

Millboard Composite Siding HVHZ Installation Instructions

1 Installation

- 1.1 For additional details on installation follow the corresponding manufacturer's installation instructions as well as the general installation instruction.
- 1.2 For HVHZ applications, Millboard Composite Siding products must be installed on walls sheathed with Exposure 1-rated $\frac{5}{8}$ " (15.9 mm) thick plywood comply with DOC PS-1 or PS-2 and shall be applied to minimum 2 x 6, No. 2 Spruce-Pine-Fir or 18-gauge, 2 x 6 CFS studs spaced not more than 16" (406 mm) on center as depicted in **Figure 1**.
 - 1.2.1 At a minimum, wall sheathing shall be continuous over three or more supports and shall be secured to such supports with 8d common nails for wood framed walls, or minimum #8 screws for CFS-framed walls with a sufficient length to penetrate pass the sheathing and steel thickness plus 3 threads minimum. Fastener spacing shall not exceed 6" (152 mm) on center at panel edges and all intermediate supports. Fastener spacing shall be 4" (102 mm) on center at corner studs.
 - 1.2.1.1 Fastener type and spacing shall be designed to resist the superimposed wind loads and shall be verified by an RDP.
 - 1.2.2 Sheathing shall be covered with a water-resistive barrier complying with IBC Section 1403.2 (FBC-B Section 1404.2) and flashed in accordance with IBC Section 1404.4 (FBC-B Section 1405.4).

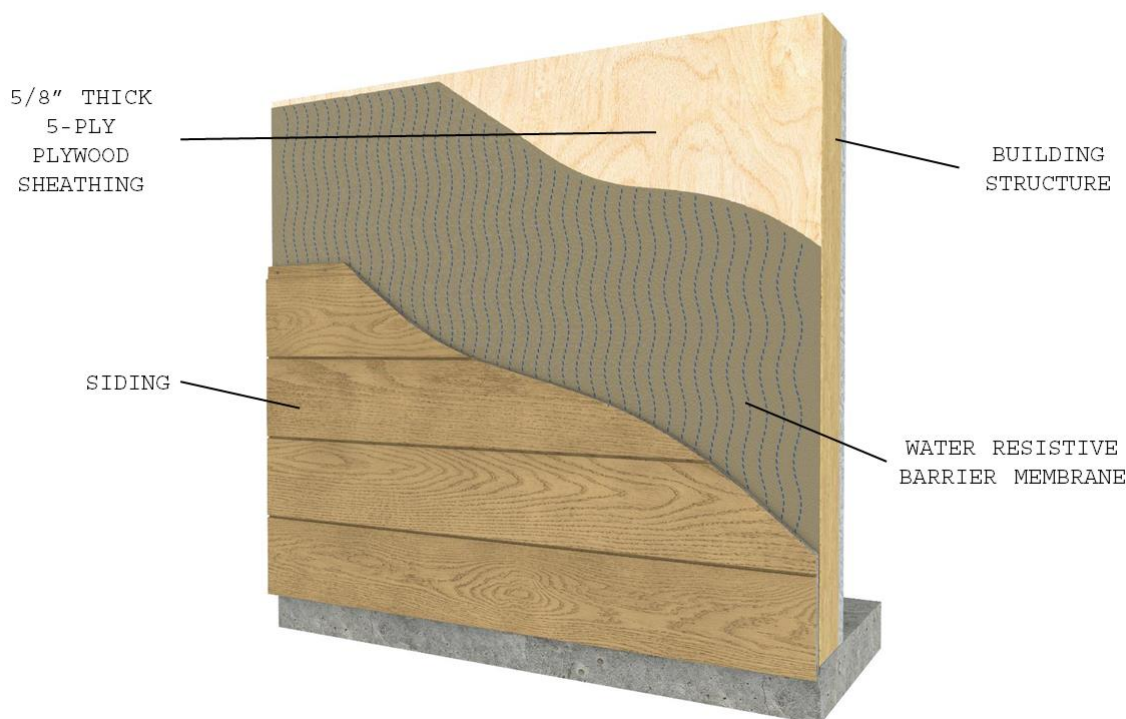


Figure 1. Installed Millboard Siding with Plywood Backer

- 1.3 *Direct Installation (HVHZ):*
 - 1.3.1 Millboard Composite Siding products can be installed directly onto the wall assembly as constructed in accordance with Section 1.1 using the appropriate fastener(s) listed in **Table 1**.
- 1.4 *Furred Installation (HVHZ):*
 - 1.4.1 Furring strips shall be minimum 1 x 3 SPF.
 - 1.4.2 *Horizontal Configuration:*
 - 1.4.2.1 Vertical 1 x 3 wood batten furring strips shall be lined up with each stud vertically and fastened to the studs with minimum #8 x $1\frac{5}{8}$ " long screws spaced at 16" o.c. maximum.
 - 1.4.2.1.1 Millboard Composite Siding products can be installed onto the furred wall assembly as constructed in accordance with Section 1.1 using the appropriate fastener(s) listed in **Table 1**.

1.4.2.2 Vertical Configuration:

- 1.4.2.2.1 Vertical 1 x 3 wood batten furring strips shall be lined up with each stud vertically and fastened to the studs with minimum #8 x 1⁵/₈" long screws spaced at 16" o.c. maximum.
- 1.4.2.2.2 Horizontal 1 x 3 wood batten furring strips shall be spaced no greater than 16" o.c. vertically. Horizontal batten strips shall be secured to the vertical battens with minimum #8 x 1⁵/₈" long screws, fastened at each vertical batten intersection.
- 1.4.2.2.3 Millboard Composite Siding products can be installed onto the furred wall assembly as constructed in accordance with Section 1.1 using the appropriate fastener(s) listed in **Table 1**.

Table 1. HVHZ Design Wind Pressures and Wind Speeds^{1,2}

Product	Siding Orientation	Substrate	Fastener	Fastener Spacing ³ (in. o.c.)	Allowable Wind Pressure (psf)	Maximum Wind Speed, V _{ult} (mph)			Allowable Wind Speed, V _{asd} (mph)		
						B	C	D	B	C	D
Millboard Composite Siding Products	Horizontal	5/8" Plywood ⁴	0.120" x 1 1/2" Galvanized Ring Shank Nail	7	50	190	155	145	147	120	112
	Vertical										
	Horizontal	5/8" Plywood ⁴	#8 x 1 5/8" Flat Head Wood Screw	16	65	200	180	165	155	139	128
	Vertical										
	Horizontal	1 x 3 Furring ⁵		16	80	200	200	180	155	155	139
	Vertical										

SI: 1 in = 25.4 mm, 1 lbf = 4.448 N, 1 psf = 47.88 Pa, 1 mph = 0.447 m/s

- Based on:
 - A building height of 30-feet, GC_p= -1.4 for Zone 5 and an Effective Wind Area of 10 ft², Topographic Factor: K_z=1.0, Ground Elevation Factor: K_e=1.0, Internal Pressure Coefficient, GC_{pi}= +/-0.18 for an enclosed building, K_d = 0.85 for “Component and Siding”.
 - V_{ult} is limited to 200 mph: V_{asd} = V_{ult}√0.6. V_{asd} is limited to 155 mph (200√0.6).
- See Section 9 for installation details. Studs shall be minimum 2 x 6 No. 2 SPF or 18-gauge CFS framing members with a flange width of 2". Minimum ultimate tensile strength, F_{ult}, of the CFS framing shall be 45 ksi.
- Fastener spacing refers to the direction along the length Millboard Composite Siding products.
- Millboard Composite Siding products shall be fastened directly onto the WRB-overlaid 5/8" thick plywood using the specified fastener and the specified fastener spacing along the board. See **Figure 2** as an example (wood studs shown).
- Millboard Composite Siding products shall be fastened directly onto furring using the specified fastener. Furring strips shall be minimum No. 2 SPF 1 x 3 and shall be fastened into the studs.
 - For horizontal siding orientation, furring strips shall be fastened with minimum #8 x 1 5/8" screws vertically along the studs.
 - For vertical siding orientation, the first layer of furring strips shall be with minimum #8 x 1 5/8" screws vertically along the studs. Horizontal furring strips shall be spaced 16" o.c. maximum across the vertical furring and secured with minimum #8 x 1 5/8" screws at each intersection.
 - See **Figure 3** as an example (wood studs shown).

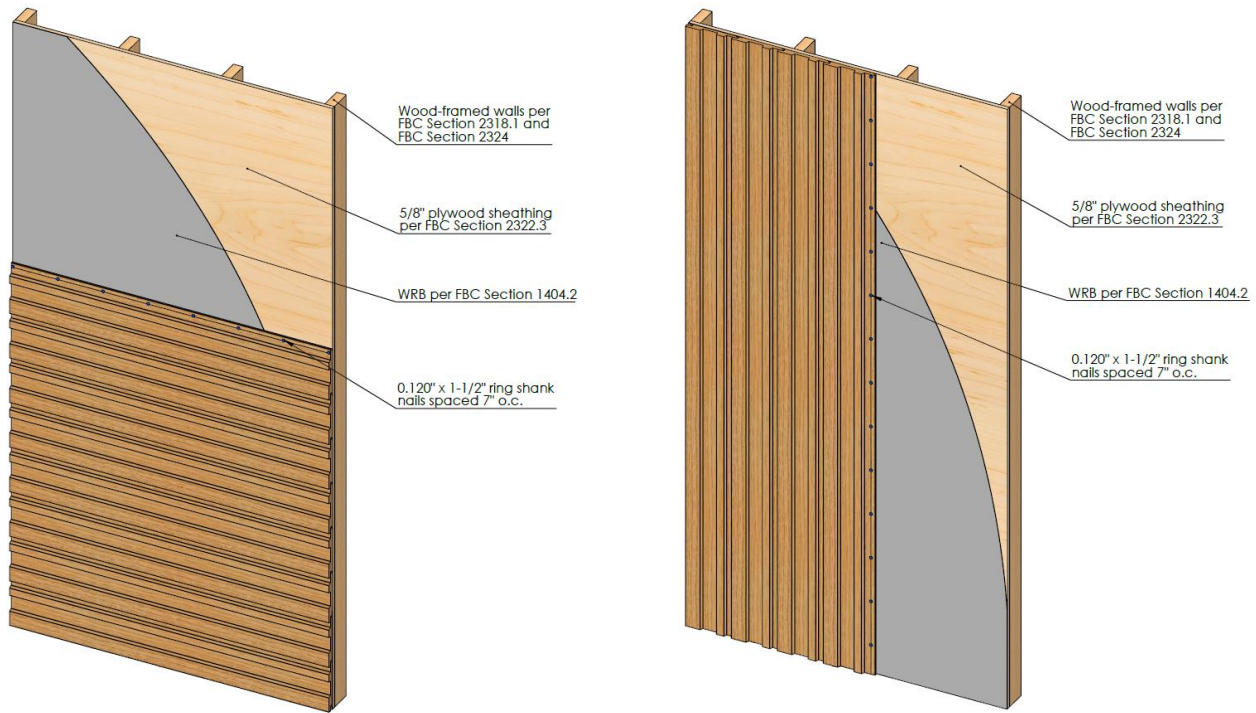


Figure 2. Millboard Composite Siding – Direct Connection

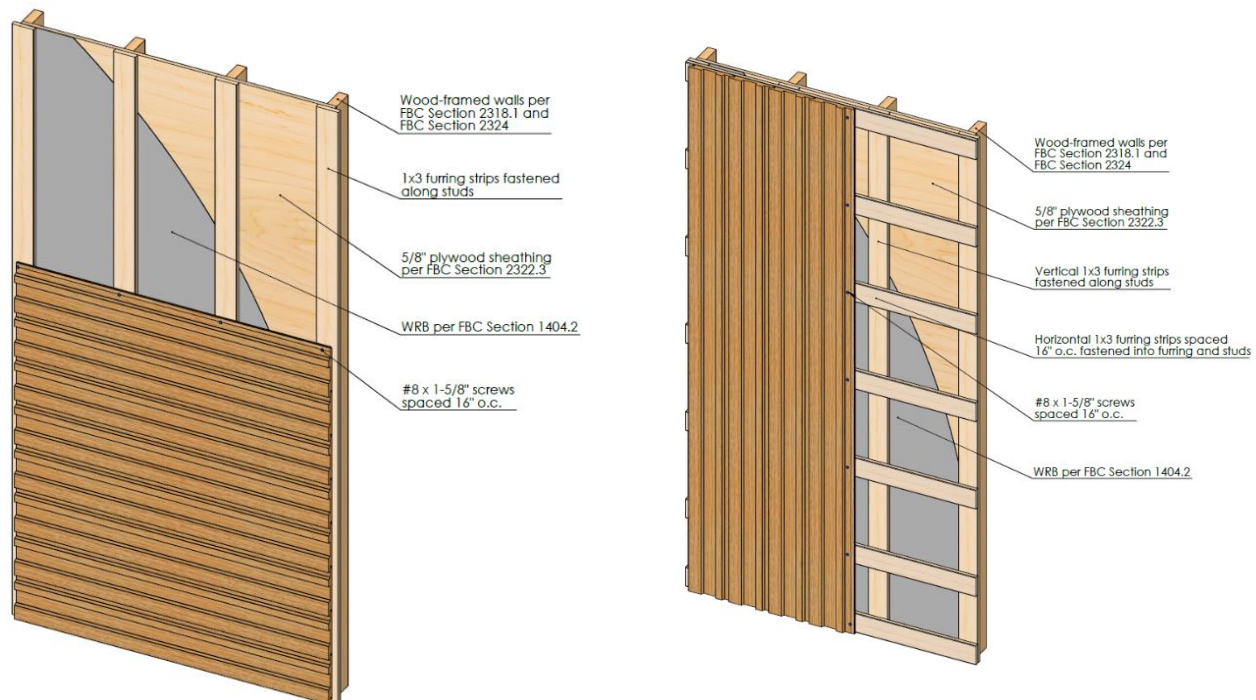


Figure 3. Millboard Composite Siding – Furred Connection

- 1.5 Installation shall comply with the approved construction documents, the manufacturer installation instructions, this report, and the applicable building code.
- 1.6 The Millboard Composite Siding shall be installed in accordance with the manufacturer published installation instructions and this report.
- 1.7 A copy of the manufacturer published installation instructions shall be available at all times on the jobsite during installation.