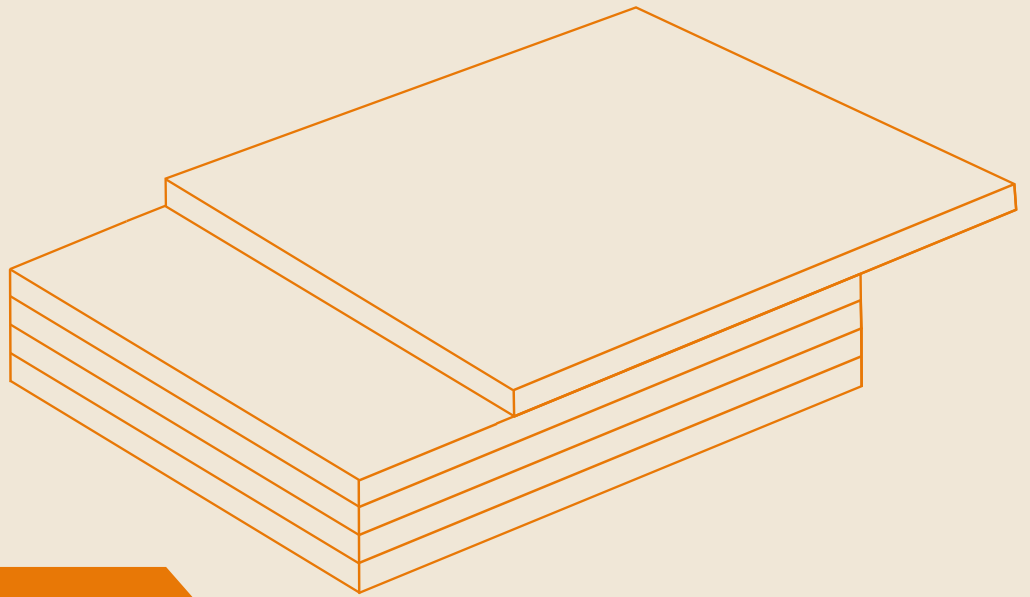


ACRE

INSTALLATION REQUIREMENTS

Board & Batten Applications



MODERN·MILL
BUILDING REVOLUTIONS



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

CONTENTS

General Construction	3
ACRE Field Coating Requirements	5
Board & Batten Siding	7
Expansion & Contraction	8
Installation	8



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 or 601-869-5050 for consultative assistance before installation.

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/ or contact your sales rep for the most current installation procedures.

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/>

STORAGE AND HANDLING

- Store ACRE Siding horizontally, fully supported on a flat surface. Do not stack pallets directly on the ground.
- Keep covered, in a dry place out of direct sunlight, and away from surfaces that can develop excessive heat such as blacktop or reflected light
- If stored on a damp surface, place a vapor barrier under the pallet.
- Retain factory pallet covers to keep material clean and protected; replacements are available through your Modern Mill rep.
- DO NOT pull boards from a stack from the end – always pick up boards from the center and carry on edge.
- Boards must be installed immediately after cutting.
- Watch for ambient temperature changes during installation that could affect product gapping.

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 on site.
- Follow proper safety practices for all power tools and job site equipment.
- Fasteners have sharp edges – use proper care when handling.
- Safety Data Sheets can be downloaded from modern-mill.com/resources.

BEFORE INSTALLATION

ACRE contains PVC. Review spacing requirements, coatings, and all installation guidelines before starting – this ensures ACRE products perform as intended. Modern Mill will not accept liability under warranty for product failure caused by an application that does not meet ACRE requirements.

- **Rice hulls, like wood, can vary slightly in color – this is a unique feature of ACRE and can be seen both before and after staining. For best appearance, consider proper layout by mixing boards from various pallets or points of the stack.**
- **Inspect all boards prior to installing for breakage, foreign objects, surface defects, and correct product/color before installing.**
- Do not install product with manufacturing errors – installation is considered final acceptance.
- Ensure boards are dry before installation; do not finish or install wet or saturated material.
- For cutting, use a fine-toothed finish blade for best results; a jigsaw can be used to cut around obstructions.
- Keep boards out of direct sunlight when cutting or staging.

WALL REQUIREMENTS & MOISTURE

- Framing, sheathing, proper flashing, and weather-resistive barrier must comply with all applicable state and local building codes.
- Min 1-1/4" penetration into solid framing.
- ACRE requires a minimum 7/16" OSB or minimum 1/2" plywood sheathing.
- The use of a draining/vented WRB is strongly recommended.
- The use of button cap fasteners can create a non-planar surface, can interfere with shiplap siding engagement, and should be avoided.
- Ensure no nails or screws are protruding – remove, replace, or add fasteners to create a smooth, continuous surface.
- Avoid installing in standing water or areas that prevent water from draining away from the building.
- For furring application, install 12" OC for vertical/diagonal siding installation and 16" OC for horizontal siding installation. Additional furring members may be needed at joints.
- Furring should be secured to solid framing whenever possible.
- Wood or rigid composite furring strips are recommended.

MOVEMENT, CLIMATE & INSTALLATION TEMPERATURE

ACRE will expand and contract with environmental temperature changes, most significantly where extreme temperatures exist. Ambient temperature, direct sunlight, and finish color all affect the degree of movement and must be factored into gapping at the time of install. Take particular care near a black or dark metal roof, which radiates excessive heat and can significantly increase movement.

- To minimize the effects of temperature-related expansion and contraction – especially where gap quality is a primary concern – use shorter boards, lighter colors, and follow all fastening requirements.
- Fasten ACRE as soon after cutting as possible to further minimize expansion and contraction effects.
- Use ACRE Rabbeted Trim, or shorter boards with scarfed/rabbeted joints, to conceal the effects of expansion and contraction at board ends.
- For best results, use the Cortex face-fastening system.
- Allow 1/4" clearance from obstructions in the wall – windows, doors, mounting blocks, and similar.
- 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.
- Glue mitered corner joints, and pin nail to hold boards in place while curing; do not glue other trim joints – leaving them unglued allows for necessary movement.

FASTENING & ADHESIVES

FASTENING

- Use proper fasteners: minimum 8d x 2-1/2" ring shank nails (0.099" diameter or larger), or minimum #8 x 2-1/2" screws.
- Do not use brads, finish/trim head nails or screws, or staples, unless otherwise directed in the installation instructions.
- Fasten with a minimum of 1-1/4" or greater penetration into solid framing, driven to proper depth.
- Underdriven button-cap fasteners may inhibit engagement of siding panels.
- Use a minimum of 5/8 "(3/4" preferred) material when using Cortex screws. See Cortex installation guide for proper fastening.
- Install fasteners flush to avoid any wall protrusions.
- To help keep mitered corners tight while the adhesive is curing, pin nail (stainless steel may apply) with a minimum of 2 pin nails, 3 for wider profiles and dark colors (LRV of 55 or lower)
- Fasten mitered corner assemblies into solid framing members.

ADHESIVES

- Use Titebond or other high-quality exterior grade adhesive for PVC for mitered corners.
- Apply construction adhesive to substructure for expansion/contraction management.
- OSI Quad Max (color-match) / Extreme Adhesive Fill & Flex (paintable) – Pliable with temperature changes.
- Recommend overlapping joints (shiplap, scarf) while color matching the interior joints.
- OSI Quad Max or any pliable adhesive-based caulk is recommended and can be used in the joint as needed to conceal gapping.
- In applying the adhesive, avoid long continuous horizontal application. Apply adhesive in vertical or diagonal fashion to ensure free water flow and ventilation.

TOOLS

- | | | |
|--|---|-----------------------|
| — IMPACT OR STANDARD DRILL/DRIVER | — TABLE SAW | — HAMMER |
| — CIRCULAR SAW | — CONSTRUCTION ADHESIVE | — DRILL |
| — SPEED SQUARE | — HIGH-QUALITY EXTERIOR GRADE CAULK/ADHESIVE | — JIGSAW |
| — PENCIL | — MITER SAW | — TAPE MEASURE |
| — COIL SIDING NAILER | — EYE PROTECTION | — LADDER |

BURNING WARNING

Do not burn ACRE products or scraps. ACRE products are not safe to discard by burning and must not be used as firewood, kindling, or any other fuel source to create or maintain a fire or heat source.

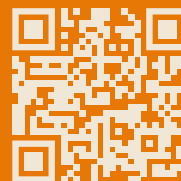
LEGAL DISCLAIMER:

This document offers general installation guidance reflecting Modern Mill's recommended best practices for ACRE Siding. It does not substitute for engineering judgment, code compliance, or manufacturer instructions. Modern Mill assumes no liability for damage, injury, or product failure resulting from installation that does not conform to its published requirements.

IF YOU ENCOUNTER A SITUATION NOT COVERED BY THIS DOCUMENT, CONTACT US AT **601-869-5050** OR **INSTALL@MODERN-MILL.COM**

modern-mill.com
601-869-5050

ACRE Siding
General Construction
2026.07



**MODERN
MILL**

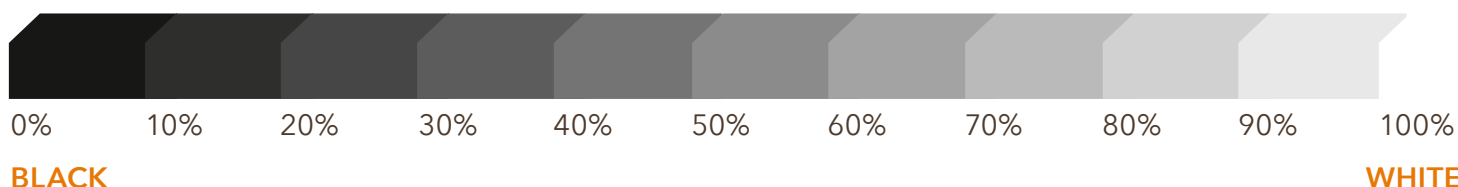
ACRE FIELD COATING REQUIREMENTS

ACRE is a PVC-based product. Correct coatings must be used to ensure optimal performance. For warranty protection, ACRE must be finished only with coatings that meet the following requirements or on Modern Mill's lists of approved colors. Colors that do not meet the requirements must be submitted to Modern Mill for testing and approval.

- Water-based only (100% acrylic latex for exterior paints).
- Light Reflective Value (LRV) of 55 or greater. Below 55, or if unsure, contact Modern Mill for approval.
- Clear coats can slightly darken ACRE's appearance – test on a sample area before full application.

Never have colors custom-tinted at local paint stores, home centers, or big-box retailers – untested customization can cause performance issues and void warranty coverage. Coating warranties are handled by each coating's manufacturer.

LIGHT REFLECTIVE VALUE (LRV)



LRV measures how much light a color reflects, from 0 (black, absorbs all light) to 100 (white, reflects all light). Unreflected UV rays create excessive heat which can distort and contribute to additional expansion and contraction. Using approved colors helps minimize expansion and contraction in your installed ACRE product.

FIELD APPLICATION INSTRUCTIONS

- Rice hulls, like wood, can vary slightly in color – this is a unique feature of ACRE and can be seen both before and after staining. For best appearance, mix boards from various pallets or points of the stack, and inspect all boards prior to installing for breakage, foreign objects, surface defects, and correct product/color before installing.
- Ensure boards are cool and dry before applying coating.
- ACRE products should be finished prior to installation. Modern Mill recommends utilizing any factory-finish options before choosing to field finish.
- Tip: For the best results when field coating, we recommend applying paint, stain or clear coats on a smooth flat surface. If unsure, test on a sample piece before applying on full boards. ACRE products may be painted after installation; however, the viscosity of the coating and individual work time could result in an uneven appearance if not monitored closely.
- Tip: Consider working time while staining ACRE – the longer the board, the shorter the working time before curing.
- If multiple coats are being applied, contact Modern Mill at install@modern-mill.com for testing and approval.

DECKING APPLICATION

- Only use Sherwin-Williams SuperDeck® stains for deck application.
- For paints and stains outside of the above mentioned, contact Modern Mill at install@modern-mill.com for testing and approval.

APPROVED COLORS GENERAL INFORMATION

- Choose an approved color from one of the following manufacturers. Each brand's full color list and current LRV values are maintained on Modern Mill's site.
- Digital colors are approximate – always confirm against a physical sample or manufacturer swatch before final selection.
- Contact the coating manufacturer directly for warranty questions on a specific product.
- When in doubt about LRV, water-based formulation, or approval status, contact Modern Mill at install@modern-mill.com before purchasing or applying.

APPROVED PAINTS



Pittsburgh Paints – SidingSafe® palette + Signature 897 Collection

CENTRAL

Pittsburgh Paints
2510 Independence Dr
Ft Wayne, IN 46808
260-373-2373
Paf9270@pittsburghpaints.com

EAST

Pittsburgh Paints
1455 Trademart Blvd
Winston-Salem, NC 27127
336-771-8878
Paf9490@pittsburghpaints.com

WEST

Pittsburgh Paints
2720 Crater Lake Highway
Medford, OR 97504
541-772-7107
Paf8083@pittsburghpaints.com

NORTHEAST

Pittsburgh Paints
750 Page Blvd, Springfield,
MA 01104
413-734-8270



Sherwin-Williams –
VinylSafe®
palette



Benjamin
Moore – Colors
for Vinyl®
palette



Custom / Special-Order Colors –
Pittsburgh Paints Signature 897
custom color program
(~6-8 week lead time)

APPROVED STAINS

ACRE can be stained for a natural wood look.

- Options include Pittsburgh Paints' Signature Stain Collection for ACRE and Sherwin-Williams SuperDeck® IR stain colors (factory-mixed only – in-store mixing is not available for IR stains).
- Full staining brand details, colors, and special-order info: modern-mill.com/coatings/staining-resources

APPROVED CLEAR COATS

Modern Mill recommends a water-based protective clear finish to resist dirt, staining, and UV fading. "Laurel" by Pittsburgh Paints is Modern Mill's recommended clear finish (also available factory-finished). Approved off-the-shelf clear sealers include Flood CWF-UV Clear Finish, Sherwin-Williams SuperDeck® Waterborne Clear Sealer, Valspar® One-Coat Clear Exterior Sealer, and ZAR® Deck & Siding Clear Sealer.

Full details here: modern-mill.com/coatings/natural-look-resources

RECOAT AND TOUCHUPS

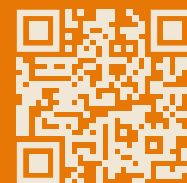
TOUCHUPS

- Tip: Use a wire brush or a hard bristle brush to sand the spot before applying stain.
- Use a pen dauber or an artist brush to apply touch-up stain.

RECOAT

- If painting over a different color, use a WHITE primer over the previous color first before applying desired color. DO NOT add any additional tints.
- If staining over a different color, use 220-grit sandpaper to remove existing stain before applying desired color. Please reference the above field application instructions for proper coating.
- For a maintenance schedule, follow the specific coating manufacturer's guidelines.

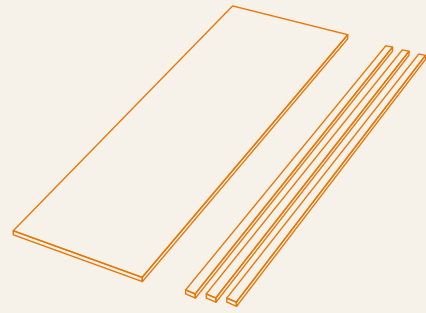
MODERN
MILL



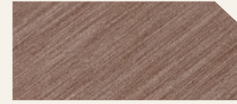
modern-mill.com
601-869-5050

BOARD & BATTEN SIDING

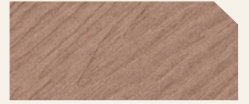
With the versatility of ACRE Trim Boards and Sheets, you can create show-stopping **Board & Batten** facades for your home's exterior and interior.



Available in:



ACRE Grain



ACRE Embossed

BOARD & BATTEN RECOMMENDATIONS



Board Options (ACRE Sheets)

5/8" or 3/4" Thickness

Batten Options (ACRE Trim)

1" x 2", 1" x 3", 5/4" x 2", or 5/4" x 3"

SHEET AND BOARD LAYOUT

SHEET OPTIONS

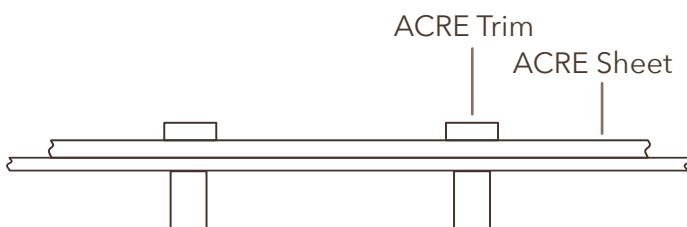
5/8" or 3/4" thickness /
Sanded or Embossed Batten

BATTEN OPTIONS

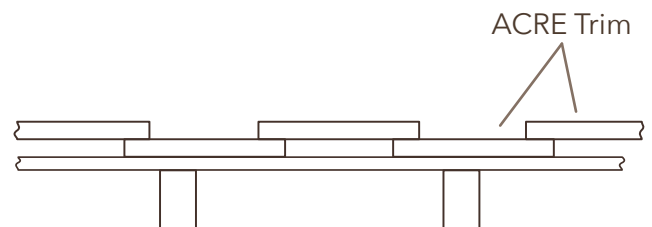
1" x 2", 1" x 3", 5/4" x 2", or 5/4" x 3"

ACRE sheets should always be installed vertically and should not bridge floors. ACRE sheet goods are available in lengths of 8 foot to 20 foot, so choose or cut boards to correct lengths so that sheets break on the subfloor of each story.

BOARD & BATTEN



BOARD OVER BOARD



EXPANSION & CONTRACTION

- 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.
- Be aware of changes in ambient temperature, which could impact the effects of expansion and contraction.
- Fasten ACRE as soon after cutting as possible to minimize the effects of expansion and contraction.
- If possible, use ACRE with rabbeted trim to conceal the effects of expansion and contraction at board ends.
- Alternatively, you can use scarfed or rabbeted joints to minimize the effects of expansion and contraction.
- Follow gapping instructions closely for best results.

INSTALLATION

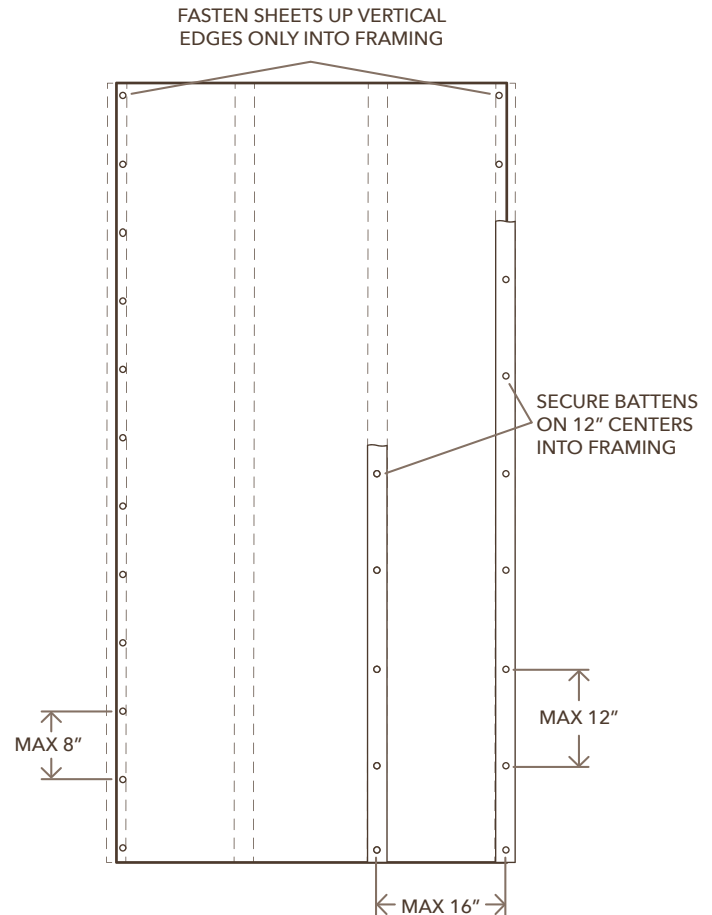
FASTENING

To have fasteners last as long as ACRE Siding, use a high-quality fastener that meets the following specifications:

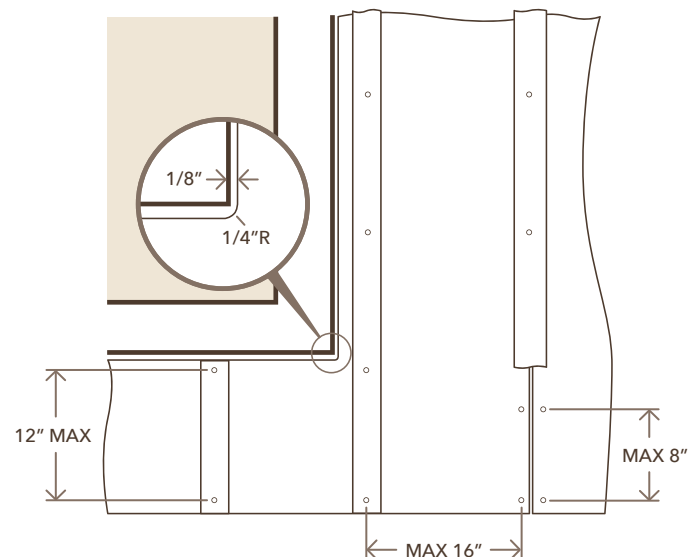
- Use only approved fasteners.
- Do not use brads, finish/trim head nails, or staples.
- Using screws for fastening is highly recommended.
- Use fasteners rated and approved for exterior use.
- **Note:** coastal applications may require special stainless steel fasteners.
- Minimum Screw Size: #8 x 2-1/2" exterior grade.
- Minimum Nail Size: 8D x 2-1/2" exterior grade ring shank nail min 0.099" diameter or larger.
- Minimum Fastener Length: Fastener must penetrate the wood stud at least 1-1/4".
- Make sure fasteners are driven flush with the surface of the siding.
- Fasten into solid framing not more than 16" on center.

INSTALLING SHEETS

- Begin with a solid substrate and a flat surface. We recommend a minimum 7/16" OSB or 1/2" plywood.
- Install vertically oriented ACRE sheets side by side, in a row, across the first level of your project.
- Leave a 1/16" gap between sheets when installing.
- Secure sheets 8" o.c. vertically along both edges. Secure battens though the sheet and into solid framing 12" o.c. along edges and in the field. For batten spacing less than 16", secure battens maximum 12" o.c.
- Fasten not closer than 1/2" from the edge and not more than 12" on center vertically when securing directly to framing.



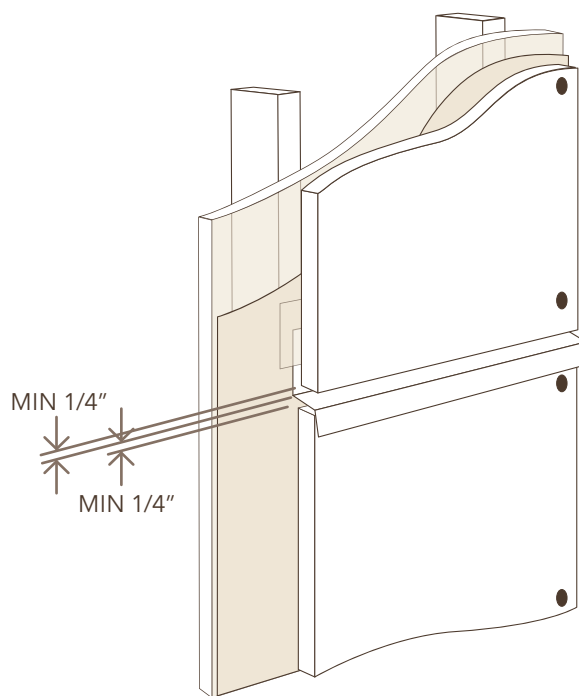
- Allow a 1/4" gap above and below windows, doors, utilities, etc. Do not caulk the gap above or below windows, doors, utilities, etc. (to allow for drainage and ventilation).
- Leave a 1/8" gap on the sides of windows, doors, utilities, etc. This gap should be caulked against water leaks.
- Fasteners maximum 8" on center along vertical edges.
- Fasteners maximum 12" on center in field vertically, maximum 16" on center horizontally.
- Seal the vertical edges with caulking bead and a high quality exterior caulking.



TRANSITIONING SHEETS OR BOARDS

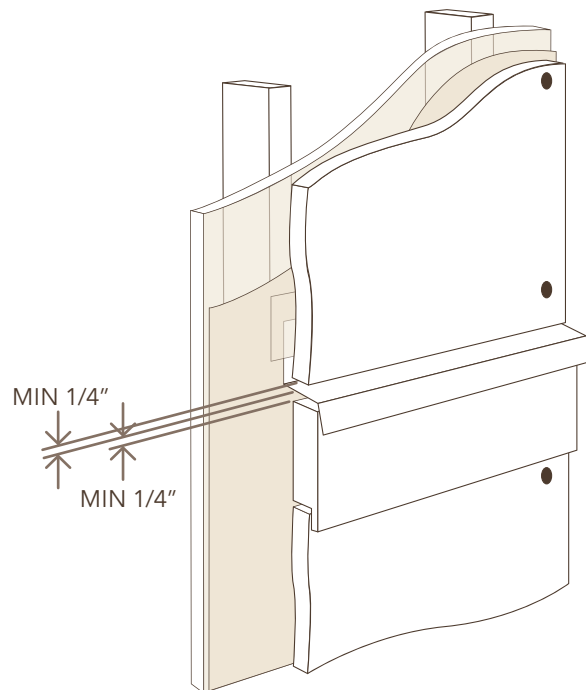
- A second row of sheets should sit atop of the first row with appropriately sized Z flashing and a 1/4" gap from the top and bottom edges of sheets/boards for drainage. When using caulk, only caulk top edges of sheets/boards.
- DO NOT span floor joists with sheets. Proper flashing between sheets is required.

Z-FLASH JOINT WITH SHEETS ONLY



- If you choose to use a band board across the top of this row, be sure to use the appropriate sized Z flashing and include a 1/4" gap when starting the second row.

Z-FLASH JOINT WITH SHEETS AND RABBETED TRIM



- Install the corner boards, the skirt or band board and the window trim.
- After the installation of the trims, add a small bead of caulk above any horizontal trims that are overlaid on top of the sheets such as the window head trim and skirt board.

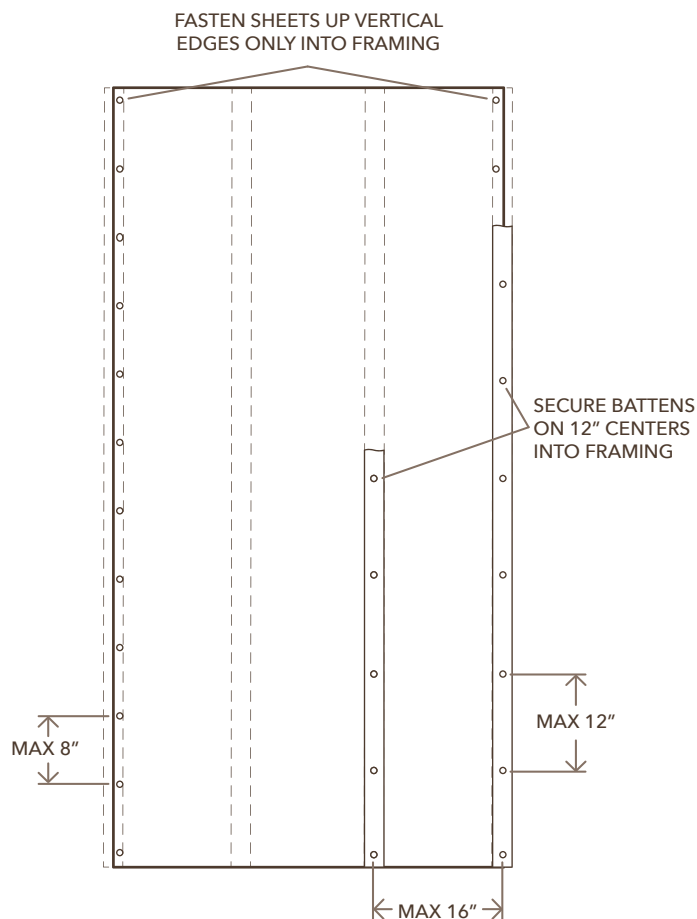
NOW YOU CAN BEGIN INSTALLING THE BATTENS OVER EACH SEAM

- Fasten battens every 12 inches with exterior grade minimum #8 x 2-1/2" screws or #8D x 2-1/2" ring shank nails min 0.099" diameter.

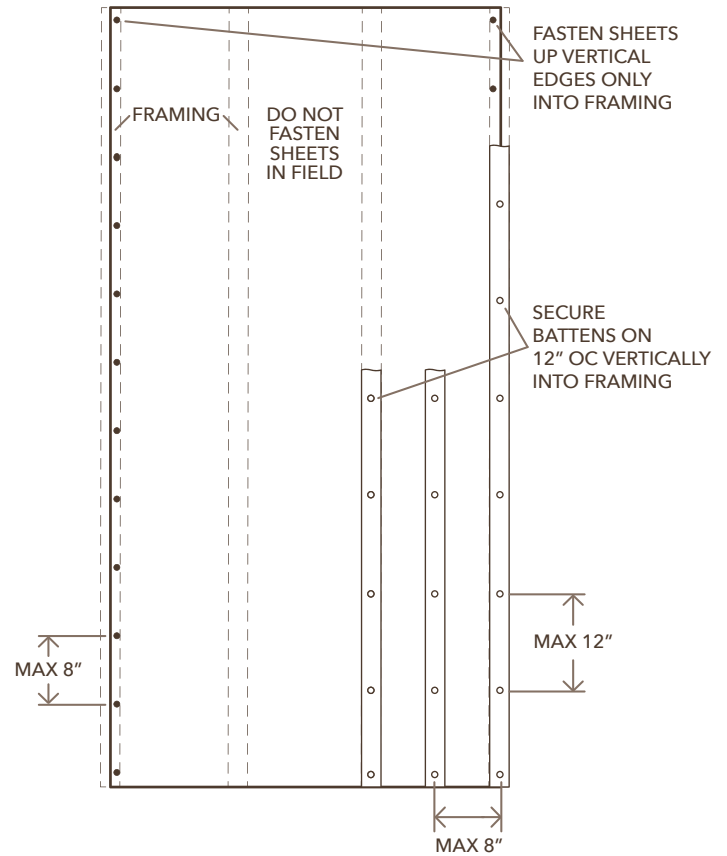
FILL IN BATTENS BETWEEN SEAMS WITH THE SAME PROCESS

- For proper fastening, make sure battens are spaced not more than 16" apart.
- Move up to the next course and install trim and battens as before.

16" OC BATTENS

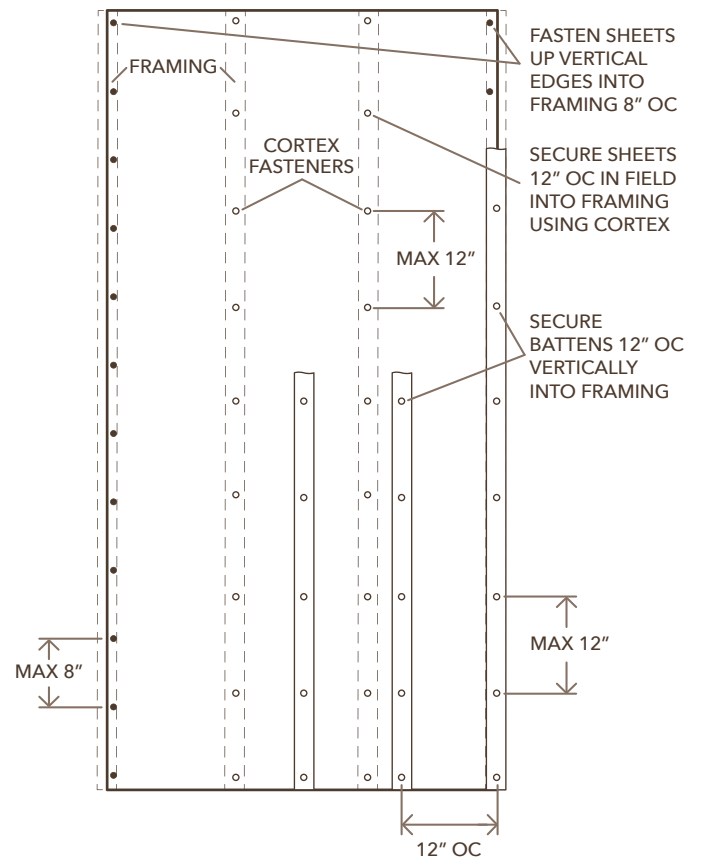


8" OC BATTENS



- When securing battens with spacing that does not align with framing, ACRE Sheets should be additionally secured independently in the field on max 12" spans using Cortex screws and plugs.

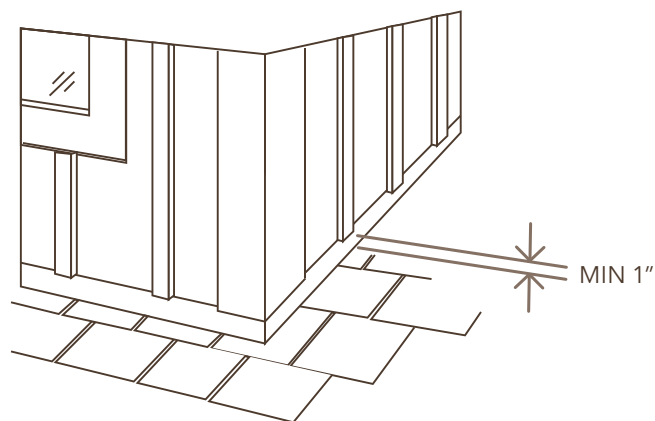
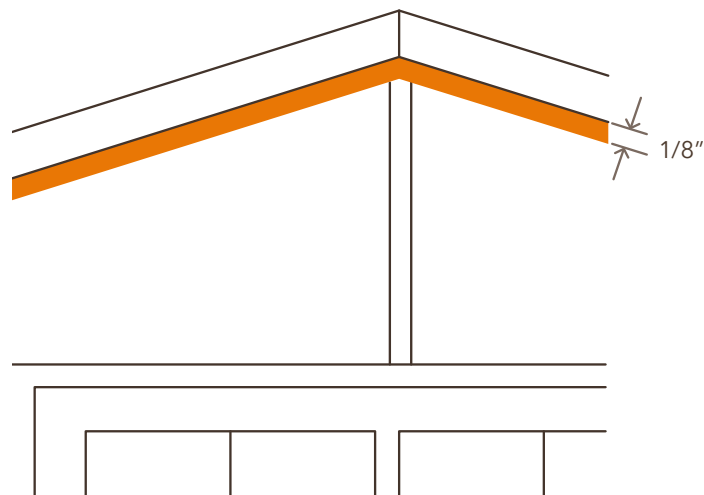
12" OC BATTENS



GABLES AND ROOF CLEARANCE

- For gable ends, install sheets about a 1/8" short of the soffit to allow movement and install rake trim to cover the gap.
- Do not bridge floors. Break sheets, trim and battens at the subfloor.**
- Approved methods for multi-story installations include using z-flashing and creating a rabbet or scarf joint.
- Minimum 1" clearance from adjacent roof lines.

Note: minimum 1-1/2" with dark colors.



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



For instructions on care &
cleaning ACRE, scan here.

MOD ERN • MILL



modern-mill.com

601-869-5050

ACRE Board & Batten
Installation Requirements
2026.08