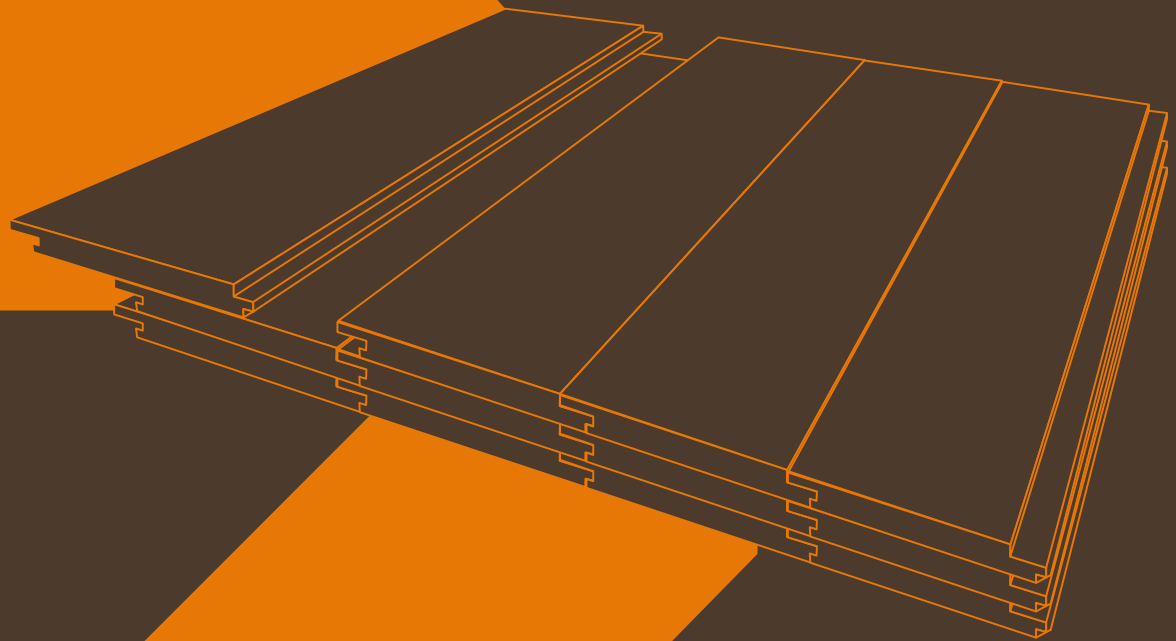


# ACRE

## INSTALLATION GUIDE

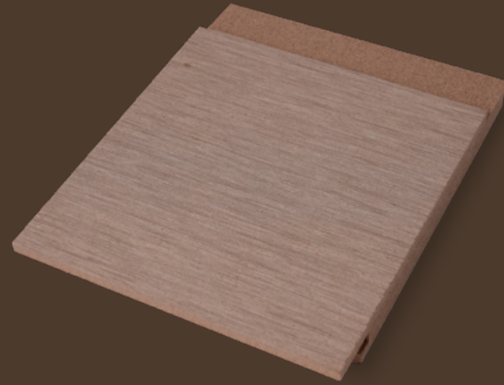
Siding Collection:  
Shiplap | Nickel Gap | V-Groove



MODERN·MILL  
BUILDING REVOLUTIONS

# BUILD BETTER WITH ACRE

Modern Mill is leading the way toward a more sustainable future, one tree-free board at a time.



Our award-winning building material, ACRE, is the ideal alternative to wood for countless exterior and interior applications. It's beautiful, easy to work with, easy to care for and better for the environment.

ACRE is strong, water-resistant and guaranteed not to rot or splinter.

**ACRE is a sustainable choice that doesn't sacrifice performance.**

#### DISCLAIMER

These installation instructions reflect current best practices and may be updated over time. Always check for the latest guide version at [www.modern-mill.com/tech-and-training/](http://www.modern-mill.com/tech-and-training/) or contact your sales rep for the most current installation procedures.

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## PRODUCT APPLICATIONS DISCLAIMER

Please consult with a Modern Mill representative to ensure your intended use of ACRE products is fit for purpose. Published and current installation guidelines must be followed for ACRE's warranty to remain valid. For example, ACRE Siding is only approved as shiplap and board and batten and must follow prescribed installation guides. Lap Siding is not an approved application.

This guide applies exclusively to ACRE Shiplap siding products. Modern Mill makes no warranty for use with any other siding products or materials. You assume all risk when using this information with non-ACRE products, including other siding materials or construction applications.



### BURNING WARNING

Safety Warning: Do not burn ACRE products or scraps. ACRE products are not safe to be discarded by burning, used as firewood, kindling or as any other source of fuel to create and / or maintain a fire or heat source.



### EXTREME HEAT WARNING

Be aware of excess heat on ACRE surfaces such as but not limited to fire, direct or reflective sunlight, reflective sunlight from energy-efficient window products. Low-emissivity (Low-E) glass can harm ACRE products because Low-E glass products are designed to prevent passive heat gain within a structure and can cause unusual heat build up on exterior surfaces from sunlight reflection. The extreme rise of surface temperatures can create an environment which exceeds normal exposures and may create scenarios which can cause ACRE products to melt, sag, warp, discolor, expand and contract beyond acceptable tolerances or accelerate weathering. Be sure to consult Modern Mill's coatings guide, sales representatives or contact us at [zen@modern-mill.com](mailto:zen@modern-mill.com) or 601-869-5050 for consultative assistance before installation.

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ACRE NICKEL GAP SIDING  
Revere Beach, MA

Be sure to take our installation course  
and review all best practices before building with ACRE.  
<https://modern-mill.com/courses/acre-product-installation-course/>



Following the best practices on this page will ensure success on the job site—interior and exterior—and is required for warranty coverage.

#### GENERAL INFORMATION

Please ensure you review this manual in its entirety prior to installation of your ACRE products. The purpose of this manual is to provide information and tips to simplify the storage, handling and installation process.

ACRE contains PVC. It's important to familiarize yourself with its spacing requirements, coatings and all installation guidelines. This will ensure ACRE products perform as designed and to expectations. Modern Mill will not accept any liability or responsibility under our warranty for product failure caused by an application that does not meet ACRE requirements.

If you encounter a situation that is not covered by this document or the installation manual, please contact us at [modern-mill.com](http://modern-mill.com) or 601-869-5050.

Before installing ACRE, please be sure to fully inspect the materials for breakage, foreign objects, surface defects, and correct product. If prefinished, review product for the correct color and color consistency. Also check for wet or saturated products.

Do not install a product with any manufacturing errors. Modern Mill will consider installation of product as final acceptance and will not honor any claims regarding said product.

#### SAFETY

Wear safety glasses and appropriate personal protective equipment (PPE) for job site conditions. Make sure all tools are in good working order and that their use is clearly communicated. Follow proper safety practices for using all power tools and any job site equipment. Fasteners have sharp edges. Use proper care when handling. Safety Data Sheets can be downloaded from [modern-mill.com](http://modern-mill.com).

#### STORAGE

Many issues can be traced back to storage and handling issues. ACRE products must be kept covered, stored horizontally, and fully supported on a flat surface. Do not store pallets directly on the ground. If pallets are to be stored on a damp surface, place a vapor barrier on the ground underneath the pallet.

Materials should be protected from direct exposure to the elements. Do not place ACRE directly on a surface that can develop excessive heat. Modern Mill recommends all materials are stored in a cool, dry place. If the product becomes wet, it must be completely dried prior to installation. We recommend storage with factory pallet covers to keep it clean and protected. If needed, additional factory covers are available for purchase through your Modern Mill representative.

Do not finish or install materials that are wet. Installing wet or saturated materials may result in coating retention and other issues. Pay particular attention to the top two or three rows of product on the pallet as those areas are the most likely to become saturated.

Wet materials may stain. Staining is often a deposit of soluble salts, usually white in color, which can be cleaned off with soap & water and thorough clean water rinse.

Modern Mill will not warranty adhesion failures of finished coating on the substrate as a result of varying moisture conditions.

#### HANDLING

ACRE Siding boards are packaged interlocked. Take care in pulling boards across the row and not straight down the stack to avoid damaging the surface. Always pick up boards from the center and carry on edge. Acclimate ACRE to the temperature it will be installed for at least two hours before processing. During installation, be aware of changes in ambient temperature that could affect product gapping.

\*Note: Keep out of direct sunlight.

#### CUTTING

Ensure boards are dry before installation. When working on any new construction, renovation or repair project, always wear protective clothing and safety equipment. Safety glasses, gloves, a dust mask, and long sleeves are recommended especially when cutting or sawing. Readily available tools can be used for installing ACRE products. Use extreme caution and be sure to follow the applicable tool manufacturer's instructions. For best results use a fine-toothed finish blade. A jigsaw can be used to cut around obstructions depending on the design of your project.

\*Note: Keep out of direct sunlight.

#### PAINTING, STAINING OR FINISHING ACRE PRODUCTS

**Pro Tip: For best results, applying paint, stain, or clear coats on a smooth flat surface is recommended.** ACRE products may be finished after installation; however, the viscosity of the coating could result in an uneven appearance if not monitored closely. ACRE does not absorb paints, stains, or clear coats as typical woods products do. Coat ACRE with manufacturer recommended water-based paints, stains or sealers. If you choose to paint ACRE, use a coating with a Light Reflective Value (LRV) 55 or greater. For any paint or stain color with an LRV below 55 or if you are not sure – contact your Modern Mill rep for help and approval for use.

\*Note: Keep out of direct sunlight.

#### CARE AND CLEANING

ACRE products are made from natural fibers and PVC / polymers. Wash down the exterior surface with water at minimum every 6-12 months, or as required. For easier care and cleaning, we recommend coating your ACRE products with an exterior grade water soluble paint or stain.

Follow manufacturer instructions on all cleaning products. Test first on an inconspicuous area to ensure the surface and finish remain undisturbed."

Be mindful of products which contain chemicals that may alter the appearance of ACRE products. To clean ACRE products, use a mild soap & water mix or a gentle all-purpose cleaner such as Simple® Green with a natural all fiber brush. Do not use traditional composite deck cleaners. If using a power washer, we do not recommend pressure above 2500 psi. We suggest testing in an inconspicuous area first to ensure it will not damage the product's surface. If power washing, we recommend using a wide fan tip or oscillating tip and keeping the tip a minimum of 12" from product surface. We recommend clearance between ACRE products and landscaping. Prune any vegetation back that is touching the wall.



# KEYS TO SUCCESS

These are the critical considerations for your successful ACRE installation. Pay close attention to the following sections in this guideline:



ACRE SHIPLAP SIDING  
Brewster, MA

## FASTENING

- As with other alternative building products, to minimize the effects of temperature related expansion & contraction, and if gap quality is of critical concern, the use of shorter boards, lighter colors, and following the required fastening requirements, especially regarding face fasteners, is paramount.
- Proper fasteners (minimum 8D x 2 1/2" ring shank nails or minimum #8 x 2 1/2" screws).
- DO NOT USE BRADS, FINISH/TRIM HEAD NAILS/SCREWS OR STAPLES.
- Always fasten with a minimum of 1 1/2" penetration into solid framing.
- Take care to drive all fasteners to proper depth.
- When installing over continuous insulation, see section on Installation Over Continuous Insulation for requirements.
- For any questions, please reach out to your Modern Mill Rep.

## FINISHING

- Use approved water-based coatings with LRV 55 or greater.
- **If the coating's LRV is below 55, or if you're not sure, contact your Modern Mill rep.**

## CLIMATE CONDITIONS & INSTALLATION TEMPERATURE

- Ambient temperature and temperature of ACRE material at time of installation MUST be considered.
- Pay careful attention to Expansion and Contraction guidance on page 14.

## UNIQUE APPEARANCE

- Note that rice hulls, like wood, can vary slightly in color, which is a unique feature of ACRE and can be seen in the final product both prior to and after staining. For best appearance it's important to mix boards from various pallets or various points of the stack.
- Be sure to inspect boards prior to installing for shipping damage or other irregularities.

**INSTALLATION GUIDES**

ACRE contains PVC. It's important to familiarize yourself with its spacing requirements, coatings and all installation guidelines. This will ensure ACRE products perform as designed and to expectations.

- SIDING
- OUTDOOR LIVING
- TRIM
- SHEETS
- SPECIALTY PRODUCTS

**COATING AND FINISHING**

**PROPER INSTALLATION REQUIRES CLOSE ADHERENCE TO MODERN MILL COATINGS**

**GUIDELINES:** This is a critical and important step, especially with outdoor applications for ACRE to perform as expected and to avoid the effects of excessive expansion and contraction.

ACRE does not absorb paints, stains, or clear coats as typical woods products do. For best results, we recommend applying coatings with boards on a smooth flat surface prior to installation.

ACRE products generally will not gray like natural woods in exterior applications. However, color may fade over time with increased UV exposure, therefore a UV-resistant stain or paint can help resist fading and make for easier cleaning and care.

**UNIQUE APPEARANCE**

Note that rice hulls, like wood, can vary slightly in color, which is a unique feature of ACRE and can be seen in the final product both prior to and after staining. For best appearance it's important to mix boards from various pallets or various points of the stack.

**MOVEMENT**

**ACRE WILL EXPAND AND CONTRACT WITH ENVIRONMENTAL TEMPERATURE CHANGES. INSTALLATION CONDITIONS AND FINISH COLOR WILL IMPACT EXPANSION AND CONTRACTION.** Refer to the proper product installation guide to ensure the best product performance and minimize the effects of expansion and contraction. Be sure to inspect boards prior to installing for shipping damage or other irregularities.

**FASTENERS**

**USING THE CORRECT TYPE AND NUMBER OF FASTENERS WILL ENSURE MATERIALS PERFORM AS INTENDED. DO NOT USE BRADS, FINISH/TRIM HEAD NAILS/SCREWS, OR STAPLES.** Fasteners must penetrate solid framing members. All projects and designs are unique. For any installation questions please contact your Modern Mill Rep.

**Caution:** under driven button-cap fasteners may inhibit the engagement of siding panels.

**HEAT RETENTION**

Coatings will affect product performance, including heat retention, therefore it's important to read the **Coatings Guide** and use manufacturer approved coatings and finishes.

**BURNING WARNING**

**Safety Warning:** Do not burn ACRE products or scraps. ACRE products are not safe to be discarded by burning, used as a firewood, kindling or as any other source of fuel to create and/or maintain a fire or heat source.

**STORAGE AND HANDLING**

We recommend keeping ACRE in a cool, dry spot, out of direct sunlight. Please acclimate ACRE products prior to installation. Always install ACRE immediately after making any cuts.

**ADHESIVES**

We recommend utilizing a PVC glue or cement, polyurethane glue or construction adhesives. **Do not use wood glue.**

**STAINS AND CLEANING**

ACRE products can be stained by certain foods, drinks and chemicals. Clean up any stains or dirt as quickly as possible and keep areas clean from debris. Soap and water, or a product like Simple Green® can clean most stains. In some cases, light sanding may be required. If using a power washer, we do not recommend pressure over 2500 psi, and do recommend the use of a wide fan or oscillating tip and keeping the tip a minimum of 12" from the surface.

**SURFACE MARRING (SCUFFS) AND LIGHT SURFACE DAMAGE**

Like wood, ACRE might endure some dings, dents or marring on the job. Most light surface damage can be removed by simply sanding ACRE lightly with 120 grit sandpaper on a pole or block sander in the direction of the grain. Please note, less than 120 grit sandpaper may scratch the surface and affect the finish when stain is applied. We do not recommend the use of an orbital or palm sander as this can affect the ACRE grain structure.

**ENVIRONMENTAL IMPACT**

ACRE by Modern Mill is made from upcycled rice hulls in a zero-waste manufacturing facility in the U.S.A. ACRE is tree-free, and free of phthalates, phenol, formaldehyde and adhesives. Contact us at [zen@modern-mill.com](mailto:zen@modern-mill.com) to learn about options for recycling.

**WARRANTY**

ACRE products have a limited lifetime guarantee to be free from material defects that are a result of the manufacturing process, rotting or splintering as a direct result of the manufacturing process or by normal use and service provided conditions described in all installation materials and technical guides are met. In no event shall Modern Mill be responsible or liable for labor, installation, re-installation, freight, taxes or any other charges related to defective product. Visit our website to learn more: [modern-mill.com/warranty](http://modern-mill.com/warranty)

**MODERN·MILL**

601-869-5050 | [zen@modern-mill.com](mailto:zen@modern-mill.com)

**MODERN-MILL.COM**

**FIRST TIME USING ACRE?**

Be sure to visit our page for all our installation guides and best practices before building with ACRE™



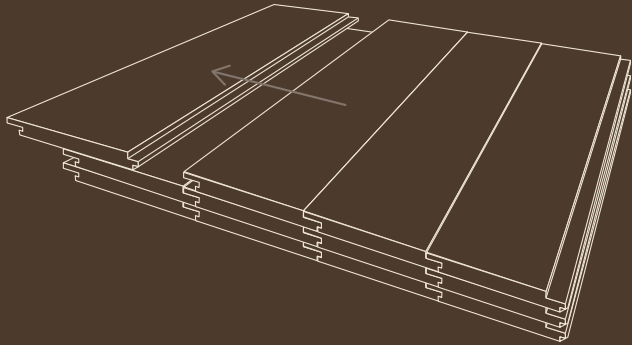


ACRE SIDING TRIM & CABINETRY  
915 Outdoor living space,  
Woodbury, NY

# STORAGE AND HANDLING



ACRE RABBETED TRIM  
Kirkland, WA



- Store ACRE Siding horizontally, fully supported on a flat surface.
- Do not place ACRE Siding directly on a surface that can develop excessive heat.
- Store in a cool, dry place.
- We recommend storing with pallet covers to keep it clean and protected.
- ACRE Siding boards are packaged interlocked. Pull boards across the row and not straight down the stack (see left image).
- Acclimate ACRE to the temperature it will be installed at for at least two hours before processing.
- During installation, be aware of changes in ambient temperature that could affect product gapping.

## SAFETY

- Wear safety glasses and appropriate personal protective equipment (PPE) for job site conditions.
- Follow proper safety practices for using all power tools and any job site equipment.

# GETTING STARTED

## TOOLS YOU WILL NEED

Readily available tools can be used for installing ACRE Siding. The following tools are recommended. Use extreme caution and be sure to use all tools per applicable manufactures' instructions.



MITER/  
CHOP SAW

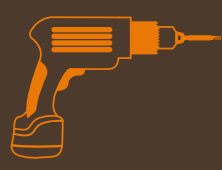


JIG SAW



EXTERIOR RATED  
FASTENERS MIN #8 X 2  
1/2" SCREWS OR MIN  
8D X 2 1/2" RING SHANK  
NAILS

DO NOT USE BRADS, FINISH/TRIM  
HEAD NAILS/SCREWS, OR STAPLES



DRILL



HAMMER  
AND/OR  
COLLATED  
PNEUMATIC  
NAIL GUN



TAPE MEASURE



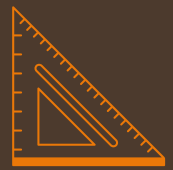
SAFETY  
GLASSES



LADDER



PENCIL



SPEED  
SQUARE

For best results use a fine-toothed finish blade. A jigsaw can be used to cut around obstructions depending on the design of your project.

ACRE Siding can be stained, painted, or left natural with appropriate clear coat or sealant.

Please visit the [ACRE Coatings Guidelines](#) for more.

# REQUIREMENTS BEFORE INSTALLATION

## BEFORE GETTING STARTED

- When working on any new construction, renovation or repair project, always wear protective clothing and safety equipment. Safety glasses, gloves, a dust mask, and long sleeves are recommended especially when cutting or sawing.
- Fasteners have sharp edges. Use proper care when handling.
- Safety Data Sheets can be downloaded from [modern-mill.com](https://www.modern-mill.com).
- Ensure boards are dry before installation.
- Be sure to inspect boards prior to installing for shipping damage or other irregularities.

## PAINTING, STAINING OR FINISHING ACRE PRODUCTS

**Pro Tip:** For best results, applying paint, stain, or clear coats on a smooth flat surface is recommended. ACRE products may be finished after installation, however the viscosity of the coating could result in an uneven appearance if not monitored closely.

Coat ACRE with manufacturer recommended water-based paints, stains or sealers.

If you choose to paint ACRE, use a coating with a Light Reflective Value (LRV) 55 or greater.

**For any paint or stain color with an LRV below 55 or if you are not sure - contact your Modern Mill rep for help and approval for use.**

See page 28 for more information.



Follow this **QR code** for a list of **finish manufacturers and products** that have passed paint-manufacturer testing standards and for **technical assistance**.

## WALL REQUIREMENTS

- Framing and sheathing requirements must comply with all applicable state and local building codes.
- Weather-resistant barrier requirements must comply with all applicable state and local building codes.
- Ensure that there are no nails or screws protruding. Remove, replace, or add fasteners to create a smooth and continuous surface.

## MOISTURE

- Avoid installing product in standing water or areas that can stop water from draining away from the building.

## UNIQUE APPEARANCE

- Note that rice hulls, like wood, can vary slightly in color, which is a unique feature of ACRE and can be seen in the final product both prior to and after staining. For best appearance it's important to mix boards from various pallets or various points of the stack.
- Be sure to inspect boards prior to installing for shipping damage or other irregularities.



Wrap your home in the eco-friendly beauty and durability of ACRE Siding.

## ACRE SHIPLAP SIDING COLLECTION

- Shiplap Siding
- Nickel Gap Siding
- V-Groove Siding

# ACRE SHIPLAP SIDING COLLECTION

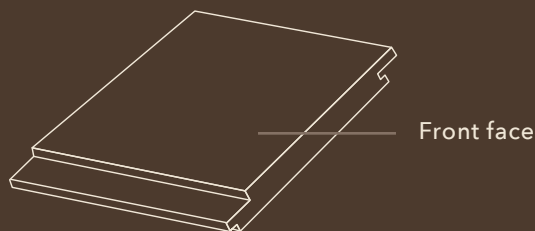


# SHIPLAP SIDING

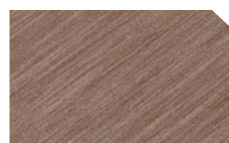
**ACRE Shiplap Siding** offers a sleek, modern aesthetic while providing a timeless farmhouse charm, packaged in durable boards, ready to be finished.



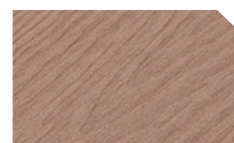
ACRE SHIPLAP SIDING  
Newton, MA



Available in:



ACRE Grain



ACRE Embossed

## PROFILE DETAILS



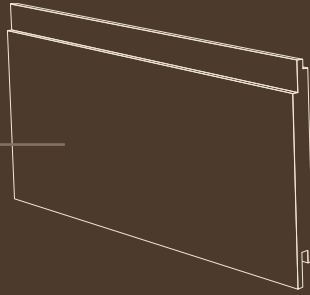
NOMINAL SIZE	ACTUAL THICKNESS (A)	ACTUAL WIDTH (B)	REVEAL (C)	TONGUE (D)	GAP (E)	LENGTHS
1"x6"	3/4"	5-7/16"	4-1/2"	1-3/16"	1/4"	12', 16', 20'
1"x8"	3/4"	7-3/16"	6-1/4"	1-3/16"	1/4"	12', 16', 20'
1"x10"	3/4"	9-3/16"	8-1/4"	1-3/16"	1/4"	12', 16', 20'



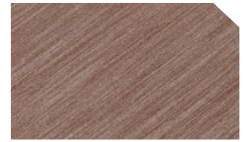
# NICKEL GAP SIDING

Effortlessly sleek, **ACRE Nickel Gap Siding** features clean and consistent gaps while delivering all the beauty of wood without the maintenance.

Front face



Available in:



ACRE Grain

## NICKEL GAP PROFILE DETAILS



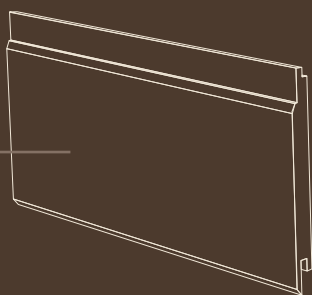
NOMINAL SIZE	ACTUAL THICKNESS (A)	ACTUAL WIDTH (B)	REVEAL (C)	TONGUE (D)	GAP (E)	LENGTHS
1"x6"	3/4"	5-7/16"	4-1/2"	1-1/16"	1/8"	12', 16', 20'
1"x8"	3/4"	7-3/16"	6-1/4"	1-1/16"	1/8"	12', 16', 20'
1"x10"	3/4"	9-3/16"	8-1/4"	1-1/16"	1/8"	12', 16', 20'

## V-GROOVE PROFILE DETAILS

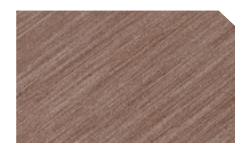


NOMINAL SIZE	ACTUAL THICKNESS (A)	ACTUAL WIDTH (B)	REVEAL (C)	TONGUE (D)	LENGTHS
1"x6"	3/4"	5-7/16"	4-1/2"	15/16"	12', 16', 20'
1"x8"	3/4"	7-3/16"	6-1/4"	15/16"	12', 16', 20'
1"x10"	3/4"	9-3/16"	8-1/4"	15/16"	12', 16', 20'

Front face



Available in:

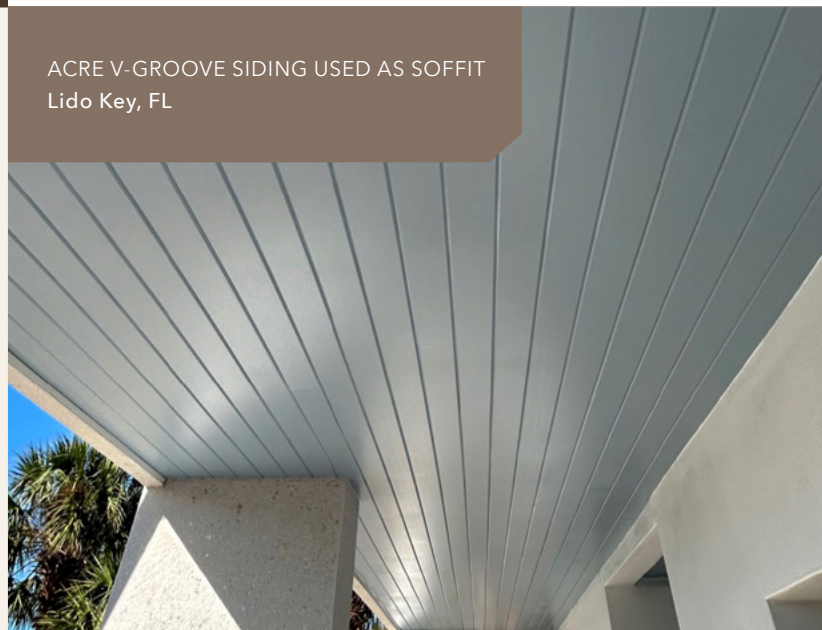


ACRE Grain

## V-GROOVE SIDING

Experience the bold and modern design of **V-shaped channels** without the drawbacks – durable, pest-resistant, and visually striking.

ACRE V-GROOVE SIDING USED AS SOFFIT  
Lido Key, FL



### FLASHING REQUIREMENTS

- Required wall flashing must be in compliance with all applicable state and local building codes.
- Install roof step flashing, and window and door flashing per all applicable state and local codes and the manufacturer instructions.
- Appropriate color matched flashing or felt strips can be used behind all butt joints to reduce water getting through the siding.

# EXPANSION AND CONTRACTION



ACRE SHIPLAP SIDING  
Kirkland, WA

- As with other alternative building products, to minimize the effects of temperature related expansion & contraction, and if gap quality is of critical concern, the use of shorter boards, lighter colors, and following the required fastening requirements, especially regarding face fasteners, is paramount.
- Follow gapping instructions and fastening requirements closely for best results.
- ACRE products undergo a degree of linear expansion with changes in weather or seasons. Expansion and contraction is most significant where extreme temperatures may exist.
- **Ambient temperature, direct sunlight and color of finish impact the degree of expansion and contraction of ACRE. These three factors MUST be considered when determining proper gapping at time of install.**
- Use ACRE Rabbeted Trim to conceal the effects of expansion and contraction at board ends.
- Fasten ACRE as soon after cutting as possible to minimize the effects of expansion and contraction.
- Alternatively, you can use shorter length boards with scarfed or rabbeted joints to minimize the effects of expansion and contraction.
- For best results, face fastening using Cortex system is recommended. Allow 1/4" clearance from obstructions in the wall like windows, doors, mounting blocks, etc.
- Apply a high quality exterior caulk to vertical clearances only.

Based on the temperature at time of installation, see chart. Create a gap between boards and follow fastening guidelines.

The chart below applies to ACRE installed with applied finishes having an LRV of 55 or greater. Gapping requirements will change with darker color choices. Contact your Modern Mill rep for support.

35 Degrees F and below	1/8" / 3.2 mm
36-59 Degrees F	1/16" / 1.2 mm
60-89 Degrees F	Lightly butted
90 Degrees F and above	Tightly butted

## FOR INSTALLATIONS WITH DARKER COLORS

- For any installation using a paint or stain color with an LRV below 55, OR if you are not sure, contact your Modern Mill rep for help and approval for use.
- **Installations with darker colors will involve additional fastening requirements to properly control the effects of heat build up.**

# INSTALLATION



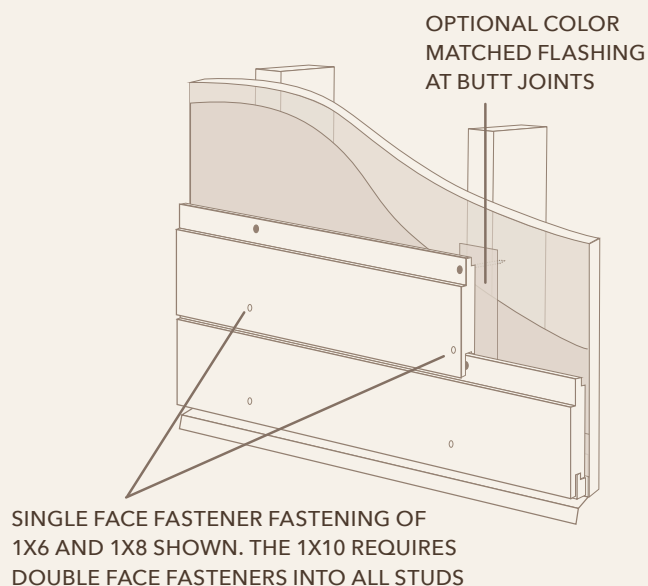
ACRE SHIPLAP SIDING  
Brewster, MA

## FASTENING

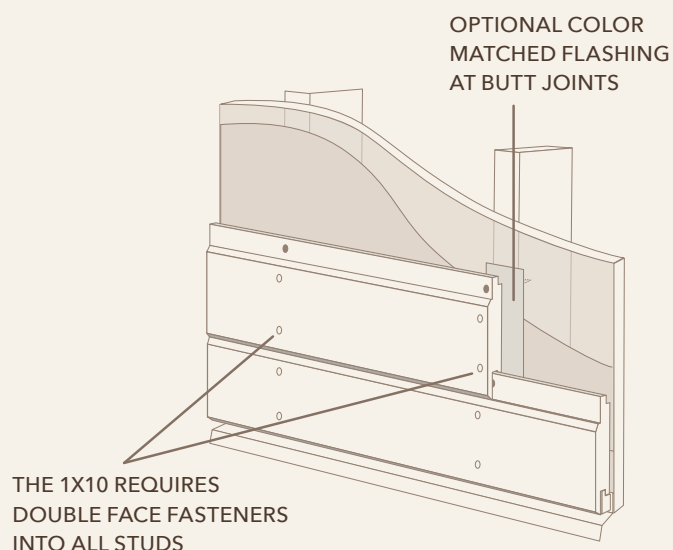
For the best performance of your ACRE Siding installation, use a high quality fastener that meets the following specifications:

- Use only approved fasteners. **DO NOT USE BRADS, FINISH/TRIM HEAD NAILS/SCREWS, OR STAPLES.**
- Minimum Screw Size: #8 X 2 1/2" exterior grade flat head in blind fastening flange, #8 x 2 1/2" composite screw in face as directed.
- Minimum Nail Size: 8D x 2 1/2" exterior grade ring shank nail in blind fastening flange, 8D x 2 1/2" exterior grade ring shank nail in face as directed.
- Minimum Fastener Length: Fastener must penetrate the wood stud at least 1 1/2".
- Fasten into solid framing not more than 16" on center. Reduce to 12" on center if securing through sheathing only.
- Using screws for fastening is highly recommended.
- Use fasteners rated and approved for exterior use. **Note:** coastal applications may require special stainless steel fasteners.
- Make sure fasteners are driven flush with the surface of siding. **Note:** Cortex plug system screws drive beneath the surface to accommodate plugs.
- ACRE Cortex Screw and Plug systems are available for face fastening. **Note:** These screws should NOT be used on the blind fastening flange.
- Fasten Siding as seen in the diagrams at right.
- Install one additional face fastener approximately 2" above the bottom edge of the siding panel for 1x6 and 1x8, and two additional face fasteners for 1x10.
- ACRE Cortex plug system can be used to conceal additional fasteners.

### SHIPLAP & NICKEL GAP



### V-GROOVE

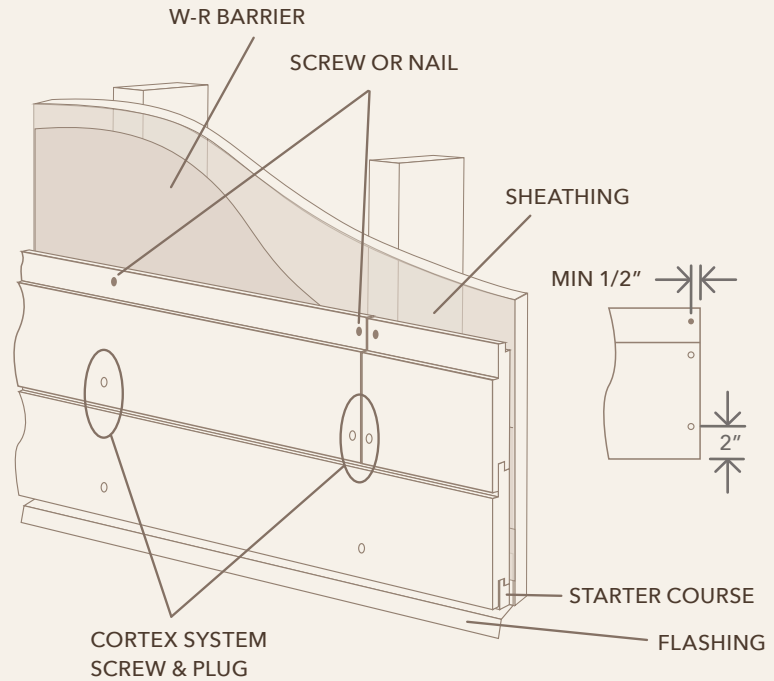


# REQUIRED METHODS OF SECURING BOARDS TO MINIMIZE GAPPING

- As with other alternative building products, to minimize the effects of temperature related expansion & contraction, and if gap quality is of critical concern, the use of shorter boards, lighter colors, and following the required fastening requirements, especially regarding face fasteners, is paramount.
- For 1x6 & 1x8, single additional face fasteners into all studs approximately 2" up from edge. For 1x10, two additional face fasteners into all studs.
- To minimize the appearance of expansion and contraction, create a scarf or rabbeted (shiplap) joint on each board end.

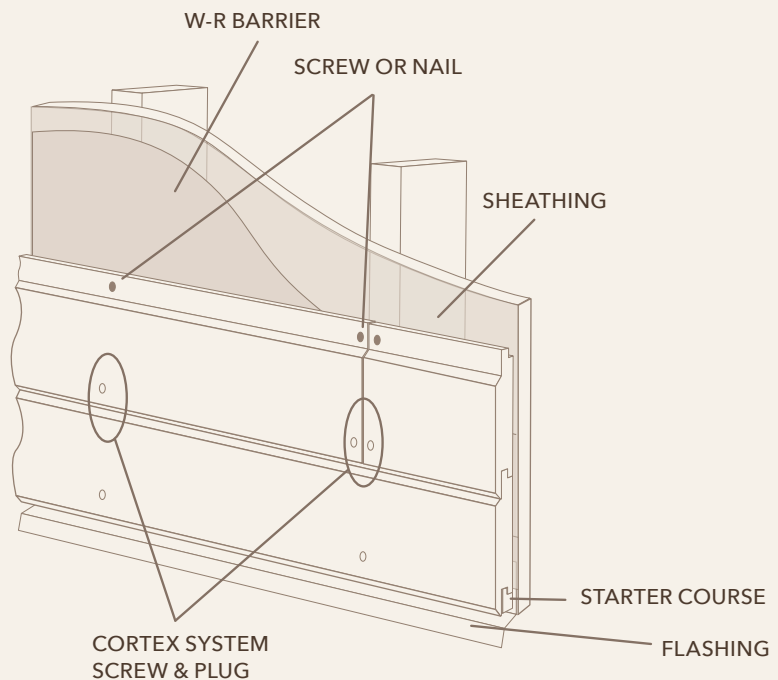
## SHIPLAP & NICKEL GAP

**NOTE:** SINGLE FACE FASTENER FASTENING OF 1X6 & 1X8 SHOWN. THE 1X10 REQUIRES DOUBLE FACE FASTENERS INTO ALL STUDS.



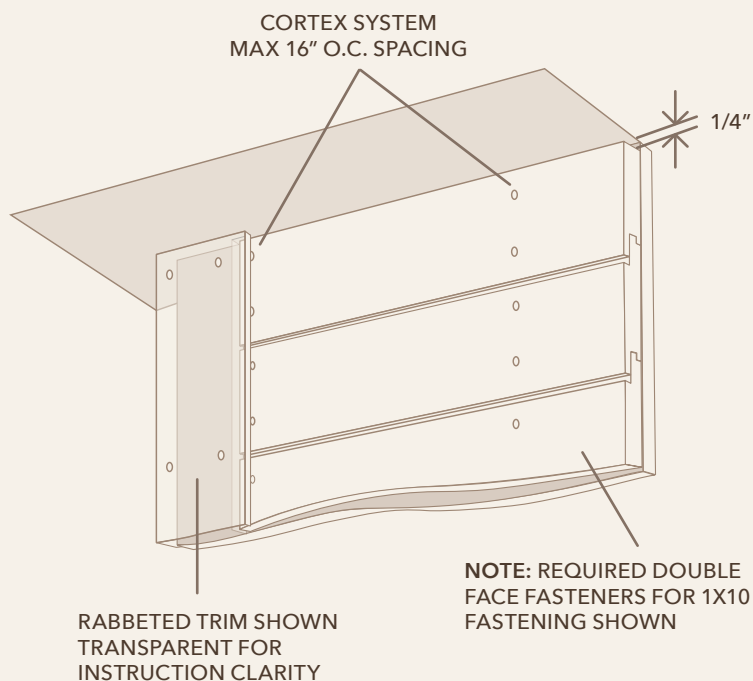
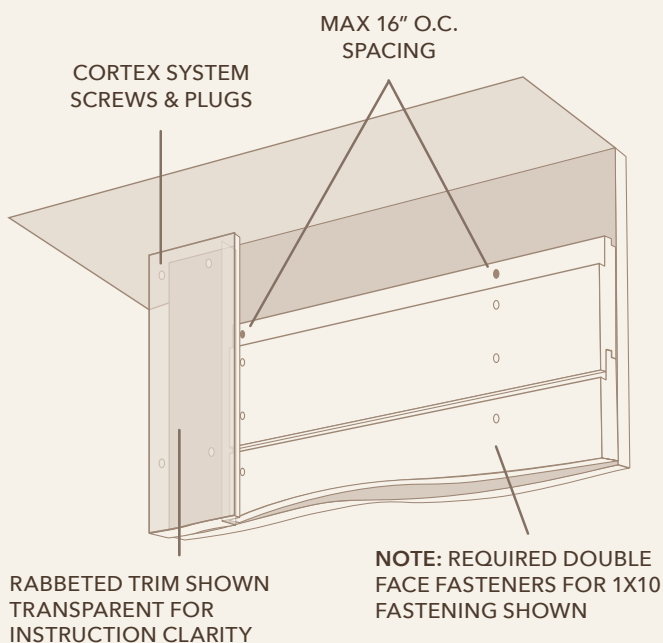
## V-GROOVE

**NOTE:** SINGLE FACE FASTENER FASTENING OF 1X6 & 1X8 SHOWN. THE 1X10 REQUIRES DOUBLE FACE FASTENERS INTO ALL STUDS.



## STARTING AND ENDING COURSE FOR HORIZONTAL SIDING INSTALLATION

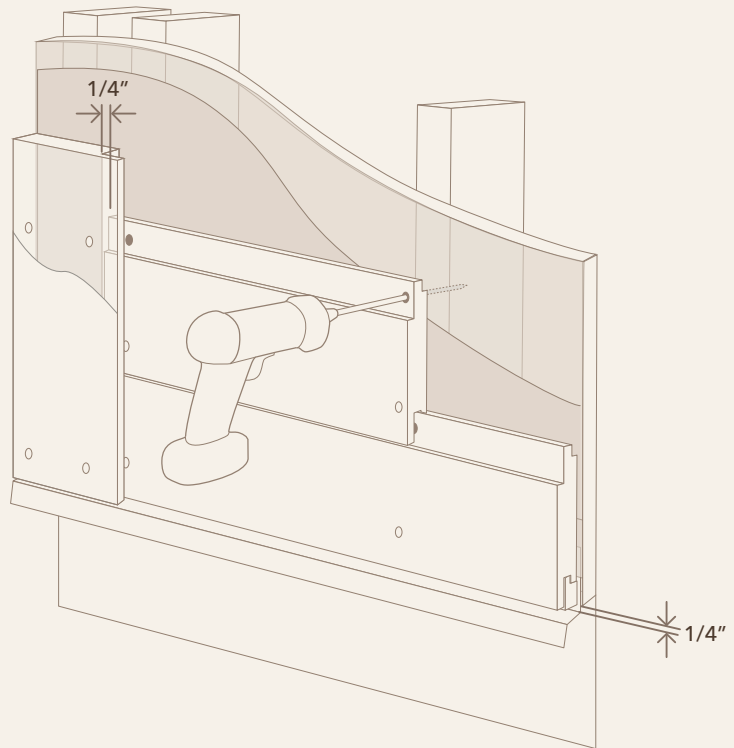
- Begin by ripping the fastener area of a piece of ACRE Siding. Use this piece as the starter strip.
- The remaining bottom portion of panel may be used as the ending course below the soffit or top of wall.
- Ensure the first course is level.
- As with full siding boards, blind fasten into the tongue of the starter strip.
- Continue the installation as described below.
- Finish the wall by ripping the ending board to desired width. Stack the board on top of the last course and face fasten into the wall not exceeding 16" on center into solid framing, reduce to 12" on center if into sheathing only.



## HANGING ACRE SIDING HORIZONTALLY

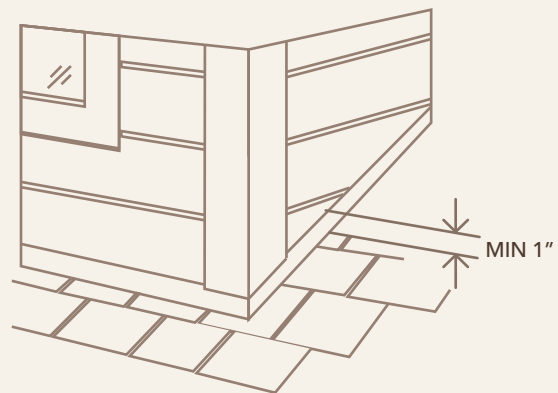
- Staggering the butt joints over stud locations can reduce noticeable patterns.
- Use ACRE Rabbeted Trim boards to conceal expansion and contraction. Closely follow trim installation guidelines.
- When a course of siding runs underneath a window, fasten into solid framing every 8".
- Seal all vertical joints along window and door edges with a high-grade exterior caulk.
- Starter strip and board ends require fastening at a minimum of 1/2" from the edge.
- For 1x6 & 1x8, single additional face fasteners into all studs approximately 2" up from edge. For 1x10, two additional fasteners into all studs.

**NOTE:** 1X6 & 1X8 FACE FASTENING SHOWN AT RIGHT. THE 1X10 REQUIRES DOUBLE FACE FASTENERS INTO ALL STUDS.



MINIMUM 1" CLEARANCE FROM ADJACENT ROOF LINES

**NOTE:** MINIMUM 1 1/2" WITH DARK COLORS





ACRE SHIPLAP SIDING  
The Reframe, Brigantine, NJ

# VERTICAL INSTALLATION



ACRE SHIPLAP SIDING  
Mill Valley, CA

## FASTENERS

- Exterior grade min #8 x 2 1/2" screw or 8D x 2 1/2" ring shank nails.  
**Note:** Coastal areas may require special stainless steel fasteners.
- Fasteners 12" o.c. max spacing if only into sheathing, max 16" o.c. if into solid 2x blocking, furring, or framing.
- Minimum 7/16" OSB or 1/2" plywood sheathing.
- Due to expected post-construction compression, DO NOT SPAN FLOORS.
- Break up long runs with scarf or rabbet joints, band boards or z-flashing.

## INSTALLATION

- Remove the groove end for the starting panel. Secure with face fastener and in the hidden flange.

**Note:** For a centered appearance, the starting and ending panel will need to be ripped to have the same visual appearance. (See image 1) with fasteners into the hidden flange and face fasteners max every 12" o.c.

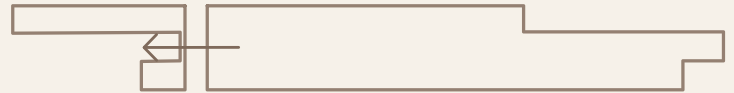
**Note:** the 1x6 and 1x8 require one face fastener, the 1x10 requires two face fasteners. Continue with fasteners into the hidden flange and face fasteners max every 12" o.c.

**Note:** max 16" o.c. with min 2x blocking, furring, or framing)

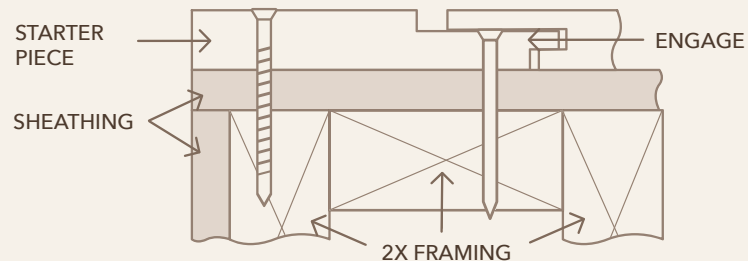
- Secure with one additional face fastener approximately 2" from edge. (See image 2)
- Continue to install panels, allowing 1/4" clearance from obstructions in the wall like windows, doors, mounting blocks, etc.
- Allow a minimum of 1" clearance from roofing surfaces. Increase to minimum 1 1/2" with dark colors (See bottom figure on page 18).
- Complete the installation by ripping the last panel to the required width, and secure with hidden and face fasteners.

## IMAGE 1

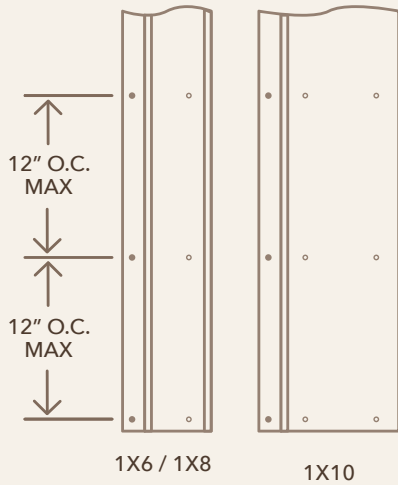
STARTING INSTALLATION



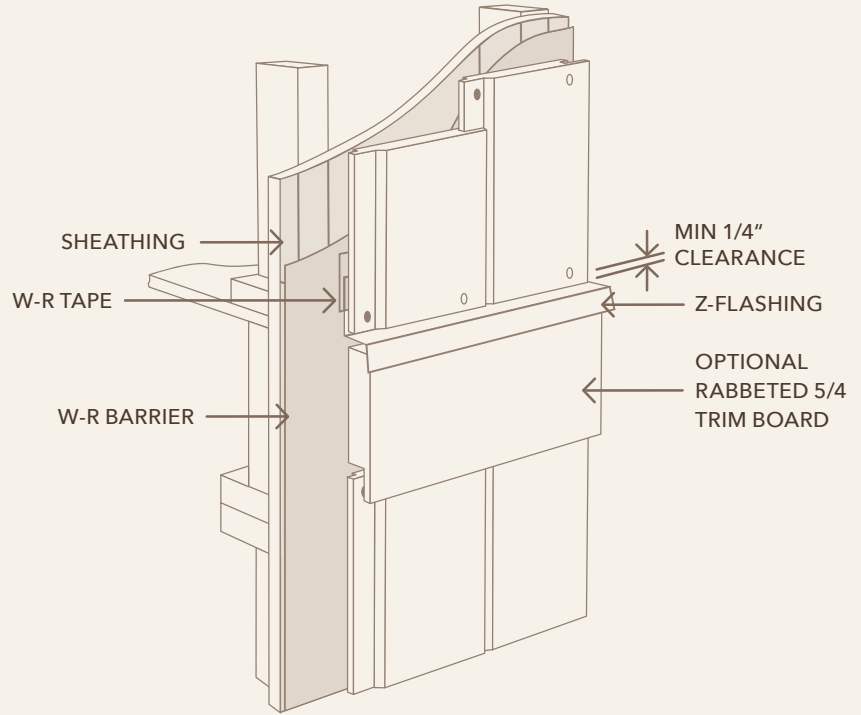
## IMAGE 2



FASTENING SCHEDULE

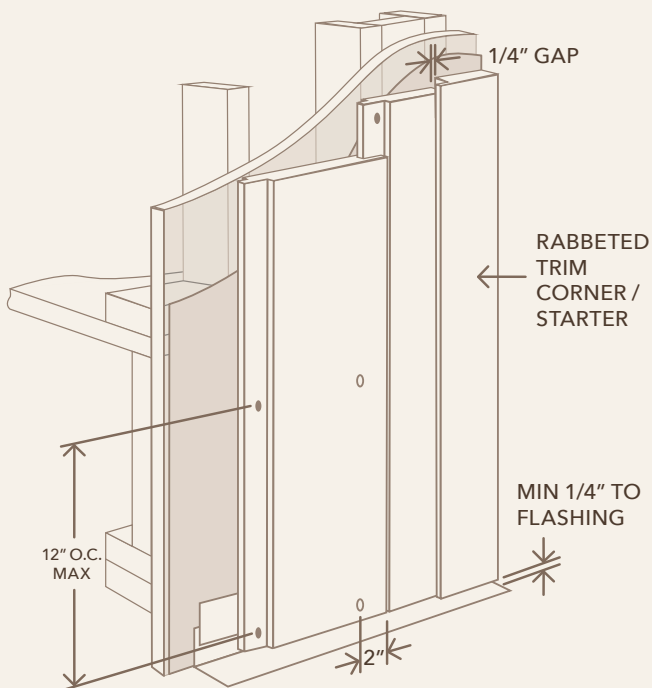


BREAKING UP LONG RUNS WITH RABBETED BAND BOARD



RABBETED TRIM AS CORNER / STARTER

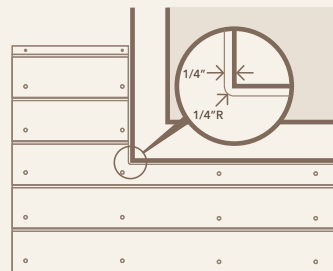
NOTE: 1X6 & 1X8 SHOWN, 1X10 REQUIRES DOUBLE FACE FASTENERS.



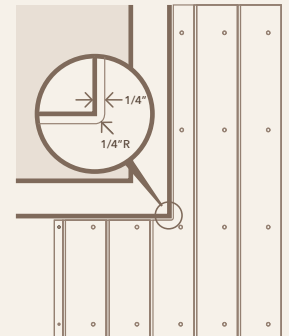
WINDOW GAPS

NOTE: 1X6 & 1X8 INSTALL SHOWN. 1X10 REQUIRES 2 FACE FASTENERS.

HORIZONTAL



VERTICAL



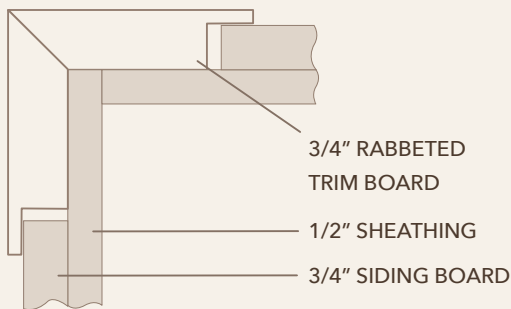
- Always use a minimum 1/4" drill bit to create a rounded corner when creating clearance for windows, doors, etc.
- When the notch for a window, door, or utility results in removal of half the board width or more, it is recommended to limit the overall board length to 12-ft or less.
- Seal the edges and top with caulking bead and a high quality exterior caulking. DO NOT caulk the bottom edge to allow moisture to escape.

## OUTSIDE CORNERS

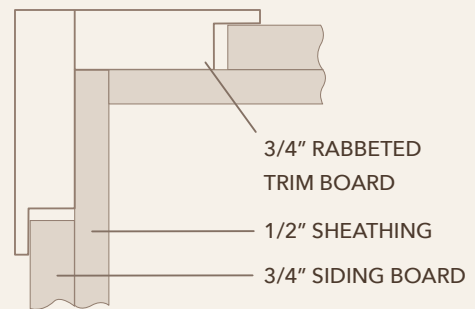
- For outside corners, use of ACRE Rabbeted Trim for corner boards is recommended.  
Note: If NOT using ACRE Rabbeted Trim, be aware of the possibility of visible gapping with expansion and contraction.
- Only use approved adhesives when gluing joints.
- For corner details outside the scope below, please contact your Modern Mill rep for guidance.

## RECOMMENDED INSTALLATION METHOD FOR OUTSIDE CORNERS

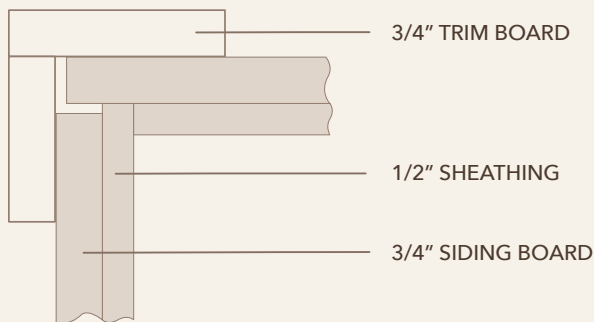
STANDARD 5/4 MITERED RABBETED TRIM OVER 1/2" SHEATHING



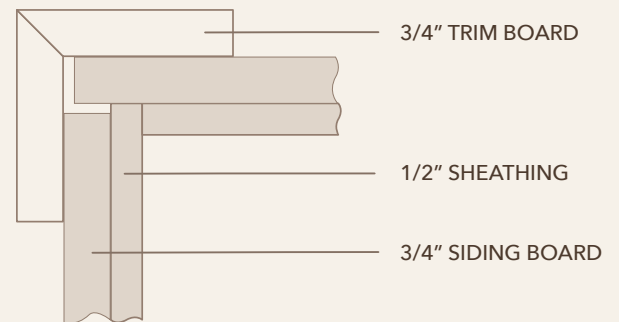
STANDARD 5/4 BUTTED RABBETED TRIM OVER 1/2" SHEATHING



STANDARD BUTTED 3/4" TRIM OVER 1/2" SHEATHING



STANDARD MITERED 3/4" TRIM OVER 1/2" SHEATHING



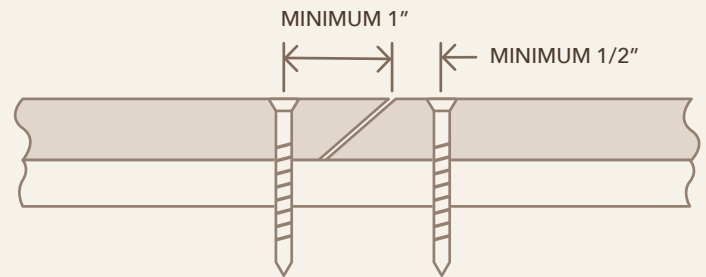
## TRIMLESS CORNERS

When installing shiplap siding without corner trim, siding panels can be mitered and glued. Boards being mitered at corners should not exceed 6-ft in length based on framing spacing. Shorter lengths are recommended with darker colors and more extreme climates.

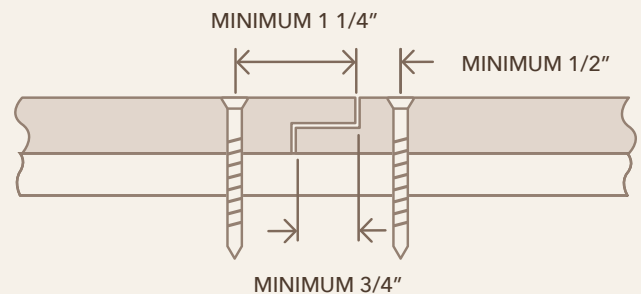
## JOINTS

- For any joints, use a scarf or rabbeted joint to minimize the effects of expansion and contraction.
- Throughout the installation, continue to refer to the expansion and contraction section on page 14 for gap information.
- For long continuous courses of ACRE Siding, use ACRE Rabbeted Trim to allow for and conceal movement.
- Only use approved adhesives when gluing miter joints.

## SCARF JOINT

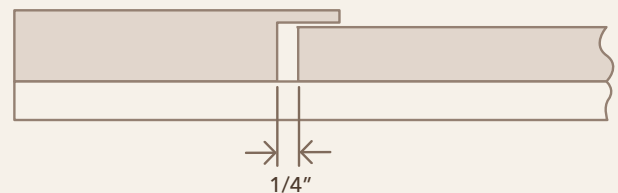


## RABBET JOINT



- ACRE Rabbeted Trim should be used in the field for minimizing the effects of expansion and contraction along with achieving a clean look.

## RABBETED TRIM

TRIM BOARD  
FASTENING SCHEDULE

Board Width	Fasteners / Width 16" O.C. MAX
2" and 3"	1
4", 5", 6"	2
12" and 14"	4
16"	5

# INSTALLATION OVER CONTINUOUS INSULATION

## INSTALLATION OVER CONTINUOUS DISCLAIMER

Pre-Installation Testing: It is strongly recommended to build a small test installation first to calibrate your fastening methods and tools. Fasteners must achieve proper hold without overdriving while eliminating gaps between components.



ACRE SHIPLAP SIDING  
Kirkland, WA

Installing ACRE Shiplap Collection siding over continuous insulation can require special installation techniques.

States and jurisdictions that have adopted the International Energy Conservation Code (IECC) frequently have requirements for additional insulation applied as a continuous layer. The increased distance to the solid framing push the limits of typical fasteners. If fasteners cannot achieve the required minimum penetration into solid framing, alternative installation methods will be required.

Having a solid connection between the substrate(s) and the wall framing is critical. The sheathing and/or nailable furring strips must be secured directly to structural framing members with a minimum 1 1/2" penetration. This will provide a stable surface for securing ACRE siding profiles.

**For horizontal installations,** the following criteria are required for maximum 16" o.c. fasteners terminating in framing:

- Maximum 1/2" thick continuous insulation.
- Minimum 7/16" OSB or minimum 1/2" plywood sheathing.
- Minimum #8 x 2 1/2" screws or minimum 8d x 2 1/2" ring shank nails.
- Any installation where the siding is secured directly to minimum 3/4" furring AND minimum 7/16" OSB or minimum 1/2" plywood sheathing

**Note:** furring and sheathing must be secured directly to structural framing.

FIG. 1

MIN 7/16" OSB/1/2" PLY + 1/2" INSULATION

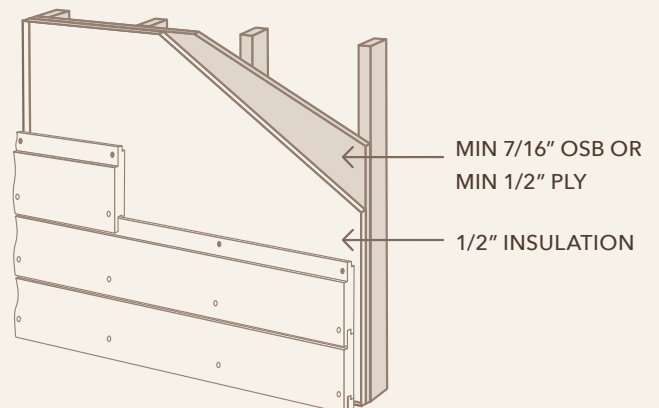


FIG. 2

MIN 7/16" OSB/1/2" PLY + 1/2" INSULATION + MIN 7/16" OSB/1/2" PLY

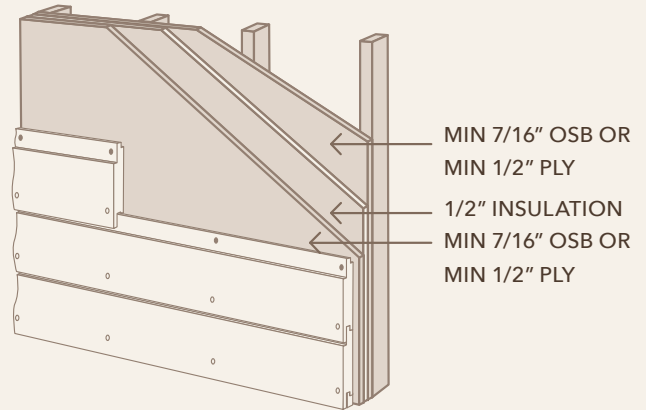


FIG. 3

1/2" INSULATION + MIN 7/16" OSB/1/2" PLY

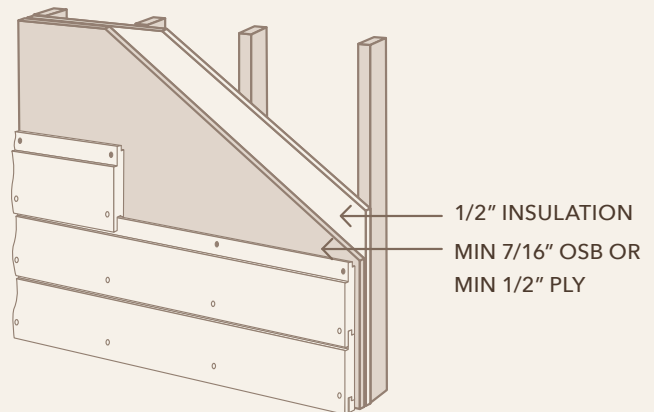
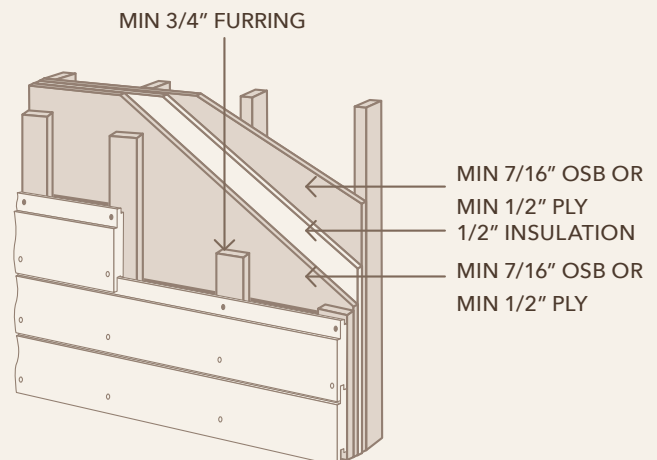


FIG. 4

MIN 7/16" OSB/1/2" PLY + 1/2" INSULATION + MIN 7/16" OSB/1/2" PLY + MIN 3/4" FURRING



**For horizontal installations not meeting those criteria,** a maximum of 12" o.c. fastener spacing is required.

**For all vertical installations,** maximum 12" o.c. fastener spacing is required.

Illustrated are several possible scenarios approved for maximum 16" o.c. fasteners over continuous insulation application:

- Continuous insulation up to 1/2" applied over minimum 7/16" OSB or 1/2" plywood. (Fig. 1)
- Continuous insulation up to 1/2" applied between layers of minimum 7/16" OSB or 1/2" plywood. (Fig. 2)
- Continuous insulation up to 1/2" applied behind minimum 7/16" OSB or 1/2" plywood. (Fig. 3)
- Minimum 3/4" furring AND minimum 7/16" OSB or minimum 1/2" plywood sheathing over continuous insulation. (Fig. 4)

NOTE: OUTERMOST SHEATHING OR FURRING IS REQUIRED TO BE SECURED WITH MIN #8 SCREWS OR MIN 8D RING SHANK NAILS WITH A MINIMUM OF 1 1/2" PENETRATION INTO SOLID FRAMING.

Special accommodations are required for most installations of continuous insulation over 1/2" thick:

- Securing siding directly through continuous insulation thicker than 1/2" is not recommended and will not be warranted. (Fig. 5)
- Maximum 16" o.c. fastener spacing is approved into minimum 3/4" x 3 1/2" wide solid furring secured through minimum 7/16" OSB or 1/2" plywood and into solid framing. (Fig. 6)

All other installations directly to minimum 7/16" OSB or 1/2" plywood over continuous insulation more than 1" thick are required to be secured as a typical installation into sheathing only, at maximum 12" o.c. spacing. Examples include:

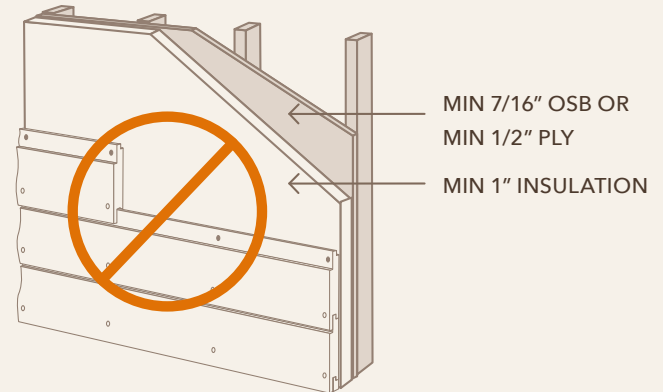
- Minimum 7/16" OSB or 1/2" plywood sheathing over continuous 1" or thicker continuous insulation, over minimum 7/16" OSB or 1/2" plywood sheathing. (Fig. 7)
- Minimum 1" Insulation over minimum 7/16" OSB or 1/2" plywood sheathing. (Fig. 8)
- Minimum 1 1/2" Insulation over minimum 7/16" OSB or Minimum 1/2" plywood sheathing. NOT APPROVED (Fig. 9)

Care should be taken to avoid overdriving fasteners, which could compress the insulation. Insulative foam should have a minimum compressive strength of 15 psi. Adjust the driving tool fastener depth as needed.

Please contact your Modern Mill Inc. representative with questions.

FIG. 5

MIN 7/16" OSB OR MIN 1/2" PLY + MIN 1" INSULATION



NOT APPROVED. REASONING: TOO MUCH CANTILEVER.

FIG. 6

MIN 7/16" OSB/1/2" PLY + 1/2" INSULATION + MIN 3/4" FURRING

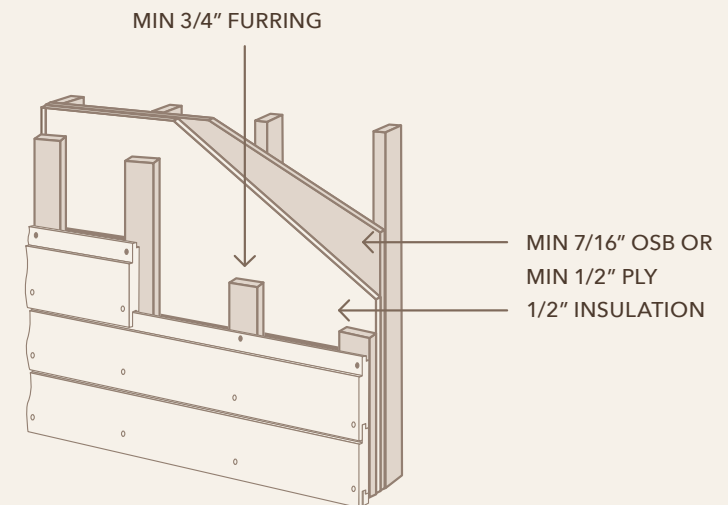


FIG. 7

MIN 7/16" OSB/1/2" PLY + 1" INSULATION + MIN 7/16" OSB/1/2" PLY (MAX 12" O.C.)

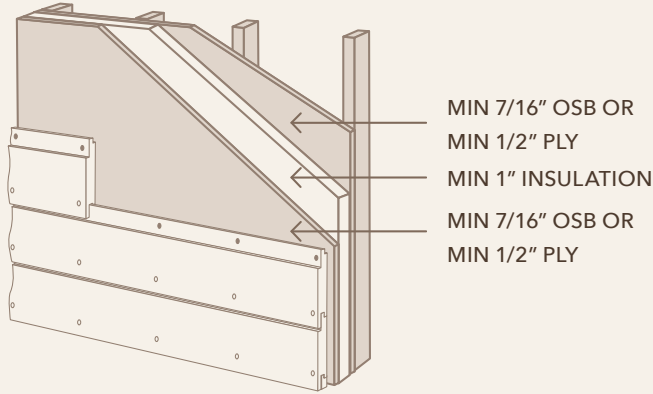


FIG. 8

MIN 1" INSULATION + MIN 7/16" OSB/1/2" PLY (MAX 12" O.C.)

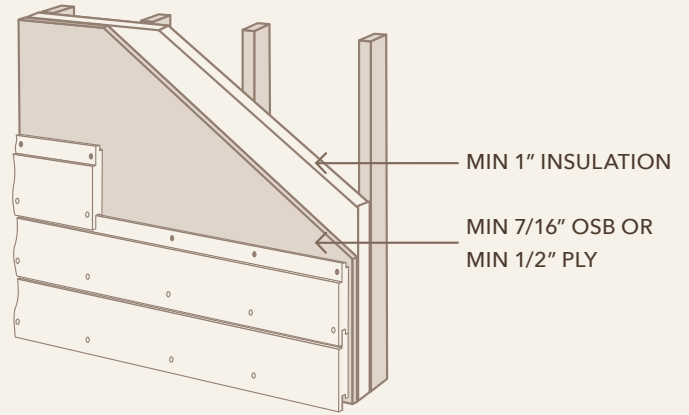
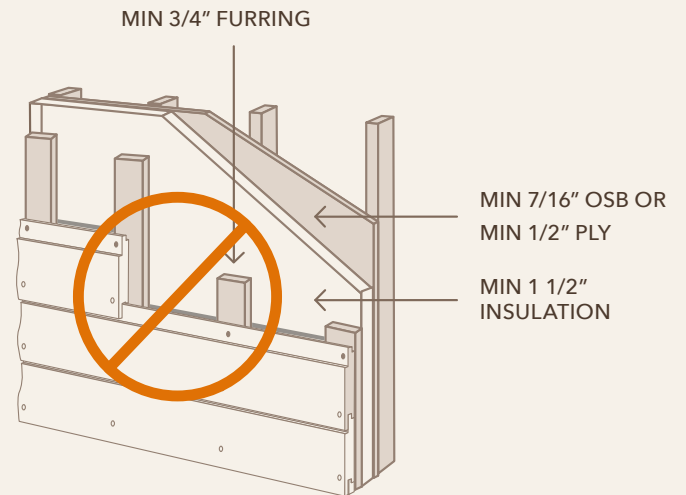


FIG. 9

MIN 7/16" OSB OR MIN 1/2" PLY + MIN 1 1/2" INSULATION + MIN 3/4" FURRING

NOT APPROVED. REASONING: FURRING WOULD BE REQUIRED TO BE 12" O.C., BUT AT 12" IT CAN'T BE SECURED TO FRAMING.



# FINISHING AND ADHESIVES



ACRE SHIPLAP SIDING  
Kirkland, WA



ACRE SIDING  
Woodbury, NY

## FINISHES

- APPLY FINISHES ON THE GROUND BEFORE INSTALLATION.
- Be sure to consider ambient and material temperature before installation, in regards to expansion, contraction and necessary gapping. See Expansion and Contraction section on page 14.
- Coat ACRE products with manufacturer recommended water-based paints, stains, or sealers.
- If you choose to paint or stain ACRE, use an approved coating with a Light Reflective Value (LRV) 55 or greater.
- For any color with an LRV below 55 or if you are not sure, contact your Modern Mill rep for help and approval for use.

## ADHESIVES

- Use recommended PVC glue, cement, polyurethane glue, or construction adhesives.
- DO NOT USE WOOD GLUE.
- If gluing a miter joint, the use of mechanical fasteners on each side of the joint is recommended to allow the bonding time and limit possible contraction.
- For best results, surfaces to be glued should be smooth, clean, and in complete contact with each other.

# CARE AND CLEANING



ACRE SHIPLAP SIDING  
Seadrift, TX

- Wash down the exterior surface with water at minimum every 6-12 months, or as required.
- For easier care and cleaning, we recommend coating your ACRE products with an exterior grade water soluble paint or stain.
- Be mindful of products which contain chemicals may alter the appearance of ACRE products.
- To clean ACRE products use a gentle all-purpose cleaner such as Simple® Green with a natural all fiber brush.
- Follow manufacturer instructions on all cleaning products. Test first on an inconspicuous area of the wall to ensure the surface remains undisturbed.
- Do not use traditional composite deck cleaners. ACRE products are made from natural fibers and PVC / polymers. Use of gentle cleaning products as recommended.
- If using a power washer, we do not recommend pressure washing above 2500 psi. We suggest testing in an inconspicuous area first to ensure it will not damage the product's surface.
- If power washing, we recommend using a wide fan tip or oscillating tip, and keeping the tip a minimum of 12" from product surface.
- To remove rust stains, use household cleaners such as Krud Kutter "the must for rust".
- We recommend clearance between ACRE products and landscaping. Prune any vegetation back that is touching the wall.

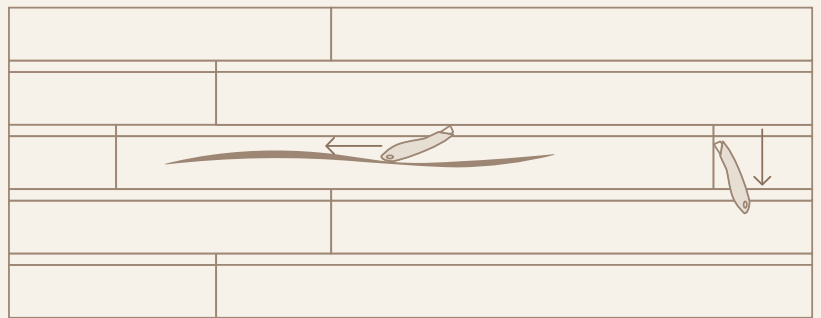
# REPLACING BOARDS



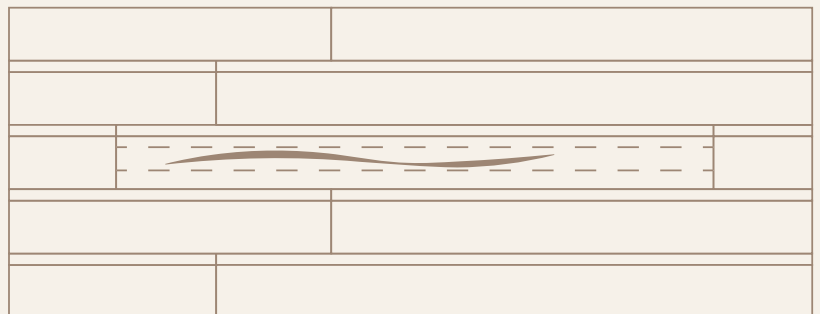
ACRE SHIPLAP SIDING  
Bellevue, WA

## PROCEDURE TO REPLACE A DAMAGED ACRE BOARD:

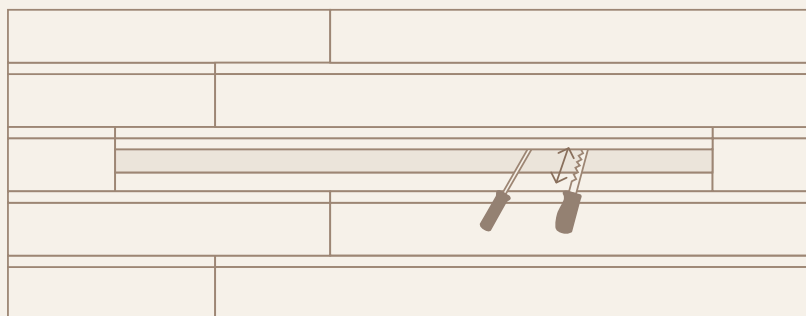
Using a sharp utility blade, carefully cut through any paint, stain, or caulking between effected boards and trim pieces.



Adjust saw blade so it cuts at a depth that matches the siding thickness (3/4"), and carefully cut the damaged board into thirds lengthwise.



Using a flat screwdriver or wonderbar, remove the middle piece. With a hacksaw blade or reciprocating saw, cut the fasteners between the backside of the siding and the wall to remove the top piece. Remove the bottom by lifting upward.

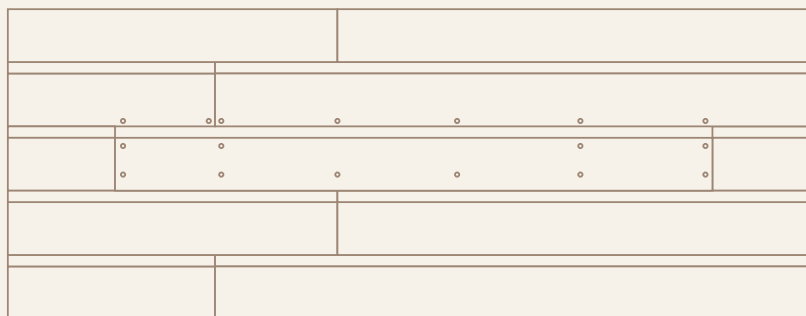


Cut a new piece of siding to length. Adjust the saw depth to remove only the backside portion of the groove along the bottom edge.

**Note:** repair any damage to the weather-resistant barrier as needed.



Insert the top edge of the new board behind the board above, then swing the bottom edge into place. Secure the bottom edge per Acre Shiplap guides, then the top edge. Complete replacement by applying a matching finish.



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ACRE Siding Collection Guide  
2026.03

