEN PREBORE HOLES UP TO 75% OF THE NAIL DIAMETER.
- ALL BOLT HOLES SHALL BE A MAXIMUM 1/8" LARGER THAN THE BOLT DIAMETER, ACCURATELY PLACED AND CUT CLEANLY WITH A SHARP BIT. STANDARD CUT WASHERS SHALL BE USED ON BOTH ENDS OF THE BOLT.
- WOOD TRUSSES SHALL BE HANDLED AND INSTALLED ACCORDING TO BCSP 2008, "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES", WTCA & TPI

ALL PRESSURE TREATED POSTS SHALL BE TREATED WITH A MIN. OF 0.60 PCF OF CCA OR 0.13 PCF OF CUN (COPPER NAPHTHENATE) MEETING AMPA U1 STANDARD FOR USE CATEGORY UC4C. OTHER PRESERVATIVES MEETING AMPA STANDARD U1, USE CATEGORY UC4C ARE ACCEPTABLE.

ALL PRESSURE TREATED LUMBER, NOT IN DIRECT GROUND CONTACT, SHALL BE TREATED WITH A MIN. OF 0.40 PCF OF CCA OR 0.06 PCF OF CUN (COPPER NAPHTHENATE) MEETING AMPA U1 STANDARD FOR USE CATEGORY UC4A. OTHER PRESERVATIVES MEETING AMPA STANDARD U1, USE CATEGORY UC4A ARE ACCEPTABLE.

MEMBER LIST

DESCRIPTION	TREATMENT	MEMBER	LENGTH	QTY	TOTAL LENGTH	SPECIES AND GRADE
MAIN OUTER POSTS	PT	8x10	17'-8"	18	318'	SOUTHERN YELLOW PINE (SYP) #1 OR BETTER
SIDE POSTS	PT	8x10	7'	7	63'	SOUTHERN YELLOW PINE (SYP) #1 OR BETTER
GIRDER BLOCK	KD	4-2x10	16'	32	512'	SPRUCE PINE FIR (SPF) #2 OR BETTER
KNEE BRACE	PT	2x8	~1'	36	36'	SOUTHERN YELLOW PINE (SYP) #1 OR BETTER
KNEE/WYE BRACE BLOCK	PT	2-2x6	6'-10"	18	246'	SOUTHERN YELLOW PINE (SYP) #2 OR BETTER
WYE BRACE	PT	2x10	1'-6"	36	54'	SOUTHERN YELLOW PINE (SYP) #1 OR BETTER
WYE BRACE DBL. BRACKET	STEEL	2-2x10	4'	32	266'	SOUTHERN YELLOW PINE (SYP) #2 OR BETTER
WYE BRACE SINGLE BRACKET	STEEL	-	-	28	-	1/2" ASTM A653 OR A1011 GRADE 33, A153 CLASS B GALV. 2'-0" SPACING
COMMON ROOF TRUSS	-	-	-	8	-	1/2" ASTM A653 OR A1011 GRADE 33, A153 CLASS B GALV.
CABLE ROOF TRUSS	-	-	-	31	-	2'-0" SPACING
TOP CHORD DIA. BRACE	KD	2x4	16'	96	1536'	SPRUCE PINE FIR (SPF) #1 OR BETTER
BOT. CHORD LAT. BRACE	KD	2x4	~10'	24	240'	SPRUCE PINE FIR (SPF) #1 OR BETTER
BOT. CHORD DIA. BRACE	KD	2x4	16'	12	192'	SPRUCE PINE FIR (SPF) #1 OR BETTER
SWAY BRACE	KD	2x4	~11'	12	156'	SPRUCE PINE FIR (SPF) #1 OR BETTER
WEB LATERAL BRACE (EST.)	KD	2x4	16'	12	192'	SPRUCE PINE FIR (SPF) #1 OR BETTER
ROOFING	PT	-	-	72	2944 SF	-
SIDE WALL PLANK	PT	3x8 MIN	16'	72	1152'	SOUTHERN YELLOW PINE (SYP) #1 OR BETTER

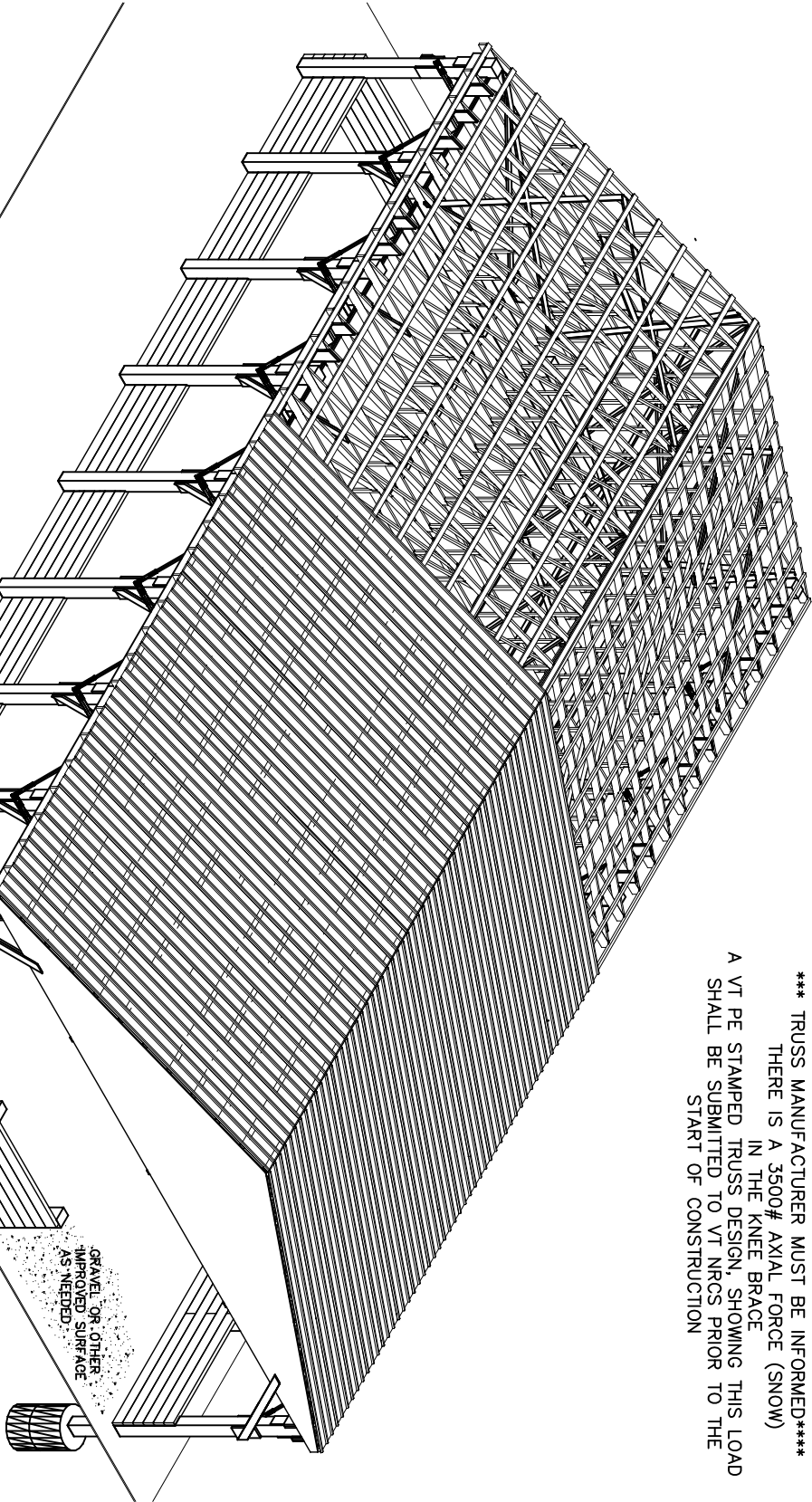
ESTIMATED CONCRETE QUANTITIES

DESCRIPTION	CONCRETE QTY PER POST	NUMBER	TOTAL QUANTITY
CONCRETE FOOTING	0.28 CY	25	7 CY
CONCRETE COLLAR	0.32 CY	25	8 CY

OPTIONAL MAIN POST SIZES

TIMBERS.			TIMBERS.		
SPECIES	COMMERCIAL GRADE	ACTUAL DIMENSION	SPECIES	COMMERCIAL GRADE	ACTUAL DIMENSION
SOUTHERN PINE	SELECT STRUCTURAL	6" x 10" FULL SIZE	SOUTHERN PINE	#1 DENSE	6" x 10" FULL SIZE
SOUTHERN PINE	#1 DENSE	8" x 8" FULL SIZE	SOUTHERN PINE	SELECT STRUCTURAL	6" x 12"
GLULAMS.			GLULAMS.		
SPECIES	COMMERCIAL GRADE	ACTUAL DIMENSION	SPECIES	COMMERCIAL GRADE	ACTUAL DIMENSION
SOUTHERN PINE	24F-V5 SP/SP	5 1/2" x 8 1/2"	SOUTHERN PINE	#1 DENSE	5 1/2" x 9 1/2"
SOUTHERN PINE	20F-V5 SP/SP	5 1/2" x 9 1/2"	SOUTHERN PINE	20F-V5 SP/SP	5 1/2" x 9 1/2"
SOUTHERN PINE	20F-V4 SP/SP	6 1/2" x 8 1/2"	SOUTHERN PINE	20F-V4 SP/SP	6 1/2" x 8 1/2"

OPTIONAL SIDE POST SIZES



ISOMETRIC VIEW
NOT TO SCALE

CONSTRUCTION INSPECTION
ITEMS FOR THIS DESIGN ARE
CONTAINED IN "GUIDE FOR
DESIGN AND CONSTRUCTION OF
CONSERVATION PRACTICES"

FASTENERS

FASTENERS	- BOLTS, LAGS	$f_u=45,000$ PSI MIN. (ANSI/ASME B18.2.1) ASTM A307 GRADE A OR SAE J429 GRADE 1
- RING SHANKED NAILS	$f_u=115,000$ PSI MIN. ASTM F1667-05 FOR ENGINEERED CONSTRUCTION	
-COMMON NAILS	$f_u=90,000$ PSI MIN. ASTM F1667-05 FOR ENGINEERED CONSTRUCTION	

ALL NAILS SHALL BE HOT DIP GALVANIZED - MEETING ASTM A153-09 CLASS D
ALL BOLTS, LAGS, NUTS & WASHERS - MEETING ASTM A153-09 CLASS C
(OR ASTM F2329-05)

ESTIMATED FASTENER QUANTITIES

DESCRIPTION	LENGTH	TREATMENT	TOTAL QTY
1) 0.135"Ø (10 ga.) RING SHANKED NAIL	3" MIN.	HOT DIP GALV.	5800
2) 0.177"Ø (7 ga.) RING SHANKED NAIL	3 1/2" MIN.	HOT DIP GALV.	1400
3) 0.177"Ø (7 ga.) RING SHANKED NAIL OR STRUCTURAL SCREW	2" MIN.	HOT DIP GALV.	950
4) 1/2" x 18" HEX BOLT, TWO WASHER & NUT	18"	HOT DIP GALV.	36
5) 1/2" x 14" HEX BOLT, TWO WASHER & NUT	16"	HOT DIP GALV.	36
6) 1/2" x 4" HEX BOLT, TWO WASHER & NUT	4"	HOT DIP GALV.	36
7) 1/8" x 7" LAG SCREW & ONE WASHER	7"	HOT DIP GALV.	36



HAZARD CLASS
LOW

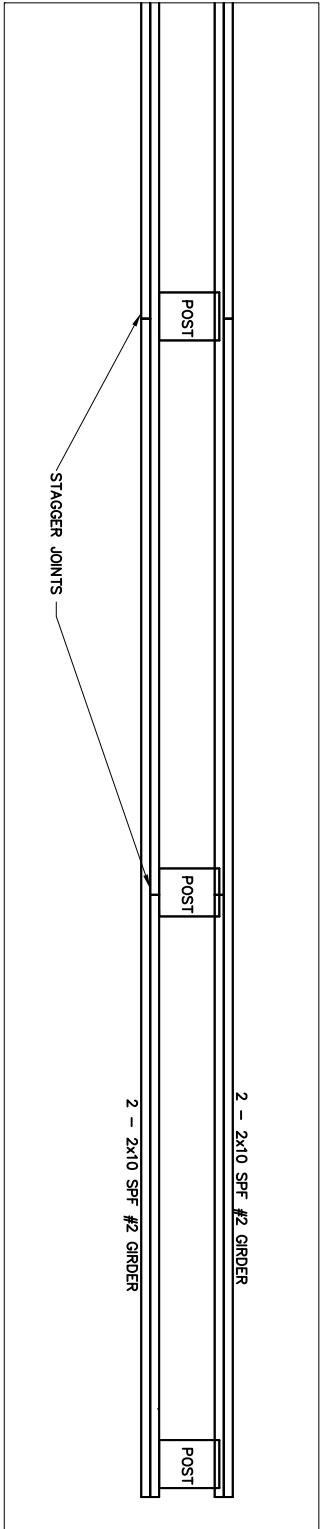
JOB CLASS
V

VERMONT

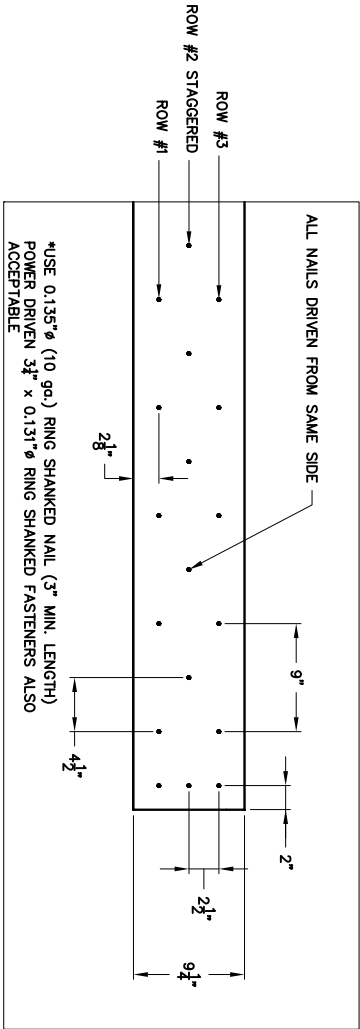
12' EVE HEIGHT
40' ROOF STRUCTURE
ISOMETRIC VIEW

Designed	TATE JEFFREY	Date	7/10
Drawn	TATE JEFFREY		7/10
Details Check	LES WRIGHT		8-3-10
Structural Check	LAWRENCE FRAGOMELI		4-7-11
Approved by	TATE JEFFREY		7-5-11

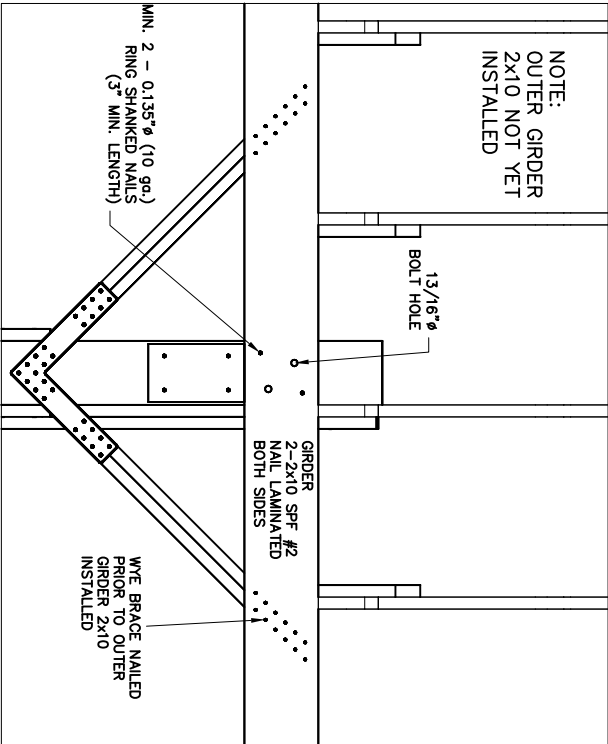
NO.	DATE	DESCRIPTION	BY
1	9-08-09	INITIAL DESIGN	TKJ
2	3-19-10	DRAFT DESIGN	TKJ
3	7-28-10	MODIFIED DRAWING FOR 12' EVE	TKJ
4	8-4-10	POSTS, FASTENERS, CORRECT.	TKJ
5	8-5-10	POST OPTION, CONC. QUANTITY	TKJ
6	12-7-10	BEDDED PACK & OTHER LOADS	TKJ
7	1-7-11	KNEE BRACE, BRACKET GALV.	TKJ
8	1-31-11	KNEE BRACE DIMENSION	TKJ
9	4-7-11	REVIEW FORT WORTH NDCSMC	TKJ
10	7-5-11	PE STAMPED TRUSS STATEMENT	TKJ
11	8-2-11	ASTM A1011 STEEL ADDED	TKJ



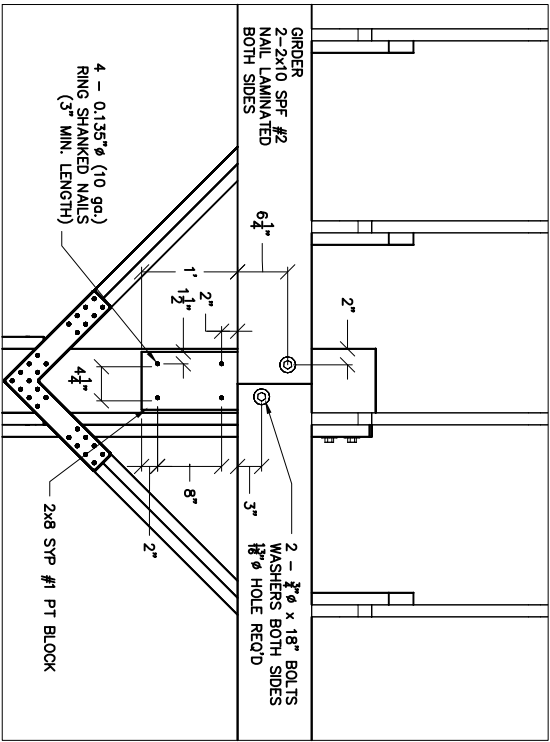
GIRDER LAYOUT DETAIL—TOP VIEW
NTS



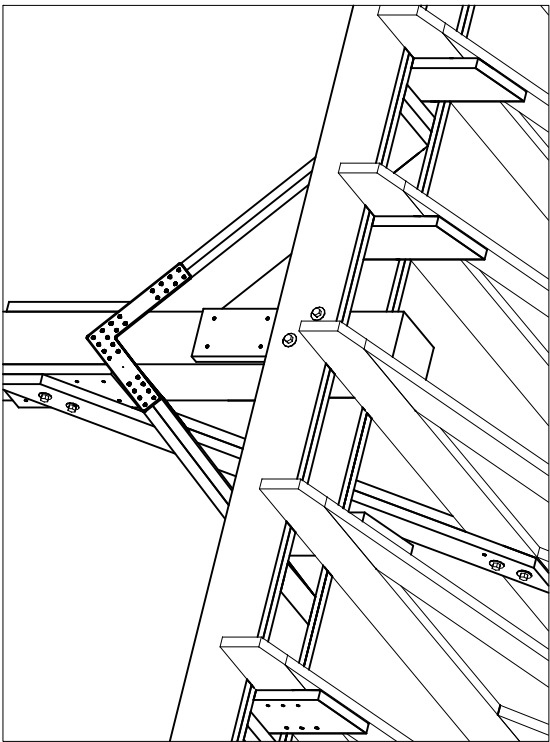
GIRDER NAIL LAMINATION
SCALE 3/8" = 1'-0"



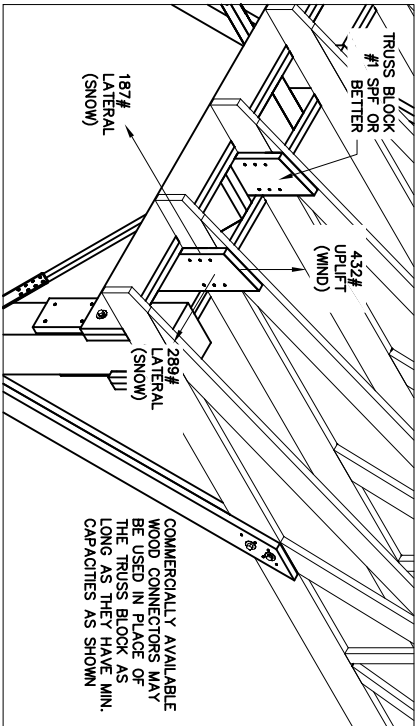
GIRDER CONNECTION
SCALE 1/2" = 1'-0"



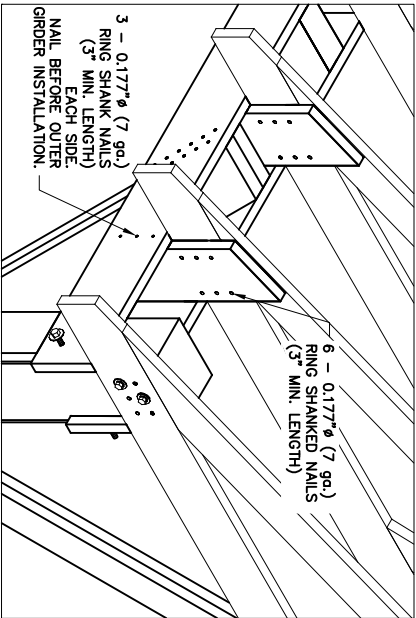
GIRDER CONNECTION
SCALE 1/2" = 1'-0"



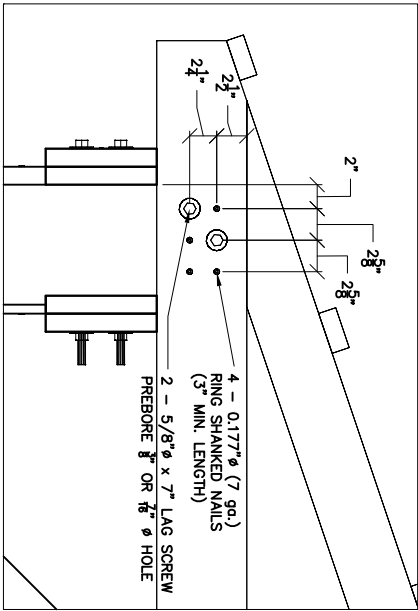
GIRDER CONNECTION
NTS



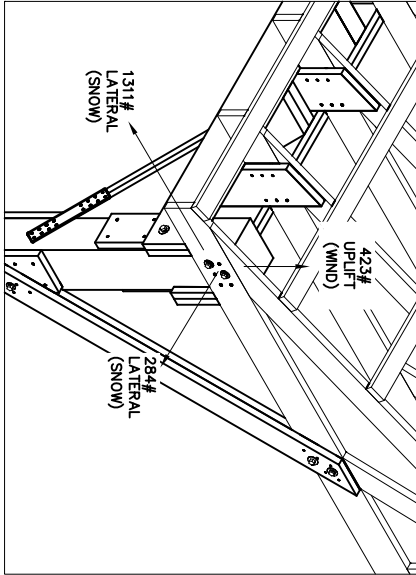
TRUSS CONNECTION
MINIMUM CAPACITIES SHOWN



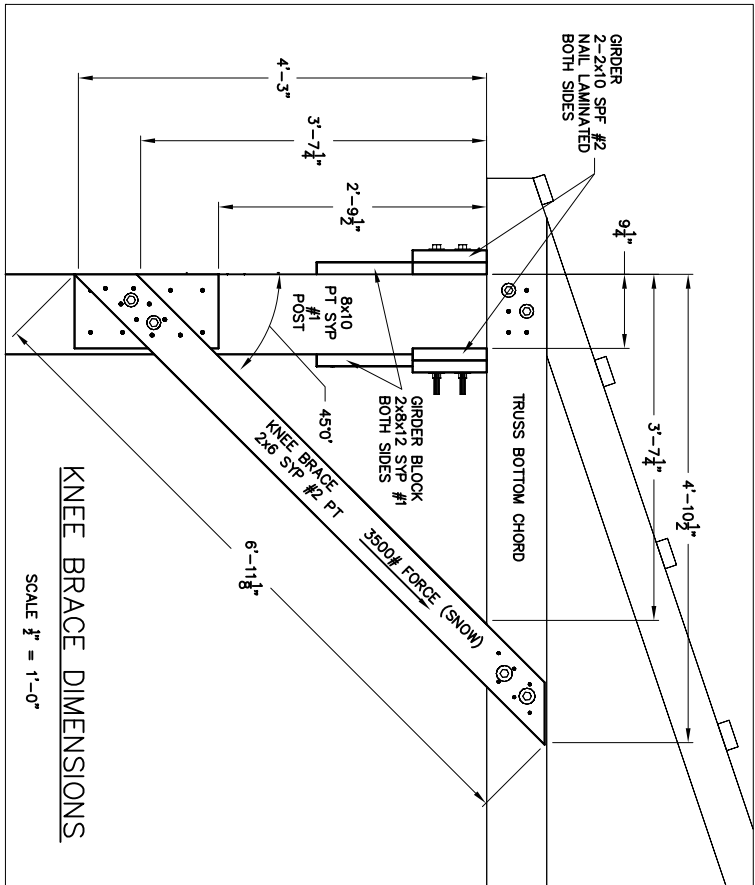
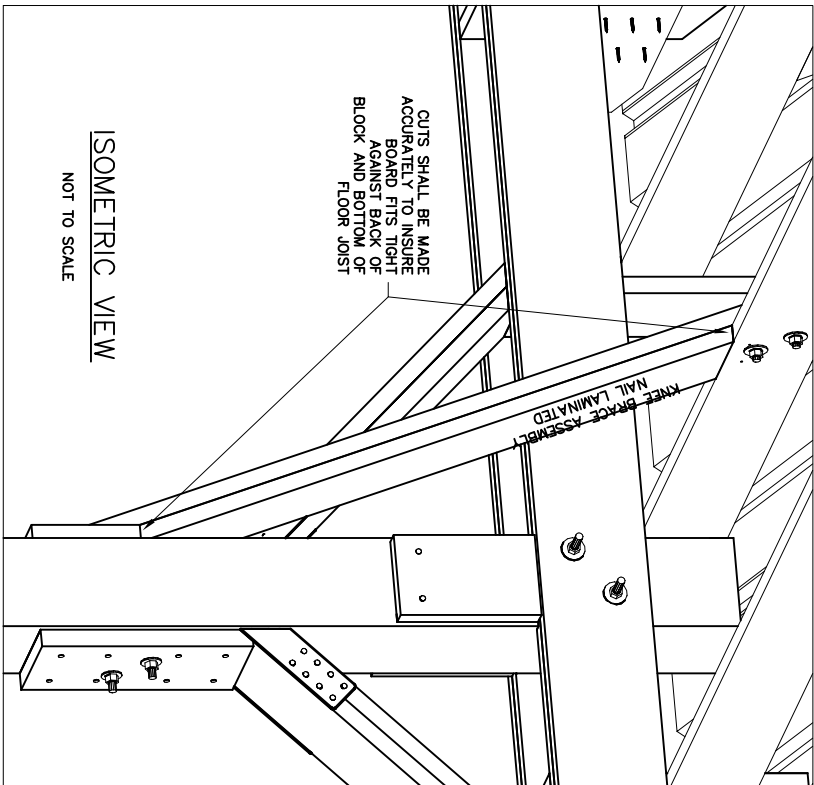
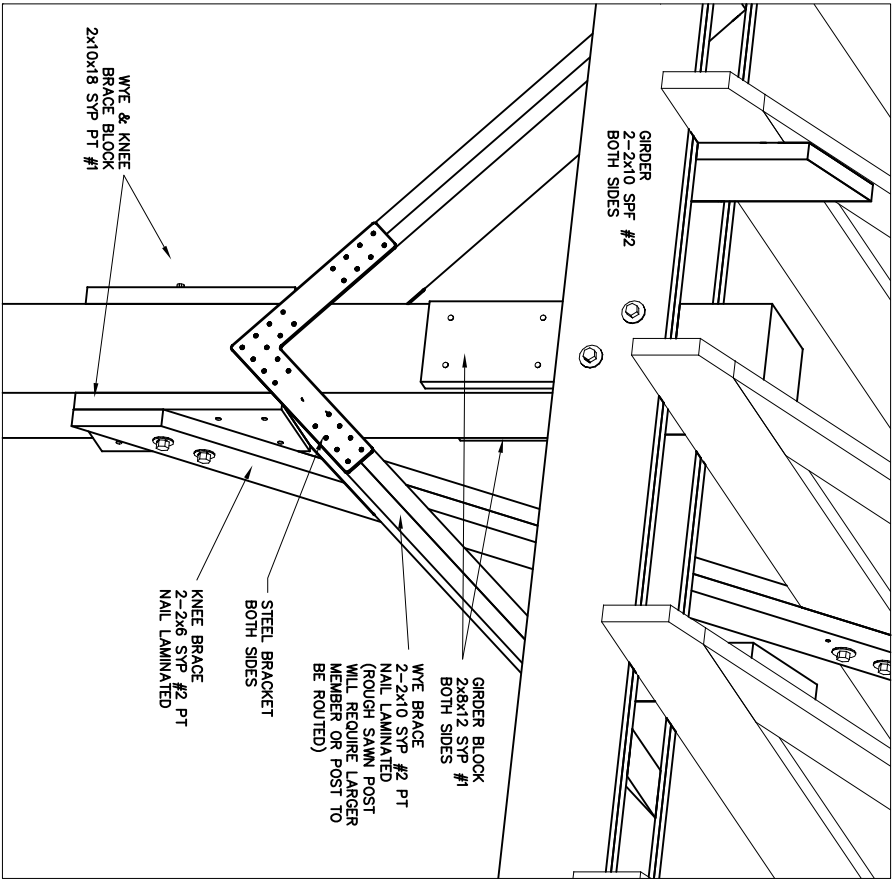
TRUSS CONNECTION
NTS



TRUSS CONNECTION @ POST
SCALE 3/8" = 1'-0"



TRUSS CONNECTION @ POST
MINIMUM CAPACITIES SHOWN

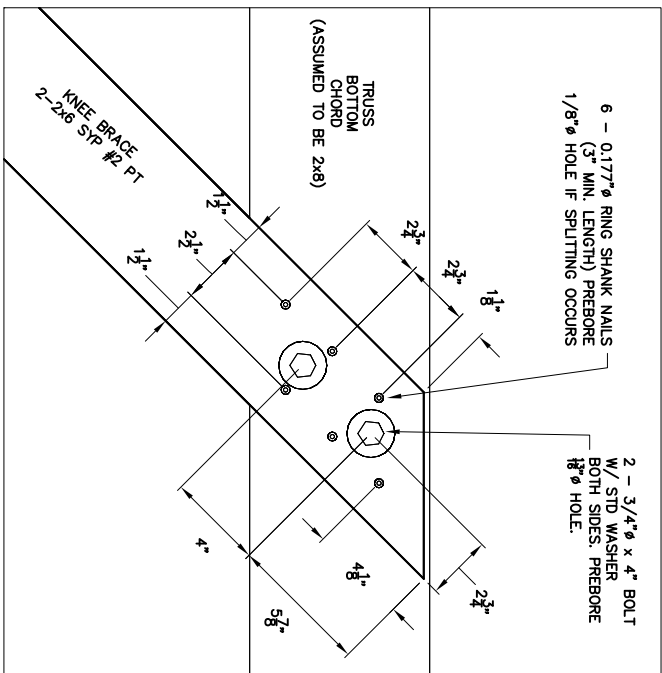
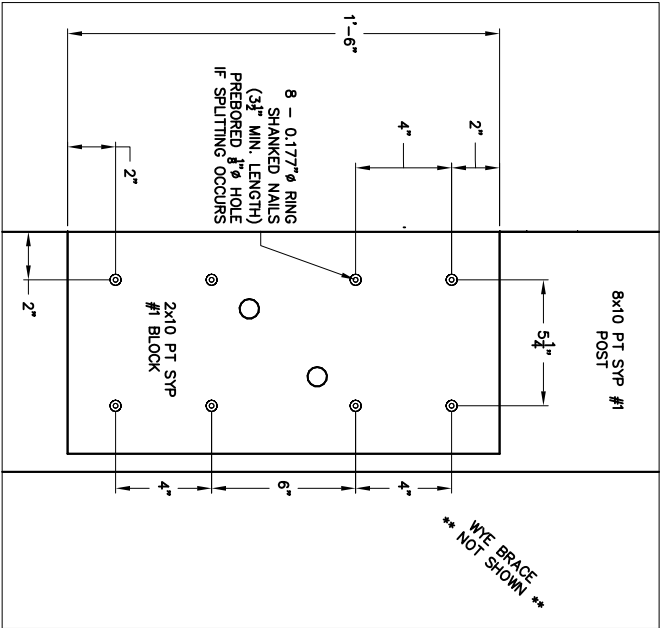
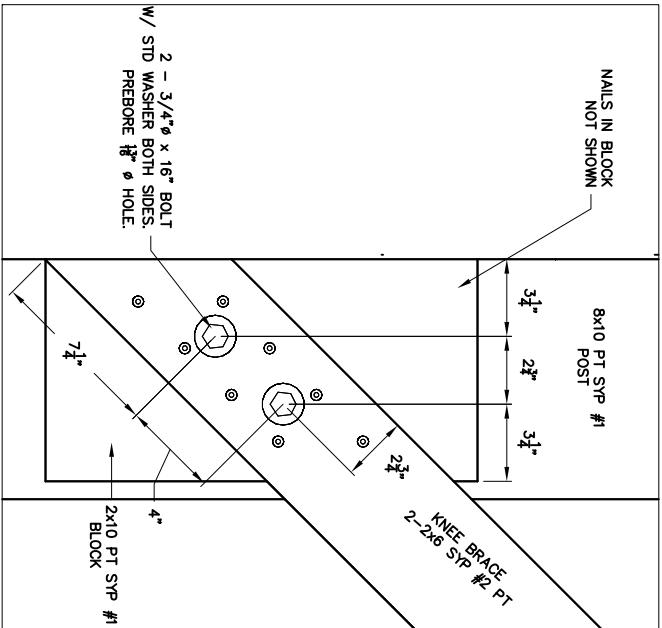
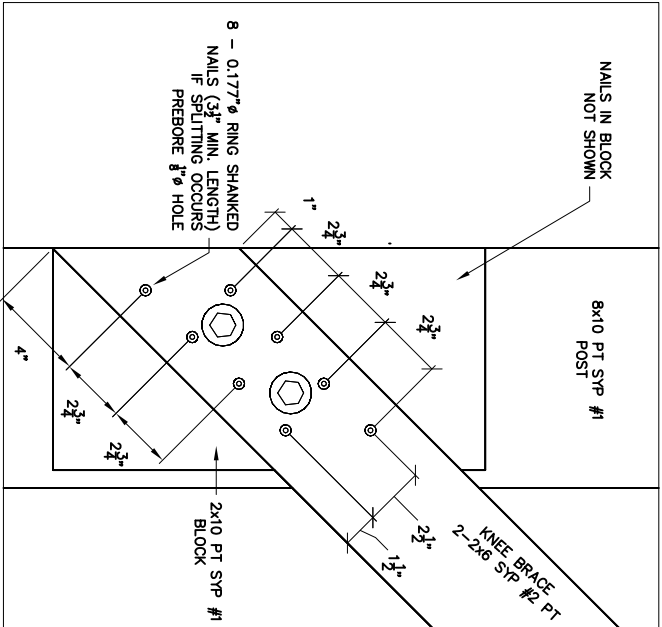
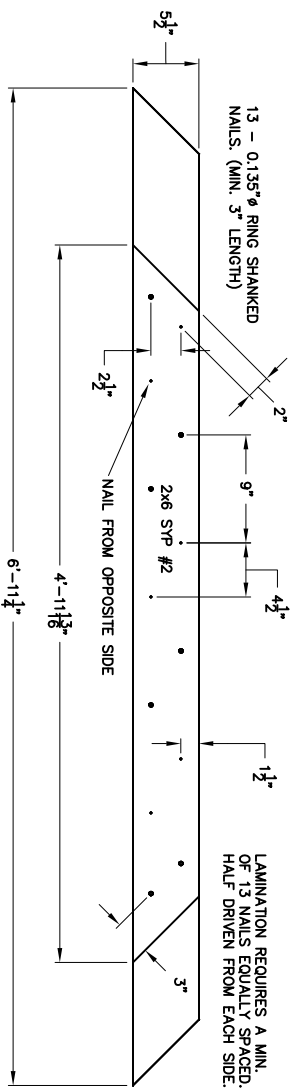


ISOMETRIC VIEW

NOT TO SCALE

KNEE BRACE NAIL LAMINATION PATTERN

SCALE 3/8" = 1'-0"



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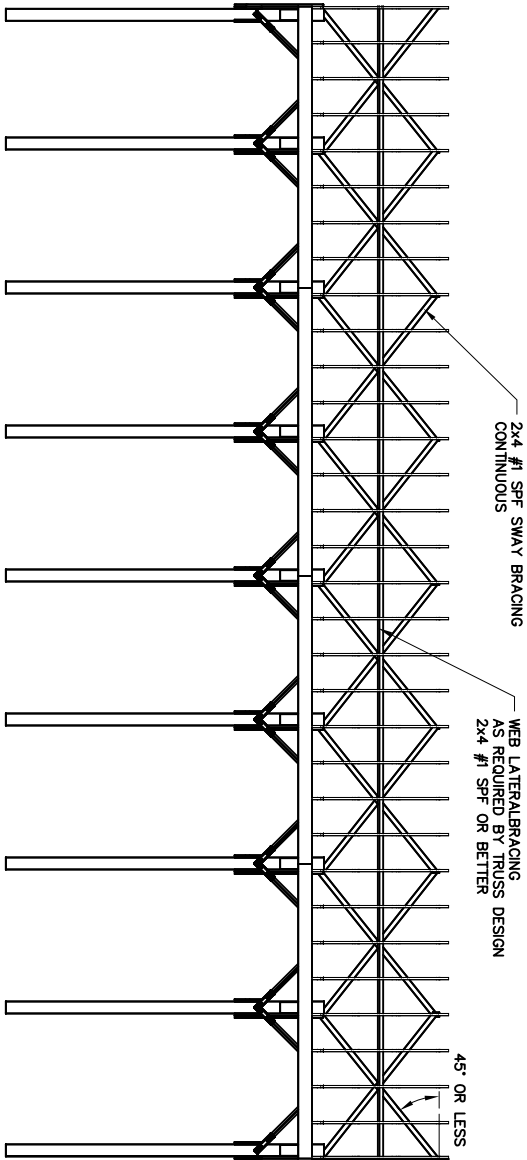


HAZARD CLASS	LOW
JOB CLASS	V

VERMONT

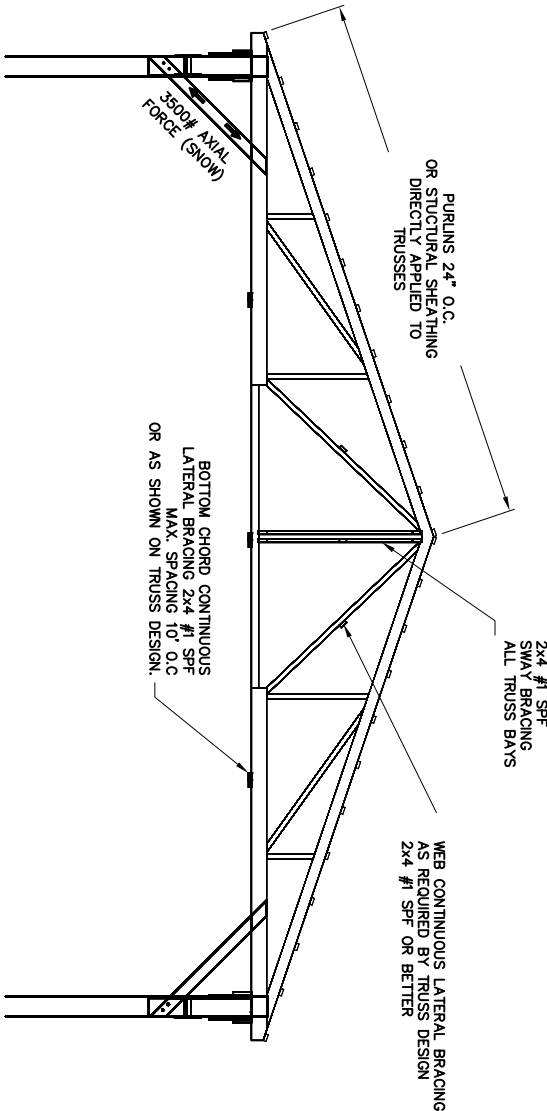
12' EVE HEIGHT
40' ROOF STRUCTURE
KNEE BRACE DETAILS

File Name	
Drawing Name	VT124060B-C
Sheet	5 of 6



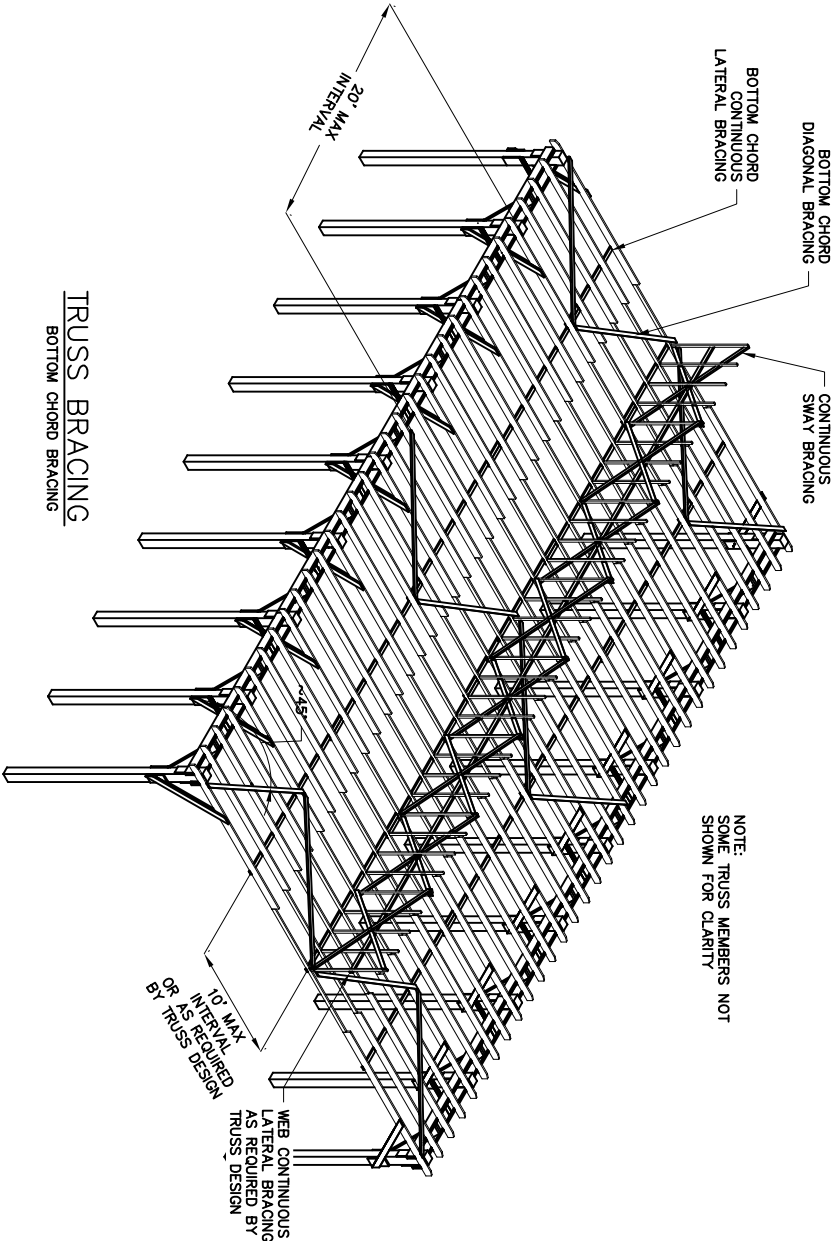
TRUSS BRACING

SCALE $\frac{3}{8}" = 1'-0"$



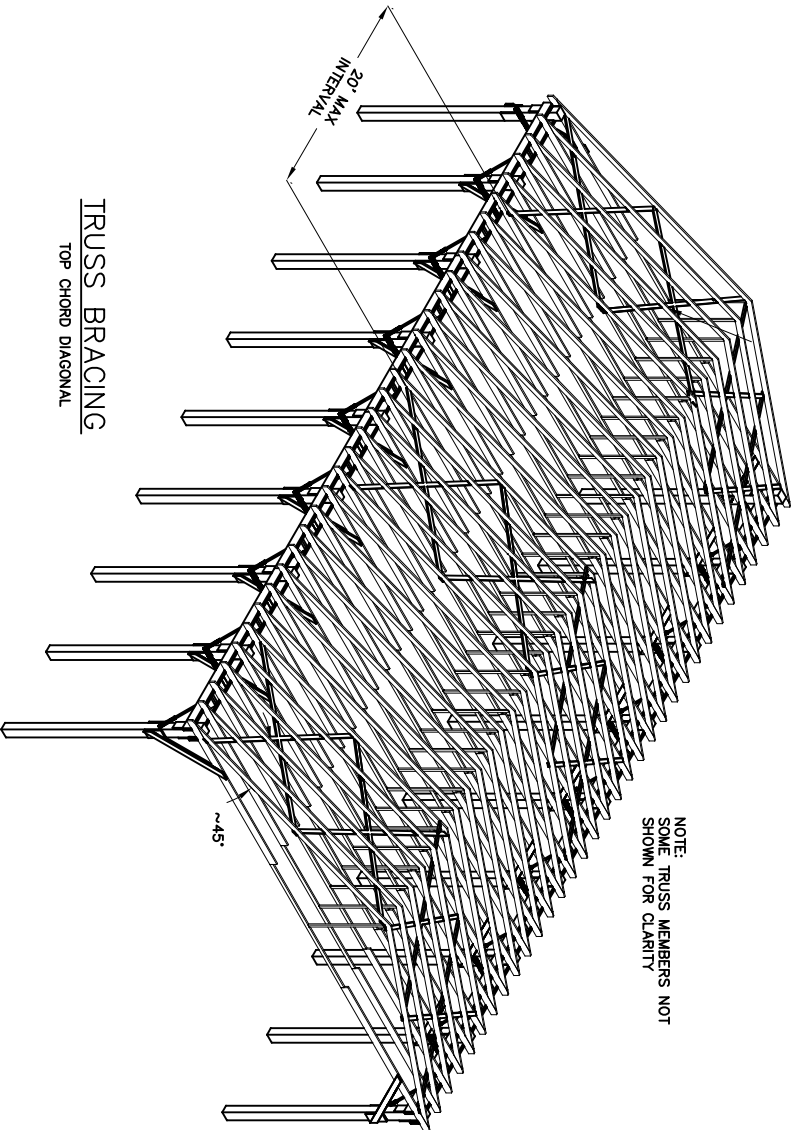
TRUSS BRACING

SCALE $\frac{3}{8}" = 1'-0"$



TRUSS BRACING

BOTTOM CHORD BRACING



TRUSS BRACING

TOP CHORD DIAGONAL

NOTE:
ALL PURLINS, LATERAL BRACING AND DIAGONAL
BRACING REQUIRE A MIN. OF:
2-10d (0.131"Ø MIN.)
RING SHANKED NAILS
AT EACH INTERSECTION



HAZARD CLASS
LOW

JOB CLASS
V

VERMONT

12' EVE HEIGHT
40' ROOF STRUCTURE
TRUSS BRACING DETAILS

File Name

Drawing Name
VT124060B-C

Sheet 6 of 6

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