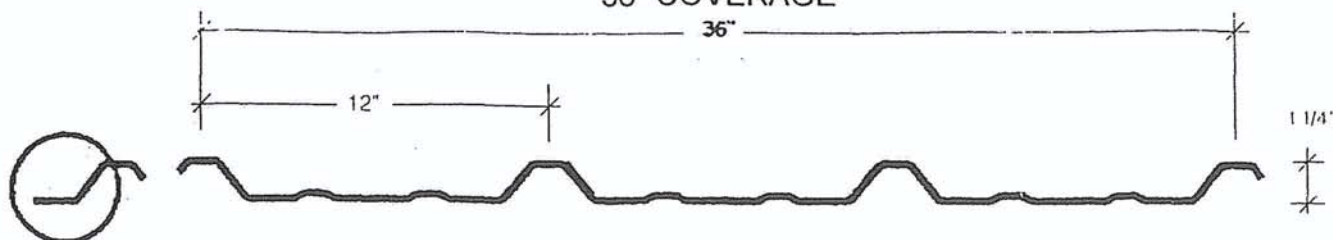


# PRODUCT INFORMATION

## R-PBR

36" COVERAGE



"PBR"

### SECTION PROPERTIES

			TOP FLAT IN COMPRESSION			BOTTOM FLAT IN COMPRESSION		
PANEL GAUGE	F <sub>y</sub> (KSI)	WEIGHT (PSF)	I <sub>x</sub> (in.4/ft.)	S <sub>e</sub> (in.3/ft.)	M <sub>a</sub> (Kip in.)	I <sub>x</sub> (in.4/ft.)	S <sub>e</sub> (in.3/ft.)	M <sub>a</sub> (Kip in.)
26	60.0	0.94	0.0423	0.0388	1.3928	0.0390	0.0437	1.5698
24	50.0	1.14	0.0542	0.0518	1.5500	0.0517	0.0544	1.6296

### ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

26 Gauge

SPAN TYPE	LOAD TYPE	SPAN IN FEET					
		3.0	4.0	5.0	6.0	7.0	8.0
SINGLE	NEGATIVE WIND LOAD	155.0	87.2	55.8	38.8	28.5	21.8
	LIVE LOAD/DEFLECTION	102.7	43.3	22.2	12.8	8.1	5.4
2-SPAN	NEGATIVE WIND LOAD	137.6	77.4	49.5	34.4	25.3	19.3
	LIVE LOAD/DEFLECTION	116.3	65.4	41.9	28.5	18.0	12.0
3-SPAN	NEGATIVE WIND LOAD	172.0	96.7	61.9	43.0	31.6	24.2
	LIVE LOAD/DEFLECTION	145.4	75.4	38.6	22.3	14.1	9.4
4-SPAN OR MORE	NEGATIVE WIND LOAD	160.6	90.3	57.8	40.1	29.5	22.6
	LIVE LOAD/DEFLECTION	135.7	76.3	41.0	23.7	14.9	10.0

24 Gauge

SPAN TYPE	LOAD TYPE	SPAN IN FEET					
		3.0	4.0	5.0	6.0	7.0	8.0
SINGLE	NEGATIVE WIND LOAD	160.9	90.5	57.9	40.2	29.6	22.6
	LIVE LOAD/DEFLECTION	114.8	55.5	28.4	16.4	10.4	6.9
2-SPAN	NEGATIVE WIND LOAD	153.1	86.1	55.1	38.3	28.1	21.5
	LIVE LOAD/DEFLECTION	120.7	67.9	43.5	30.2	22.2	15.9
3-SPAN	NEGATIVE WIND LOAD	191.4	107.6	68.9	47.8	35.1	26.9
	LIVE LOAD/DEFLECTION	150.9	84.9	51.2	29.6	18.6	12.5
4-SPAN OR MORE	NEGATIVE WIND LOAD	178.7	100.5	64.3	44.7	32.8	25.1
	LIVE LOAD/DEFLECTION	140.9	79.2	50.7	31.4	19.8	13.3

# Manufacturers Recommend Metal Roofing Fastening Guide

with < 20'-0" mean roof height – 2/12 to 12/12 pitch for  
120-150 mph wind speeds

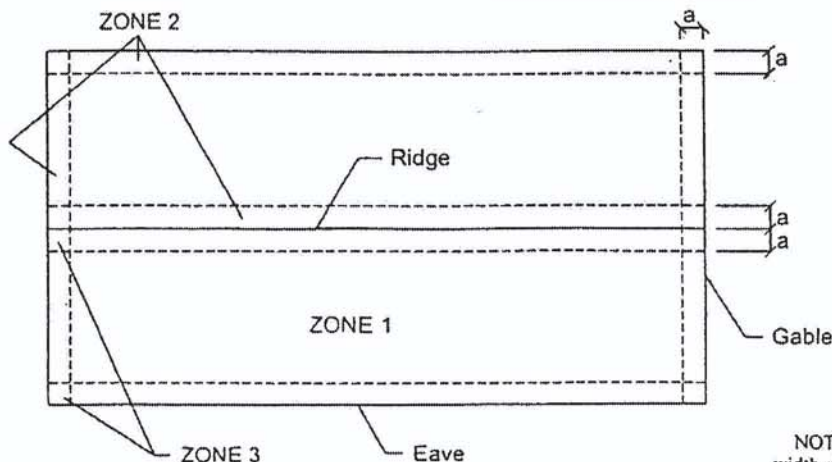
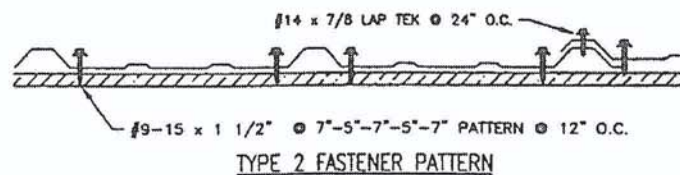
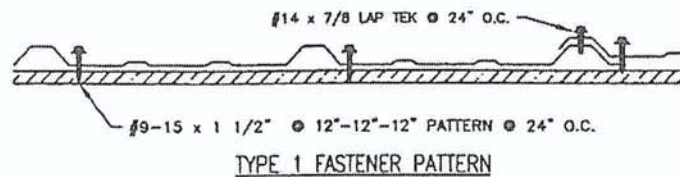
26GA. PBR FASTENER SPACING FOR OVER PLYWOOD						
ZONE	FASTENER	SUBSTRATE	WIND SPEED ZONE			
			120	130	140	150
			ON CENTER SPACING	ON CENTER SPACING	ON CENTER SPACING	ON CENTER SPACING
ZONE 1	#9-15-1-1/2"	15/32" CDX/ 19/32" CDX	24" TYPE 1	24" TYPE 1	24" TYPE 1	24" TYPE 1
ZONE 2	#9-15-1-1/2"	15/32" CDX/ 19/32" CDX	24" TYPE 1	12" TYPE 2	12" TYPE 2	12" TYPE 2
ZONE 3	#9-15-1-1/2"	15/32" CDX/ 19/32" CDX	12" TYPE 2	12" TYPE 2	12" TYPE 2	12" TYPE 2

PANEL DESCRIPTION: PBR, MIN. 26 GA. GRADE 80, 36" COVERAGE, 1-1/4" TALL.

PANEL FASTENER: (1) #9-15 X 1-1/2" WOODGRIP W/ZAC HEAD AND SEALING WASHER.

MAXIMUM ALLOWABLE PANEL UPLIFT PRESSURE: 60.5 PSF @ 24" FASTENER SPACING TYPE 1 FASTENER PATTERN, 154.75 PSF @ 12" FASTENER SPACING TYPE 2 FASTENER PATTERN BASED ON TAS 125, UL 580/UL 1897 TESTING.

PLYWOOD DECKING: MIN. 15/32" PLYWOOD. PLYWOOD MUST BE DESIGNED IN ACCORDANCE WITH FBC 2004.



NOTE: Dimension (a) is defined as 10% of the minimum width of the building or 40% of the mean height of the roof, whichever is smaller, however, (a) cannot be less than either 4% of the minimum width of the building or 3 feet.



# Manufacturers Recommended Metal Roofing Fastening Guide

with < 20'-0" mean roof height – 2/12 to 12/12 pitch for  
120-150 mph wind speeds

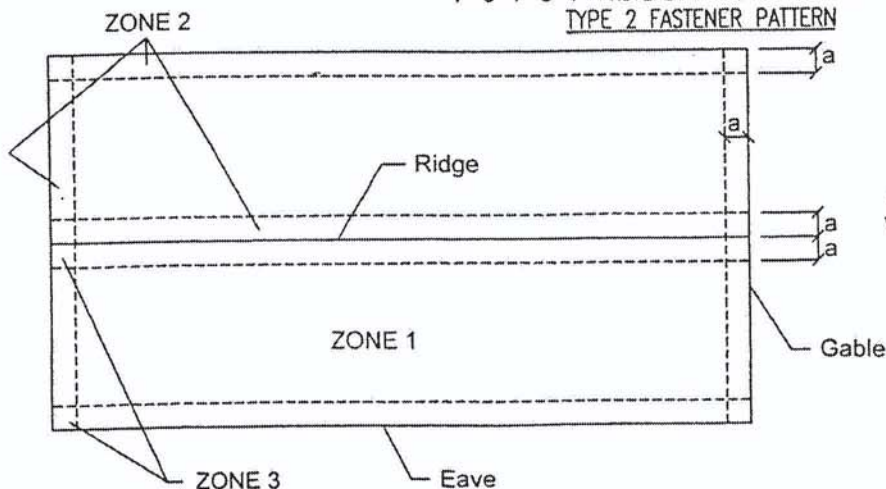
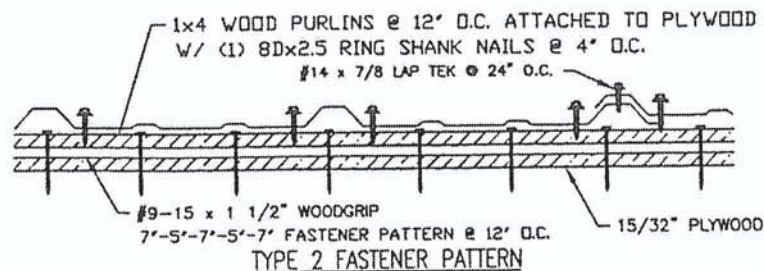
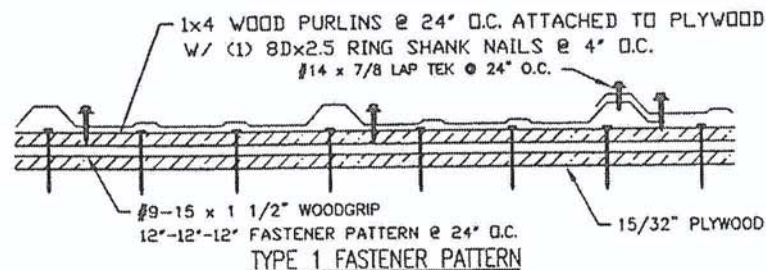
26GA. PBR FASTENER SPACING FOR OVER 1X4 WOOD PURLINS						
ZONE	FASTENER	SUBSTRATE	WIND SPEED ZONE			
			120	130	140	150
			ON CENTER SPACING	ON CENTER SPACING	ON CENTER SPACING	ON CENTER SPACING
ZONE 1	#9-15-1-1/2"	1X4 WOOD PURLINS	24" TYPE 1	24" TYPE 1	24" TYPE 1	24" TYPE 1
ZONE 2	#9-15-1-1/2"	1X4 WOOD PURLINS	24" TYPE 1	24" TYPE 2	24" TYPE 2	24" TYPE 2
ZONE 3	#9-15-1-1/2"	1X4 WOOD PURLINS	12" TYPE 2	12" TYPE 2	12" TYPE 2	12" TYPE 2

**PANEL DESCRIPTION:** PBR, MIN. 26 GA. GRADE 80, 36" COVERAGE, 1-1/4" TALL.

**PANEL FASTENER:** (1) #9-15 X 1-1/2" WOODGRIP W/ZAC HEAD AND SEALING WASHER.

**MAXIMUM ALLOWABLE PANEL UPLIFT PRESSURE:** 100.5 PSF @ 24" FASTENER SPACING TYPE 1 FASTENER PATTERN, 151.75 PSF @ 12" FASTENER SPACING TYPE 2 FASTENER PATTERN BASED ON TAS 125, UL 580/UL 1897 TESTING.

**SUBSTRATE:** 1X4 WOOD PURLINS OVER MIN. 15/32" PLYWOOD. WOOD PURLINS ATTACHED TO PLYWOOD WITH (1) 8D X 2-1/2" RING SHANK NAIL @ 4" O.C. MUST BE DESIGNED IN ACCORDANCE WITH FBC 2004.



NOTE: Dimension (a) is defined as 10% of the minimum width of the building or 40% of the mean height of the roof, whichever is smaller, however, (a) cannot be less than either 4% of the minimum width of the building or 3 feet.

# Manufacturers Recommended Metal Roofing Fastening Guide

with < 20'-0" mean roof height – ½:12 to 12:12 pitch for  
110-140 mph wind speeds

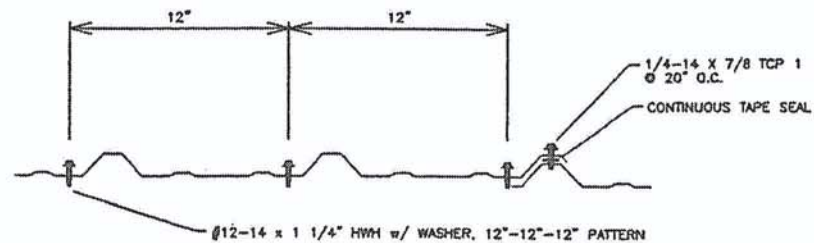
26GA. PBR FASTENER SPACING FOR OVER OPEN FRAMING						
ZONE	FASTENER	SUBSTRATE	WIND SPEED ZONE			
			110	120	130	140
			ON CENTER SPACING	ON CENTER SPACING	ON CENTER SPACING	ON CENTER SPACING
ZONE 1	#12-14 X 1-1/4"	MIN 16GA. PURLIN	60"	60"	60"	60"
ZONE 2	#12-14 X 1-1/4"	MIN 16GA. PURLIN	60"	60"	60"	60"
ZONE 3	#12-14 X 1-1/4"	MIN 16GA. PURLIN	60"	60"	60"	60"

PANEL DESCRIPTION: PBR, MIN. 26 GA. GRADE 80, 36" COVERAGE, 1-1/4" TALL.

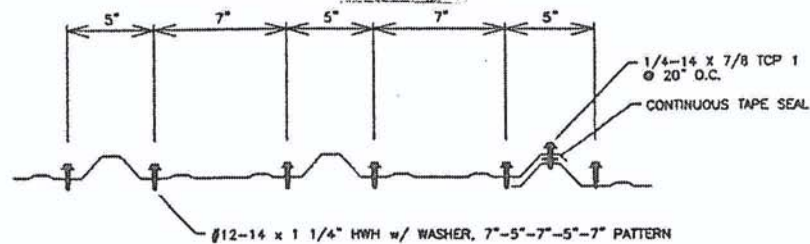
PANEL FASTENER: (1) #12-14X1-1/4" HWH W/SEALING WASHER.

MAXIMUM ROOF COMPONENT UPLIFT PRESSURE: +41.0 PSF @ 5' O.C. FASTENER SPACING, -41.7 PSF @ 5' O.C. FASTENER SPACING.

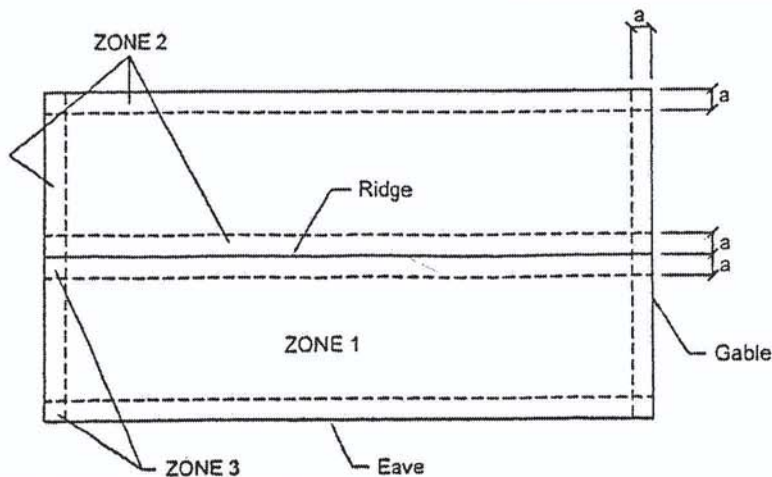
SUBSTRATE: MIN. 16GA. DESIGNED BY A FLORIDA P.E.



FASTENER PATTERN FOR INTERIOR SUPPORTS



FASTENER PATTERN FOR PANEL END AND PANEL END LAPS



NOTE: Dimension (a) is defined as 10% of the minimum width of the building or 40% of the mean height of the roof, whichever is smaller, however, (a) cannot be less than either 4% of the minimum width of the building or 3 feet.



# Manufacturers Recommended Metal Roofing Fastening Guide

with <20'-0" mean roof height-1/2:12 to 12:12 pitch for  
120-150 mph wind speeds

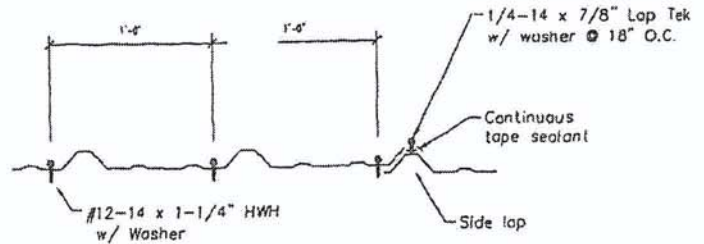
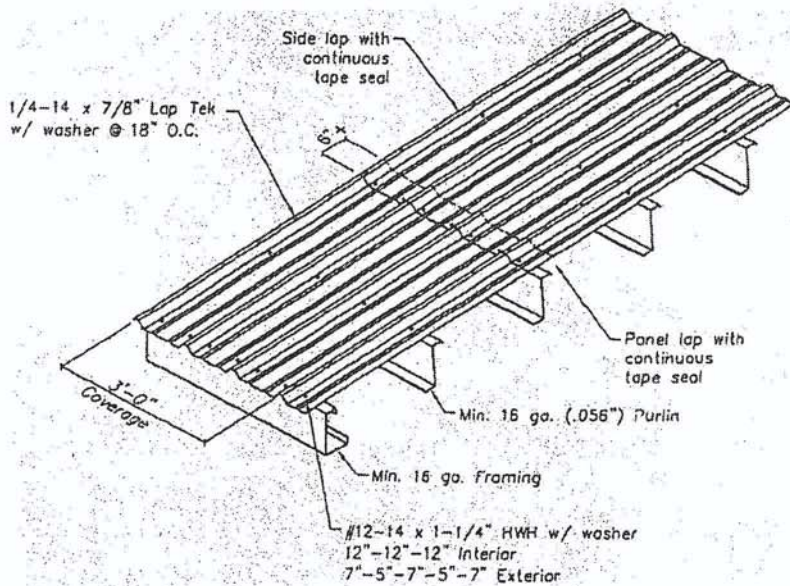
24GA. PBR FASTENER SPACING FOR OVER OPEN FRAMING						
ZONE	FASTENER	SUBSTRATE	WIND SPEED ZONE			
			120	130	140	150
			ON CENTER SPACING	ON CENTER SPACING	ON CENTER SPACING	ON CENTER SPACING
ZONE 1	#12-14 X 1-1/4"	MIN 16GA. PURLIN	60"	60"	60"	60"
ZONE 2	#12-14 X 1-1/4"	MIN 16GA. PURLIN	60"	60"	60"	60"
ZONE 3	#12-14 X 1-1/4"	MIN 16GA. PURLIN	60"	60"	60"	60"

PANEL DESCRIPTION: PBR, MIN. 24GA. GRADE 50, 36" COVERAGE, 1-1/4" TALL.

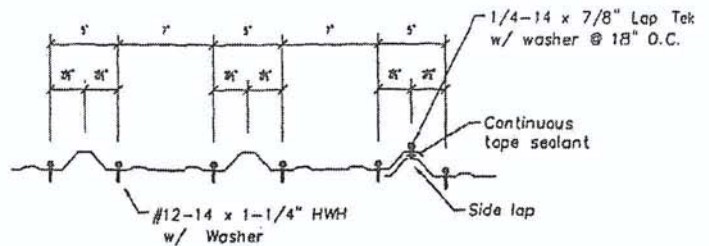
PANEL FASTENER: (1) #12-14X1-1/4" HWH W/SEALING WASHER.

MAXIMUM ROOF COMPONENT UPLIFT PRESSURE: -60.0 PSF@5'0" O.C. FASTENER SPACING, -150.0 PSF@2'0" O.C. FASTENER SPACING.

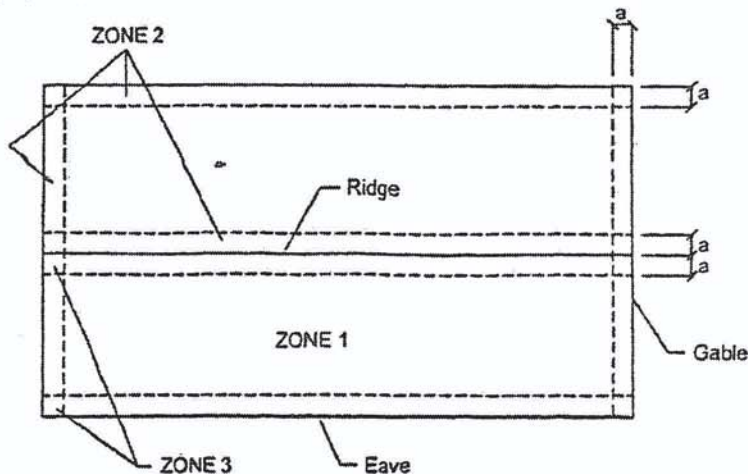
SUBSTRATE: MIN, 16GA. FRAMING DESIGNED BY A FLORIDA P.E.



DETAIL AT REMAINING SUPPORTS @ 5'-0" O.C. MAX.



DETAIL AT END LAP AND PANEL LAP



NOTE: Dimension (a) is defined as 10% of the minimum width of the building or 40% of the mean height of the roof, whichever is smaller, however, (a) cannot be less than either 4% of the minimum width of the building or 3 feet.

# Manufacturers Recommended Wall Panel Fastening Guide

## R-PBR WALL PANELS

R or PBR PANEL SECTION PROPERTIES								
GAUGE	F <sub>y</sub> (ksi)	WEIGHT (psf)	POSITIVE BENDING			NEGATIVE BENDING		
			I <sub>x</sub> (in <sup>4</sup> /ft)	S <sub>x</sub> (in <sup>3</sup> /ft)	M <sub>a</sub> (in kip/ft)	I <sub>x</sub> (in <sup>4</sup> /ft)	S <sub>x</sub> (in <sup>3</sup> /ft)	M <sub>a</sub> (in kip/ft)
26	80	0.94	0.0423	0.0388	1.8620	0.039	0.0437	2.0980

R or PBR PANEL SECTION PROPERTIES								
GAUGE	F <sub>y</sub> (ksi)	WEIGHT (psf)	POSITIVE BENDING			NEGATIVE BENDING		
			I <sub>x</sub> (in <sup>4</sup> /ft)	S <sub>x</sub> (in <sup>3</sup> /ft)	M <sub>a</sub> (in kip/ft)	I <sub>x</sub> (in <sup>4</sup> /ft)	S <sub>x</sub> (in <sup>3</sup> /ft)	M <sub>a</sub> (in kip/ft)
26	50	0.94	0.0423	0.0388	1.1640	0.039	0.0437	1.3110

### Notes:

1. Section properties have been calculated in accordance with the 1996 AISI Cold-Formed Steel Specification (equivalent to AISI-NASPEC).

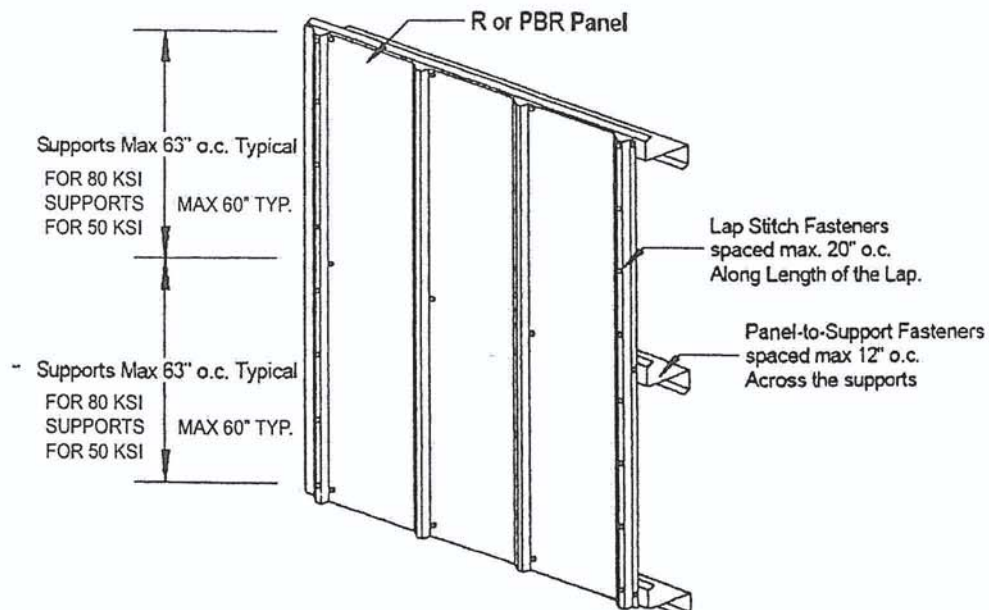
PANEL DESCRIPTION: PBR, MIN. 26 GA. GRADE 50 OR 80, 36" COVERAGE, 1-1/4" TALL.

PANEL FASTENER: (1) #12-14 X MINIMUM PENETRATION THROUGH SUPPORTS 3/4", HEX-HEAD, SELF DRILLING, CORROSION RESISTANT SCREWS, PER SAE J78-1979 WITH 5/8" OD FORMED STEEL WASHERS AND A NEOPRENE SEALING WASHERS..

DESIGN PRESSURE: NEGATIVE: 45 PSF, POSITIVE: 40 PSF. (SAFETY FACTOR-2:1)

SUPPORT TYPE: GIRTS/FRAMING MEMBERS-SPACED MAXIMUM 60" O.C. FOR 50 KSI AND 63" O.C. FOR 80 KSI. (DESIGN OF SUPPORT SYSTEM IS NOT INCLUDED IN THIS EVALUATION).

SUPPORT DESCRIPTION: STEEL, MINIMUM 16 GAUGE, MINIMUM YIELD STRENGTH 50 OR 80 KSI.



NOTE: Dimension (a) is defined as 10% of the minimum width of the building or 40% of the mean height of the roof, whichever is smaller, however, (a) cannot be less than either 4% of the minimum width of the building or 3 feet.



## PBR PANEL INSTALLATION SPECIFICATIONS

**ROOF APPLICATION:** Roof slope must be minimum of 2:12 pitch for over plywood or 1x4's and ½:12 pitch for over open purlins.

**Note:** In residential applications, building codes require a plywood deck with the use of #30 felt to provide adequate thermal and moisture barrier protection. (Batten strips 16" on center attached to a plywood deck is optional in certain applications. Should the building parameters differ from the parameters stated in the fastening schedule, then the fastening calculations must be computed by an engineer to meet the specific wind requirements.)

1. Start at the gable or rake opposite of the prevailing wind. The leading edge should be the uneven rib.
2. It is imperative that the panels be laid in square to ensure proper lapping (many installers pop chalk line 38" from the gable edge running from the ridge to the eave to use as a guide), Caution: Do not apply chalk to panels.
3. **SIDE LAP PROCEDURE:** Please see the side lap detail. Pay careful attention that the uneven rib is over lapped by the uneven rib as shown in the side lap detail.
4. **END LAP PROCEDURE:** When long panels are required, Marlyn recommends the customer to consider end lapping the panels a minimum of 12" to insure proper drainage. Two strips of butyl sealant tape should be used at the end lap and fastened on the uphill side of the strips of butyl sealant tape.
5. **EAVE DETAIL PROCEDURE:** Marlyn recommends the use of an eave flashing with butyl sealant tape above and below the closure strip (inside) which will go between the underside of the roofing panel and the top side of the flashing to avoid water infiltration, See detail.
6. **RIDGE DETAIL PROCEDURE:** The appropriate ridge cap is placed on top of closure strips (outside) with butyl sealant tape above and below the closure fastened through each rib at 12" on center. See detail.
7. **FASTENERS:**

**Screws-**

Metal-to-Wood Application: Rib panels should be fastened by a minimum of #9-15 x 1-1/2" compatible fastener.  
Metal-to-Metal Application: Rib panels should be fastened with a minimum of #12-14 x 1-1/4 hex head screw.

**SIDING APPLICATION:**

1. Rib panels used as siding are side lapped the same as in the roofing application.
2. It is best to start a siding sheet at a large opening (i.e. sliding door, window, door, etc.) so that the panels are square.
3. Butyl sealant tape is recommended where any closures are required.

**TRIMMING AND CUTTING STEEL PANELS:** Whether cutting with the profile (length-wise) or across the profile (width-wise), it is best to use hand tin-snips, or an electric nibbler. It is very important to cut panels one at a time with the finish side of the panel facing down on wood blocks. Care should be taken to ensure that the hot metal particles and filings from the cutting do not become embedded in the panel.

**NOTE:** Filings from screw cuttings must also be cleaned off the panels after screws have been applied through the panel to avoid rust marks or "bleeding" on the panels.

Failure to comply with the above procedures relieves Marlyn of responsibility for any damage resulting to, or deterioration of the finish and voids any paint or finish warranty.

NOTE: For slopes less than 3:12, a continuous tape seal is required at all side laps with ¼ - 14 x 7/8" lap tek screws at 24" o.c. to secure panel side laps together.