



HARDIPLANK®

LAP SIDING - INSTALLATION INSTRUCTIONS

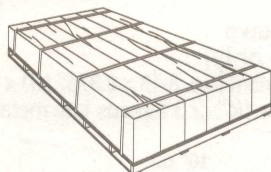
JANUARY 1998

CEDARMILL™ * SMOOTH * COLONIAL SMOOTH™ * COLONIAL ROUGHSAWN™ * BEADED CEDARMILL

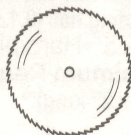
IMPORTANT: FAILURE TO INSTALL AND FINISH HARDIPLANK® PER JAMES HARDIE'S WRITTEN INSTRUCTIONS MAY AFFECT PRODUCT PERFORMANCE AND WILL VOID THE WARRANTY. LOCAL BUILDING CODE REQUIREMENTS ALSO APPLY.

HANDLING & STORAGE:

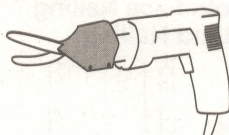
Store flat and keep dry prior to installation. Installing Hardiplank wet or saturated may result in shrinkage at butt joints. Carry planks on edge.



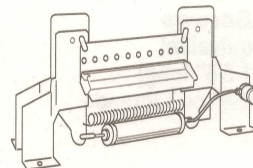
CUTTING OPTIONS:



Circular saw with "SNAPPER STEEL HEAD™" carbide tipped blades



Electric Hand Shear



"SNAPPER SHEAR™" Pneumatic Shear



Score and snap knife

Call 800-297-6487 for shear tool information.

Always wear safety glasses and dust protection when operating power tools. For more information on avoiding inhalation refer to the MATERIAL SAFETY DATA SHEET available wherever James Hardies' fiber-cement products are sold.

FRAMING REQUIREMENTS:

Hardiplank lap siding can be installed over braced wood or steel studs spaced a maximum of 24" o.c. Hardiplank lap siding can also be installed over foam insulation up to 1" thick. Irregularities in framing, sheathing and/or foam insulation can mirror through the finished application. A weather-resistive barrier is required*.

Applying Hardiplank Siding:

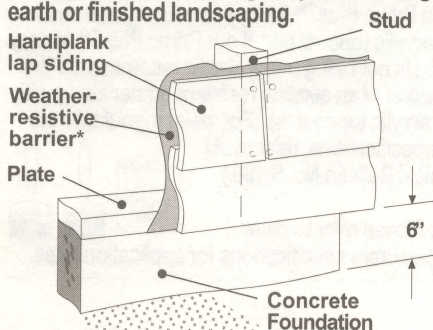
- **Top Edge:**
Place fasteners 1" from top plank edge.
- **Side Edge:**
Place fasteners no closer than 3/8" and no further than 1/2" from the plank side edge.
- **Bottom Edge:**
Place fasteners no closer than 3/4" and no further than 1" from the plank bottom edge.

* Use a weather-resistive barrier in accordance with: BOCA National Building Code Section 1403.3; SBCCI Standard Building Code Section 2303.3; ICBO Uniform Building Code Section 1402.1; or CABO One-and Two-Family Dwelling Code Section 703.2.1.

NOTE: Many Building Codes exempt the use of weather-resistive barriers over "water-repellent panel sheathing" or exterior panels classified as "weather-resistive barriers". However, in most cases where a weather-resistive barrier is not used, wind driven rain and snow may penetrate the unprotected wall cavity. Therefore, James Hardie recommends the use of "building paper type" weather-resistive barriers with all siding products.

GRADE CLEARANCE Figure 2

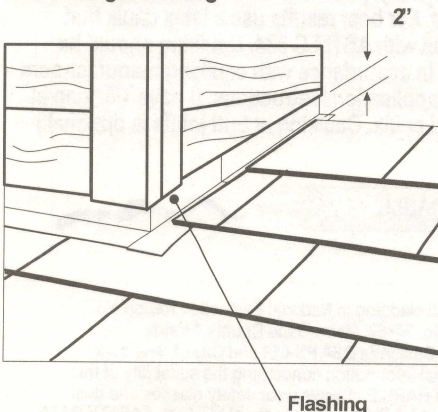
Building Codes require a minimum of 6" clearance between bottom edge of plank/framing and earth or finished landscaping.



Hardie Siding applied above porches, patios, driveways, etc. must have a 2" clearance which will allow the siding to remain above the surface where water might collect.

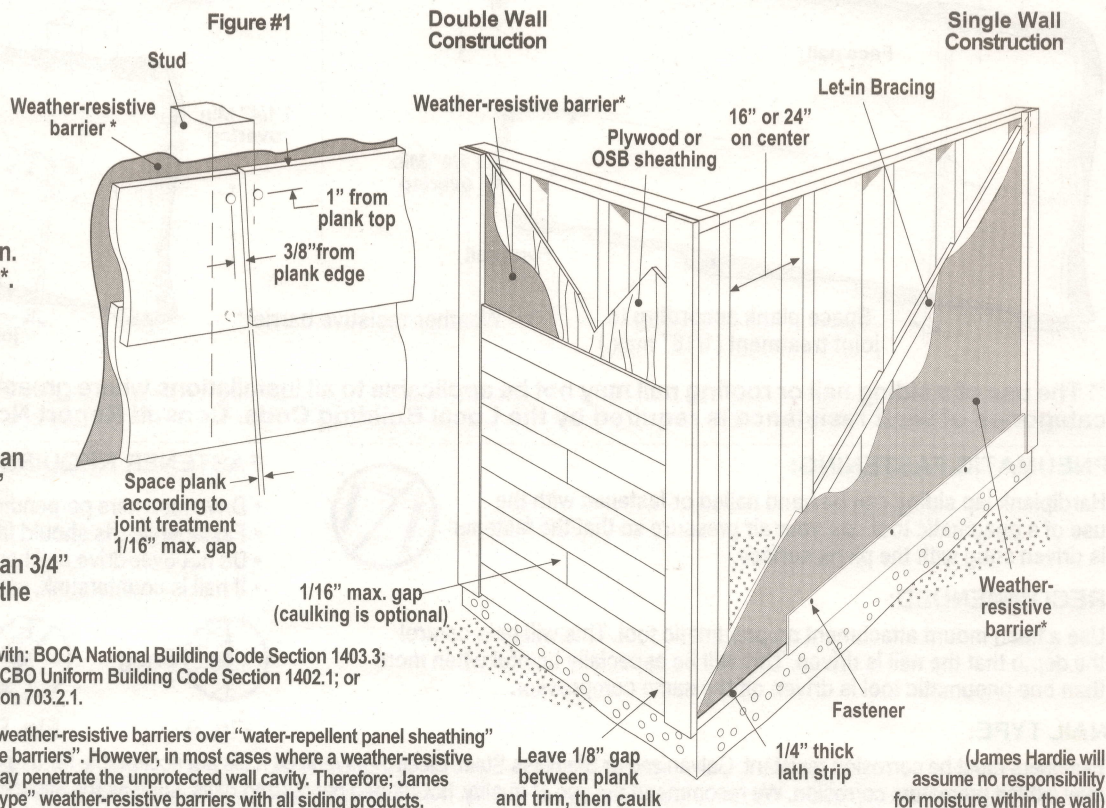
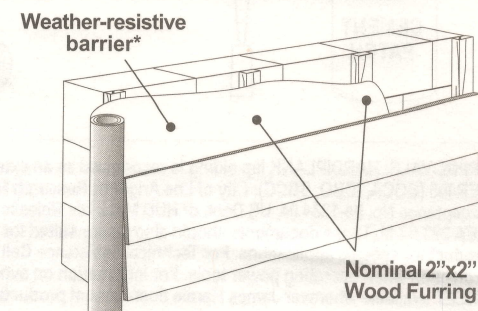
ROOF CLEARANCE Figure 3

Leave 2" clearance between roofing and bottom edge of siding.



CONCRETE CONSTRUCTION Figure 4

When Hardiplank siding is installed over concrete construction, the wall must be furred out with nominal 2 x 2 wood framing or minimum 1/2 x 2 (min. 20 gauge steel studs) metal hat sections anchored to the wall. Framing can be spaced up to 24" o.c. A weather-resistive barrier* is recommended between the framing and the siding.



(James Hardie will assume no responsibility for moisture within the wall)

FACE NAIL: (All Lap Products) Figure #5

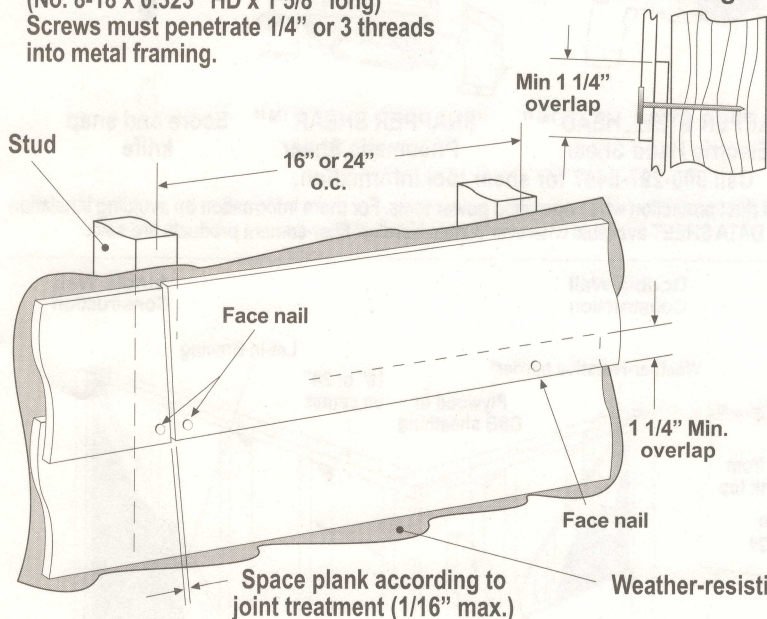
Corrosion Resistant Nails (galvanized or stainless steel)

- 6d (0.118" shank x 0.267" HD x 2" long)
- Siding nail (0.089" shank x 0.221" HD x 2" long)**

Corrosion Resistant Screws

- Ribbed Bugle-head or equivalent (No. 8-18 x 0.323" HD x 1 5/8" long)
- Screws must penetrate 1/4" or 3 threads into metal framing.

For Both Face Nailing and Blind Nailing



BLIND NAIL: Figure #6

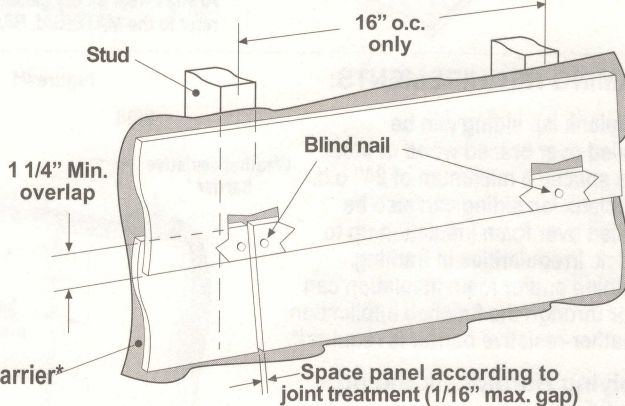
(Hardiplank siding cannot be blind nailed 24" o.c.
12" wide Hardiplank siding cannot be blind nailed.)

Corrosion Resistant Nails (galvanized or stainless steel)

- ≤ 9.5" Hardiplank siding
- Roofing nail (0.121" shank x 0.375" HD x 1-1/4" long)**
- ≤ 8.25" Hardiplank siding
- Minimum Requirement: Siding nail (0.093" shank x 0.222" HD x 2" long)**

Corrosion Resistant Screws
(≤ 9 1/2" Hardiplank lap only)

- Ribbed wafer-head or equivalent (No. 8-18 x 0.375" HD x 1-1/4" long). Screws must penetrate 1/4" or 3 threads into metal framing.**



** The use of a siding nail or roofing nail may not be applicable to all installations where greater windloads or higher exposure categories of wind resistance is required by the Local Building Code. Consult Report No. NER-405 for specific details.

PNEUMATIC FASTENING:

Hardiplank lap siding can be hand nailed or fastened with the use of a pneumatic tool. Set your air pressure so that the fastener is driven snug with the plank surface.



RECOMMENDED:

Use a flush mount attachment on pneumatic tool. This will help control the depth that the nail is driven. This will be especially helpful when more than one pneumatic tool is driven off the same compressor.

NAIL TYPE:

Fasteners must be corrosion resistant, Galvanized or Stainless Steel. Electro-galvanized nails are acceptable for use with James Hardie Siding Products, but may exhibit premature corrosion. We recommend the use of quality, hot-dipped galvanized nails, such as the Maze® brand or that of an equivalent brand.

(James Hardie is not responsible for the corrosion resistance of fasteners.)

FASTENER REQUIREMENTS:

- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding. (Fig. A)
- Do not over-drive nail heads or drive nails at an angle.
- If nail is countersunk, caulk nail hole and add a nail. (Fig B & C)



Fig. A



Fig. B



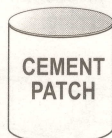
Fig. C

Caulk & add nail

FINISHING HARDIPLANK:

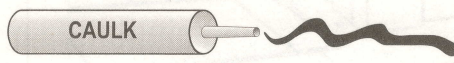
Patching:

Dents, chips and cracks can be filled with a cementitious patching compound.



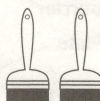
Caulking:

A high quality, paintable latex caulk is recommended. For best results use a latex caulk that complies with ASTM C 834. Caulking should be applied in accordance with caulking manufacturers written application instructions. (Leave 1/8" gap at trim and caulk. Caulking at butt joints is optional.)



Painting:

For best results, use Hardiplank siding with our exclusive Prime Plus™ factory priming system and a 100% acrylic topcoat (s).* If our Prime Plus™ factory priming is not being used, Hardie recommends the application of an alkaline resistant primer along with 100% acrylic topcoat (s). (For paint manufacturers paint specifications, refer to JH Technical Bulletin No. S-100.)



*Note: Please refer to paint manufacturers specifications for application rates.

APPROVALS: HARDIPLANK lap siding is recognized as an exterior wall cladding in National Evaluation Report No. NER405 (BOCA, ICBO, SBCC): City of Los Angeles, Research Report No. 24862; Metro-Dade County, Florida, Acceptance No. 94-1234.04, US Dept. of HUD Materials Release 1263a, California DSA PS-019 and City of New York MEA 223-93-M. These documents should also be consulted for additional information concerning the suitability of this product for specific applications. For Technical assistance Call 1-800-9-HARDIE. Always wear safety glasses and dust protection when operating power tools. For information on avoided dust inhalation, refer to the MATERIAL SAFETY DATA SHEET available wherever James Hardie fiber-cement products are sold. © 1998 James Hardie Building Products



HARDIPLANK®

WIND LOAD TABLE

JANUARY 1998

PRODUCT WIDTH (INCHES)	PRODUCT THICKNESS (INCHES)	FASTENER TYPE	FASTENER SPACING	FRAME TYPES	STUD SPACING (INCHES)	HEIGHT OF BUILDING (FEET)	MAXIMUM BASIC WIND SPEED FOR EXPOSURE CATEGORY	
							B	C
Hardiplank ≤ 9-1/2	5/16"	0.089 in. shank x 0.221 in. HD x 2 in. long galvanized siding nail	Through Overlap	2x4 wood ¹	16	0-15	100 ^{3, 11}	9, 15
						20	100 ^{3, 12}	9, 15
						40	90 ^{6, 13}	9, 16
						60	85 ^{8, 14}	10, 17
						100	75 ¹⁵	18
Hardiplank ≤ 9-1/2	5/16"	6d common 2 in. long	Through Overlap	2x4 wood ¹	16	20	130 ²	100 ²
						40	120 ²	90 ²
						60	110 ²	90 ²
						100	100 ²	90 ²
						200	90 ²	80 ²
					24	20	100 ²	70 ²
						40	90 ²	70 ²
						60	80 ²	70 ²
						100	80 ²	-
						200	70 ²	-
Hardiplank 12 in.	5/16"	6d common 2 in. long	Through Overlap	2x4 wood ¹	16 & 24	20	80	-
						40	70	-
Hardiplank ≤ 12	5/16"	Min. No. 8-18 x 0.323 in. HD x 1-5/8 in. long Hi-Lo S or S- 12 ribbed bugle screws	Through Overlap	Min. No 16 ga. x 3-5/8 in. x 1-3/8 in. metal C-stud	16 & 24	20	90 ²	-
						40	80 ²	-
						100	70 ²	-
Hardiplank ≤ 7-1/2	5/16"	Minimum .093 in. shank x 0.222 in HD x 2 in. long galvanized siding nail	Through top edge of plank	2x4 wood ¹	16	0-15	100 ^{12, 19}	16, 21
						20	90 ^{12, 20}	17
						40	85 ^{12, 21}	18
						60	75 ¹⁵	18
						100	75 ¹⁸	18
Hardiplank ≤ 8 in. 8-1/4 in.	5/16"	Minimum .093 in. shank x 0.222 in HD x 2 in. long galvanized siding nail	Through top edge of plank	2x4 wood ¹	16	0-15	92 ^{12, 20}	17, 21
						20	90 ^{13, 20}	17
						40	80 ^{15, 21}	18
						60	75 ²¹	18
Hardiplank ≤ 9-1/2 w/os/splice	5/16"	No. 11 ga. 1-1/4 in. long galvanized roofing nail	Through top edge of plank	2x4 wood ¹	16	20	110	90
						40	100	80
						100	90	70
						200	80	70
Hardiplank ≤ 9-1/2	5/16"	Min. No. 8-18 x 0.375 in. HD x 1-1/4 in. long Hi-Lo S or S- 12 ribbed phillips Waferhead screws	Through top edge of plank	Min. No 20 ga. x 3-5/8 in. x 1-3/8 in. metal C-stud	16	20	120	90
						40	110	90
						60	100	80
						100	90	80
						150	90	70
						200	80	70

WIND LOAD TABLE FOOT NOTES:

1. Values are for species of wood having a specific gravity of 0.42 or greater. 2. Values are reduced by 10 mph when Hardiplank Lap Siding is installed with off-stud splice. 3. The Maximum Basic Wind Speed may be increased to 120 mph in areas regulated by the 1994 Standard Building Code. 4. The Maximum Basic Wind Speed may be increased to 110 mph in areas regulated by the 1994 Standard Building Code. 5. The Maximum Basic Wind Speed may be increased to 105 mph in areas regulated by the 1994 Standard Building Code. 6. The Maximum Basic Wind Speed may be increased to 100 mph in areas regulated by the 1994 Standard Building Code. 7. The Maximum Basic Wind Speed may be increased to 95 mph in areas regulated by the 1994 Standard Building Code. 8. The Maximum Basic Wind Speed may be increased to 90 mph in areas regulated by the 1994 Standard Building Code. 9. The Maximum Basic Wind Speed may be increased to 80 mph in areas regulated by the 1994 Standard Building Code. 10. The Maximum Basic Wind Speed may be increased to 70 mph in areas regulated by the 1994 Standard Building Code. 11. The Maximum Basic Wind Speed may be increased to 120 mph in areas regulated by the 1994 Uniform Building Code.

12. The Maximum Basic Wind Speed may be increased to 110 mph in areas regulated by the 1994 Uniform Building Code. 13. The Maximum Basic Wind Speed may be increased to 100 mph in areas regulated by the 1994 Uniform Building Code. 14. The Maximum Basic Wind Speed may be increased to 95 mph in areas regulated by the 1994 Uniform Building Code. 15. The Maximum Basic Wind Speed may be increased to 90 mph in areas regulated by the 1994 Uniform Building Code. 16. The Maximum Basic Wind Speed may be increased to 85 mph in areas regulated by the 1994 Uniform Building Code. 17. The Maximum Basic Wind Speed may be increased to 80 mph in areas regulated by the 1994 National Building Code. 18. The Maximum Basic Wind Speed may be increased to 70 mph in areas regulated by the 1994 National Building Code. 19. The Maximum Basic Wind Speed may be increased to 120 mph in areas regulated by the 1994 BOCA National Building Code. 20. The Maximum Basic Wind Speed may be increased to 105 mph in areas regulated by the 1994 BOCA National Building Code. 21. The Maximum Basic Wind Speed may be increased to 80 mph in areas regulated by the 1994 BOCA National Building Code.

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1. Figures shown are in pieces - all 12' long 2. 5% cutting and fitting waste factor included 3. Computations based on minimum overlap of 1-1/4" 4. Actual usage subject to variables such as building design and installers

NOTES AND CALCULATIONS:

JH1120SL