NEW HardieShingle® HZ10 Siding

JamesHardie®

STRAIGHT EDGE, STAGGERED EDGE, HALF ROUNDS & INDIVIDUAL SHINGLES

INSTALLATION REQUIREMENTS - PRIMED & COLORPLUS® PRODUCTS

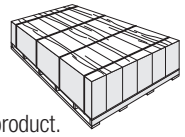
EFFECTIVE JAN 2011

Visit www.jameshardie.com for the most recent version.

IMPORTANT: FAILURE TO INSTALL AND FINISH THIS PRODUCT IN ACCORDANCE WITH APPLICABLE BUILDING CODES AND JAMES HARDIE WRITTEN APPLICATION INSTRUCTIONS MAY LEAD TO PERSONAL INJURY, AFFECT SYSTEM PERFORMANCE, VIOLATE LOCAL BUILDING CODES, AND VOID THE PRODUCT ONLY WARRANTY. BEFORE INSTALLATION, CONFIRM THAT YOU ARE USING THE CORRECT HARDIEZONE™ INSTRUCTIONS. TO DETERMINE WHICH HARDIEZONE™ APPLIES TO YOUR LOCATION, VISIT WWW.HARDIEZONE.COM OR CALL 1-866-942-7343 (866 9HARDIE)

STORAGE & HANDLING:

Store flat and keep dry and covered prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry product on edge. Protect edges and corners from breakage. James Hardie is not responsible for damage caused by improper storage and handling of the product.



⚠ CUTTING INSTRUCTIONS

OUTDOORS
1. Position cutting station so that wind will blow dust away from user and others in working area.
2. Use one of the following methods:
   - a. Best: i. Shears (manual, electric or pneumatic)
   - b. Better: i. Dust reducing circular saw equipped with a HardieBlade® saw blade and HEPA vacuum extraction
   - c. Good: i. Dust reducing circular saw with a HardieBlade saw blade (only use for low to moderate cutting)

INDOORS
1. Cut only using shears (manual, electric or pneumatic).
2. Position cutting station in well-ventilated area

- NEVER use a power saw indoors
- NEVER use a circular saw blade that does not carry the HardieBlade saw blade trademark
- NEVER dry sweep – Use wet suppression or HEPA Vacuum

Important Note: For maximum protection (lowest respirable dust production), James Hardie recommends always using "Best"-level cutting methods where feasible.

NIOSH-approved respirators can be used in conjunction with above cutting practices to further reduce dust exposures. Additional exposure information is available at www.jameshardie.com to help you determine the most appropriate cutting method for your job requirements. If concern still exists about exposure levels or you do not comply with the above practices, you should always consult a qualified industrial hygienist or contact James Hardie for further information.

SD083105

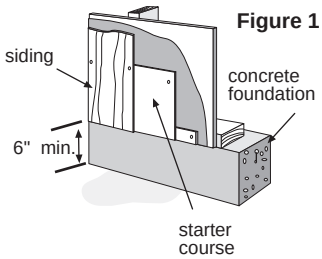
GENERAL REQUIREMENTS:

- HardieShingle® siding can be installed over braced wood or steel studs spaced a maximum of 24" o.c. or directly to minimum 7/16" thick sheathing.
- HardieShingle siding can also be installed over foam insulation/sheathing up to 1" thick. When using foam insulation/sheathing, avoid over-driving nails (fasteners),which can result in dimpling of the siding due to the compressible nature of the foam insulation/sheathing. Extra caution is necessary if power-driven nails (fasteners) are used for attaching siding over foam insulation/sheathing.
- A water-resistive barrier is required in accordance with local building code requirements. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building code requirements. James Hardie will assume no responsibility for water infiltration. James Hardie does manufacture HardieWrap® Weather Barrier, a non-woven non-perforated housewrap[1], which complies with building code requirements.
- When installing James Hardie® products all clearance details in figs. 1,2,3,4,5,6 &7 must be followed.
- Adjacent finished grade must slope away from the building in accordance with local building codes - typically a minimum of 6" in the first 10'.
- Do not install James Hardie products, such that they may remain in contact with standing water.
- HardieShingle siding may be installed on vertical wall applications only.
- DO NOT use stain on James Hardie® products.

CLEARANCES

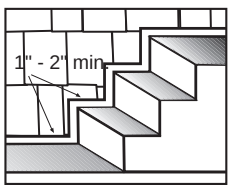
Install siding and trim products in compliance with local building code requirements for clearance between the bottom edge of the siding and the adjacent finished grade.

Figure 1



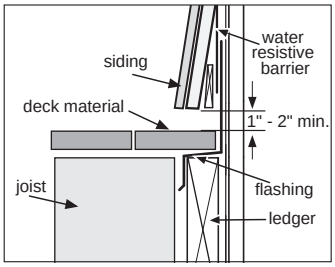
Maintain a minimum 1" - 2" clearance between James Hardie® products and paths, steps and driveways.

Figure 2



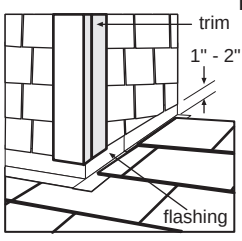
Maintain a minimum 1" - 2" clearance between James Hardie products and decking material.

Figure 3



At the juncture of the roof and vertical surfaces, flashing and counterflashing shall be installed per the roofing manufacturer's instructions. Provide a minimum 1" - 2" clearance between the roofing and the bottom edge of the siding and trim.

Figure 4



[1]For additional information on HardieWrap® Weather Barrier, consult James Hardie at 1-866-4Hardie or www.hardiewrap.com

WARNING: AVOID BREATHING SILICA DUST

James Hardie® products contain respirable crystalline silica, which is known to the State of California to cause cancer and is considered by IARC and NIOSH to be a cause of cancer from some occupational sources. Breathing excessive amounts of respirable silica dust can also cause a disabling and potentially fatal lung disease called silicosis, and has been linked with other diseases. Some studies suggest smoking may increase these risks. During installation or handling: (1) work in outdoor areas with ample ventilation; (2) use fiber cement shears for cutting or, where not feasible, use a HardieBlade® saw blade and dust-reducing circular saw attached to a HEPA vacuum; (3) warn others in the immediate area; (4) wear a properly-fitted, NIOSH-approved dust mask or respirator (e.g. N-95) in accordance with applicable government regulations and manufacturer instructions to further limit respirable silica exposures. During clean-up, use HEPA vacuums or wet cleanup methods - never dry sweep. For further information, refer to our installation instructions and Material Safety Data Sheet available at www.jameshardie.com or by calling 1-800-9HARDIE (1-800-942-7343). FAILURE TO ADHERE TO OUR WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY OR DEATH.

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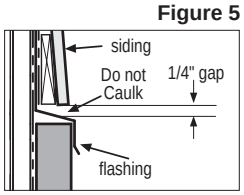
Maintain a 1/4" clearance between the bottom of James Hardie® products and horizontal flashing. Do not caulk gap.

Figure 5



Maintain a minimum 1" gap between gutter end caps and siding & trim.

Figure 6

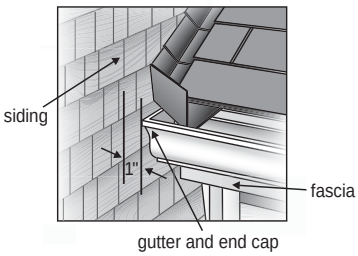
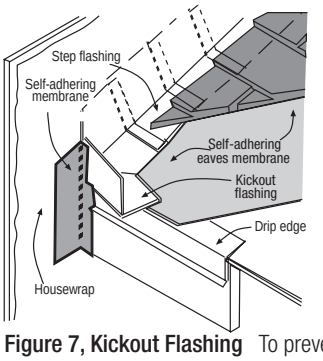


Figure 7



KICKOUT FLASHING

Because of the volume of water that can pour down a sloped roof, one of the most critical flashing details occurs where a roof intersects a sidewall. The roof must be flashed with step flashing. Where the roof terminates, install a kickout to deflect water away from the siding.

It is best to install a self-adhering membrane on the wall before the subfascia and trim boards are nailed in place, and then come back to install the kickout.

Figure 7, Kickout Flashing To prevent water from dumping behind the siding and the end of the roof intersection, install a "kickout" of sufficient length and angle to direct the water running down the roof away from the siding.

TRIM CONSIDERATION:

Minimum 1" trim thickness is needed as Panels stack at a depth of roughly 15/16" for the 7" reveal.
If additional trim depth is desired, you can place a spacer under the trim (Fig. 8C & 8D)

Figure 8A

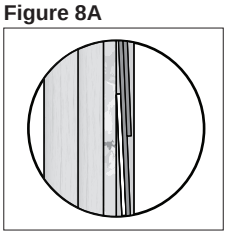


Figure 8B

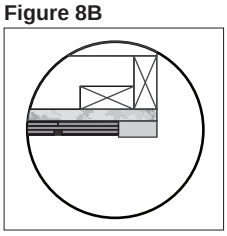


Figure 8C

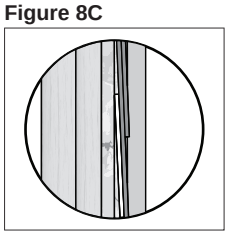
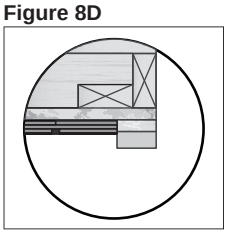


Figure 8D



GABLE INSTALLATION:

Installation over sheathing is recommended for gables.

1) Install a 1-1/4" starter strip and a 8-1/4" or 9-1/4" wide HardiePlank® lap siding starter course. (fig. 9)
2) Begin panel installation by first marking a plumb line down the center of the gable. Place either the edge or the center of panel along this line to ensure a symmetric finished appearance (fig. 9 & 10).
3) Start second course, by placing panel 16" back from gable centerline (fig. 11).
4) Cut the edge of the panels to correspond with the rake angle of the gable leaving a 1/8" gap for caulk at the trim or soffit.
5) If the rake angle cuts through a keyway of a complete panel or significantly weakens the end of the panel, use face nails to secure the end pieces as shown (fig. 11).
6) Continue installation aligning courses as indicated. At the top of the gable, face nails will be required for the final pieces (fig. 12).

Note: Save cut pieces to use on opposite end of wall

Figure 9

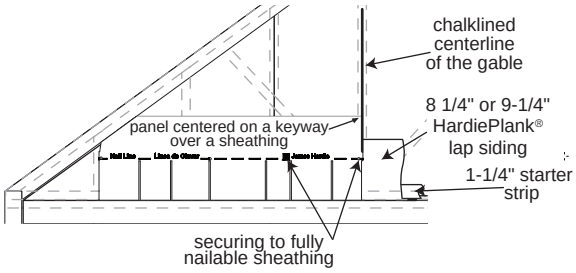


Figure 10

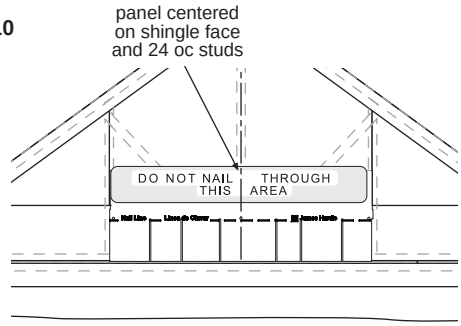


Figure 11

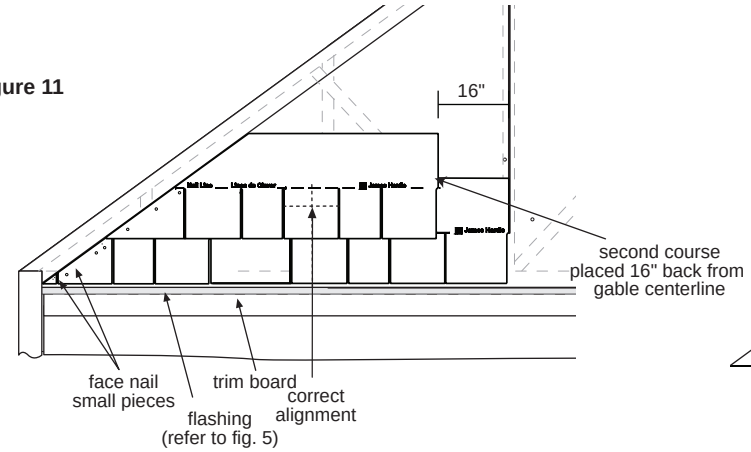
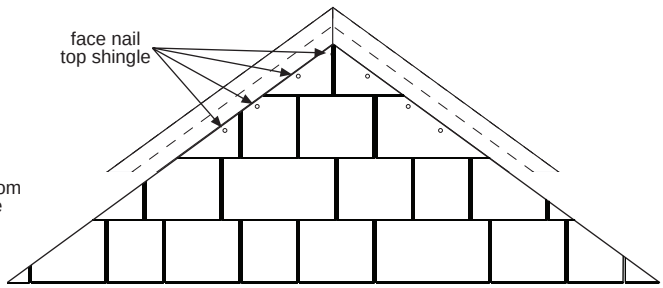


Figure 12



HARDIESHINGLE® STAGGERED EDGE PANELS INSTALLATION

Fastener Requirements

0.083" x 0.187" HD x 1 1/2" long ringshank nails are used for fastening HardieShingle® Staggered Edge Panels to both framing and to 7/16" thick APA rated sheathing.

HardieShingle® Staggered Edge Panel Installation

Install HardieShingle® panels with joints butted in moderate contact. Due to overlapping of the joints, caulk is not required except where panels abut trim boards. (fig. 13 & 15). Ensure keyways do not line up on subsequent courses.

1) Install a 1-1/4" starter strip, then install a 8-1/4" or 9-1/4" wide HardiePlank® lap siding starter course.

2) Place first panel so that panel end centers over stud. Trim panel as needed. Butt the cut end into trim as shown (figs 13 & 15). When installing over a band board or any horizontal surface, leave 1/4" gap between bottom of siding and flashing.

3) Secure panel, leaving 1/8" gap for caulk at trim and continue the course along the wall.

4) Start the second course, by removing the equivalent of one full stud cavity (16" or 24" OC), again abutting the cut end into the trim (figs 13 & 15). This is to prevent pattern repetition. Repeat step 3.

5) Start the third course, by removing the equivalent of two full stud cavities (figs 13 & 15) and repeat step 3.

6) Continue up the wall repeating steps 2 through 6 until desired height is reached.

Note: For aesthetic purposes you may trim the bottom of the panel to create a straight edge. If doing so, ensure all cuts ends are properly sealed and painted (fig 14)

Figure 14

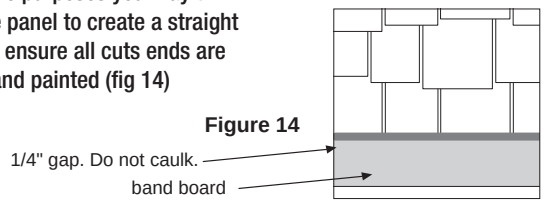
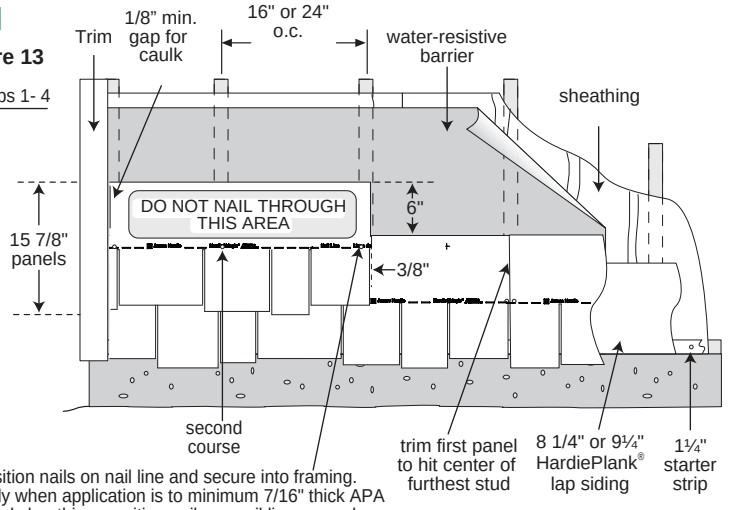


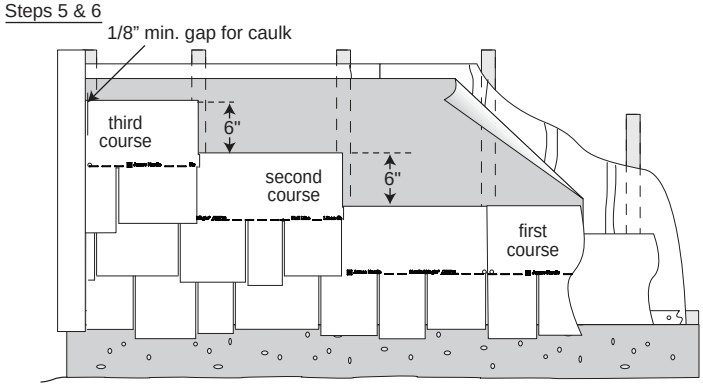
Figure 13

Steps 1- 4



position nails on nail line and secure into framing. Only when application is to minimum 7/16" thick APA rated sheathing, position nails on nail line spaced a maximum of 13 3/4" o.c. Allow 3/8" from panel edges.

Steps 5 & 6



HARDIESHINGLE® STAGGERED EDGE PANEL COVERAGE

Panels for sidewall applications are available in 48" lengths. Pieces needed for one square (100sq.ft.) of product coverage = approximately 50, based on a maximum 6" exposure from the top edge of HardieShingle panels in subsequent courses (refer to Figure 13).

† The illustration (figure 7) and associated text was reprinted with permission of THE JOURNAL OF LIGHT CONSTRUCTION. For subscription information, visit www.jlconline.com.

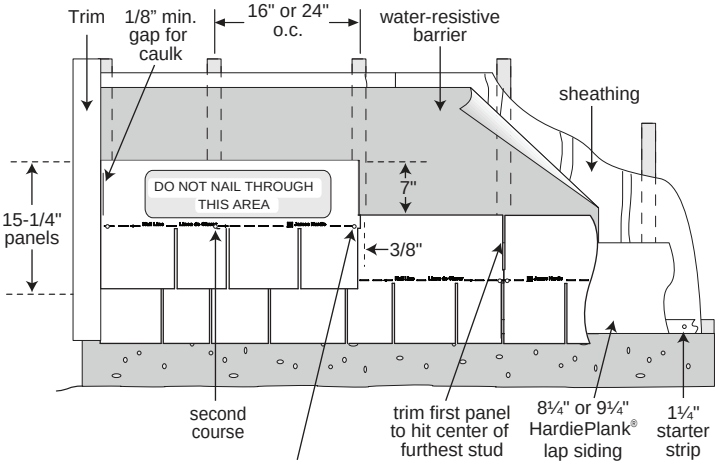
HARDIESHINGLE® STRAIGHT EDGE PANELS INSTALLATION

Maximum Exposure of 7"

REFER TO STAGGERED EDGE INSTRUCTIONS ABOVE

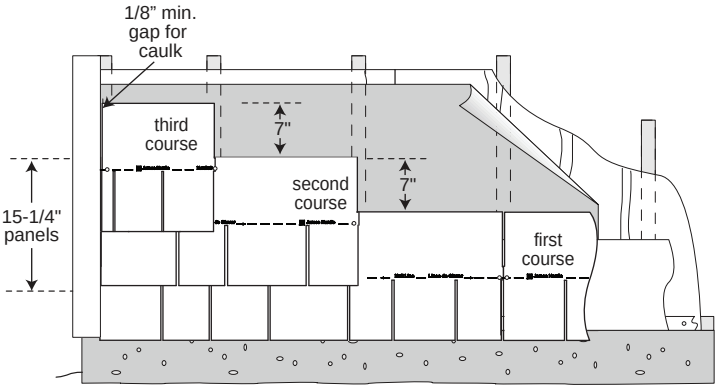
Figure 15

Steps 1 - 4



position nails on nail line and secure into framing. Only when application is to minimum 7/16" thick APA rated sheathing, position nails on nail line spaced a maximum of 13 3/4" o.c. Allow 3/8" from panel edges.

Steps 5 & 6



HARDIESHINGLE® STRAIGHT EDGE PANEL COVERAGE

Panels for sidewall applications are available in 48" lengths. Pieces needed for one square (100sq.ft.) of product coverage = approximately 43, based on maximum 7" exposure.

HARDIESHINGLE® INDIVIDUAL SHINGLE INSTALLATION

HardieShingle® Individual Shingles must be installed with the widest part of the shingle placed downwards and directly to minimum 7/16" thick sheathing.

Fastener Requirements

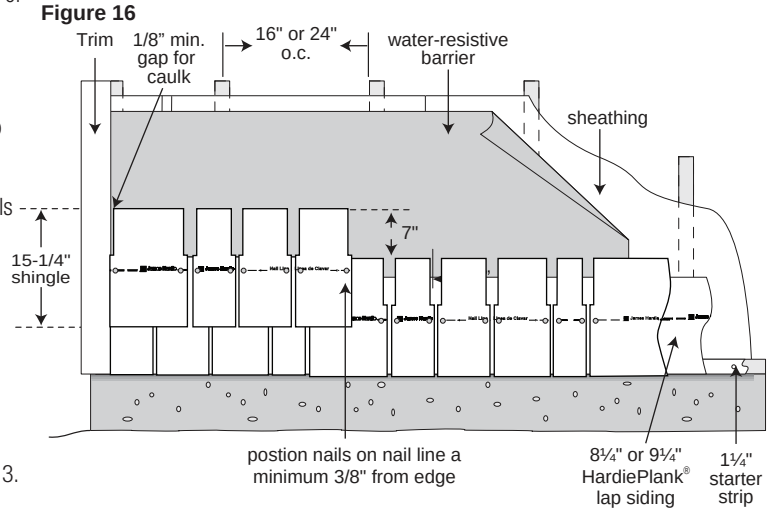
0.091" x 0.221" HD x 1 1/2" or 0.121" x 0.371" HD x 1 1/4" long corrosion resistant siding nails are used for fixing HardieShingle siding to 7/16" thick APA rated sheathing.

HardieShingle® Individual Shingle Installation

Due to overlapping of the joints, caulk is not required except where panels about trim boards. Space shingles a maximum 1/4" apart and leave a minimum lap of 1 1/2" between successive courses (fig. 17).

1) Install 1 1/4" starter strip and a 8 1/4" or 9 1/4" wide HardiePlank® siding starter course.
2) Install first shingle from the end abutting trim. Install widest part of shingle placed downwards. (fig. 16).
3) Secure shingle, leaving a 1/8" gap for caulk at trim and continue the course along the wall.
4) Start the second course, leaving a minimum lap of 1 1/2" between successive courses, again from the end abutting the trim. Repeat step 3.
5) Continue up the wall repeating steps 2 through 5 until desired height is reached.

Figure 16

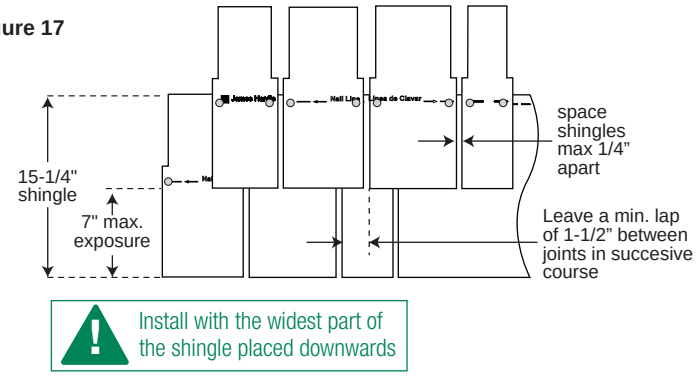


HARDIESHINGLE® INDIVIDUAL SHINGLE COVERAGE

Individual Shingles for sidewall applications are available in assorted widths as listed below. Bundles needed for one square (100 sq. ft.) of product coverage:

Shingle Width	Number of Bundles	Pieces per Bundle
4-3/16"	3	15
5-1/2"	6	15
6-3/4"	3	15
7-1/4"	6	15
10"	3	15

Figure 17



HARDIESHINGLE® HALF-ROUND PANELS INSTALLATION

Fastener Requirements

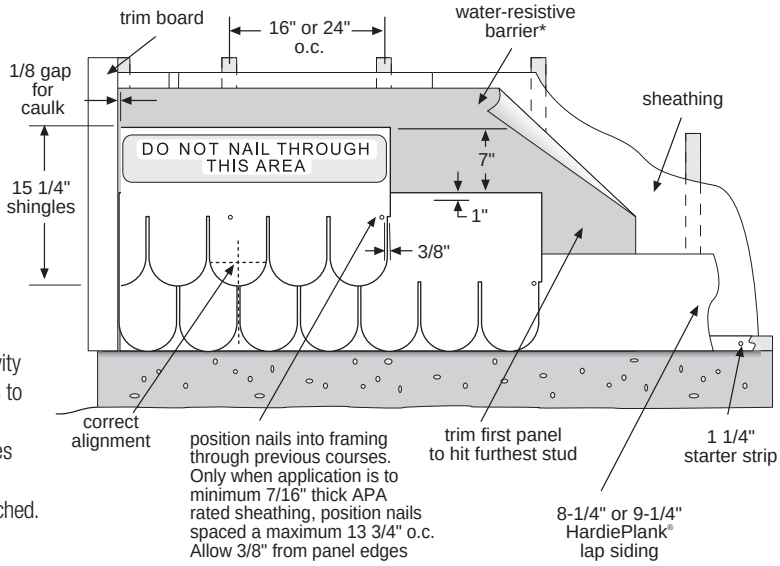
0.083" x 0.187" HD x 1 1/2" long ringshank nails are used for fastening HardieShingle® Half-Round Panels to both framing and to 7/16" thick APA rated sheathing.

HardieShingle Half-Round Panel Installation

Install HardieShingle® panels with joints butted in moderate contact. Due to overlapping of the joints, caulk is not required except where panels abutt trim boards. (fig. 18). Ensure keyways do not line up on subsequent courses.

1) Install a 1-1/4" starter strip, then install a 8-1/4" or 9-1/4" wide HardiePlank® lap siding starter course.
2) Place first panel so that panel end centers over stud. Trim panel as needed. Butt the cut end into trim as shown (figs 18). When installing over a band board or any horizontal surface, leave 1/4" gap between bottom of siding and flashing.
3) Secure panel, leaving 1/8" gap for caulk at trim and continue the course along the wall.
4) Start the second course, by removing the equivalent of one full stud cavity (16" or 24" OC), again abutting the cut end into the trim (fig 18). This is to prevent pattern repetition. Repeat step 3.
5) Start the third course, by removing the equivalent of two full stud cavities (figs 13 & 15) and repeat step 3.
6) Continue up the wall repeating steps 2 through 6 until desired height is reached.

Figure 18



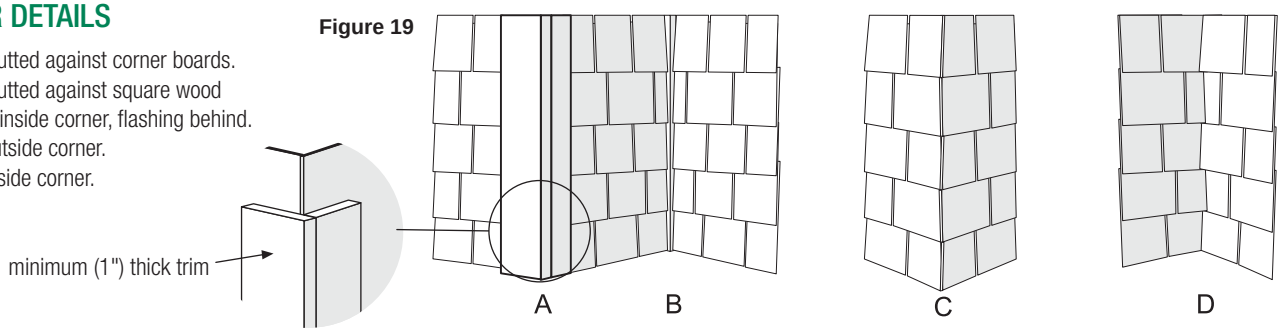
HARDIESHINGLE HALF-ROUND PANEL COVERAGE

Panels for sidewall applications are available in 48" lengths. Pieces needed for one square (100 sq. ft.) of product coverage=43 pieces with 7" exposure.

CORNER DETAILS

A. Panels butted against corner boards.
B. Panels butted against square wood strip on inside corner, flashing behind.
C. Laced outside corner.
D. Laced inside corner.

Figure 19



WINDOWS AND DOORS

Building wall components such as windows, doors and other exterior wall penetrations shall be installed in accordance with the component manufacturer's written installation instructions and local building codes. Where windows or doors are installed, continue the application of siding as if the wall is complete. Triming for the opening and using the resulting piece may throw off the spacing above the break.

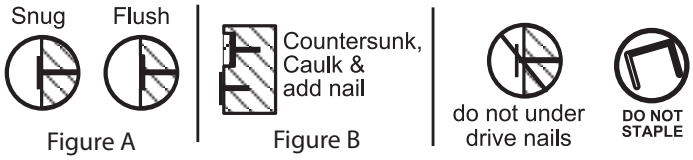
GENERAL FASTENING REQUIREMENTS

Fasteners must be corrosion resistant, galvanized, or stainless steel. Electro-galvanized are acceptable but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. James Hardie is not responsible for the corrosion resistance of fasteners. Stainless steel fasteners are recommended when installing James Hardie® products near the ocean, large bodies of water, or in very humid climates.

PNEUMATIC FASTENING

James Hardie products can be hand nailed or fastened with a pneumatic tool. Pneumatic fastening is highly recommended. Set air pressure so that the fastener is driven snug with the surface of the siding. A flush mount attachment on the pneumatic tool is recommended. This will help control the depth the nail is driven. If setting the nail depth proves difficult, choose a setting that under drives the nail. (Drive under driven nails snug with a smooth faced hammer - Does not apply for installation to steel framing).

- Consult applicable code compliance report for correct fasteners type and placement to achieve specified design wind loads.
- NOTE: Published wind loads may not be applicable to all areas where Local Building Codes have specific jurisdiction. Consult James Hardie Technical Services if you are unsure of applicable compliance documentation.
- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space). (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)
- For wood framing, under driven nails should be hit flush to the plank with a hammer (For steel framing, remove and replace nail).
- **Do not use aluminum fasteners, staples, or clipped head nails.**



CUT EDGE TREATMENT

Caulk, paint or prime all field cut edges.

CAULKING

For best results use an Elastomeric Joint Sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex Joint Sealant complying with ASTM C834. Caulking/Sealant must be applied in accordance with the caulking/sealant manufacturer's written instructions or ASTM C1193.

PRIMING & PAINTING

DO NOT use stain on James Hardie® products. James Hardie® products must be painted within 180 days for primed product and 90 days for unprimed. In addition non ColorPlus® product versions of HardieShingle® Siding require a field applied prime coat. 100% acrylic primers and topcoats are recommended. Do not paint when wet. For application rates refer to paint manufacturers specifications. Back rolling is recommended when paint is spray applied.

COLORPLUS® TECHNOLOGY CAULKING, TOUCH-UP & LAMINATE

- Touch up nicks, scrapes and nail heads using the ColorPlus® Technology touch up applicator. Touch-up paint should be used sparingly. If large areas require touch-up, replace the damaged area with new HardieShingle® siding with ColorPlus Technology.
- Laminate sheet must be removed immediately after installation of each course.
- Terminate non-factory cut edges into trim where possible, and caulk. Color matched caulks are available from your ColorPlus® product dealer.
- Treat all other non-factory cut edges using the ColorPlus Technology edge coaters, available from your ColorPlus product dealer.

PAINTING JAMES HARDIE® SIDING AND TRIM PRODUCTS WITH COLORPLUS® TECHNOLOGY

When repainting ColorPlus products, James Hardie recommends the following regarding surface preparation and topcoat application:

- Ensure the surface is clean, dry, and free of any dust, dirt, or mildew
- Repriming is normally not necessary
- 100% acrylic topcoats are recommended
- DO NOT use stain or oil/alkyd base paints on James Hardie® products
- Apply finish coat in accordance with paint manufacturers written instructions regarding coverage, application methods, and application temperature

RECOGNITION: In accordance with ICC-ES Legacy Report NER-405, HardieShingle® Staggered Edge Panels are recognized as a suitable alternate to that specified in: the BOCA National Building Code/1999, the 1997 Standard Building Code, the 1997 Uniform Building Code, the 1998 International One- and Two-Family Dwelling Code, the 2003 International Building Code, and the 2003 International Residential Code for One-and Two-Family Dwellings. HardieShingle Staggered Edge Panels are also recognized for application in the following: City of Los Angeles Research Report No. 24862, State of Florida listing FL#889, .02, U.S. Dept. of HUD Materials Release 1263c, Texas Department of Insurance Product Evaluation EC-23, City of New York MEA 223-93-M, and California DSA PA-019. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.

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