

1 Cross Section
3/4" = 1'-0"

3 Rafter to Top Plate
1 1/2" = 1'-0"

2 H8 to Top Plate
1 1/2" = 1'-0"

5 Wall to Sill Beam
1 1/2" = 1'-0"

4 PA 51 @ CMU
3/16" = 1'-0"

THERMAL COMPONENT CRITERIA (U-FACTOR AND R-VALUE)

MAX. GLAZING U-FACTOR	MINIMUM INSULATION R-VALUE					
	SHGC	CEILINGS	WALLS	FLOORS	BASEMENT WALLS	CRAWL SPACE
.75	.40	R-30	R-13	R-13	R-5	R-5

UPLIFT CONNECTIONS—140MPH WINDS EXP. "B"

CONNECTION	FRAMING SPACING (in.)	ROOF SPAN (ft.)	U	L	S	NUM. OF 8d COM. NAILS OR 10d BOX NAILS IN EA. END OF 1-1/4"x20 GA. STRAP
ROOF ASSEMBLY TO WALL ASSEMBLY	16" O.C.	17	386	246	109R	4
WALL ASSEMBLY TO WALL ASSEMBLY	16" O.C.	17	386	246	109R	4
WALL ASSEMBLY TO FOUNDATION	16" O.C.	17	170	185	436	4

HEADER SPANS—EXPOSURE B FOR EXTERIOR LOADBEARING WALLS

HEADER SIZE	SPAN	NO. FULL HGT. STUDS REQ. AT EA. END
(2) 2x4'S	4'-7"	2
(2) 2x6'S	5'-6"	2
(2) 2x8'S	6'-1"	3
(2) 2x10'S	6'-8"	3
(2) 2x12'S	7'-1"	3
(3) 2x8'S	7'-5"	3
(3) 2x10'S	8'-3"	3
(3) 2x12'S	8'-8"	3
(4) 2x8'S	8'-7"	3
(4) 2x10'S	9'-6"	3
(4) 2x12'S	10'-0"	4

130MPH WINDS—EXPOSURE "B" (TYP.) EACH W/ 1/2" PLYWD. SPACER BETWEEN

NOTE:
BUILDING WIDTH IS MEASURED PERPENDICULAR TO RIDGE. FOR WIDTHS BETWEEN THOSE SHOWN, SPANS ARE PERMITTED TO BE INTERPOLATED.

FULL LENGTH STRUCTURAL SHEATHING MAY BE USED IN LIEU OF METAL STRAPS, IF FASTENED WITH 8D RING SHANK NAILS SPACED AT 3" O.C. AT EDGES AND 6" O.C. IN FIELD.

ROOF SHEATH. OR CLAD. REQ. FOR WIND LOAD—EXP. B

SHEATHING LOCATION	RAFTER/TRUSS SPAC.	E	F
		MAX. NAIL SPAC. FOR 8d COM. NAILS OR 10d BOX NAILS (INCHES, O.C.)	
INTERIOR ZONE	12" O.C.	6	12
	16" O.C.	6	12
	24" O.C.	6	12
PERIMETER EDGE ZONE	12" O.C.	6	12
	16" O.C.	6	6
	24" O.C.	6	6

140 MPH WINDS—EXPOSURE "B" (TYP.)

WALL SHEATH. OR CLAD. REQ. FOR WIND LOAD—EXP. B

SHEATHING LOCATION	STUD SPAC.	E	F
		MAX. NAIL SPAC. FOR 8d COM. NAILS OR 10d BOX NAILS (INCHES, O.C.)	
INTERIOR ZONE	12" O.C.	6	12
	16" O.C.	6	12
	24" O.C.	6	12
PERIMETER EDGE ZONE	12" O.C.	6	12
	16" O.C.	6	12
	24" O.C.	6	12

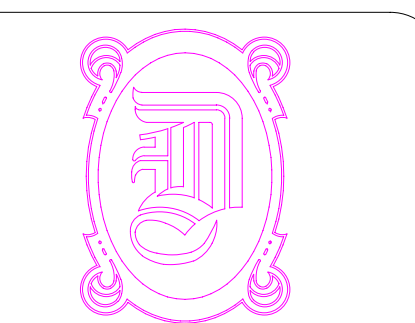
140 MPH WINDS—EXPOSURE "B" (TYP.)

Model No.	L	Min. Embed Depth	Nails	Allowable Uplift Loads		Code Ref.
				(133)	(160)	
PA 51	51	4	9-16d	1690	2030	8, 36, 121
PA 68	70	4	9-16d	1690	2030	

JACK STUD REQ.—EXP. B FOR EXT. LOAD BEARING WALLS

HEADER SUPPORTING	HEADER SPAN (ft.)	HEADER WIDTH			
		3"	4.5"	5"	6.5"
NO. JACK STUDS REQ.					
ROOF AND CEILING	2	1	1	1	1
	4	1	1	1	1
	6	2	1	2	2
	8	2	2	2	2
	10	3	2	2	2
	12	3	2	2	2
ROOF, CEILING, AND 1 CENTER BEARING FLR.	14	4	3	2	2
	16	4	3	3	2
	2	1	1	1	1
	4	2	1	1	1
	6	2	2	2	1
	8	3	2	2	2
	10	4	3	2	2
	12	4	3	3	2

HEADER WIDTH—3" (2-2x), 4.5" (3-2x), 5", 6.5" (4-2x)
EACH W/ 1/2" PLYWD. SPACER BETWEEN



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Cross Section

A-104

Project No. 0733
Date 11/22/07
Scale 1/4" = 1'-0"