CULTURED STONE®

THE NAME THAT BUILT AN INDUSTRY™

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CULTURED STONE®

THE NAME THAT BUILT AN INDUSTRY™

EXCELLENCE FROM TRADITION.

LEGACY FROM INNOVATION.

For more than half a century, Cultured Stone® has produced premium manufactured stone veneer, created by the finest master craftsman. As we embrace the strong practices of excellence and artistry that define our heritage, we look ahead to create solutions that offer greater flexibility in design, meeting the design needs of today, and tomorrow.

Eleanor Roosevelt once said, "The future belongs to those who believe in the beauty of their dreams." We believe in offering products that help you achieve your dreams, beautifully.

You are not just a building professional, and these are not just products. You are a visionary, and these are the tools with which you are able to shape your future. Bring incomparable design to reality through the finest manufactured stone veneer available in the industry. The past has shaped us, but the future is ours to define.

Cover Photo: Carbon Pro-Fit® Modera™ Ledgestone

INTRODUCING:

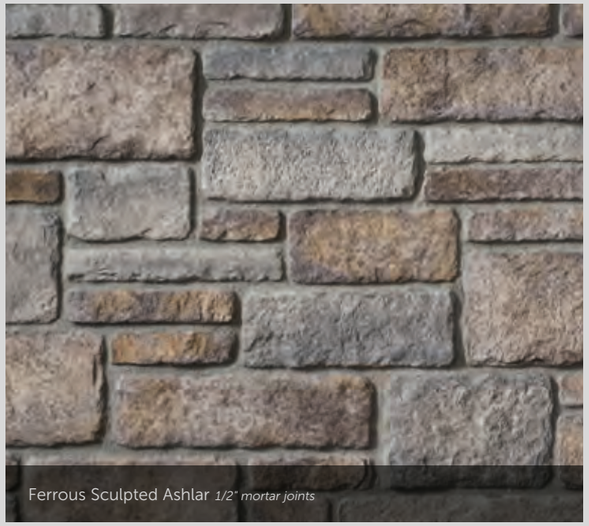
SCULPTED ASHLAR

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
2 ¼" – 7 ¾"	5 ½" – 20 ½"	1" – 2"	4", 7", 10"

Grouse Sculpted Ashlar *1/2" mortar joints*

A thoughtful selection of sizes and colors created with both contemporary and traditional applications in mind. With clean lines and a tumbled finish, the Sculpted Ashlar is the perfect intersection between nature and precision.

Silver Shore Sculpted Ashlar *1/2" mortar joints*



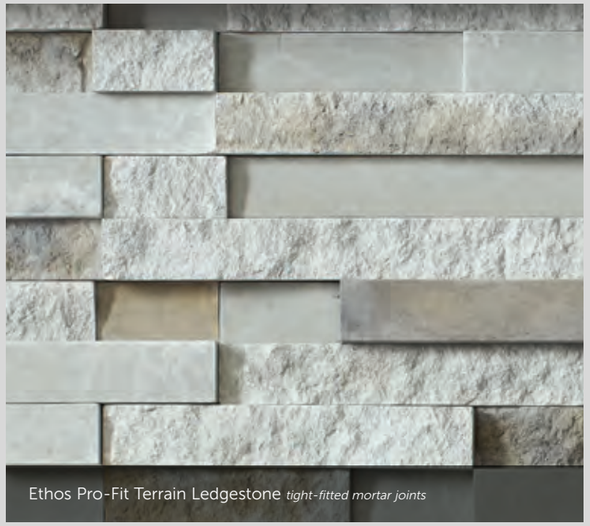
Ferrous Sculpted Ashlar *1/2" mortar joints*

Arcadia Pro-Fit Terrain Ledgestone *tight-fitted mortar joints*

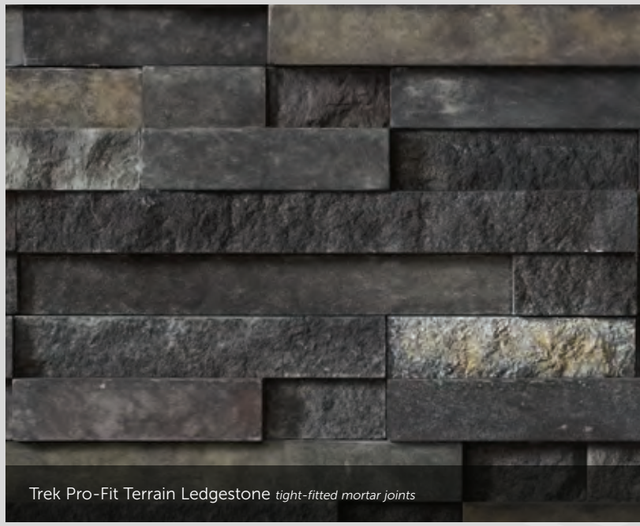
PRO-FIT® TERRAIN™ LEDGESTONE

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
4"	8", 12", 20"	¾", 1 ¼", 1 ¾"	4", 8", 12"

Arctic Pro-Fit Terrain Ledgestone *tight-fitted mortar joints*



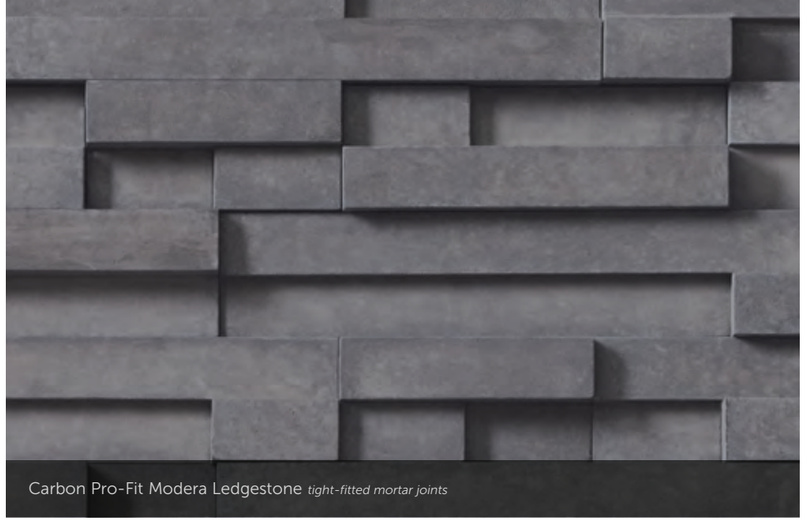
Ethos Pro-Fit Terrain Ledgestone *tight-fitted mortar joints*



Trek Pro-Fit Terrain Ledgestone *tight-fitted mortar joints*

The product colors you see are as accurate as current photography and printing techniques allow. We suggest you look at product samples before you select colors.

Intaglio Cast-Fit® Watertable Sill // Intaglio Pro-Fit Modera Ledgestone



Carbon Pro-Fit Modera Ledgestone *tight-fitted mortar joints*

PRO-FIT® MODERA™ LEDGESTONE

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
4"	8", 12", 20"	¾", 1 ¼", 1 ¾"	4", 8", 12"

Intaglio Pro-Fit Modera Ledgestone *tight-fitted mortar joints*

Vellum Pro-Fit Modera Ledgestone *tight-fitted mortar joints*

The product colors you see are as accurate as current photography and printing techniques allow. We suggest you look at product samples before you select colors.

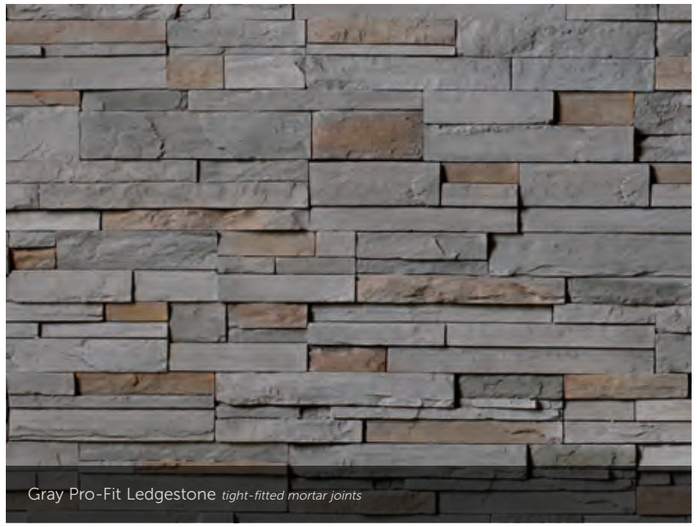
PRO-FIT® LEDGESTONE

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
4"	8", 12", 20"	½", 1 ½"	4", 8", 12"

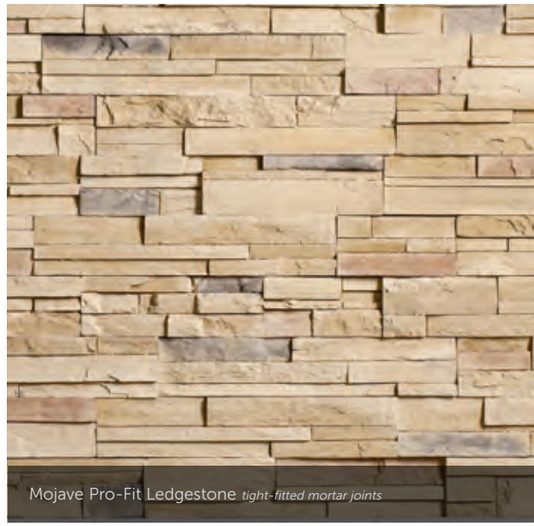
Autumn Pro-Fit Ledgestone *tight-fitted mortar joints*

Platinum Pro-Fit Ledgestone *tight-fitted mortar joints*

Southwest Blend Pro-Fit Ledgestone

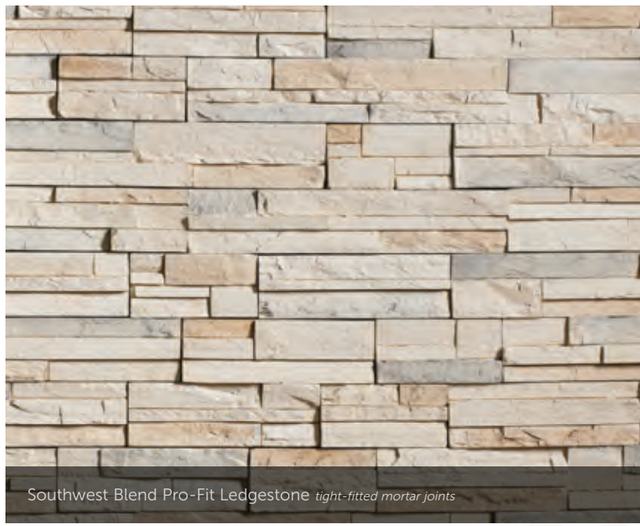


Gray Pro-Fit Ledgestone *tight-fitted mortar joints*



Mojave Pro-Fit Ledgestone *tight-fitted mortar joints*

Shale Pro-Fit Ledgestone *tight-fitted mortar joints*



Southwest Blend Pro-Fit Ledgestone *tight-fitted mortar joints*

The product colors you see are as accurate as current photography and printing techniques allow. We suggest you look at product samples before you select colors.

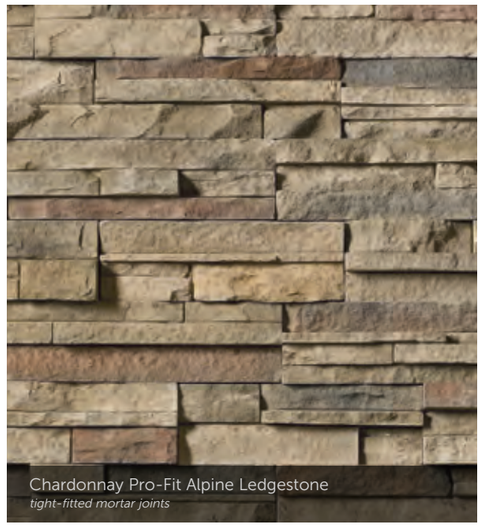
PRO-FIT® ALPINE LEDGESTONE

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
4"	8", 12", 20"	¾" – 2 ¼"	4", 8", 12"

Black Mountain® Pro-Fit Alpine Ledgestone *tight-fitted mortar joints*

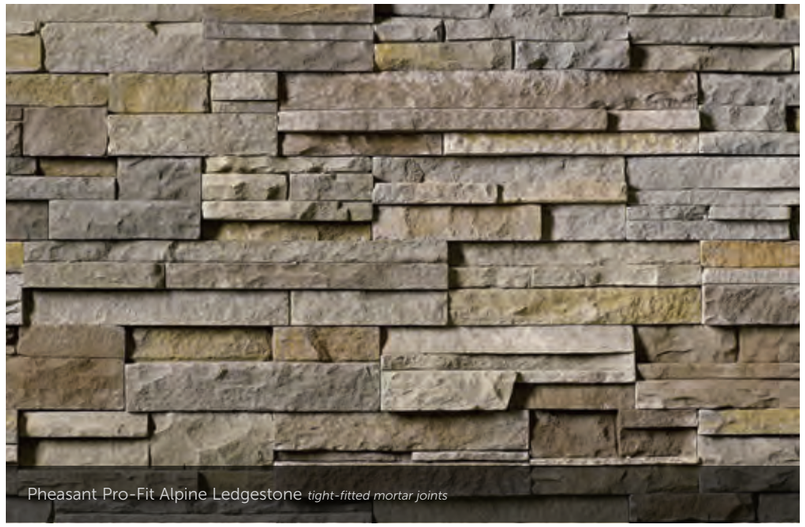
Echo Ridge® Pro-Fit Alpine Ledgestone *tight-fitted mortar joints*

Black Rundle Pro-Fit Alpine Ledgestone *tight-fitted mortar joints*



Chardonnay Pro-Fit Alpine Ledgestone
tight-fitted mortar joints

Dark Ridge™ Pro-Fit Alpine Ledgestone *tight-fitted mortar joints*



Pheasant Pro-Fit Alpine Ledgestone *tight-fitted mortar joints*

Summit Peak Pro-Fit Alpine Ledgestone
tight-fitted mortar joints

Umber Creek Pro-Fit Alpine Ledgestone *tight-fitted mortar joints*

Winterhaven™ Pro-Fit Alpine Ledgestone *tight-fitted mortar joints*

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HEWN STONE™

PLEASE NOTE:
EACH SIZE IS SOLD SEPARATELY. MULTIPLE SIZES ARE SHOWN.

SIZE	HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
308	3"	8"	1 ½"	3", 7"
314	3"	14"	1 ½"	3", 7"
514	5"	14"	1 ½"	3", 10"
522	5"	22"	1 ½"	3", 10"
822	8"	22"	1 ½"	3", 10"

* Foundation Hewn Stone *tight-fitted mortar joints*

* Span Hewn Stone *tight-fitted mortar joints*

* Talus Hewn Stone *tight-fitted mortar joints*

Span Hewn Stone

* Each size is sold separately. Multiple sizes are shown. Refer to chart above for sizes.

CORAL STONE

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
4" – 12"	4" – 16"	1" – 1 ¼"	2 ½" – 8 ½"

Fossil Reef Coral Stone *1/2" mortar joints*

Parchment™ Cast-Fit

CAST-FIT®

SIZE	HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
8" x 16"	7⅛"	15⅝"	1½"	N/A
12" x 24"	11⅞"	23⅝"	1½"	N/A

Fossil Reef Coral Stone

French Gray™ Cast-Fit *1/2" mortar joints (12" x 24" shown)*

Parchment™ Cast-Fit *1/2" mortar joints (8" x 16" shown)*

COUNTRY LEDGESTONE

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
1½" – 6½"	4¼" – 22"	1⅛" – 2⅜"	4" – 12"

Aspen Country Ledgestone
tight-fitted mortar joints

Ashfall Country Ledgestone *tight-fitted mortar joints*

Grand Mesa Country Ledgestone
1/2" fitted mortar joints

Hudson Bay® Country Ledgestone
tight-fitted mortar joints

Mojave Country Ledgestone
tight-fitted mortar joints

Black Rundle Country Ledgestone
tight-fitted mortar joints

Bucks County Country Ledgestone
tight-fitted mortar joints

Caramel Country Ledgestone
1/2" mortar joints

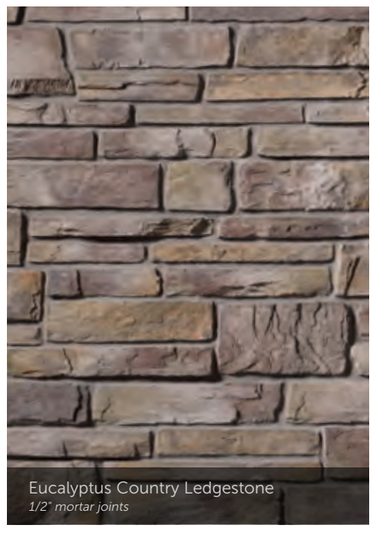
Red Rock Country Ledgestone
1/2" mortar joints

Sevilla™ Country Ledgestone
tight-fitted mortar joints

Skyline Country Ledgestone
tight-fitted mortar joints

Chardonnay Country Ledgestone
tight-fitted mortar joints

Echo Ridge® Country Ledgestone
tight-fitted mortar joints



Eucalyptus Country Ledgestone
1/2" mortar joints

White Oak Country Ledgestone *1/2" mortar joints*

Wolf Creek® Country Ledgestone
tight-fitted mortar joints

Umber Creek Country Ledgestone
1/2" mortar joints

SOUTHERN LEDGESTONE

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
½" – 6"	4" – 20"	1" – 2 ⅝"	4" – 12"

Aspen Southern Ledgestone *1/2" mortar joints*

Fog Southern Ledgestone *tight-fitted mortar joints*

Gray Southern Ledgestone *1/2" mortar joints*

Bucks County Southern Ledgestone *tight-fitted mortar joints*

Hudson Bay® Southern Ledgestone *tight-fitted mortar joints*

Rustic Southern Ledgestone *1/2" mortar joints*

Chardonnay Southern Ledgestone *tight-fitted mortar joints*

Echo Ridge® Southern Ledgestone tight-fitted mortar joints

Wolf Creek® Southern Ledgestone *tight-fitted mortar joints*

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Sevilla™ Ancient Villa Ledgestone

Echo Ridge® Dressed Fieldstone

Echo Ridge® Country Ledgestone

A FIRST IMPRESSION

SET IN STONE.

Remember how you felt the first time you walked into your dream home? That excitement and pride never goes away when you enhance the exterior of your home with our Cultured Stone veneers. Whether pulling into your driveway or catching a parting glimpse in the rearview mirror, the character and charm of a Cultured Stone exterior makes a bold and lasting impression. Realtors call it "curb appeal." You'll call it utter perfection.

DRESSED FIELDSTONE

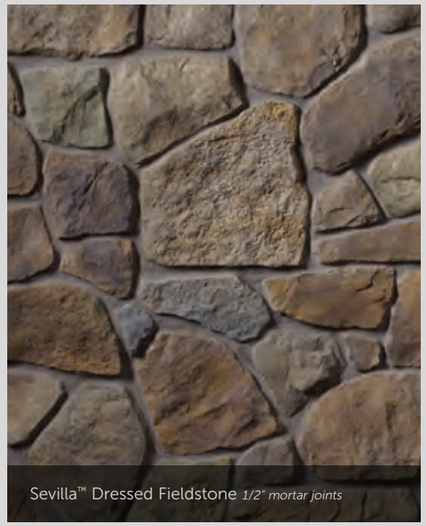
HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
2 ½" – 14"	4" – 22"	1 ¼" – 2 ⅝"	4" – 12"

Aspen Dressed Fieldstone *1/2" mortar joints*

Bucks County Dressed Fieldstone *1/2" mortar joints*

Chardonnay Dressed Fieldstone *1/2" mortar joints*

Echo Ridge® Dressed Fieldstone
1/2" mortar joints



Sevilla™ Dressed Fieldstone *1/2" mortar joints*

Wolf Creek® Dressed Fieldstone
1/2" mortar joints

Chardonnay Country Ledgestone and Dressed Fieldstone Blend

BLEND TO MIX, MATCH

AND MESMERIZE.

The menu of color choices in our Country Ledgestone and Southern Ledgestone textures were made to pair beautifully with our Dressed Fieldstone. The resulting blends—in whatever proportion you deem perfect—create something truly enticing that accentuates any setting or surface. Better still, they were all thoughtfully designed to complement everything from stucco and brick to wood and vinyl.

Chardonnay Country Ledgestone

Chardonnay Dressed Fieldstone

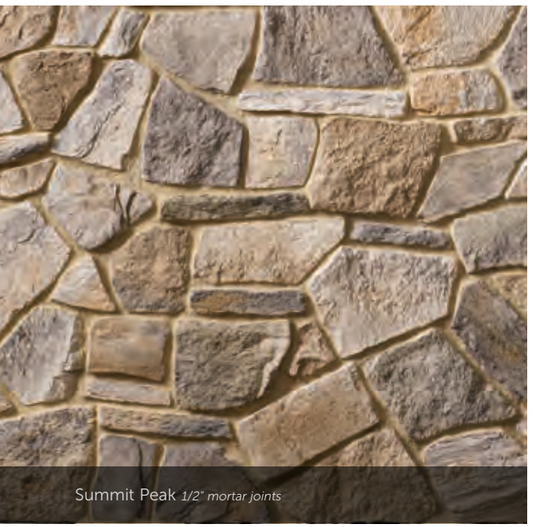
OLD COUNTRY FIELDSTONE

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
1 ½" – 10"	4" – 16 ½"	1" – 2 ⅝"	4" – 12"

Chardonnay Old Country Fieldstone *1/2" mortar joints*

Coastal Fog *1/2" mortar joints*

Echo Ridge® Old Country Fieldstone *1/2" mortar joints*



Summit Peak *1/2" mortar joints*

Tudor Old Country Fieldstone *tight-fitted mortar joints*

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Black Isle™ Del Mare Ledgestone *tight-fitted mortar joints*

DEL MARE LEDGESTONE®

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
1" – 9 ¼"	4 ½" – 16"	¾" – 1 ¾"	4" – 12"

Burnt Ochre Del Mare Ledgestone *1/2" mortar joints*

Palermo Del Mare Ledgestone *1/2" mortar joints*

CELEBRATING

THE SPACES IN BETWEEN.

While our gorgeous Cultured Stone veneers tend to be the center of attention, it's often the grouting styles in between that can really make a difference. Creating the right mortar joint for a project is a matter of choosing not only the perfect color, but also the right width—a choice that naturally affects the total square footage. And while a standard mortar joint is typically 1/2" in width, some stone textures allow for a dry stacked, tight-fitted joint to achieve a clean, tailored appearance.

Chianti Ancient Villa Ledgestone *1/2" mortar joints*

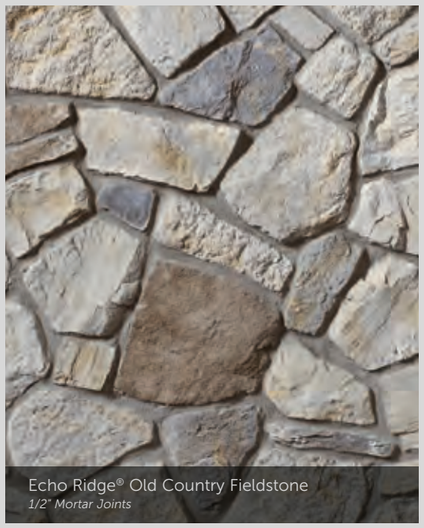
ANCIENT VILLA LEDGESTONE™

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
2" – 12"	5" – 16"	1 ¼" – 1 ¾"	4" – 12"

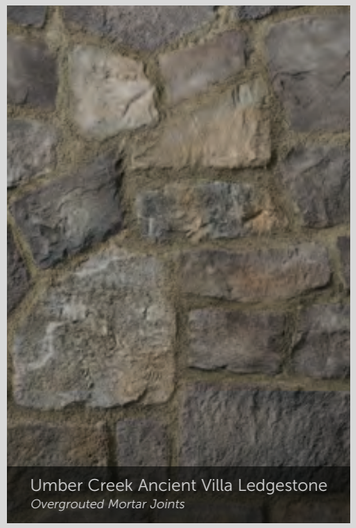
Palisades Ancient Villa Ledgestone *1/2" mortar joints*

Sevilla™ Ancient Villa Ledgestone *1/2" mortar joints*

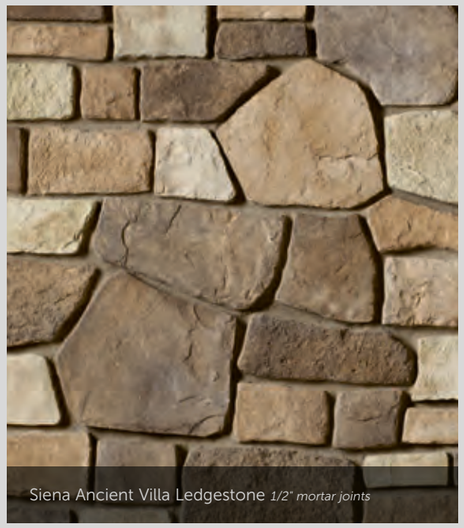
Skyline Country Ledgestone
Tight-Fitted Mortar Joints



Echo Ridge® Old Country Fieldstone
1/2" Mortar Joints



Umber Creek Ancient Villa Ledgestone
Overgrouted Mortar Joints



Siena Ancient Villa Ledgestone *1/2" mortar joints*

Solstice Ancient Villa Ledgestone
1/2" mortar joints

Umber Creek Ancient Villa Ledgestone
Overgrouted Mortar Joints

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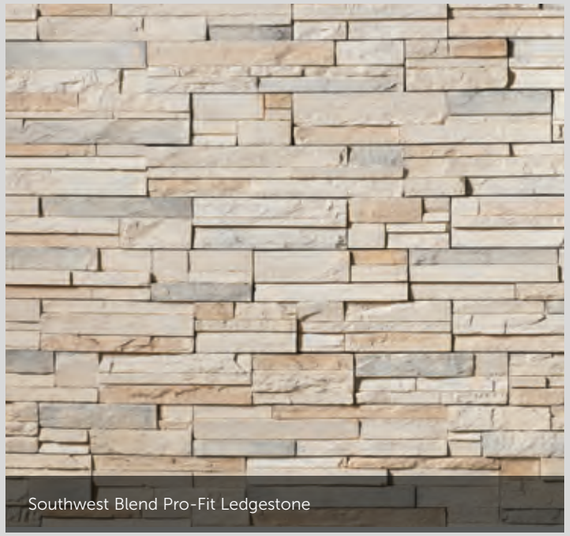
A PAST REMEMBERED.

A FUTURE IMAGINED.

Historically, artisan stonework has been used to dramatically define indoor settings—from prominent stacked-stone hearths to meticulously crafted mosaic floors. With Cultured Stone veneers, an exciting new era comes to life inside the home with cleverly designed interior creations that transform simple backsplashes, accent walls, columns and fireplaces into stunning works of timeless art.



Southwest Blend Pro-Fit Ledgestone

Black Rundle Pro-Fit Alpine Ledgestone

Dark Ridge™ Pro-Fit Alpine Ledgestone

COBBLEFIELD®

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
2" – 8"	4" – 20"	1" – 2⅝"	3" – 12"

Chardonnay Cobblefield *1/2" mortar joints*

Desert Blend® Cobblefield *1/2" mortar joints*

Bucks County Limestone *1/2" mortar joints*

LIMESTONE

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
1 ¼" – 6"	4" – 16 ¾"	1 ½" – 2 ⅝"	4" – 11"

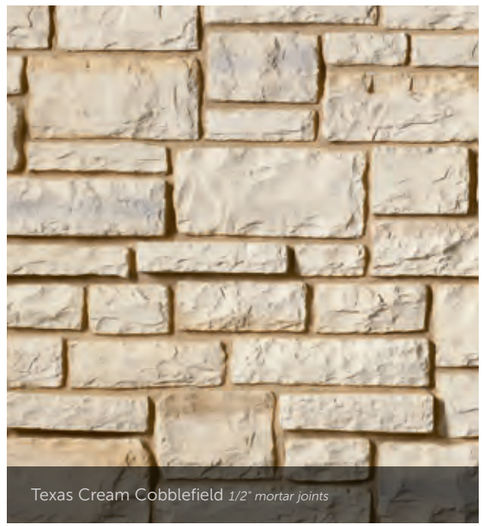
Echo Ridge® Cobblefield *1/2" mortar joints*

Gray Cobblefield *1/2" mortar joints*

Chardonnay Limestone *1/2" mortar joints*

Golden Buckeye Limestone *1/2" mortar joints*

San Francisco Cobblefield *1/2" mortar joints*



Texas Cream Cobblefield *1/2" mortar joints*

Suede Limestone *1/2" mortar joints*

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Chardonnay Country Ledgestone

Fog Southern Ledgestone

Hudson Bay® Southern Ledgestone

FALL IN LOVE WITH

OUTDOOR LIVING.

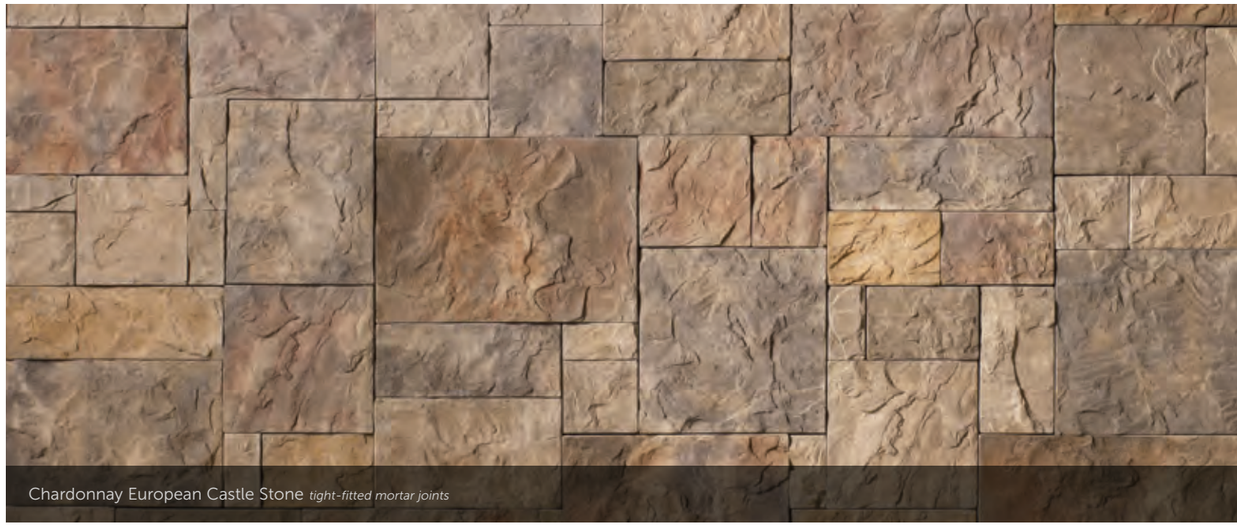
If home is where the heart is, your outdoor space is where the real love affair is waiting to unfold. Think of it — a canvas of possibilities waiting to be designed and enjoyed with a gorgeous stone fireplace, a dramatic fountain or even an entire outdoor room. With Cultured Stone veneers serving as the backdrop, even the simplest outdoor activities become unforgettable moments all day long and deep into a moonlit night.

Bucks Country European Castle Stone

Bucks County European Castle Stone *tight-fitted mortar joints*

EUROPEAN CASTLE STONE

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
2" – 12"	4" – 16"	1 ⅜" – 1 ⅝"	4" – 12"



Chardonnay European Castle Stone *tight-fitted mortar joints*

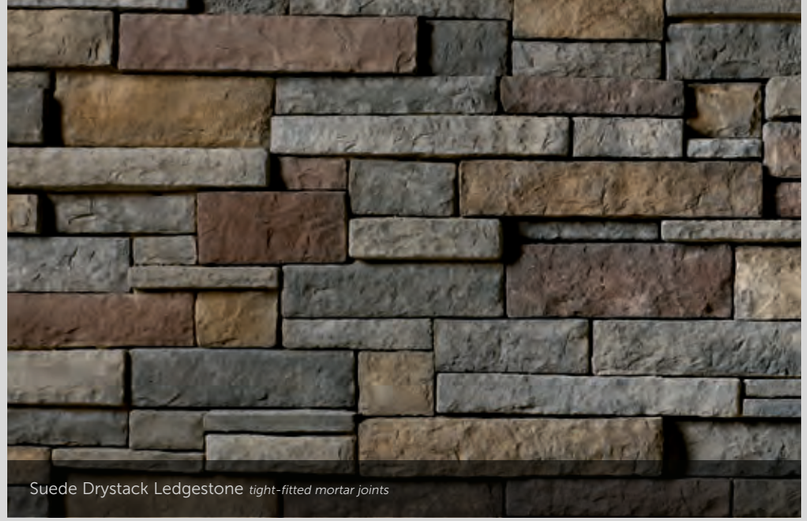
Bucks County Rock face *1/2" mortar joints*

ROCKFACE

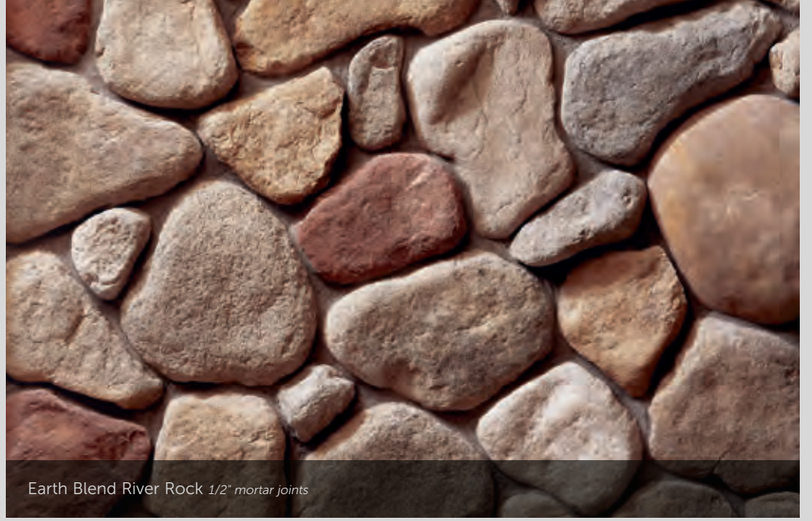
HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
4" – 12"	4" – 16"	1" – 2 ⅝"	7" – 11 ¾"

DRYSTACK LEDGESTONE

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
1" – 4"	4" – 16"	1 ½" – 2 ⅝"	2" – 10"



Suede Drystack Ledgestone *tight-fitted mortar joints*



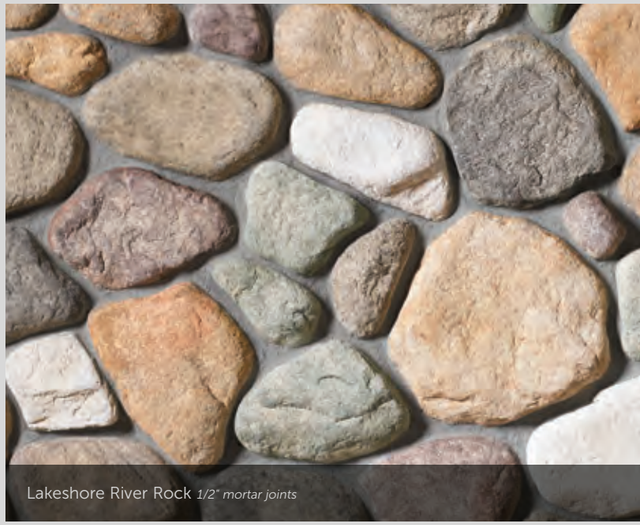
Earth Blend River Rock *1/2" mortar joints*

RIVER ROCK

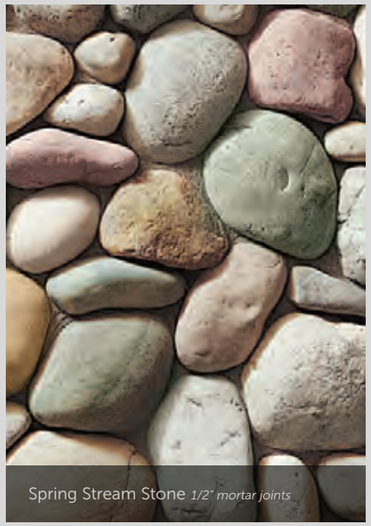
HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
2" – 14"	2" – 14"	1" – 2⅝"	3" – 12"

Chardonnay Drystack Ledgestone
tight-fitted mortar joints

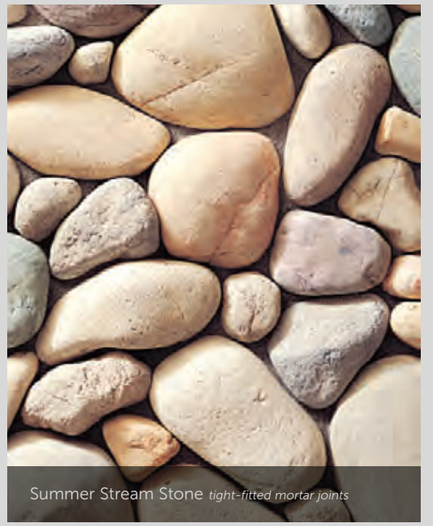
Lake Tahoe River Rock *1/2" mortar joints*



Lakeshore River Rock *1/2" mortar joints*



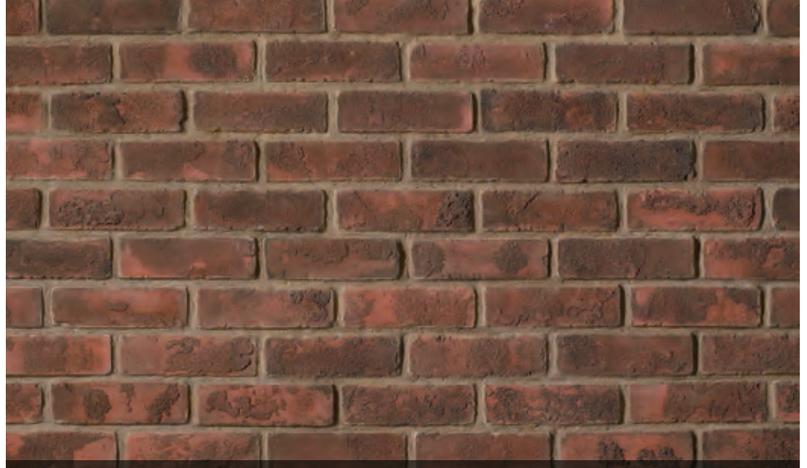
Spring Stream Stone *1/2" mortar joints*



Summer Stream Stone *tight-fitted mortar joints*

STREAM STONE

HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
2" – 12"	2" – 12"	1 ½" – 3 ½"	4" – 9 ¼"



Antique Red Used Brick *1/2" mortar joints*

CULTURED BRICK® VENEER

	HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
Used Brick	2⅛" – 2⅝"	7⅛" – 8⅛"	¾"	4", 8"
Handmade Brick		2¾"	8⅛"	¾", 3⅛", 8¼"

Moroccan Sand Handmade Brick *1/2" mortar joints*

High Desert Used Brick *1/2" mortar joints*

Rustic Manor Handmade Brick *1/2" mortar joints*

CREATING THE

ULTIMATE IMPULSE BUY.

Today's savvy consumer wants more than a product when they're out shopping—they also want a memorable experience. With Cultured Stone veneers, a storefront, restaurant or hotel is sending a subtle but significant message about what their patrons can expect the moment they step inside. From chic and sophisticated to warm and inviting, Cultured Stone exteriors communicate just how special the interior experience will be.

Sevilla ™ Country Ledgestone

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Intaglio Cast-Fit Watertable Sill // Intaglio Pro-Fit Modera Ledgestone

CULTURED TRANSITIONS™

PERFECTION IS IN THE DETAILS.

Cultured Transitions, the new home for our ever-evolving collection of unique trim and accessories, adds even more beauty and functionality to the home or business. Everything you need to complete each project is in one convenient collection. From unique capstones and trim to elegant electrical boxes, our selection of timeless accents will add both style and protection to any commercial or residential façade.

ELECTRICAL BOX: LARGE LIGHT FIXTURE
Gray (shown), Nightfall™, Sable, Taupe
9 ½" x 15" x 1 ¾"

ELECTRICAL BOX: STANDARD LIGHT FIXTURE
Gray, Nightfall™, Sable (shown), Taupe
8" x 10" x 1 ¾"

ELECTRICAL BOX: SINGLE RECEPTACLE
Gray, Nightfall™, Sable, Taupe (shown)
6" x 8" x 1 ¾"

KEYSTONE
Champagne, Gray, Nightfall™, Sable, Taupe (shown)
5 ½" x 8" x 10" x 1 7/8"

TRIM STONE
Champagne, Gray (shown), Nightfall™, Sable, Taupe
6" x 8" x 1 7/8"

TUSCAN LINTEL
Champagne, Gray, Nightfall™, Sable (shown), Taupe
6" x 22" x 2 ⅝"

WATERTABLE/SILL
Champagne, Gray, Nightfall™, Sable (shown), Taupe
2 ½" x 18" x 3"

CAST-FIT® WATERTABLE/SILL
Carbon (shown), French Gray™, Intaglio, Parchment™, Vellum
2 ½" x 18" x 3"

FLAGSTONE PIER CAP
Champagne (shown), Gray, Nightfall™, Sable, Taupe
24" x 24", 32" x 32"
2 ½" – 4 ½" thickness at peak

FLAT TEXTURED CAPSTONES*
Champagne, Gray (shown), Nightfall™, Sable, Taupe
10" x 20", 12" x 20"
2" thickness

FLAGSTONE SLOPED WALL CAP
Champagne, Gray, Nightfall™, Sable (shown), Taupe
12" x 20", 16" x 20"
2" – 2 ¾" thickness at peak

HEARTHSTONE
Blond, Chardonnay (shown), Cream, Gray, Marsh, Nightfall™, Sable
19" x 20" x 1 ¾"

TRIM AND CAPSTONE COLORS

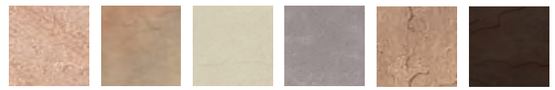
Champagne | Gray | Nightfall™ | Sable | Taupe

CAST-FIT® WATERTABLE/SILL COLORS

NEW COLOR | | NEW COLOR | | NEW COLOR

Carbon | French Gray | Intaglio | Parchment | Vellum

HEARTHSTONE COLORS



Blond | Chardonnay | Cream | Gray | Marsh | Nightfall™

Sable

Dimensions listed are nominal. Please check the actual product size to ensure the right fit for your application.

Note: Flat Textured Capstones can be used for fireplace hearths. Hearthstones are not suitable for foot traffic.

COORDINATING COLOR GUIDE

We've designed our Cultured Transitions™ architectural accents to complement our textures and colors beautifully. Use the chart below as a guide to selecting the architectural accents that best harmonize with the Cultured Stone veneer products you have chosen.

	ACCESSORIES	HEARTHSTONES
ANCIENT VILLA LEDGESTONE™		
CHIANTI	FRENCH GRAY™, TAUPE	BLOND, MARSH
PALISADES	CARBON, FRENCH GRAY™, GRAY, SABLE, TAUPE	GRAY, MARSH, SABLE
SEVILLA™	FRENCH GRAY™, SABLE, TAUPE	CHARDONNAY, MARSH, SABLE
SIENA	FRENCH GRAY™, SABLE, TAUPE	BLOND, MARSH, SABLE
SOLSTICE	FRENCH GRAY™, GRAY, TAUPE	GRAY, MARSH
UMBER CREEK	NIGHTFALL™, SABLE, TAUPE	MARSH, NIGHTFALL™, SABLE
CAST-FIT®		
PARCHMENT™	PARCHMENT™, CHAMPAGNE	CREAM
FRENCH GRAY™	FRENCH GRAY™, TAUPE	MARSH
CULTURED® BRICK®		
ANTIQUE RED USED BRICK	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
HIGH DESERT USED BRICK	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
RUSTIC MANOR HANDMADE BRICK	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
MOROCCAN SAND HANDMADE BRICK	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
COBBLEFIELD®		
CHARDONNAY	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
DESERT BLEND®	FRENCH GRAY™, SABLE, TAUPE	BLOND, MARSH, SABLE
ECHO RIDGE®	CARBON, GRAY, INTAGLIO, NIGHTFALL™	GRAY, NIGHTFALL™
GRAY	GRAY, INTAGLIO	GRAY
SAN FRANCISCO	FRENCH GRAY™, GRAY, NIGHTFALL™, TAUPE	GRAY, NIGHTFALL™
TEXAS CREAM	CHAMPAGNE, PARCHMENT™	CREAM
CORAL STONE		
FOSSIL REEF	CHAMPAGNE, PARCHMENT™	CREAM
COUNTRY LEDGESTONE		
ASHFALL	FRENCH GRAY™, GRAY, INTAGLIO, TAUPE	GRAY, MARSH
ASPEN	FRENCH GRAY™, TAUPE	GRAY, MARSH
BLACK RUNDLE	GRAY, NIGHTFALL™	GRAY, NIGHTFALL™
BUCKS COUNTY	FRENCH GRAY™, GRAY, TAUPE	GRAY, MARSH
CARAMEL	FRENCH GRAY™, TAUPE	BLOND, MARSH
CHARDONNAY	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
ECHO RIDGE®	CARBON, GRAY, INTAGLIO, NIGHTFALL™	GRAY, NIGHTFALL™
EUCALYPTUS	FRENCH GRAY™, GRAY, TAUPE	CHARDONNAY, MARSH
GRAND MESA	TAUPE	MARSH
HUDSON BAY®	FRENCH GRAY™, SABLE, TAUPE	CHARDONNAY, MARSH, SABLE
MOJAVE	FRENCH GRAY™, TAUPE	BLOND, MARSH
RED ROCK	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
SEVILLA™	FRENCH GRAY™, SABLE, TAUPE	CHARDONNAY, MARSH, SABLE
SKYLINE	FRENCH GRAY™, GRAY, INTAGLIO, TAUPE	GRAY, MARSH
UMBER CREEK	FRENCH GRAY™, NIGHTFALL™, SABLE, TAUPE	MARSH, NIGHTFALL™, SABLE
WHITE OAK	CHAMPAGNE, PARCHMENT™	CREAM
WOLF CREEK®	FRENCH GRAY™, NIGHTFALL™, SABLE, TAUPE	MARSH, NIGHTFALL™, SABLE
DEL MARE LEDGESTONE®		
BLACK ISLE™	NIGHTFALL™	GRAY, NIGHTFALL™
BURNT OCHRE	FRENCH GRAY™, SABLE, TAUPE	BLOND, MARSH, SABLE
PALERMO	FRENCH GRAY™, SABLE, TAUPE	BLOND, MARSH, SABLE

	ACCESSORIES	HEARTHSTONES
DRESSED FIELDSTONE		
ASPEN	FRENCH GRAY™, TAUPE	GRAY, MARSH
BUCKS COUNTY	FRENCH GRAY™, GRAY, TAUPE	GRAY, MARSH
CHARDONNAY	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
ECHO RIDGE®	CARBON, GRAY, INTAGLIO, NIGHTFALL™	GRAY, NIGHTFALL™
SEVILLA™	FRENCH GRAY™, SABLE, TAUPE	CHARDONNAY, MARSH, SABLE
WOLF CREEK®	FRENCH GRAY™, NIGHTFALL™, SABLE, TAUPE	MARSH, NIGHTFALL™, SABLE
DRYSTACK LEDGESTONE		
CHARDONNAY	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
SUEDE	FRENCH GRAY™, GRAY, INTAGLIO, TAUPE	GRAY, MARSH
EUROPEAN CASTLE STONE		
BUCKS COUNTY	FRENCH GRAY™, GRAY, TAUPE	GRAY, MARSH
CHARDONNAY	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
HEWN STONE		
FOUNDATION	VELLUM	CREAM
SPAN	CARBON, FRENCH GRAY™	GRAY
TALUS	CARBON, INTAGLIO, VELLUM	CREAM, MARSH
LIMESTONE		
BUCKS COUNTY	FRENCH GRAY™, GRAY, TAUPE	GRAY, MARSH
CHARDONNAY	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
GOLDEN BUCKEYE	TAUPE	MARSH
SUEDE	FRENCH GRAY™, GRAY, INTAGLIO, TAUPE	GRAY, MARSH
OLD COUNTRY FIELDSTONE		
CHARDONNAY	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
COASTAL FOG	CHAMPAGNE, PARCHMENT™, TAUPE	BLOND, CREAM, MARSH
ECHO RIDGE®	CARBON, GRAY, INTAGLIO, NIGHTFALL™	GRAY, NIGHTFALL™
SUMMIT PEAK	FRENCH GRAY™, TAUPE, VELLUM	GRAY, MARSH
TUDOR	GRAY, NIGHTFALL™	GRAY, NIGHTFALL™
PRO-FIT® ALPINE LEDGESTONE		
BLACK MOUNTAIN®	GRAY, INTAGLIO, NIGHTFALL™	GRAY, NIGHTFALL™
BLACK RUNDLE	GRAY, NIGHTFALL™	GRAY, NIGHTFALL™
CHARDONNAY	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
DARK RIDGE™	GRAY, NIGHTFALL™	GRAY, NIGHTFALL™
ECHO RIDGE®	CARBON, GRAY, INTAGLIO, NIGHTFALL™	GRAY, NIGHTFALL™
SUMMIT PEAK	FRENCH GRAY™, TAUPE, VELLUM	GRAY, MARSH
PHEASANT	CARBON, GRAY	GRAY
UMBER CREEK	FRENCH GRAY™, NIGHTFALL™, SABLE, TAUPE	MARSH, NIGHTFALL™, SABLE
WINTERHAVEN™	CHAMPAGNE, PARCHMENT™, VELLUM	CREAM

	ACCESSORIES	HEARTHSTONES
PRO-FIT® LEDGESTONE		
AUTUMN	FRENCH GRAY™, TAUPE	BLOND, MARSH
GRAY	GRAY, INTAGLIO	GRAY
MOJAVE	FRENCH GRAY™, TAUPE	BLOND, MARSH
PLATINUM	CHAMPAGNE, GRAY, PARCHMENT™	CREAM, GRAY
SHALE	FRENCH GRAY™, GRAY, INTAGLIO, TAUPE	GRAY, MARSH
SOUTHWEST BLEND	CHAMPAGNE, PARCHMENT™	CREAM, BLOND

	ACCESSORIES	HEARTHSTONES
PRO-FIT® MODERA LEDGESTONE		
CARBON	CARBON	GRAY, NIGHTFALL™
INTAGLIO	INTAGLIO	GRAY, MARSH
VELLUM	VELLUM	CREAM
PRO-FIT® TERRAIN™ LEDGESTONE		
ARCADIA	CARBON, GRAY	GRAY
ARCTIC	CHAMPAGNE	CREAM
ETHOS	INTAGLIO	CREAM, MARSH
TREK	NIGHTFALL™	NIGHTFALL™
RIVER ROCK		
EARTH BLEND	TAUPE	BLOND, MARSH
LAKE TAHOE	GRAY, TAUPE	GRAY
LAKESHORE	TAUPE	BLOND, CREAM, MARSH
ROCKFACE		
BUCKS COUNTY	FRENCH GRAY™, GRAY, TAUPE	GRAY, MARSH

	ACCESSORIES	HEARTHSTONES
SOUTHERN LEDGESTONE		
ASPEN	FRENCH GRAY™, TAUPE	GRAY, MARSH
BUCKS COUNTY	FRENCH GRAY™, GRAY, TAUPE	GRAY, MARSH
CHARDONNAY	FRENCH GRAY™, TAUPE	CHARDONNAY, MARSH
ECHO RIDGE®	CARBON, GRAY, INTAGLIO, NIGHTFALL™	GRAY, NIGHTFALL™
FOG	GRAY, TAUPE	CREAM, GRAY
GRAY	GRAY, INTAGLIO	GRAY
HUDSON BAY®	FRENCH GRAY™, SABLE, TAUPE	CHARDONNAY, MARSH, SABLE
RUSTIC	TAUPE	BLOND, MARSH
WOLF CREEK®	FRENCH GRAY™, NIGHTFALL™, SABLE, TAUPE	MARSH, NIGHTFALL™, SABLE
SCULPTED ASHLAR		
SILVER SHORE	CHAMPAGNE, VELLUM	CREAM
GROUSE	CHAMPAGNE, VELLUM, TAUPE, FRENCH GRAY™	CREAM, MARSH
FERROUS	CARBON, NIGHTFALL, SABLE	NIGHTFALL, SABLE
STREAM STONE		
SPRING	GRAY, TAUPE	GRAY, MARSH
SUMMER	CHAMPAGNE, TAUPE	BLOND, MARSH

	HEIGHT	LENGTH	THICKNESS	CORNER RETURNS
ASHLAR				
CAST-FIT® 8" x 16"	7 3/8"	15 3/8"	1 1/2"	N/A
CAST-FIT® 12" x 24"	11 3/8"	23 3/8"	1 1/2"	N/A
BRICK				
USED BRICK	2 3/8" – 2 5/8"	7 7/8" – 8 1/8"	3/4"	4", 8"
HANDMADE CULTURED BRICK®	2 3/4"	8 1/16"	3/4"	3 5/8", 8 1/4"
FIELD				
DRESSED FIELDSTONE	2 1/2" – 14"	4" – 22"	1 1/4" – 2 3/8"	4" – 12"
OLD COUNTRY FIELDSTONE	1 1/2" – 10"	4" – 16 1/2"	1" – 2 1/8"	4" – 12"
LEDGE				
COUNTRY LEDGESTONE	1 1/2" – 6 1/2"	4 1/4" – 22"	1 1/8" – 2 3/8"	4" – 12"
DRYSTACK LEDGESTONE	1" – 4"	4" – 16"	1 1/2" – 2 1/8"	2" – 10"
PRO-FIT® ALPINE LEDGESTONE	4"	8", 12", 20"	3/4" – 2 1/4"	4", 8", 12"
PRO-FIT® LEDGESTONE	4"	8", 12", 20"	1/2" – 1 1/2"	4", 8", 12"
PRO-FIT® MODERA™ LEDGESTONE	4"	8", 12", 20"	3/4", 1 1/4", 1 3/4"	4", 8", 12"
PRO-FIT® TERRAIN™ LEDGESTONE	4"	8", 12", 20"	3/4", 1 1/4", 1 3/4"	4", 8", 12"
RANDOM ASHLAR				
COBBLEFIELD®	2" – 8"	4" – 20"	1" – 2 5/8"	3" – 12"
CORAL STONE	4" – 12"	4" – 16"	1" – 1 1/4"	2 1/2" – 8 1/2"
EUROPEAN CASTLE STONE	2" – 12"	4" – 16"	1 1/8" – 1 5/8"	4" – 12"
HEWN STONE™ 308	3"	8"	1 1/2"	3", 7"
HEWN STONE™ 314	3"	14"	1 1/2"	3", 7"
HEWN STONE™ 514	5"	14"	1 1/2"	3", 10"
HEWN STONE™ 522	5"	22"	1 1/2"	3", 10"
HEWN STONE™ 822	8"	22"	1 1/2"	3", 10"
LIMESTONE	1 1/4" – 6"	4" – 16 3/4"	1 1/2" – 2 5/8"	4" – 11"
ROCKFACE	4" – 12"	4" – 16"	1" – 2 5/8"	7" – 11 3/4"
SCULPTED ASHLAR	2 1/4" – 7 3/4"	5 1/2" – 20 1/2"	1" – 2"	4", 7", 10"
ROUNDED				
RIVER ROCK	2" – 14"	2" – 14"	1" – 2 5/8"	3" – 12"
STREAM STONE	2" – 12"	2" – 12"	1 1/2" – 3 1/2"	4" – 9 1/4"
RUBBLE				
ANCIENT VILLA LEDGESTONE™	2" – 12"	5" – 16"	1 1/4" – 1 3/4"	4" – 12"
DEL MARE LEDGESTONE®	1" – 9 1/4"	4 1/2" – 16"	3/4" – 1 3/4"	4" – 12"
SOUTHERN LEDGESTONE	1/2" – 6"	4" – 20"	1" – 2 5/8"	4" – 12"

STONE VENEER DIMENSIONS*

*These are all nominal dimensions and ranges. Actual dimensions may vary.

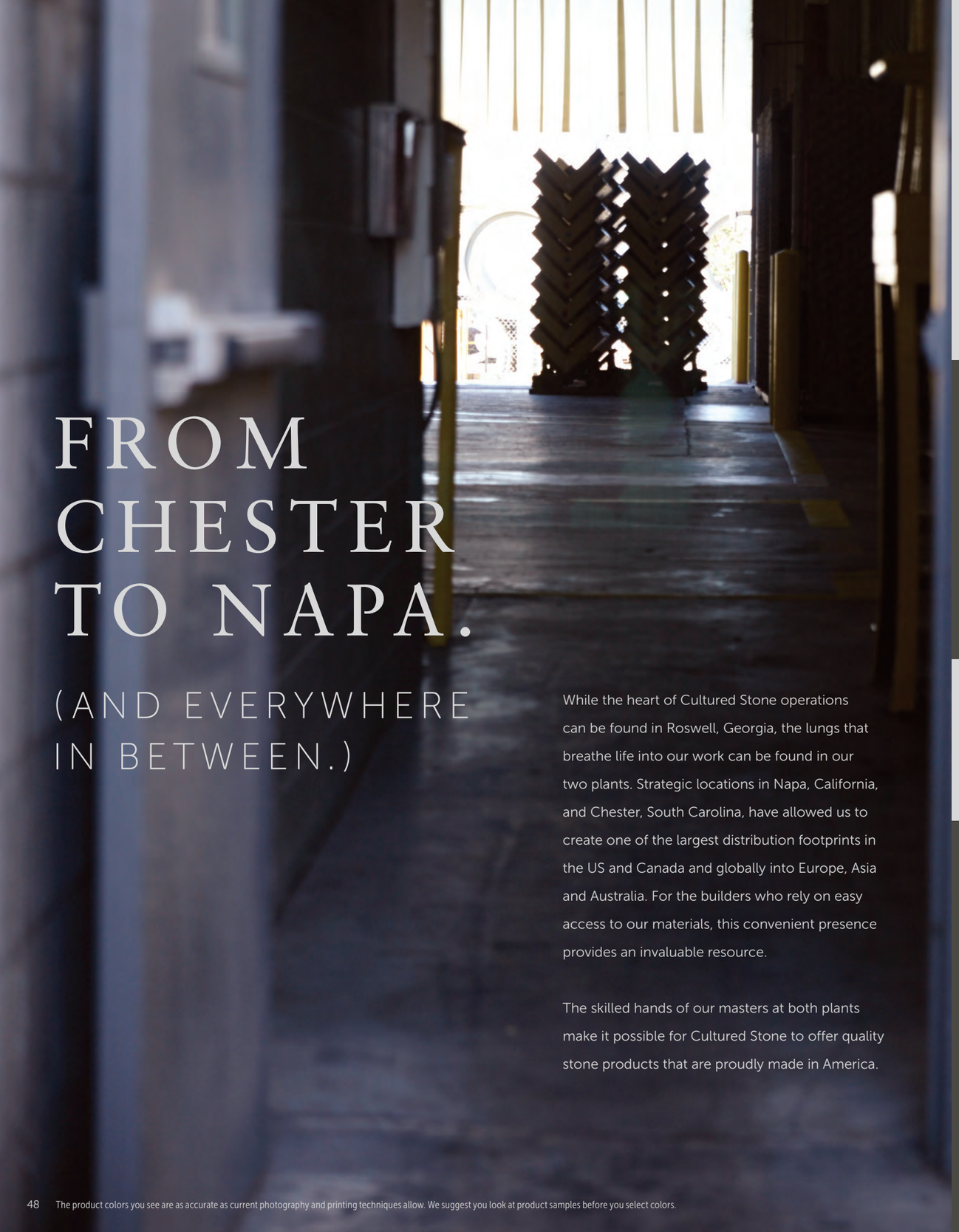
The product colors you see are as accurate as current photography and printing techniques allow. We suggest you look at product samples before you select colors.

Home Innovation
NGBS GREEN CERTIFIED

VALIDATED
• PRODUCT CONTAINS A MINIMUM OF 56% RECYCLED CONTENT
UL.COM/ECV

ICC-Evaluation
Service ES ESR-1364

Underwriters
Laboratories



FROM CHESTER TO NAPA.

(AND EVERYWHERE IN BETWEEN.)

While the heart of Cultured Stone operations can be found in Roswell, Georgia, the lungs that breathe life into our work can be found in our two plants. Strategic locations in Napa, California, and Chester, South Carolina, have allowed us to create one of the largest distribution footprints in the US and Canada and globally into Europe, Asia and Australia. For the builders who rely on easy access to our materials, this convenient presence provides an invaluable resource.

The skilled hands of our masters at both plants make it possible for Cultured Stone to offer quality stone products that are proudly made in America.

 The product colors you see are as accurate as current photography and printing techniques allow. We suggest you look at product samples before you select colors.

WARRANTY

LIMITED WARRANTY

Cultured Stone wall products carry a 50-year limited warranty* when used on structures that conform to local building codes and when installed according to manufacturer's instructions.

Warranty is limited to replacement or repair of defective materials only and does not cover labor to remove and replace. Warranty does not cover damage resulting from building settlement, wall movement, contact with chemicals or paint, discoloration due to airborne contaminants, and staining or oxidation. Warranty is limited to the original purchaser. Complete warranty information is available on request.

INSTALLATION

Cultured Stone veneer can be used on most structurally sound wall surfaces. It is light weight and quick adhesion allows for fast, easy installation without additional footings or wall ties. Each piece of Cultured Stone veneer is applied individually with Type N or Type S mortar and attaches permanently to the wall surface

BE SURE TO READ THE CULTURED STONE FULL DETAILED INSTALLATION INSTRUCTIONS. GET A COPY FROM YOUR CULTURED STONE® DEALER, AT WWW.CULTUREDSTONE.COM OR BY CALLING 1.800.255.1727.

THE NATIONAL CONCRETE MASONRY ASSOCIATION OFFERS A WEALTH OF INFORMATION AT WWW.MASONRYVENEER.COM.

MAINTENANCE

Cultured Stone and Cultured Brick veneers are virtually maintenance-free. If required, lightly wash to remove dust or dirt. Do not sandblast or wash with acid, abrasives or hi-pressure water. Damaged or graffiti-marred stones can be removed and replaced with matching materials.

*See actual warranty at www.culturedstone.com. Overhead, horizontal or sloped applications are not included in our building code evaluation reports or acceptances. These applications often require special approval/inspections by local building inspectors. Contact your architect or engineer for assistance designing these installations.

TECHNICAL DATA

Cultured Stone products are engineered to meet or exceed the specifications set by building code officials.

Unit Weight is approximately 8-12 lb/ft² (39-58 kg/m²) but not more than 15 lb/ft² (72 kg/m²)

Thickness 1 3/4" average. May vary depending on choice of texture.

Colorfast Colors become an integral part of the stone during casting. Existing applications show no undesirable change in color after years of weathering.

Noncombustible/Surface Burning Characteristics UL tested and listed. Cultured Stone products tested out with zero flame spread, zero smoke development.

Technical Support Complete copies of Cultured Stone research reports, approvals, tests, listings or acceptances conducted by independent testing agencies are available on request. Cultured Stone products meet or exceed all ICC-ES Acceptance Criteria #51, requirements for pre-case stone veneer.

Other manufacturers who claim to produce equivalent products should be asked to provide documentation of claims.

"Architects have leaned on us for many years to help fulfill their vision for their customer; time and time again, we get that done with Cultured Stone®."

Doug McCall, *OldcastleCoastal, Tampa, FL*

"Cultured Stone prides itself on the manufacturing process, the coloring process."

Nick Ridge, *Mason Steel, Cleveland, OH*

"We are over 115 years old and the oldest brick and block manufacturer in the Pacific Northwest. Cultured Stone is a great addition to our product line. We have been partners for 35 years."

Bill Houlahan, Jr., *Mutual Materials, Bellevue, WA*

"Innovation. New products. Just phenomenal."

Gordon Strout, *Instone, Millstone Township, NJ*

"We were part of the growth of an industry. When we started, there was not even a product category for manufactured stone, and now it's fully established."

Keith Polster, *Mason Steel, Cleveland, OH*

Left to right: **Doug McCall**, OldcastleCoastal; **Nick Ridge**, Mason Steel; **Kyle Destree**, Brock White; **Bill Houlahan**, Mutual Materials; **Rob Rosson**, Mutual Materials; **Dennis Ehlert**, **Brock White;** **Patrick Knapik**, OldcastleCoastal; **Gordon Strout**, Instone; **Keith Polster**, Mason Steel

WE ARE CULTURED STONE

Born from great partnerships, Cultured Stone is a family affair. Rooted in our commitment to quality, a long-standing history of working closely with distributing partners, developing new products, textures and colors together - from the Southeast to the Pacific Northwest, we are Cultured Stone.

The product colors you see are as accurate as current photography and printing techniques allow. We suggest you look at product samples before you select colors.

CULTURED STONE®

ORIGINALITY

NEVER GOES OUT OF STYLE.

From cast to model, the entire Cultured Stone veneer production process is very much hands-on—down to the trademark CSV® (Cultured Stone Veneer) stamp that has been hand-applied since 1962, to each and every stone we craft. Only genuine Cultured Stone products have a CSV® indicia embossed on the edge, guaranteeing that you're getting the original, proven and preferred brand. After all, a master's touch is all in the detail.

Explore the endless possibilities of building with Cultured Stone veneer products by visiting our website at www.culturedstone.com. For more detailed information, please call 1.800.255.1727.

BORAL®

MIX
Paper from responsible sources
FSC® C101537

The product colors you see are as accurate as current photography and printing techniques allow. We suggest you look at product samples before you select colors.

© 2018 Cultured Stone

MADE IN THE USA

Boral Innovations at Work

Prepare your wall to receive stone or stucco with the newest Boral Product Innovation: Boral™ Drain-N-Dry™ Lath

Boral™ **Drain-N-Dry™ Lath**
with DELTA®-DRY Technology

Build something great™

A superior lath and best in class rainscreen in one product

Installs fast, providing two additional component systems in one pass

- Eliminates the need for a secondary layer of Water Resistive Barrier (WRB)
- Rainscreen
- Lath

Ultimate in moisture management through drainage, drying and moisture vapor control

Nothing to rust or corrode and the ultimate in alkaline resistance with integral Alkali Resistant (AR) glass lath

A fastener band every 6" ensures solid connection to structure and easy visual inspection of fastener spacing

Substantial reduction of fastener penetrations in the primary WRB that typically occur when multiple materials are installed independently

Built in self-furring feature to ensure proper mortar embedment and scratch coat thickness

Extremely light and easy to transport, move around the job and install from scaffolding

Installs with hand driven or pneumatic nails or staples with no caps or washers needed

Cutting and modification is so easy it can be done with a utility knife or scissors

Product Detail

Roll Coverage = 150 sqft

Roll Width = 39 3/8" (1m)

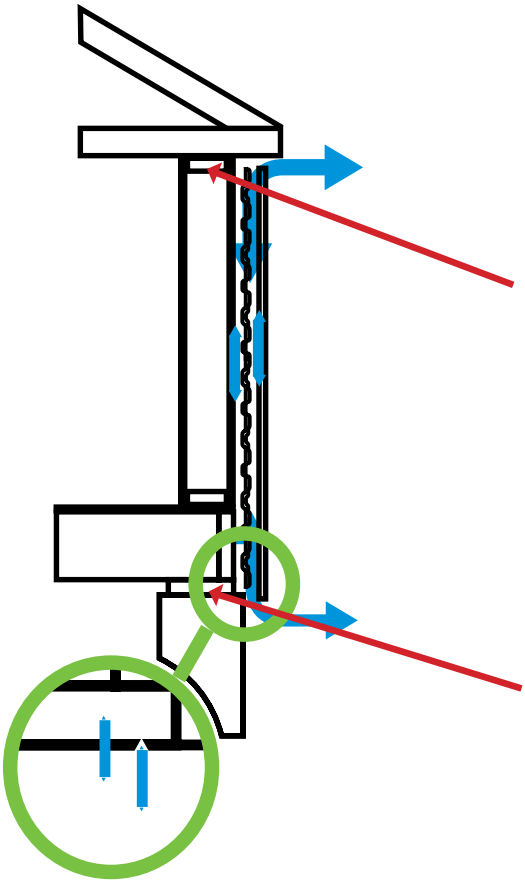
Roll Length = 46'

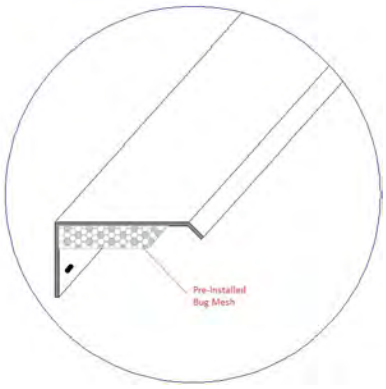
Lath is 1 $^{1}/_{2}$" - 2" wider to allow for overlapping lath at edge seams

Boral™ Drain-N-Dry™ Lath | Accessories

with DELTA®-DRY Technology

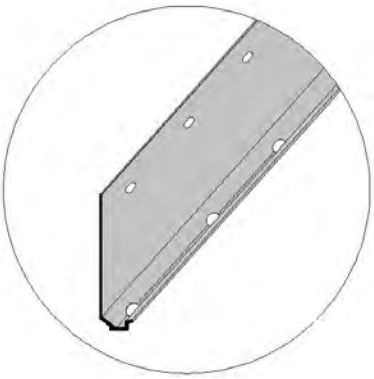
A superior lath and best in class rainscreen in one product





Top Side Ventilation Trim

- Manufactured from UV durable white PVC
- 2 1/4" projection from the wall
- 1 1/4" attachment flange
- Available in 10' length



Weepscreed Starter Strip

- Manufactured from UV durable Mortar Gray PVC
- 7/8" projection from the wall
- 3 1/2" attachment flange
- Available in 10' length

Boral™ Drain-N-Dry™ Topside Ventilation Trim - This part functions to terminate adhered stone veneer or stucco at the top of the system. This part comes with a bug mesh already installed, providing an exit ventilation opening at the top of the wall.

Boral™ Drain-N-Dry™ Weepscreed Starter Strip - This part functions as a weepscreed termination that allows liquid water drainage and provides an inlet for ventilation drying. It may be used with or without bug mesh or bug screen (Sold separately).

1.800.255.1727 | www.DrainNDryLath.com

©2017 Boral Stone Products LLC

OUR COMMITMENT TO

THINKING AND BUILDING GREEN

At Cultured Stone,® we strive to meet today's building needs without compromising the world we leave to the future. Sustainability is at the heart of how we do business. This commitment to thinking and building green is evident in the design, manufacturing and people behind our Cultured Stone veneer brand.

PRODUCTS FOR A SUSTAINABLE FUTURE.

Recycled content. We incorporate an average of 58% pre-consumer waste stream material into all our Cultured Stone veneer products.

Superior durability. Our products stay beautiful and are capable of 50+ years of service. Superior quality control measures, quality raw materials, and industry leading testing provide the confidence to offer a 50-year limited warranty.* We meet or exceed the most stringent building code testing requirements in the industry, including the ICC AC-51. This testing has been evaluated and confirmed by ICC Evaluation Services and documented in ICC ESR 1364. Once installed, our products don't require painting, coating or sealing.

Low emitting. Our products have demonstrated through third-party testing to meet the indoor air quality standards of the GREENGUARD Environmental Institute. In addition, we have met the even more stringent GREENGUARD Children & Schools℠ standard, which represents the most rigorous building product emissions criteria to date.

PROCESSES FOR A SUSTAINABLE FUTURE.

Protecting well-being. We operate our manufacturing facilities in a manner that protects the health of our employees and the environment.

Recycling water. We've implemented a closed-loop system that reuses water during manufacturing. As a result, we've reduced our water consumption in North America from 2006–2009 by 50% per ton of product produced.

Waste reduction. We've implemented process changes that have reduced our landfill waste by 80% per ton of product produced since 2009.

PEOPLE MAKING THE WORLD A BETTER PLACE.

Championing greener communities. We believe that being good neighbors is a requirement, not an option. It's reflected in the way we encourage our employees and retirees to give back to the communities in which we operate. And this includes sharing our knowledge to help create a sustainable future.

CULTURED STONE®

ICC-Evaluation Service ES ESR-1364

Underwriters Laboratories

Visit GreenApprovedProducts.com for More Information

UL Environment™ ENVIRONMENTAL CLAIMS VALIDATED ✓ Recycled Content

Minimum of 58% Recycled Content on All Cultured Stone® Veneer Products

1.800.255.1727 | culturedstone.com

*Visit **culturedstone.com** for full warranty details

THE ANATOMY OF A DURABLE & HEALTHY

MANUFACTURED STONE VENEER

INTRODUCTION

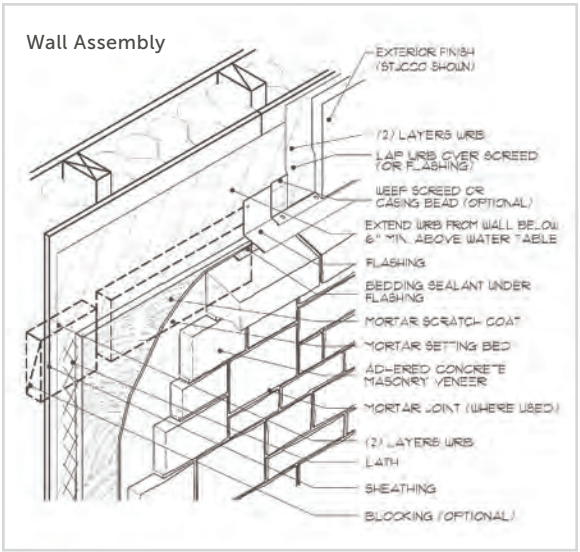
When looking at a stone wall it can be hard to decipher whether it's sourced naturally or manufactured. Often, even the most experienced eye has challenges seeing the difference. This attention to detail is a testament to the progress the manufactured stone industry has made over the past 60 years.

Commonly referred to as "faux stone" or "MSV," Manufactured Stone Veneer is a versatile product with endless creative design possibilities. Its use has seen steady growth over the years due to having many benefits over natural stone products along with aesthetically appealing designs that create beautiful results. Like all building materials, manufactured stone veneer needs to be installed, paired and integrated properly with other systems present in the wall or building. This article will touch on several aspects of using manufactured stone veneer to help designers, owners, and installers achieve a beautiful wall with long-term performance.

WALL PREPARATION

Manufactured stone veneer has been installed with success over both metal and wood framed walls. It can also be installed over masonry substrates of CMU block or brick and even poured concrete. This opens up options to beautify almost any building or landscape feature you might encounter. However, it is imperative that appropriate application steps are taken to prepare a wall to receive stone veneer.

Prior to any installation, it's important to evaluate the wall to assure it is in compliance with local building codes and not showing any evidence of structural failure or deterioration. If you have any questions or concerns about the wall, call an expert to evaluate it and prescribe measures to address any shortcomings. Make sure sheathing materials are gapped properly; typically they require 1/8" gap at all sheathing seams. Failure to provide this gap can lead to expansion forces cracking the veneer.



Source: MVMA Installation Guide

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Photo ©2018 Domiteaux + Baggett Architects, PLLC

In framed construction, you will likely be looking at stud spacing of 16" on center and some type of sheathing material. While there are options that allow installation over "open stud" construction, that technique is limited to a relatively small geographic area and we will leave that topic for another article. To prepare a framed wall you will have to apply two layers of Water Resistive Barrier (WRB) and install a weep screed. Building codes define what materials are suitable WRBs but you might consider the following to help improve the performance of your wall. First let's talk about the two layers of WRB.

The first layer of WRB on a framed wall is referred to as the "Primary WRB." This layer is responsible for most of the draining of any incidental water that gets into the system. Good primary WRB is money well-spent. Consider some of the common properties in your decision like: vapor permeability, tear resistance, water resistance, perforated or spun bond, ease of installation, jobsite durability, fastener penetration risks and time exposed to UV prior to being covered. Pick a WRB that suits the weather and living conditions of your specific building. The second layer of WRB is referred to as the "Sacrificial Layer." The purpose of this layer is to protect the primary WRB from mortar adhesion and to create a small drainage plane between the two layers. While you should consider all the same properties in the selection of this material, you can save some money here as this layer has less to do.


Weep Screed

Before installing any WRBs let's consider the "Foundation Weep Screed." Imagine a few drops of water between two layers of WRB. Gravity will play its role and cause those drops to descend to the bottom of the adhered veneer system. This water needs a location to exit. Borrowing from the stucco system building code requirements, a foundation weep screed is installed to provide this exit point and protect any framing materials that could potentially be damaged by water. While placement of this weep screed is a subject of some debate, the intent of the building code is clear. Installing a weep screed at the transition between foundation and framing protects these susceptible framing materials. The weep screed also acts to kick the water out from the building and provide the appropriate clearance from grade or a paved surface. In most cases, the weep screed is installed to provide a 4" clearance from grade or a 2" clearance from any paved surface. The weep screed is the first to be installed so that WRB materials can lap over its 3" attachment flange in shingle fashion.

In masonry construction, building codes do not require application of a WRB or a weep screed. However most manufacturers and code officials will still require stone be installed meeting the same clearance requirements. There is nothing that precludes installation of a WRB in these applications, but by doing so you will likely lose the option to adhere directly to the masonry. Installation of lath is also optional unless you have applied a WRB or need the lath to address a questionable bonding surface. Examples of some questionable bonding surfaces include: sealed masonry, painted masonry, dirty surfaces, extremely smooth surfaces or masonry that has been covered by a non-bondable WRB.

WATER MANAGEMENT PRINCIPLES

There are three principles that come into play in water management of a wall system. First is a "barrier system" which claims to stop water at the exterior face of the cladding. Second is a "concealed barrier system" which employs a second material further into the wall to drain/manage water. Most adhered veneer systems fall in this second category where the WRB is the concealed barrier. The third is a hybrid of the concealed barrier system called a "Rainscreen," which utilizes the same concealed barrier (WRB) but also provides a larger physical air space between the WRB and the cladding. This installation method is required in a few climates of North America. With this technique, the designer can obtain nearly unobstructed liquid water drainage and ventilation drying. Even in jurisdictions that don't require this method, we find users view it as a belt-and-suspenders approach that can protect them against failed WRB or flashing-installation details, condensation risks, and to ensure overall health of the wall system.

LATH—"*THE SKELETON OF THE SYSTEM*"

The stucco industry has been using lath for centuries and much has been written and standardized on this topic. If the framing in framed construction is the skeleton of the building, then lath is the skeleton of the adhered veneer system. ASTM Standard C1063 goes into great detail regarding the specifics of proper lath installation. This standard can be supplemented by an article written by Gary Maylon called ***Expanded Metal Lath Installation for the Application of Portland Cement Stucco. The Eight Deadly Sins.***

The point is lath installation is critical. Fasten lath to framing so the weight load of the adhered veneer system can be transferred to framing. Use the appropriate length fastener to obtain no less than ¾" penetration into framing. Fasteners should be spaced 6" on center and into framing. Lap lath 1' at vertical and horizontal seams and cause those vertical seems to occur at framing locations. At both inside and outside corners, wrap the lath past the corner to the next framing member approximately 16" down the wall.

You have many choices when it comes to lath. These include expanded metal lath, woven wire lath, welded wire lath, fiberglass lath and even some plastic choices. Since this component is so critical to the performance of the system, this is not a good place to cut corners. As you make your choice, consider that manufactured stone, mortar and lath can weigh up to 25 lbs/sq ft, and lath with its attachment will carry this load to framing. Select a manufacturer that can provide proof of compliance to the appropriate ASTM material specification.

SCRATCH COAT

Scratch coat provides two primary functions. First, by fully encapsulating the lath with a mortar scratch coat, the amount of water and air that can reach the lath is minimized. This functions to extend the corrosion resistance of the lath (in the case of metal). The second contribution is for total weather resistance of the wall. The mass of the total scratch coat combined with setting bed mortar and stone units provides the capability to manage water through absorption and evaporation. The scratch coat should be ½–¾" thick. And, by using a self-furred lath or a lath furring fastener, the lath should be centered near the middle of this mortar thickness. Reinforcement in the center of the mortar provides the optimum crack resistance. Failure to fur the lath will make it difficult to obtain the required scratch coat thickness and does not allow the reinforcement to function to its fullest extent.

SETTING BED & ACHIEVING GOOD BOND

Building codes require that all adhered veneer achieve a minimum bond strength of 50 psi. This is not an overly stringent requirement and can easily be achieved with a few key guiding principles.

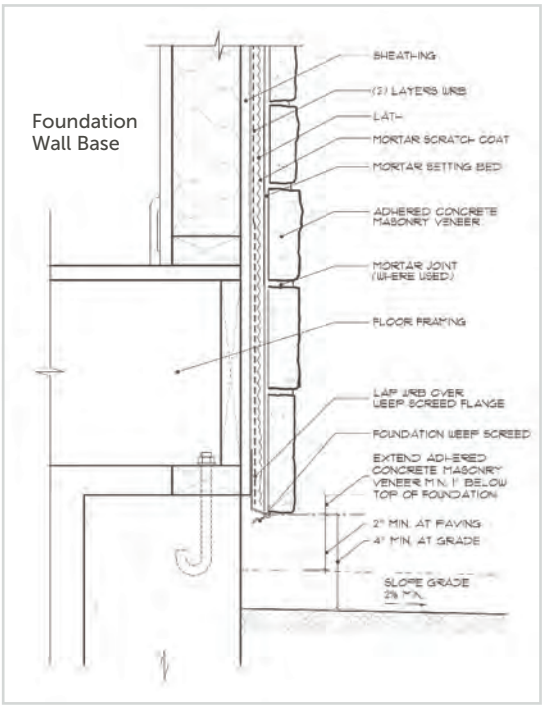
- **Prepare the stone units.** Make sure they are clean and any loose material is scrubbed from the back with a wire brush.
- **Address weather conditions.** Hot/dry weather will require you to dampen the back of each stone unit and the scratch coat. Mortar manufacturers have some specific instructions for these conditions. Cold weather conditions will require materials to be heated and the application to be tented and heated during installation and while curing.
- **Pick quality mortar.** Regardless if you mix mortar from scratch or buy pre-mixed just-add-water mortar, pick a quality product that meets the requirements of the stone manufacturer you are installing. Mix and install it per the manufacturer's requirements.
- **Mix the mortar right and know when it's trash.** Your setting bed mortar should be mixed wet enough that a trowel covered with it can be inverted and the mortar will remain adhered to the trowel. Only mix what you can use in the working time of the mortar. Re-temper the mortar as prescribed by the mortar manufacturer and applicable ASTM standards. When the working time has expired, dispose of remaining mortar and mix a new batch. Bond is too important to take any chances here.
- **Select the application method that works for you.** The options commonly used are:
    1. Trowel mortar onto the wall in approximately 5 sq ft area, ½–¾" thick and press stone unit into the mortar with a slight rotation back and forth as you set the stone.
    2. Apply a thin layer of mortar to the back of the stone, pressing it completely into the texture. This is like buttering bread when you have high cholesterol. Apply a second back-buttered layer, again covering entire back of stone to a ½–¾" thickness and press onto prepared scratch coat.
    3. A combination of both previous methods.

The goal of this step is to create a uniform layer of mortar on the wall that supplements the mortar of the scratch coat from the standpoint of weather resistance. It also provides the minimum 50 psi shear bond strength required by building code. You should not have voids within the mortar layers that could capture water. Captured water can freeze and cause units to de-bond. Captured water can also lead to efflorescence and find a way into the building. Remember to always provide a full setting bed of mortar.

COMMON MISCONCEPTIONS & COSTLY MISTAKES

There is no substitute for experience, testing and following instructions. Over the years, techniques and best practices for installing manufactured stone veneer have evolved. Here are a few common misconceptions:

- **The doughnut method:** This is an application where the setting bed mortar is applied in a ring around the outside of the unit. The theory was that the void in the center would provide "suction" to help the stone stay on the wall. The fact is less mortar bonded to the stone and a large void to catch water are detrimental to the installation.



Source: MVMA Installation Guide

- **Failure to maintain proper clearance:** Running stone to or below grade might look more realistic but is a potential violation of building code and could impact warranty coverage. Clearance is required to allow drainage, prevent moisture from wicking up the wall, minimize soil staining and efflorescence and, in some jurisdictions, provide termite inspection zones.
- **Lath lap/overlap:** Failure to lap lath correctly, especially at corners, can lead to cracking.
- **Anti-freeze/accelerators in mortar:** Be very careful with these chemicals. Some can lead to efflorescence problems and others may impact corrosion of lath. Contact your mortar or stone manufacturer for more details.
- **Installation on stair risers:** While this application dresses up a stairway, it's not practical when the appropriate clearance (2") is provided from the paved surface, the step. This application is a water management challenge and can lead to exposure to de-icing chemicals. All of which can impact the performance of the stone and warranty coverage.
- **Proper capping:** Good water management principles govern transitions between materials. Flashing these transitions is required and capping is also critical. Manufactured stone veneer is no exception. Cap your installation with a material that overhangs the stone installation by 1–2". If possible, provide a drip edge or kerf to force water to drop off your capping material promptly.

MAINTENANCE FOR LONGEVITY

Each manufactured stone veneer manufacturer publishes specific care and maintenance requirements. Most will have positions on sealing, cleaning, efflorescence, de-icing chemicals, use in pools or fountains, and power washing. Read and understand all of these before proceeding as they can have drastic impact on performance and warranty coverage

CONCLUSION

The products available to you today as manufactured stone veneer are endless. The design options and variations are robust and will add the curb appeal everyone wants. Take the time to evaluate your suppliers and read all the installation materials available to you. Ask questions and understand the "why" behind certain requirements. Decisions regarding materials you use and how they will be installed can make it a project you will always be proud of, yielding years of pleasure for you and your customers.

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MANUFACTURER'S

STONE INSTALLATION INSTRUCTIONS

METHODS TO COMPLY WITH ASTM C1780

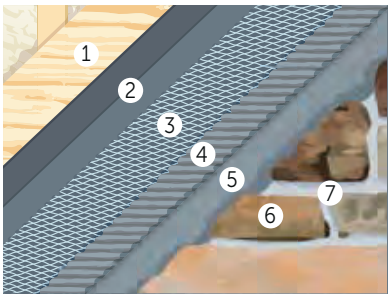
Cultured Stone® and **Cultured Brick**® Installation Instructions are available separately from your dealer and can also be found at **www.culturedstone.com**.

Building code requirements vary from area to area. Check with local authorities for building code requirements in your area. Carefully read all Installation Instructions before proceeding with your Cultured Stone products application. Observe safety precautions. Cultured Stone products are covered by a 50-Year Limited Warranty when installed in accordance with the manufacturer's Installation Instructions. See the complete warranty on our website at **www.culturedstone.com**.

STEP ONE:
DETERMINE BACK-UP WALL & SURFACE PREPARATION REQUIREMENTS

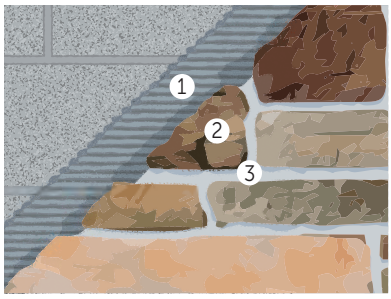
Typical back-up systems include:

WOOD FRAME



In sequence: (1) sheathing, (2) two layers of water resistive barrier (WRB), (3) galvanized metal lath, (4) scratch coat, (5) mortar setting bed, (6) Cultured Stone manufactured stone veneer, (7) mortar joint.

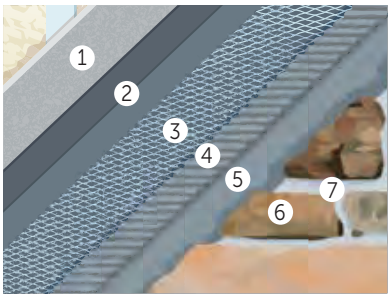
UNIT MASONRY/CONCRETE



In sequence: (1) mortar applied directly to untreated, unpainted masonry, concrete or stucco, (2) Cultured Stone manufactured stone veneer, (3) mortar joint.

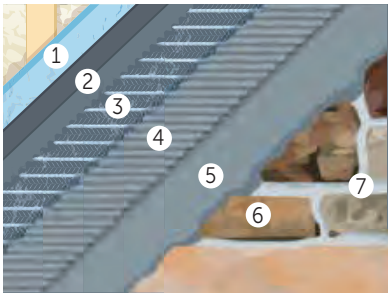
Note: Painted, sealed, dirty & smooth surfaces/ walls will require additional preparation to address these conditions.

METAL FRAME



In sequence: (1) sheathing, (2) two layers of water resistive barrier (WRB), (3) galvanized metal lath, (4) scratch coat, (5) mortar setting bed (6) Cultured Stone manufactured stone veneer, (7) mortar joint.

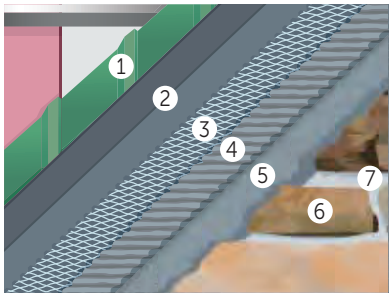
RIGID FOAM INSULATION



In sequence: (1) rigid foam insulation, (2) two layers of water resistive barrier (WRB), (3) galvanized metal lath (Ribbed Lath shown), (4) scratch coat, (5) mortar setting bed, (6) Cultured Stone manufactured stone veneer, (7) mortar joint.

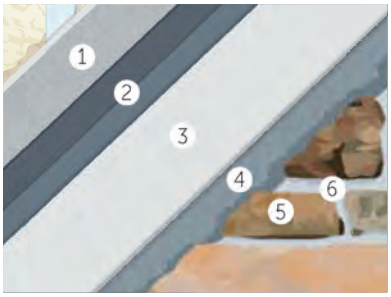
See the special **Technical Evaluation Report** regarding installation over continuous insulation for more information.

METAL BUILDINGS



In sequence: (1) sheathing, (2) two layers of water resistive barrier (WRB), (3) galvanized metal lath, (4) scratch coat, (5) mortar setting bed, (6) Cultured Stone manufactured stone veneer, (7) mortar joint.

CEMENT BOARD



In sequence: (1) sheathing, (2) two layers of water resistive barrier (WRB), (3) cement board, (4) mortar setting bed, (5) Cultured Stone manufactured stone veneer, (6) mortar joint.

SURFACE PREPARATION TABLE 1

WALL SYSTEM/BACK UP		PREPARATION REQUIREMENTS					
		CLEANING	2 LAYERS WRB	LATH	SCRATCH COAT	ROUGHEN/ TEXTURE	NOTES
WOOD FRAME 16"oc	**SHEATHING**		✓	✓	✓	N/A	
	PLYWOOD		✓	✓	✓	N/A	
	OSB		✓	✓	✓	N/A	
	CEMENT BOARD		✓	✓	✓	N/A	Requires modified mortar to bond units. Proprietary coatings between bonding mortar & cement board may compromise warranty.
	WALLBOARD		✓	✓	✓	N/A	
	½" FOAM BOARD		✓*	✓	✓	N/A	
METAL FRAME 16"oc	**SHEATHING**		✓	✓	✓	N/A	
	EXTERIOR GYPSUM		✓	✓	✓	N/A	
	OSB		✓	✓	✓	N/A	
	PLYWOOD		✓	✓	✓	N/A	
	½" FOAM BOARD		✓*	✓	✓	N/A	
UNIT MASONRY (BRICK OR BLOCK)		✓**	OPTIONAL	OPTIONAL	OPTIONAL	SITE EVALUATION	Engineer review recommended for existing unit masonry.
POURED CONCRETE OR "TILT UP" CONSTRUCTION		✓**	OPTIONAL	OPTIONAL	OPTIONAL	✓	See ASTM C1780 for roughness evaluation.
OPEN STUD CONSTRUCTION			✓	✓	✓	N/A	48 hour scratch coat cure. Use paper backed 3.4 lb rib lath.
METAL BUILDING			✓	✓	✓	N/A	48 hour scratch coat cure. Use paper backed 3.4 lb rib lath.
SPECIAL CONDITIONS							
INTERIOR INSTALLATION		✓**	1 LAYER	✓	OPTIONAL		
CONTINUOUS INSULATION			✓*	✓	✓	N/A	See TER for lath fastener selection available for framed or masonry applications.
STUCCO		✓**	✓	✓	✓		Engineer review recommended for existing stucco.

Note: Optional surface preparation utilizing a rainscreen may be added. See **General Information** (page 8) for more information.

* Some foam products may qualify as WRB. See foam manufacturer instructions.

** Cleaning can be as simple as rinsing dust off the surface with clear water or as involved as bead blasting. You are removing form release agents, dirt, paint, sealers or anything that may inhibit bond. This process may also be the method to roughen the surface to create bond ready texture. See **ASTM C1780** for more information.

STEP TWO:

WALL SURFACE PREPARATION

EXTERIOR APPLICATIONS

Make sure that the application of Cultured Stone products and the structure they are being applied to incorporate good building practices. Corrosion-resistant flashing shall be installed at all wall penetrations. Flashing type and locations shall be in accordance with the requirements of the applicable building code. On exterior applications, the incorrect installation or absence of flashing, cant strips, gutters, kick out flashing and downspouts may result in diversion of water run-off onto finished surface areas. Masonry and other building products subjected to these conditions may develop staining and, when combined with severe freeze-thaw conditions, may eventually cause damage. The application of Cultured Stone products under these conditions is not recommended.

Flashing

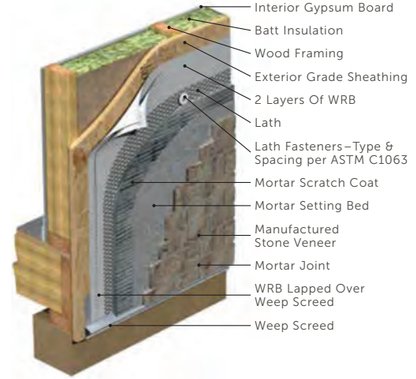
1. To maintain the weather-resistance of the exterior wall on which stone products are installed, corrosion-resistant flashing/weep screed and a means of drainage shall be installed at all penetrations and terminations of the stone cladding. Flashing type and locations shall be in accordance with the requirements of the applicable building code.
2. For additional recommendations regarding flashing, refer to the following trade associations, standards, organizations and resources:
   a. **Masonry Veneer Manufacturers Association (MVMA)** installation guide for adhered concrete masonry veneer, available at **www.masonryveneer.org**
   b. Architect or engineer
   c. **ASTM E 2112**
   d. **Asphalt Roofing Manufacturers Association (ARMA)**
   e. **Brick Institute of America (BIA)**
   f. **The American Plywood Association (APA)**
   g. Local building department
   h. Consult window manufacturer warranty as a perimeter soft joint/gap may be required

Clearance

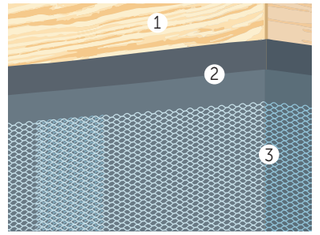
Maintain a 4" clearance between Cultured Stone and grade or 2" clearance above a paved surface. Most building codes require the use of a weep screed in framed applications. In framed applications, this distance is measured from the "beak" of the weep screed. When a weep screed is not required—application over masonry as an example—a 2" x 4" leveling/ledger board may be used as a temporary level straight edge to start your installation. See the **MVMA Installation Guide** for conditions that allow a reduction in clearance requirements.

WATER RESISTIVE BARRIER (WRB) INSTALLATION

Where a WRB is required, it should be installed as two separate layers, in shingle fashion. Fasteners, fastening schedule, vertical and horizontal lap requirements should follow the manufacturer's installation instructions. The WRB layers must be continuous through inside and outside corners, typically extending 16" to the next framing member. See **Material Selection** (page 4) for specific WRB material requirements. Example for building paper: 2" horizontal lap, 6" vertical lap.



CORNER CONSTRUCTION



Water resistive barrier & lath must continuously wrap a minimum of 16" at outside and inside corners and fasten at a framing member. In sequence: (1) wall substrate, (2) two layers of water resistive barrier, (3) metal lath

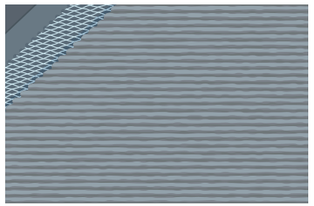
LATH INSTALLATION

Where lath is required, it shall be installed in accordance with ASTM C1063. Typically this will require corrosion resistant fasteners every 6" on center vertically, and 16" on center horizontally, fastened to framing. If an alternative lath is used, install it in accordance with the manufacturer's installation instructions and evaluation report. See the following **Material Selection** section for more specific lath requirements.

Note: Fasteners installed between framing should be limited as they may extend into the wall's insulation cavity.

SCRATCH COAT

Using a trowel or spray application, install mortar scratch coat of minimum thickness of ½" up to ¾." Use sufficient material and pressure to fully engage and encapsulate the lath. No lath material should be visible after scratch coat installation.



Note: Proper encapsulation and scratch coat thickness are key aspects to lath corrosion resistance and physical performance characteristics.

STEP THREE:
MATERIAL SELECTION

WATER RESISTIVE BARRIER (WRB)

Select a material meeting one or more of the following standards:

- ASTM D226 Type 1 No.15 Asphalt Felt, intended for wall application
- ASTM E2556/E2556M
- ICC ES AC-38. Current Evaluation Report, by an ANSI accredited evaluation service, showing compliance to ICC ES Acceptance Criteria #38

LATH

Select a material meeting one or more of the following standards:

- ASTM C847, minimum 2.5 lb/yard expanded metal lath
- ASTM C847, minimum 3.4 lb/yard, ⅜" rib, expanded metal lath
- ASTM C1032, minimum 18 gauge, woven wire mesh
- ASTM C933, welded wire lath
- Non-metallic lath, with a current evaluation report, confirming compliance to ICC-ES AC 275 by an ANSI accredited evaluation service, confirming alternative to one of the above lath products
- Liquid WRB/Air Barrier–Current Evaluation Report by an ANSI accredited evaluation service showing compliance to code requirements for WRB

All lath products must be self-furred, or use furring fasteners, to provide ¼" clearance between lath and substrate, for the purposes of mortar embedded encapsulating lath.

LATH FASTENERS

Select fasteners that meet the requirements of the following standard:

- ASTM C1063
    1. Galvanized nails, staples, concrete nails. Penetration depth into wood framing is ¾" minimum.
    2. Corrosion-resistant, self-drilling, self-tapping pancake-head screw with 7/16" head, of 1¼" length or suitable to obtain ⅜" penetration beyond inside surface of metal. (Used for installing to metal surfaces such as metal studs or metal building siding.)

Applications over continuous insulation, refer to **Technical Evaluation Reports 1312-02** or **1302-01** available at **www.culturedstone.com**.

MORTAR

Select a material meeting one or more of the following standards:

- ASTM C270 Type N or Type S
- ASTM C1714 Type N or Type S

MORTAR (CONTINUED)

Mortar Admixtures: Comply with ASTM C1384

Bonding Agents: Comply with ASTM C1059 or C932

Coloring Pigment: Comply with ASTM C979

All mortar, additives, bonding agents and pigments must be stored, mixed and used in strict accordance with the manufacturer's instructions and appropriate standards referenced above.

Notes: Refer to **MVMA Installation Guide Table 2** (**www.masonryveneer.org**) for additional guidance with mortar selection by application. Under mixing, over mixing, tempering and open times of mortar can impact bond. Follow mortar manufacturer's instructions.

STEP FOUR:
ESTIMATING THE STONE REQUIRED

Determine the amount of Cultured Stone products needed by measuring the area to be covered. Measure the length times the height to arrive at the gross square footage of flat stone needed. Subtract square footage for window, door and other openings. Measure the linear feet of outside corners to determine the amount of corner pieces needed. One linear foot of corner pieces covers approximately ¾ of a square foot of flat area. Subtract the flat area covered by the linear feet of corner pieces from the square footage of flat stone required. You may wish to obtain some extra stone to allow for cutting and trimming, or tighter joints. In addition, be sure to verify whether the texture chosen is sold based on coverage with a ½" mortar joint or tight-fitted. Most texture coverages are listed for a ½" joint, the exceptions being dry-stack **Ledgestone**, **European Castle Stone**, **Pro-Fit® Ledgestone** and **Pro-Fit® Alpine Ledgestone**.

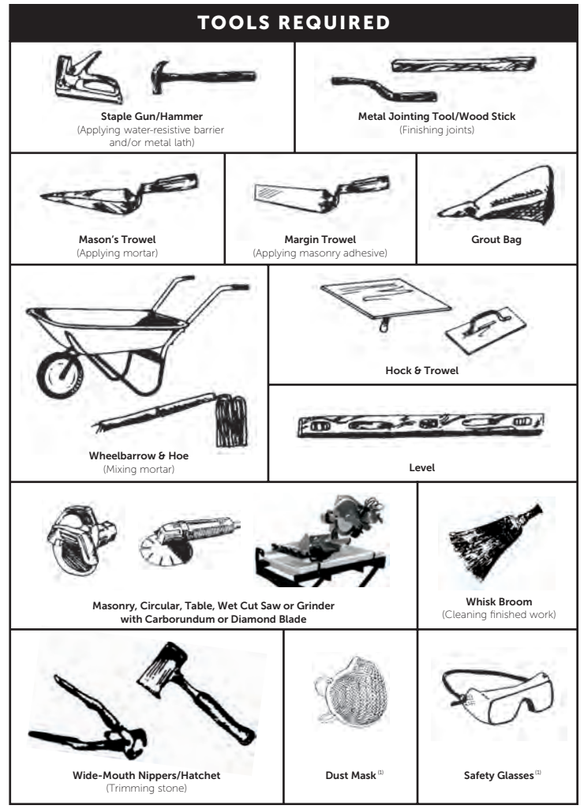
TOOLS REQUIRED

Choose the tools required for your installation:

- Safety Glasses and other personal protective equipment
- Staple Gun or Hammer
- Wheelbarrow & Hoe
- Hock & Trowel
- Mason's Trowel
- Margin Trowel
- Masonry, Circular, Table, Wet Saw or Grinder with Carborundum or Diamond Blade Wide-Mouth Nippers or Hatchet
- Dust Mask(1)
- Level
- Metal Jointing Tool or Wood Stick
- Grout Bag
- Whisk Broom

Note: Cutting dust mitigation steps include but are not limited to: wet saw, dust vac system and respirator systems. OSHA may be required due to specific site conditions.

(1) **Caution:** Product contains Crystalline Silica. Dust from cutting or sawing may create possible cancer hazard. Dust may cause irritation of the nose, throat and respiratory tract. Avoid prolonged or repeated inhalation of dust. A properly fitted, particulate-filtering disposable NIOSH approved N-95 series face piece respirator ("dust mask") should be used when mechanically altering this product (e.g., sawing, cutting, drilling or similar dust generating processes). Wear a long-sleeved shirt, long pants, gloves and safety glasses with side shields when handling and installing material. Wash hands and face with soap and warm water immediately after handling.



STEP FIVE:

APPLICATION OF CULTURED STONE UNITS

PREPARE YOUR WORK AREA

Spread Cultured Stone wall veneer out at the job site so you have a good variety of sizes, shapes and colors to choose from. Plan for some variety and contrast in the overall design. Use small stones next to large ones, heavy-textured pieces next to smooth, thick stones next to thinner ones. Mixing Cultured Stone wall veneer from different boxes during application will allow you to achieve a desirable balance of stones on your finished project.

LEVEL & PLUMB JOINT LINES

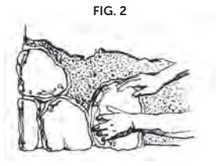
When applying **Cobblefield**® manufactured stone veneer, **European Castle Stone**, **Limestone**, **Rockface**, **Coral** or **Ledgestone**, endeavor to maintain level and plumb joint lines. Also, long rectangular pieces will look most natural if applied horizontally.

INSTALL CORNER PIECES FIRST

If your application requires corner pieces, apply these first. Notice that the corner pieces have a long and a short leg. Alternate these in opposite directions (Fig. 1).

FIG. 1

FIG. 2



INSTALL FLAT PIECES

After the corner pieces are in place, flat pieces are applied working toward the wall center (Fig. 2).

STARTING POINT

Apply mortar and stone working from the bottom up, or most stones can also be applied from the top down. Working from the top down may help avoid splashing previously applied stone with dripping mortar. Ledgestone types should be installed from the bottom up.

JOINT WIDTH

In order to obtain the most natural look, joints should be as narrow as possible. The average should not exceed ½" in width. An attractive look can also be achieved by fitting stones tightly together if desired. If using tight fit/dry-stack method, figure in additional stone material. It is important to make sure scratch coat/backing has been covered completely by the setting bed of mortar. This will conceal the scratch coat/backing and prevent pockets from forming behind stones that could trap water.

SETTING UNITS

Units shall be installed using Method A or Method B or a combination of both to achieve setting bed with complete coverage of the back of the unit and full contact between the mortar setting bed, unit and prepared backing surface.

Method A

Back butter the unit, using sufficient mortar and pressure to fill texture and voids in the back of unit. While ½" to ¾" setting bed mortar is wet, press and work the unit onto the prepared backing with enough pressure to force mortar to squeeze out around the entire perimeter of the unit.

Method B

The mortar setting bed shall be installed by trowel application ½" to ¾" thick directly to the prepared surface. Plus back butter the unit using sufficient mortar and pressure to fill texture on and voids in the back of the unit. While the setting bed on the prepared backing surface is plastic, press and work the unit into the setting bed with enough pressure to force mortar to squeeze out around the entire perimeter of the unit. Limit mortar setting bed open time and work only an area that can be covered before the mortar skins over. Time and area will depend on mortar and weather conditions.

Note: Method B is recommended for tight fit applications to ensure full setting bed of mortar. In tight fit applications, before placing next unit, compact or remove the squeezed out mortar to allow adjoining unit to butt tightly. There shall be mortar between the units but the joint will be less than 3/8".

CUTTING & TRIMMING

Stones can be cut and shaped for fit. Use wide-mouth nippers or a hatchet (Fig. 3 & 4). (Refer to page 5, **Tools Required** section.) Some broken stones may be found in the box. These also may be used in filling gaps between large stones. For best finished appearance, coat cut or broken edges with mortar. If possible, position cut edges up when they are above eye level, down when below eye level. Placing a cut edge next to a thick/larger stone will also help conceal the cut.

FIG. 3

TRIM WITH WIDEMOUTH NIPPERS

FIG. 4

TRIM WITH A HATCHET

Safety glasses and a dust mask(1) should always be worn when cutting any cultured stone product.

MORTAR & WEATHER CONDITIONS

If stone is being applied in hot or dry weather, the back of each piece should be moistened with a fine spray of water or a wet brush to adequately prevent excessive absorption of moisture from the mortar. If being installed over concrete, masonry or scratch coat substrate, the substrate surface area should also be dampened before applying mortar. Surfaces should appear damp but free of surface water. Applications should be protected from temperatures below 40°F as mortar will not cure properly under such conditions. See **ASTM C1780** for **Hot & Cold Weather Requirements**.

If using a modified mortar, follow mortar manufacturer's recommendations regarding wetting of stone and scratch coat.

ADDITIONAL INSTRUCTIONS FOR PRO-FIT® LEDGESTONE, PRO-FIT® ALPINE LEDGESTONE & EUROPEAN CASTLE STONE

Fit the Joints Tightly

Install all these products with tight-fitted joints. Generally, components should be placed butting each other and aligned for level and plumb. When installing, the backs of all these components must be wet.* They should be noticeably damp, but free from surface water. Mortar may be tinted to match the color of the stone you are installing to help conceal the joint lines. If while setting a stone, a previously installed stone is disturbed, that stone must be removed, cleaned and re-installed.

* If using a modified mortar, follow mortar manufacturer's recommendations regarding wetting of stone and scratch coat. Consider using Method B for mortar setting bed application of tight fitted installations

Starting Point

Products are applied starting from the bottom and working up. Start each **ProFit Ledgestone** course level and continue horizontally completing each course before starting the next. **European Castle Stone** is done in a similar sequence to achieve a random ashlar pattern. If required, cut the appropriate size component to fit at the end or top of the finish area. Frequently check the installation for level and alignment.

STEP SIX:

GROUTING & FINISHING JOINTS

GROUTING JOINTS

When additional mortar is required, use a grout bag to fill in joints completely. Care must be taken to avoid smearing mortar on surface of stone. Accidental smears or mortar droppings should be removed only after mortar has become crumbly using a whisk broom or dry bristle brush. Never use a wet brush or wire brush.

FINISHING JOINTS

When the mortar joints have become firm or "thumb-print" dry (setting time will vary depending on wall surface and climatic conditions), they should be pointed up with a wood stick or metal jointing tool. Rake out excess mortar, compact and seal edges around stones (Fig. 6). Careful attention to proper and even jointing will result in a professional looking finish.

FIG. 5

GROUT JOINTS

FIG. 6

FINISHING THE JOB

CLEANING FINISHED JOB

When the mortar is sufficiently set up, the finished job should be broomed or brushed to remove loose mortar and to clean the face of the stone. A wet brush or sponge should never be used to treat the mortar joints as this will cause staining that will be difficult, or impossible, to remove. Do not use acid or acid-based products.

MORTAR COLOR

Tinting mortar complements the color of the stone being installed. Example: Use tan mortar with earth-tone stones. This will greatly enhance the appearance of the finished installation. Regular mortars can be tinted to complement your Cultured Stone product using iron oxide pigments available from your dealer.

GENERAL INFORMATION

CLEANING

Dirt, etc., may be removed by using a solution of granulated soap or detergent and water with a bristle brush. Do not use a wire brush as it will cause damage to the surface. Rinse immediately with fresh water. Do not attempt to clean using acid or acid-containing products, power-washing, sandblasting or wire-brush cleaning.

ENHANCED BOND

Refer to **MVMA Installation Guide Table 2** for application specific mortar recommendations. Pre-blended modified mortars, bonding agents and enhancers may provide greater bond strength. Enhanced bond strength capability may be desired for tight fit applications, tilt up construction or where code jurisdictions require higher bond strength. These products must be compatible with manufactured stone and used in strict accordance with manufacturer's instructions. These products may also have specific requirements regarding hot or cold weather, exposure to rain/water while curing or water used to dampen the stone units prior to installation.

SALT & DE-ICING CHEMICALS

Because concrete and masonry are vulnerable to damage by salt, Cultured Stone products are not warranted against damage incurred from salt or other chemicals used to remove snow or ice. Do not use de-icing chemicals on areas immediately adjacent to a Cultured Stone manufactured stone veneer application.

SCUFFING

Scuffing occurs on all natural stone. Occasionally some scuffing will occur on the surface of Cultured Stone products. This can enhance the natural appearance of your Cultured Stone manufactured stone veneer installation. Some scuff marks can be removed by cleaning as described above.

EFFLORESCENCE

Efflorescence is a water-soluble salt that is deposited on the surface of stucco, concrete, brick and other masonry products by the evaporation of water from the wall. On rare occasions efflorescence will occur on Cultured Stone products. To remove efflorescence, allow the stone to dry thoroughly, then scrub vigorously with a stiff bristle brush and clean water. Rinse thoroughly—do not use a wire brush. For more difficult efflorescence problems, scrub thoroughly with a solution of 1 part white household vinegar to 5 parts water. Rinse thoroughly.

WATER REPELLENT TREATMENTS/SEALERS

Sealers are not necessary on Cultured Stone products. However, some customers use sealers to help prevent staining in applications prone to smoke, soot, dirt or water splashing. If you choose to use a sealer, make sure it is a Silane, Siloxane or Silane-Siloxane blend breathable sealer. Take note that sealers may darken the color of the stone. A sealer may also slow the natural movement of moisture out of the stone and increase the possibility of efflorescence and/or spalling. For information regarding actual performance or application of sealers, contact the manufacturer of the sealer directly.

RAINSCREEN STATEMENT

Some building codes require a rainscreen behind cladding materials, including manufactured stone veneer. If you are installing manufactured stone/brick veneer in one of these jurisdictions, or are concerned about extreme weather conditions, it is recommended that you choose a rainscreen system that can achieve the following:

- The system should create a space with a minimum depth of 3/16" (5 mm) & max depth of ¾" (19 mm).
- The materials should be corrosion and rot resistant.

RAINSCREEN STATEMENT (CONTINUED)

- Unless otherwise designed to manage moisture vapor with ventilation, the rainscreen system should be vapor open.
- If rainscreen space is created with a material other than solid strapping/ furring attached directly to framing, the following must be considered. Lath fasteners must be capable of supporting the weight of the finished wall cladding system considering the unsupported/cantilevered portion of fastener that is equal to the thickness of the rainscreen materials.

Boral Drain-N-Dry Lath® is a great option when this additional protection is desired. For more information please visit **www.DrainNDryLath.com**.

OVERHEAD APPLICATION

Overhead, horizontal or sloped applications are not included in our building code evaluation reports or acceptances. These applications often require special approval/inspections by local building code inspectors. Contact your architect or engineer for assistance designing these installations.

INSTALLATION OVER THICK FOAM

Installation over foam board thicker than ½" may require special fasteners. Consult your architect or engineer for assistance designing a thick foam installation. Please see special technical evaluation reports for installation over continuous insulation for more information available at: **http://www.boralamerica.com/stone/Resources/technical-information/installationguides**.

USE OF CULTURED STONE BELOW WATER LEVELS

Cultured Stone veneer is a lightweight concrete material and will not deteriorate from exposure to fresh liquid water. The use of Cultured Stone veneer below water level, in which the water is chlorinated, treated with chemicals or dirty, will likely cause discoloration as it would on any concrete, natural stone or other material. Pool chemicals which contain acid, such as muriatic acid, may cause damage to Cultured Stone products, which would not be covered by the 50-Year Limited Warranty. Cultured Stone veneer and many other materials are subject to potential damage from adverse freeze thaw conditions. For that reason, water should be drained below susceptible materials prior to freezing temperatures. Pressure and abrasion from constant fast flowing water may cause some surface deterioration as it would on other concrete materials. The surfaces of concrete and many other materials may be affected by exposure to extensive saltwater conditions. Cultured Stone veneer should not be considered a waterproof material.

CAPPING OFF THE EXPOSED TOP OF EXTERIOR WALLS, CLADDING TERMINATION OR TRANSITIONS

To achieve a finished architectural look on horizontal or sloping top areas of exterior walls, piers, retaining walls or other surfaces, Cultured Stone capstones or a poured-in-place concrete cap must be used to provide adequate run-off protection to the wall areas. Caps should extend approximately 1"–2" beyond the finished stone surface. Sill sones, flashings or band boards provide overhang at cladding terminations or transitions.

Note: Cultured Stone corner pieces, flat pieces, or hearthstones should not be used to cap walls.

RETAINING WALLS

All retaining walls must be waterproofed at the fill side. Wall construction should incorporate proper use of granular backfill and provisions for good drainage. A continuous longitudinal drain along the back of the wall set in drain rock is recommended.

CHIMNEY CAP

All chimney chases must be capped with a one-piece cap that extends 1"–2" beyond the finished stone surface to prevent water from entering the wall system. Chimney or chase construction should incorporate proper flashing.

INSTALLING FINISHING TOUCHES

HEARTHSTONE INSTALLATION INSTRUCTIONS

Note: Hearthstones are not recommended or warranted for exterior use or as a surface area subject to foot traffic. Consult **Surface Preparation Table 1** (page 2) for requirements prior to installing hearthstones.

Place Mortar

Place mortar ¾" deep in 3" wide strips 1" apart on prepared surface (Fig. 7).

Install Hearthstones

Place the first hearthstone onto the mortar bed and level (Fig. 8). Place adjacent hearthstones, aligning and leveling with the first piece. If joints need additional mortar, fill joints using a grout bag. Tool and finish joints following previous instructions under **Grouting & Finishing Joints** (page 7). Ensure hearthstones are set in a complete bed of mortar.

FIG. 7
PLACE MORTAR FOR HEARTHSTONE INSTALLATION

FIG. 8
PLACE HEARTHSTONE

Note: Cultured Stone manufactured stone veneer and hearth products are made from non-combustible materials. Mortar joints must not exceed ½" in width and the mortar must be even with the top of the hearth surface.

RAISED HEARTH

Do not cantilever or extend Hearthstones more than 1½" beyond direct support. When grouting the extended portion of a cantilevered hearthstone, bring the grout to the front edge. Push a long galvanized nail horizontally into the grout to add support, then cover the nail with mortar.

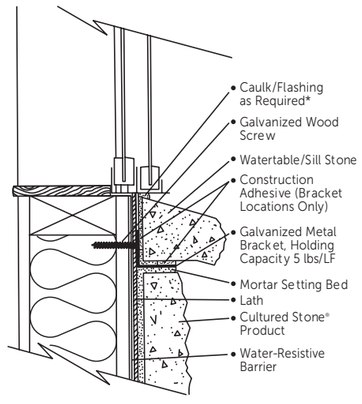
SEALING FIREPLACES/HEARTHS

If desired, sealing the Cultured Stone facing or hearth of a fireplace installation will assist in the removal of smoke and soot stains should they occur. See **Water Repellent Treatments/Sealers** in **General Information** (page 8) for more information.

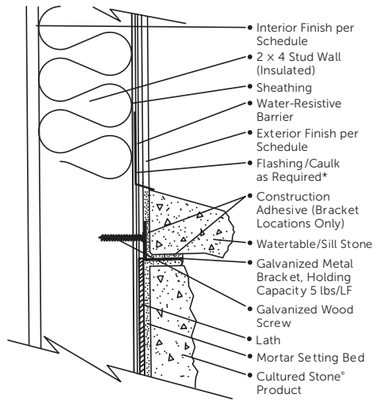
WATERTABLE/SILL INSTALLATIONS

Watertables/sills provide a transition piece between a stone wainscot and other exterior finishes and for water runoff. They can also be used as a windowsill. Install using galvanized metal support brackets (**Simpson Strong Tie A-21** or other galvanized right angle bracket with holding capacity minimum 5 lbs/LF) fastened with galvanized nails or screws penetrating studs 1" at a minimum of 16" on center. Two brackets per sill is preferred if blocking is present. Use construction adhesive to bond stone at bracket locations. Caulk and flash as required at watertable/sill locations using an approved corrosion-resistive flashing that extends to the surface of exterior wall finish and is installed to prevent water from re-entering the exterior wall envelope.

Windowsill Cross Section



Wainscot Cross Section

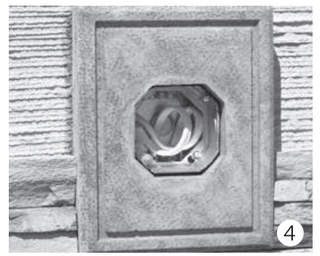


ELECTRICAL BOX STONE INSTALLATION INSTRUCTIONS

Attach UL-listed extension box to pre-wired and mounted electrical box.

Apply mortar to back of Electrical Box Stone or prepared substrate.

Center Electrical Box Stone over the extension box. Level and plumb. Use removable shims if required.



Complete placement of Cultured Stone veneer or other exterior material around Electrical Box Stone.

- Electrical Box Stones must be installed in accordance with Cultured Stone® Installation Instructions.
- Extension box, light fixture or receptacle plate must be attached in accordance with manufacturer's instructions and local building codes.

TUSCAN LINTEL INSTALLATION INSTRUCTIONS

Method One

On installations where the top of the opening provides no support for the bottom edge of the **Tuscan Lintel**: install metal support brackets as per Cultured Stone Installation Instructions for watertables/sills. Then install lintel stones in a full setting bed of mortar in accordance with Cultured Stone Installation Instructions.

Method Two

On installations where the bottom edge of the Tuscan Lintel will be supported by a window or door frame molding or profile: install lintel stones in a full setting bed of mortar in accordance with Cultured Stone Installation Instructions. Make sure you do not cause deflection to window with weight of lintel. If there is any question, use ***Method One.***

ADDITIONAL INSTRUCTIONS FOR INSTALLING CAST-FIT®

The Cast-Fit product has been designed for the best appearance and performance when installed with a ⅜" mortar joint. Starting with a level line for your first course, maintain level and plumb courses as you proceed up the wall. Starting with thicker stones to set face plane, use mortar setting bed thickness to even the face plane of thinner stones and accommodate variations in substrate surface. Application of a uniform and true scratch coat will also accommodate variations in the substrate surface. It is recommended that ⅜" dowel pins or shims be used to maintain a uniform head and bed joint space during installation. The mortar joint should be tooled to a concave shape just below the surface of the stone. To obtain the coverage stated on packaging and literature, this mortar joint spacing must be maintained. ***If you choose to install Cast-Fit in a tight-fit or mortar-less joint application, you must achieve complete mortar setting bed coverage and full perimeter squeeze out. To achieve this with stones of this size, it may be necessary to use a mortar application method in which the mortar is toweled onto the scratch coat and back buttered on the stone. For full Cast-Fit installation instructions, please visit www.culturedstone.com.***

CULTURED STONE 50-YEAR LIMITED WARRANTY

For complete details of the **Cultured Stone 50-Year Limited Warranty** please visit our website at **www.culturedstone.com**.

CODE COMPLIANCE EVALUATION & LISTINGS

ICC-ES ESR-1364. Tested or listed by Underwriters Laboratories, Inc., HUD Materials Release No.1316, Texas Dept. of Insurance Product Evaluation EC-21

Florida Product Approval: FL-15047

ICC-Evaluation Service ES ESR-1364

Underwriters Laboratories

Home Innovation NGBS GREEN CERTIFIED™

UL Environment™ ENVIRONMENTAL CLAIMS VALIDATED

✓ Recycled Content

Minimum of 58 percent recycled content on all Cultured Stone® veneer products.

CULTURED STONE®

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MANUFACTURER'S

BRICK INSTALLATION INSTRUCTIONS

Cultured Stone® and **Cultured Brick**® Installation Instructions are available separately from your dealer and can also be found at **www.culturedstone.com**.

Building code requirements vary from area to area. Check with local authorities for building code requirements in your area. Carefully read all Installation Instructions before proceeding with your Cultured Brick products application. Observe safety precautions. Cultured Brick products are covered by a 50-Year Limited Warranty when installed in accordance with the manufacturer's Installation Instructions. See complete warranty on our website at **www.culturedstone.com**.

ESTIMATING THE BRICK REQUIRED

Determine the amount of Cultured Brick products needed by measuring the area to be covered. Measure the length times the height to arrive at the gross square footage of flat area needed. Subtract square footage for window, door and other openings. Measure the linear feet of outside corners to determine the amount of corner pieces needed. One linear foot of corner pieces covers approximately 0.80 square feet of flat area. Subtract the flat area covered by the linear feet of corner pieces from the square footage of flat area required. You may wish to obtain some extra brick to allow for cutting and trimming.

FORMULAS

Wall Area = Length × Height

Window Area = Window Width × Window Height = Window Area

Wall Area Covered by Corners = Lineal Feet of Corners Required × 0.80

Square Ft. Flats Required = Wall Area – Window Area – Wall Area Covered by Corners

TOOLS REQUIRED

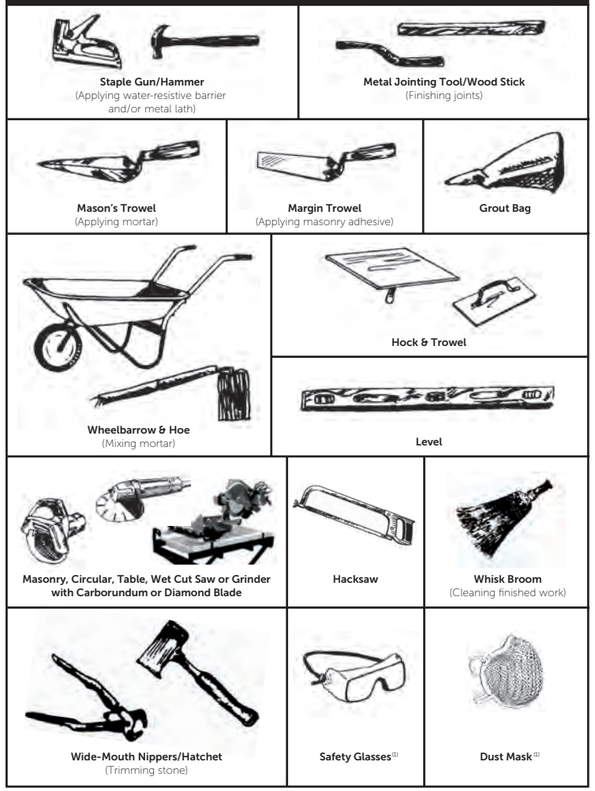
Choose the tools required for your installation—see page 2 for table with illustrations and appropriate use.

- Safety Glasses & other personal protective equipment
- Staple Gun or Hammer
- Hock & Trowel
- Margin Trowel
- Wide-Mouth Nippers or Hatchet
- Metal Jointing Tool or Wood Stick
- Whisk Broom
- Masonry, Circular, Table, Wet Saw or Grinder with Carborundum or Diamond Blade
- Wheelbarrow & Hoe
- Mason's Trowel
- Level
- Dust Mask(1)
- Grout Bag
- Hacksaw

Note: Cutting dust mitigation steps include but are not limited to: wet saw, dust vac system and respirator systems. OSHA may be required due to specific site conditions.

(1) **Caution:** Product contains Crystalline Silica. Dust from cutting or sawing may create possible cancer hazard. Dust may cause irritation of the nose, throat and respiratory tract. Avoid prolonged or repeated inhalation of dust. A properly fitted, particulate-filtering disposable NIOSH approved N-95 series face piece respirator ("dust mask") should be used when mechanically altering this product (e.g., sawing, cutting, drilling or similar dust generating processes). Wear a long-sleeved shirt, long pants, gloves and safety glasses with side shields when handling and installing material. Wash hands and face with soap and warm water immediately after handling.

TOOLS REQUIRED



MATERIAL SELECTION

WATER RESISTIVE BARRIER (WRB)

Select a material meeting one or more of the following standards:

- ASTM D226 Type 1 No.15 Asphalt Felt, intended for wall application
- ASTM E2556/E2556M
- ICC ES AC-38. Current Evaluation Report, by an ANSI accredited evaluation service, showing compliance to ICC ES Acceptance Criteria #38

LATH

Select a material meeting one or more of the following standards:

- ASTM C847, minimum 2.5 lb/yard expanded metal lath
- ASTM C847, minimum 3.4 lb/yard, ⅜" rib, expanded metal lath
- ASTM C1032, minimum 18 gauge, woven wire mesh
- ASTM C933, welded wire lath
- Non-metallic lath, with a current evaluation report, confirming compliance to ICC-ES AC 275 confirming alternative to one of the above lath products
- Liquid WRB/Air Barrier–Current Evaluation Report by an ANSI accredited evaluation service showing compliance to code requirements for WRB

All lath products must be self-furred, or use furring fasteners, to provide ¼" clearance between lath and substrate, for the purposes of mortar embedded encapsulating lath.

LATH FASTENERS

Select fasteners that meet the requirements of the following standard:

- ASTM C1063
  1. Galvanized nails, staples, concrete nails. Penetration depth into wood framing is ¾" minimum.
  2. Corrosion-resistant, self-drilling, self-tapping pancake-head screw with 7/16" head, of 1¼" length or suitable to obtain ⅜" penetration beyond inside surface of metal. (Used for installing to metal surfaces such as metal studs or metal building siding.)

Applications over continuous insulation, refer to **Technical Evaluation Reports 1312-02** or **1302-01** available at **www.culturedstone.com**.

MORTAR

Select a material meeting one or more of the following standards:

- ASTM C270 Type N or Type S
- ASTM C1714 Type N or Type S
- Mortar Admixtures: Comply with ASTM C1384
- Coloring Pigment: Comply with ASTM C979
- Bonding Agents: Comply with ASTM C1059 or C932

All mortar, additives, bonding agents and pigments must be stored, mixed and used in strict accordance with the manufacturer's instructions and appropriate standards referenced above.

Notes: Refer to **MVMA Installation Guide Table 2** (**www.masonryveneer.org**) for additional guidance with mortar selection by application. Under mixing, over mixing, tempering and open times of mortar can impact bond. Follow mortar manufacturer's instructions.

SURFACE PREPARATION FOR MORTAR INSTALLATIONS

Using **Table 1**, determine the correct surface preparation for your installation.

SURFACE PREPARATION TABLE 1

WALL SYSTEM/BACK UP		PREPARATION REQUIREMENTS					
		CLEANING	2 LAYERS WRB	LATH	SCRATCH COAT	ROUGHEN/ TEXTURE	NOTES
WOOD FRAME 16"oc	**SHEATHING**		✓	✓	✓	N/A	
	PLYWOOD		✓	✓	✓	N/A	
	OSB		✓	✓	✓	N/A	
	CEMENT BOARD		✓	✓	✓	N/A	Requires modified mortar to bond units. Proprietary coatings between bonding mortar & cement board may compromise warranty.
	WALLBOARD		✓	✓	✓	N/A	
	½" FOAM BOARD		✓*	✓	✓	N/A	
METAL FRAME 16"oc	**SHEATHING**		✓	✓	✓	N/A	
	EXTERIOR GYPSUM		✓	✓	✓	N/A	
	OSB		✓	✓	✓	N/A	
	PLYWOOD		✓	✓	✓	N/A	
	½" FOAM BOARD		✓*	✓	✓	N/A	
UNIT MASONRY (BRICK OR BLOCK)		✓**	OPTIONAL	OPTIONAL	OPTIONAL	SITE EVALUATION	Engineer review recommended for existing unit masonry.
POURED CONCRETE OR "TILT UP" CONSTRUCTION		✓**	OPTIONAL	OPTIONAL	OPTIONAL	✓	See ASTM C1780 for roughness evaluation.
OPEN STUD CONSTRUCTION			✓	✓	✓	N/A	48 hour scratch coat cure. Use paper backed 3.4 lb rib lath.
METAL BUILDING			✓	✓	✓	N/A	48 hour scratch coat cure. Use paper backed 3.4 lb rib lath.
SPECIAL CONDITIONS							
INTERIOR INSTALLATION		✓**	1 LAYER	✓	OPTIONAL		
CONTINUOUS INSULATION			✓*	✓	✓	N/A	See TER for lath fastener selection available for framed or masonry applications.
STUCCO		✓**	✓	✓	✓		Engineer review recommended for existing stucco.

Note: Optional surface preparation utilizing a rainscreen may be added. See **General Information** (page 8) for more information.

* Some foam products may qualify as WRB. See foam manufacturer instructions.

** Cleaning can be as simple as rinsing dust off the surface with clear water or as involved as bead blasting. You are removing form release agents, dirt, paint, sealers or anything that may inhibit bond. This process may also be the method to roughen the surface to create bond ready texture. See **ASTM C1780** for more information.

SURFACE PREPARATION FOR MORTAR INSTALLATIONS (CONTINUED)

FIG. 1

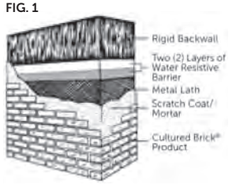


FIG. 2

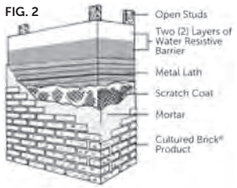


FIG. 3

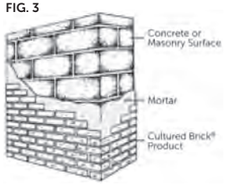
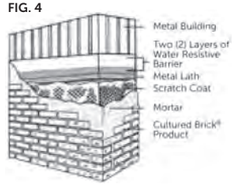


FIG. 4

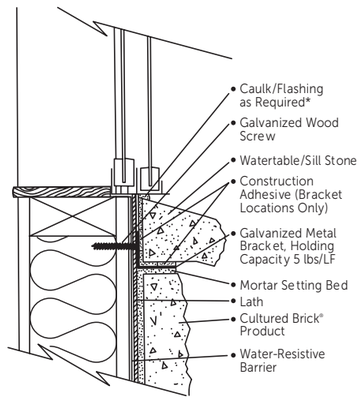


INSTALLING CULTURED BRICK

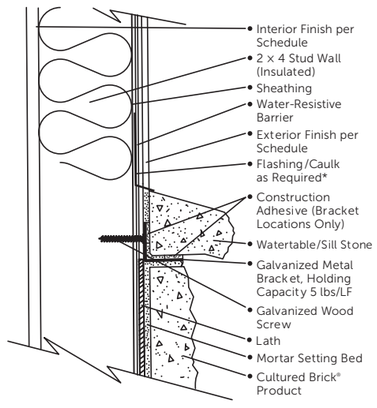
WATERTABLE/SILL INSTALLATIONS

Watertables/sills provide a transition piece between a stone wainscot and other exterior finishes and for water runoff. They can also be used as a windowsill. Install using galvanized metal support brackets (**Simpson Strong Tie A-21** or other galvanized right angle bracket with holding capacity minimum 5 lbs/LF) fastened with galvanized nails or screws penetrating studs 1" at a minimum of 16" on center. Two brackets per sill is preferred if blocking is present. Use construction adhesive to bond stone at bracket locations. Caulk and flash as required at watertable/sill locations using an approved corrosion-resistive flashing that extends to the surface of exterior wall finish and is installed to prevent water from re-entering the exterior wall envelope.

Windowsill Cross Section



Wainscot Cross Section

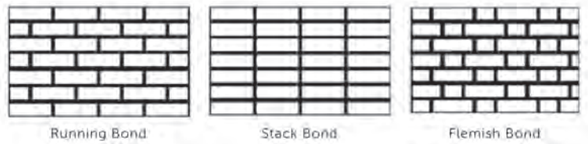


CLEARANCE

Maintain a 4" clearance between Cultured Brick and grade or 2" clearance above a paved surface. Most building codes require the use of a weep screed in framed applications. In framed applications, this distance is measured from the "beak" of the weep screed. When a weep screed is not required—application over masonry as an example—a 2" × 4" leveling/ledger board may be used as a temporary level straight edge to start your installation. See the MVMA Installation Guide for conditions that allow a reduction in clearance requirements.

LAYOUT BRICK PATTERN

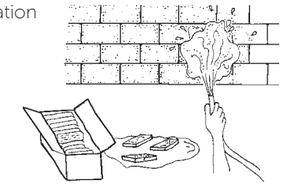
Choose the type of wall pattern desired. Allowing for a mortar joint of approximately ½," calculate and mark off the number of courses required. Adjust joint size to minimize horizontal cutting. Run level guide lines to ensure proper placement of bricks.



Mix brick from several boxes at a time to achieve a pleasing blend of color and texture.

WETTING EXTERIOR WALLS

Dampen concrete, masonry or stucco wall surfaces with water prior to the application of the brick.



WETTING THE BRICK

The back of the brick should be completely damp, but free from surface water at the time of application. If using a modified mortar, follow manufacturer's recommendations regarding wetting of brick and scratch coat.

MORTAR & WEATHER CONDITIONS

If brick is being applied in hot or dry weather, the back of each piece should be moistened with a fine spray of water or a wet brush to adequately prevent excessive absorption of moisture from the mortar. If being installed over concrete, masonry or scratch coat substrate, the substrate surface area should also be dampened before applying mortar. Surfaces should appear damp but free of surface water. Applications should be protected from temperatures below 40°F as mortar will not cure properly under such conditions. See **ASTM C1780** for **Hot & Cold Weather Requirements**.

APPLYING CULTURED BRICK UNITS

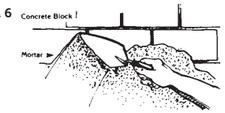
STARTING POINT

Apply mortar and brick working from the bottom up, or from the top down. Working from the top down may help avoid splashing previously applied brick with dripping mortar.

APPLYING MORTAR TO PREPARED SURFACE AREA

FIG. 5

FIG. 6



Using a plasterer's or mason's trowel (Fig. 5 & 6), apply mortar ½" to ¾" thick to prepared surface area. Do not spread more than a workable area (5 to 10 sq. ft.) so that mortar will not "set up" before brick is applied.

SETTING UNITS

FIG. 7

Units should be installed with complete coverage of the back of the unit and full contact between the mortar setting bed, unit and prepared backing surface.

Back butter the unit, using sufficient mortar and pressure to fill texture and voids in the back of unit (Fig. 7). While ½" to ¾" setting bed mortar is wet, press and work the unit onto the prepared backing with enough pressure to force mortar to squeeze out around the entire perimeter of the unit.

Note: In tight fit applications, before placing next unit, compact or remove the squeezed out mortar to allow adjoining unit to butt tightly. There shall be mortar between the units but the joint will be less than 3/8."

INSTALL CORNER PIECES FIRST

If your application requires corner pieces, apply these first. Notice that the corner pieces have a long and a short leg. Alternate these in opposite directions (Fig. 8).

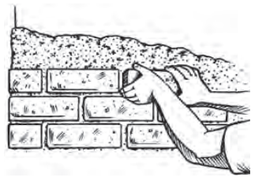
FIG. 8

INSIDE CORNERS

When using a running bond, set full bricks to half bricks at inside corners, alternating lengths in each course.

INSTALL FLAT BRICK

Start at the end of the wall to complete one horizontal course of brick. Work across the surface area one course at a time. Keep courses level and plumb by using a carpenter's level to check each course as it is laid.

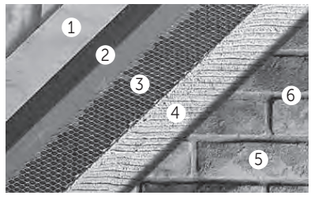


KEEP YOUR MORTAR JOINTS CONSISTENT

Place the individual bricks close together, creating ½" uniform joints between them. Cut trim as required to achieve consistent width in the mortar joints.

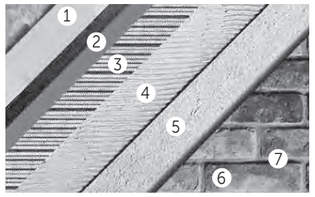
TYPICAL INSTALLATIONS

WOOD FRAME



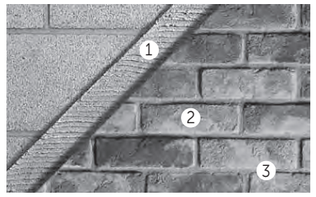
In sequence: (1) sheathing, (2) two layers of water resistive barrier (WRB), (3) galvanized metal lath, (4) mortar, (5) Cultured Brick thin veneer, (6) mortar joint.

RIGID FOAM INSULATION



In sequence: (1) rigid foam insulation, (2) two layers of water resistive barrier (WRB), (3) metal lath, (4) scratch coat, (5) mortar setting bed, (6) Cultured Brick thin veneer, (7) mortar joint.

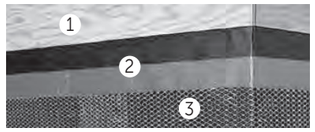
MASONRY OR CONCRETE



In sequence: (1) mortar applied directly to untreated, unpainted masonry, concrete or stucco, (2) Cultured Brick thin veneer, (3) mortar joint.

CORNER PREPARATION

Water resistive barrier and lath must continuously wrap a minimum of 16" at outside/inside corners and fasten at a framing member. Lap water resistive barrier a min. 4" at vertical and 2" at horizontal lap joints. Lap lath a minimum of 1" at vertical and horizontal seams. In sequence: (1) wall substrate, (2) two layers of water resistive barrier, (3) metal lath.



WORKING WITH MASONRY ADHESIVE (INTERIOR ONLY)

On some interior projects, the use of masonry adhesive offers a fast and easy alternative to mortar.

Note: Do not wet brick when installing with adhesive. Do not install water resistive barrier. Recommended adhesives include: **Loctite® PowerGrab, Liquid Nails® Marble & Granite**.

Loctite® is a registered trademark of Henkel Loctite Corporation. Liquid Nails® is a registered trademark of Glidden Company.

FIG. 9

APPLY ADHESIVE TO THE BACK OF EACH BRICK

USE A GROUT BAG TO FILL ANY UNMORTARED SPACES BETWEEN BRICKS

INTERIOR SURFACE PREPARATION REQUIRED WHEN USING MASONRY ADHESIVE	
RECOMMENDED SURFACES	Masonry adhesive may be applied over most clean and structurally sound interior surfaces such as plywood, concrete block and concrete.
PREPARATION	Loose surface materials should be removed. Sanding may be required on very smooth surfaces to achieve a good bonding surface.
ALTERNATIVES	As an alternative, plywood sheathing fastened to the wall studs over existing or removed surface materials will provide an inexpensive and effective application substrate.
NON-RECOMMENDED SURFACES	Masonry adhesive is NOT RECOMMENDED for application over smooth textured tile, metal, wallpaper, drywall, some types of paint or surfaces that are continually damp.

SETTING BRICK WITH MASONRY ADHESIVE

Place adhesive as per adhesive manufacturer's instructions on the back of each brick in ¼" bead, perpendicular to grooves on brick (Fig. 9). Press and wiggle bricks into place on wall surface until they bottom out. Set bricks level and plumb, completing one row at a time. Apply grout between bricks using a mortar bag.

CUTTING & TRIMMING

Make half bricks by scoring the back side with a hacksaw and snapping the brick in half. Vertical or horizontal cuts can be made using a table saw, circular saw or small grinder equipped with diamond or carborundum blade.

Safety glasses and a dust mask[1] should always be worn when cutting any Cultured Brick products.

GROUTING & FINISHING JOINTS

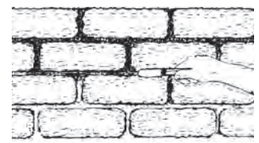
Grouting Joints

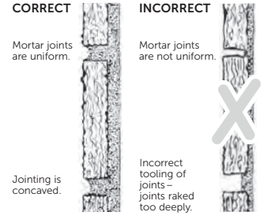
Use a grout bag to fill in joints. Care must be taken to avoid smearing mortar on brick. Accidental smears or mortar droppings should be removed only after mortar has become crumbly. Use a whisk broom or dry bristle brush. Never use a wet brush or wire brush.

Finishing Joints

When the mortar joints have become firm ("thumb print" dry), they should be pointed up with a metal jointing tool. Rake out excess mortar, compact and seal edges around bricks. (Setting time will vary depending on wall surface and climatic conditions.)

FINISH MORTAR JOINTS WITH A JOINTING TOOL.





GENERAL INFORMATION

CLEANING

Dirt, etc., may be removed by using a solution of granulated soap or detergent and water with a bristle brush. Do not use a wire brush as it will cause damage to the surface. Rinse immediately with fresh water. Do not attempt to clean using acid or acid-containing products, power-washing, sandblasting or wire-brush cleaning.

ENHANCED BOND

Refer to **MVMA Installation Guide Table 2** for application specific mortar recommendations. Pre-blended modified mortars, bonding agents and enhancers may provide greater bond strength. Enhanced bond strength capability may be desired for tight fit applications, tilt up construction or where code jurisdictions require higher bond strength. These products must be compatible with manufactured stone and used in strict accordance with manufacturer's instructions. These products may also have specific requirements regarding hot or cold weather, exposure to rain/water while curing or water used to dampen the stone units prior to installation.

SALT & DE-ICING CHEMICALS

Because concrete and masonry are vulnerable to damage by salt, Cultured Brick products are not warranted against damage incurred from salt or other chemicals used to remove snow or ice. Do not use de-icing chemicals on areas immediately adjacent to a Cultured Brick manufactured brick veneer application.

SCUFFING

Scuffing occurs on all natural veneer. Occasionally some scuffing will occur on the surface of Cultured Brick products. This can enhance the natural appearance of your Cultured Brick installation. Some scuff marks can be removed by cleaning as described above.

EFFLORESCENCE

Efflorescence is a water-soluble salt that is deposited on the surface of stucco, concrete, brick and other masonry products by the evaporation of water from the wall. On rare occasions efflorescence will occur on Cultured Brick products. To remove efflorescence, allow the stone to dry thoroughly, then scrub vigorously with a stiff bristle brush and clean water. Rinse thoroughly—do not use a wire brush. For more difficult efflorescence problems, scrub thoroughly with a solution of 1 part white household vinegar to 5 parts water. Rinse thoroughly.

WATER REPELLENT TREATMENTS/SEALERS

Sealers are not necessary on Cultured Brick products. However, some customers use sealers to help prevent staining in applications prone to smoke, soot, dirt or water splashing. If you choose to use a sealer, make sure it is a Silane, Siloxane or Silane-Siloxane blend breathable sealer. Take note that sealers may darken the color of the stone. A sealer may also slow the natural movement of moisture out of the stone and increase the possibility of efflorescence and/or spalling. For information regarding actual performance or application of sealers, contact the manufacturer of the sealer directly.

RAINSCREEN STATEMENT

Some building codes require a rainscreen behind cladding materials, including manufactured stone veneer. If you are installing manufactured stone/brick veneer in one of these jurisdictions, or are concerned about extreme weather conditions, it is recommended that you choose a rainscreen system that can achieve the following:

- The system should create a space with a minimum depth of 3/16" (5 mm) & max depth of ¾" (19 mm).
- The materials should be corrosion and rot resistant.
- Unless otherwise designed to manage moisture vapor with ventilation, the rainscreen system should be vapor open.

RAINSCREEN STATEMENT (CONTINUED)

- If rainscreen space is created with a material other than solid strapping/ furring attached directly to framing, the following must be considered. Lath fasteners must be capable of supporting the weight of the finished wall cladding system considering the unsupported/cantilevered portion of fastener that is equal to the thickness of the rainscreen materials.

Boral Drain-N-Dry Lath® is a great option when this additional protection is desired. For more information please visit **http://boralamerica.com/cultured-stone/boral-drain-n-dry**.

OVERHEAD APPLICATION

Overhead, horizontal or sloped applications are not included in our building code evaluation reports or acceptances. These applications often require special approval/inspections by local building code inspectors. Contact your architect or engineer for assistance designing these installations.

INSTALLATION OVER THICK FOAM

Installation over foam board thicker than ½" may require special fasteners. Consult your architect or engineer for assistance designing a thick foam installation. Please see special technical evaluation reports for installation over continuous insulation for more information available at: **http://www.boralamerica.com/stone/Resources/technical-information/installationguides**.

USE OF CULTURED BRICK BELOW WATER LEVELS

Cultured Brick is a lightweight concrete material and will not deteriorate from exposure to fresh liquid water. The use of Cultured Brick below water level, in which the water is chlorinated, treated with chemicals or dirty, will likely cause discoloration as it would on any concrete, natural stone or other material. Pool chemicals which contain acid, such as muriatic acid, may cause damage to Cultured Brick, which would not be covered by the 50-Year Limited Warranty. Cultured Brick and many other materials are subject to potential damage from adverse freeze thaw conditions. For that reason, water should be drained below susceptible materials prior to freezing temperatures. Pressure and abrasion from constant fast flowing water may cause some surface deterioration as it would on other concrete materials. The surfaces of concrete and many other materials may be affected by exposure to extensive saltwater conditions. Cultured Brick should not be considered a waterproof material.

CAPPING OFF EXPOSED TOP OF EXTERIOR WALLS, CLADDING TERMINATION OR TRANSITIONS

To achieve a finished architectural look on horizontal or sloping top areas of exterior walls, piers, retaining walls or other surfaces, Cultured Stone capstones or a poured-in-place concrete cap must be used to provide adequate run-off protection to the wall areas. Caps should extend approximately 1"–2" beyond the finished stone surface. Sill stones, flashings or band boards provide overhang at cladding terminations or transitions. **Note:** Cultured Stone corner pieces, flat pieces, or hearthstones should not be used to cap walls.

RETAINING WALLS

All retaining walls must be waterproofed at the fill side. Wall construction should incorporate proper use of granular backfill and provisions for good drainage. A continuous longitudinal drain along the back of the wall set in drain rock is recommended.

CHIMNEY CAP

All chimney chases must be capped with a one-piece cap that extends 1"–2" beyond the finished stone surface to prevent water from entering the wall system. Chimney or chase construction should incorporate proper flashing.

50-YEAR LIMITED WARRANTY

For complete details of the **Cultured Brick 50-Year Limited Warranty** please visit **www.culturedstone.com**.

ACCEPTANCE REPORTS & LISTINGS

Tested or listed by Underwriters Laboratories, Inc., HUD Materials Release No. MR 1316, Texas Dept. of Insurance Product Evaluation EC-21.

CULTURED STONE®

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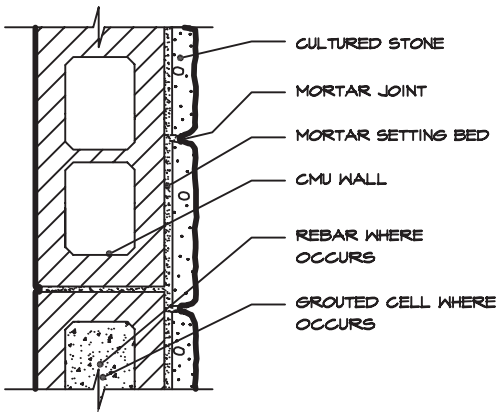
DETAILS ON

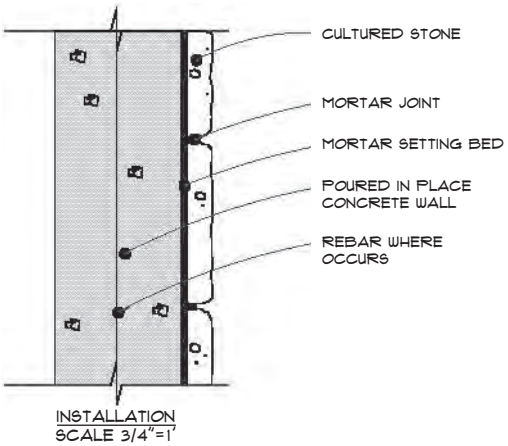
MASONRY/CONCRETE WALLS

PRODUCT DIMENSIONS & INSTALLATION DETAILS



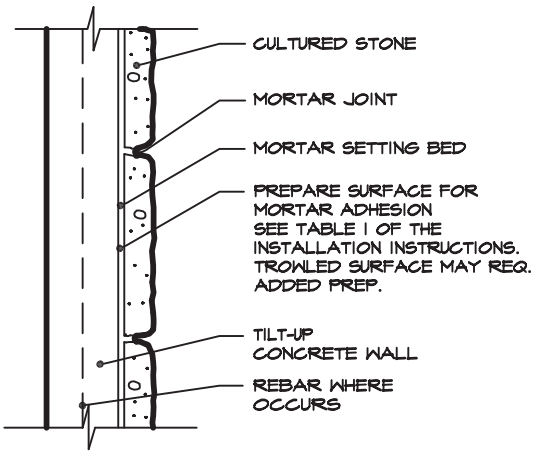
CULTURED STONE OVER CMU

SCALE N.T.S.



INSTALLATION ON CONCRETE WALL

SCALE AS NOTED



CULTURED STONE OVER TILT-UP WALL

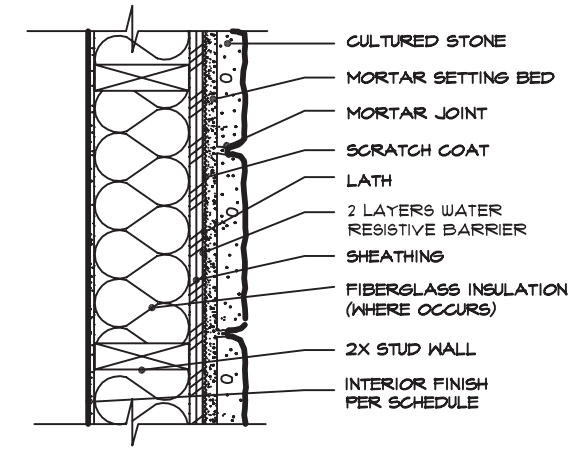
SCALE 1 1/2" = 1'-0"

® 2018 **Cultured Stone**

DETAILS OVER

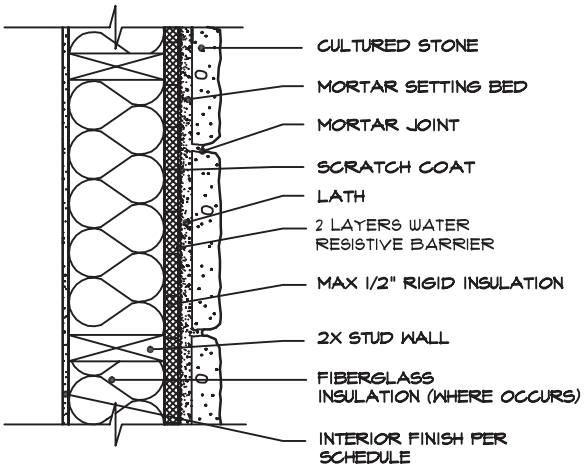
WOOD FRAMING

PRODUCT DIMENSIONS & INSTALLATION DETAILS



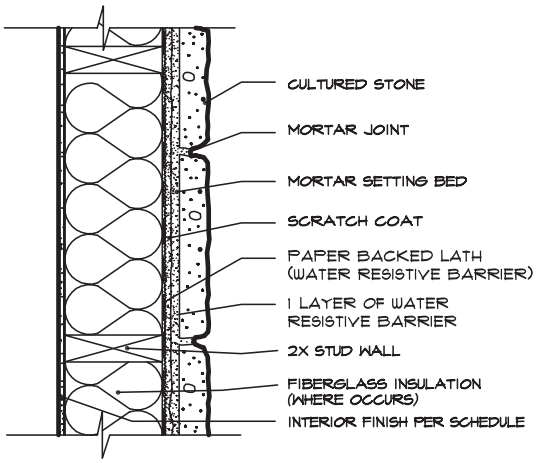
CULTURED STONE OVER SHEATHING OVER STUDS

SCALE N.T.S.



CULTURED STONE OVER RIGID INSULATION

SCALE N.T.S.



CULTURED STONE OVER OPEN STUD FRAMING

SCALE N.T.S.

052918

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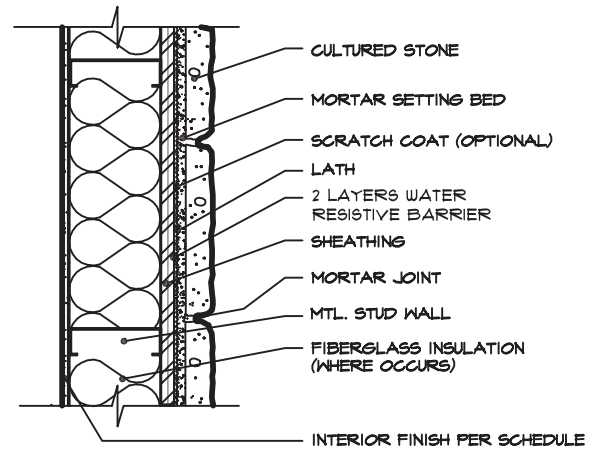
DETAILS OVER

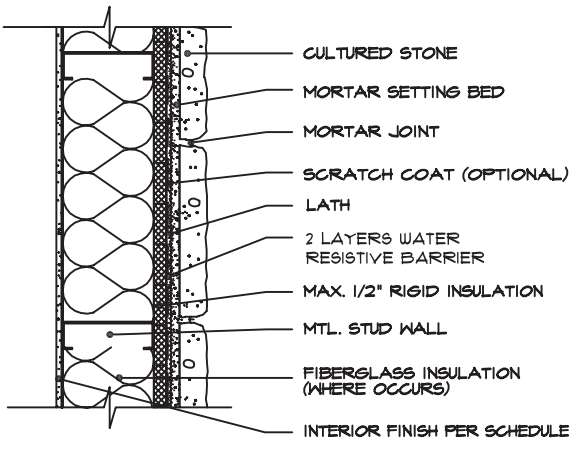
METAL STUDS

PRODUCT DIMENSIONS & INSTALLATION DETAILS



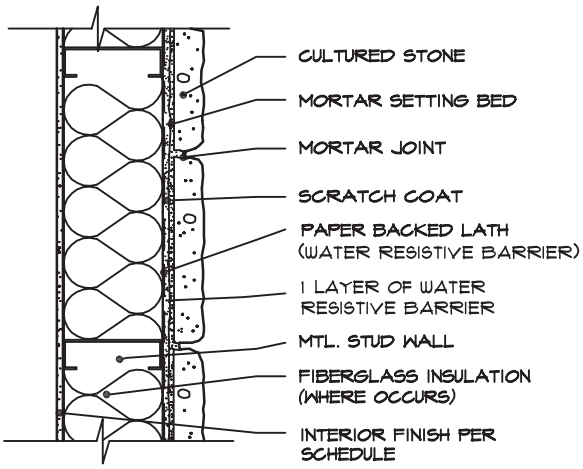
CULTURED STONE OVER SHEATHING WITH METAL STUDS

SCALE N.T.S.



CULTURED STONE OVER RIGID INSULATION WITH METAL STUDS

SCALE N.T.S.



CULTURED STONE OVER OVER OPEN METAL STUDS

SCALE N.T.S.

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CULTURED STONE®

TECHNICAL RESOURCES

ONLINE DIRECTORY

Cultured Stone® is engineered to meet or exceed specifications for all major code approvals.

Note: Local building codes vary by area; always check with your local building authorities before installing stone.

Please visit **www.culturedstone.com/resources** to view all digital materials available for download.

BROCHURES

- 2018 Source Guide
- 2018 Product Guide
- Contemporary Collection
- Cultured Transitions
- Cast-Fit Product Brochure
- Design Solutions Brochure

WARRANTY

- Cultured Stone Warranty
- Terms & Conditions

INSTALLATION GUIDES

- Cultured Stone Installation Guide
- MVMA Installation Guide
- Cultured Brick Installation Guide
- Cultured Stone Cast-Fit Installation Guide
- Applications Over Continuous Insulation
- Anatomy of a Durable Manufactured Stone Veneer
- Hewn Stone Patterns

ARCHITECT RESOURCES

- 3-Part Specification
- LEED Sustainability
- CAD Resources

TECHNICAL INFORMATION

- Code Approval—ICC ESR-1364/AC-51
- Cultured Stone Building Codes Overview Brochure
- Globally Harmonized Hazard Communication Product Label
- Safety Data Sheet
- Continuous Insulation Whitepaper
- Cultured Stone Cast-Fit Specification Sheet
- Cultured Stone Technical Data Sheet
- Cultured Stone Applications Over Continuous Insulation
- ICC-ESR-1364
- Stone Veneer Dimension Chart

TECHNICAL DATA

The **Cultured Stone**® collection of manufactured stone veneers is engineered to meet or exceed specifications for all major code approvals. Manufacturers who offer "just like" or a so-called "equivalent" to Cultured Stone manufactured stone veneer products should be asked to document claims of test results and research reports.

Complete copies of these Cultured Stone manufactured stone veneer building code evaluation reports, research reports, approvals and listings are available upon request:

- ICC-ES ESR-1364
- Tested and listed by Underwriters Laboratories, Inc.
- Texas Department of Insurance–Product Evaluation Report, EC-21
- Florida Product Approval FL15047
- HUD Materials Release No. 1316
- BMEC Authorization

Note: Local building codes may vary; always check with your local building code authority prior to installation.

Results of tests conducted by an independent testing agency confirm that the Cultured Stone collection of manufactured stone veneers conforms to or exceeds the following test requirements as specified in ICC Evaluation Service Acceptance Criteria 51 for Precast Stone Veneer:

MATERIALS

CEMENT	ASTM C 150 or ACI 318 Section 3.2.1
SAND	ASTM C 144 or C 33
AGGREGATE	ASTM C 33 or C 330 (except gradation), C 331

TESTING

SHEAR BOND TEST (ADHESION)	Tested in accordance with ASTM C 482	> 50 psi
WATER ABSORPTION	Tested in accordance with UBC 15-5	9%–22% depending on texture
FREEZE/THAW CHARACTERISTICS	Testing procedures follow those outlined in ASTM C 67	< 3% mass loss
COMPRESSIVE STRENGTH	Tested in accordance with ASTM C 39	> 1800 psi @ 28 days
UNIT WEIGHT	Density is determined in accordance with ASTM C 567	< 15 lbs. per square foot
TENSILE STRENGTH	Tested in accordance with ASTM C 190	Reported
FLEXURAL STRENGTH	Tested in accordance with ASTM C 348	Reported
THERMAL PROPERTIES	Tested in accordance with ASTM C 177-71	R-value is .620 based on a 1.75" thick sample. Average thickness may vary on different Cultured Stone veneer products, and the R-value will vary accordingly.
NONCOMBUSTIBLE	Tested and listed by Underwriters Laboratories, Inc.	Cultured Stone brand products showed zero flame spread and zero smoke development.

SECTION 04 73 00
MANUFACTURED STONE VENEER

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Cultured Stone Veneer.

B. Architectural Trim Stone.

1.2 RELATED SECTIONS

A. Section 04 20 00 - Unit Masonry.

B. Section 06 10 00 - Rough Carpentry.

C. Section 05 40 00 - Cold-Formed Metal Framing.

D Section 07 27 00 - Air Barriers.

E. Section 07 28 00 - Underlayments.*

F. Section 07 62 00 - Sheet Metal Flashing & Trim.

G. Section 07 90 00 - Joint Protection.

H. Section 09 24 13 - Adobe Finish.

I. Section 10 30 00 - Fireplaces and Stoves.

1.3 REFERENCES

A. ASTM C 39 - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.

B. ASTM C 67 - Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.

C. ASTM C 177 - Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.

D. ASTM C 192 - Standard Practice for Making and Curing Concrete Test Specimens in the Laboratory.

E. ASTM C 482 - Standard Test Method for Bond Strength of Ceramic Tile to Portland Cement.

F. ASTM C 1670 - Standard Specification for Adhered Manufactured Stone Masonry Veneer Units.

G. ASTM C 1780 - Standard Practice for Installation Methods for Adhered Manufactured Stone Masonry Veneer

H. UL 723 - Standard for Safety for Surface Burning Characteristics of Building Materials.

I. ICC ES AC 51 Acceptance Criteria for Manufactured Stone Veneer

J. Masonry Veneer Manufactures Association (MVMA): Installation Guide for Adhered Manufactured Stone Veneer

K. US Department of Housing and Urban Development (HUD): Material Release Numbers 910Fs

L. LEED: US Green Building Council's Leadership in Energy and Environmental Design Green Building Rating System.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

A. Building Code Compliance:
   1. International Code Council (ICC):
      a. ES Report: ICC ESR 1364
      b. UBC Standard No. 14-1, Kraft Waterproof Building Paper.
   2. Florida Product Approval Number FL15047
   3. Texas Department of Insurance: Product Evaluation–EC 21
   4. US Department of Housing & Urban Development (HUD): MR 1316.
   5. Tested by Underwriters Laboratories, Inc.

B. Average Recycled Content of 58 percent validated by 3rd party analysis.

C. Backup Wall System and installation method for manufactured stone veneer shall meet the requirements of ASTM C 1780–Standard Practice for Installation Methods for Adhered Manufactured Stone Masonry Veneer.

1.5 SUBMITTALS

A. Submit under provisions of Section 01 30 00 - Administrative Requirements.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation standards and methods.

C. Shop Drawings: Submit drawings depicting proper installation and flashing techniques. Coordinate locations with those found on the Drawings.

D. LEED Submittals: Provide documentation of how the requirements of Credit will be met:
   1. LEED v 4, Product Data for Credit MR 4: For products having recycled content documentation; indicating percentages by weight of post-consumer and pre-consumer recycled content. Include statement indicating cost for each product having recycled content.
   2. LEED v 4, Product Data for Credit MR 4: For products having recycled content documentation; indicating percentages by weight of post-consumer and pre-consumer recycled content. Include statement indicating cost for each product having recycled content.
   3. LEED v 4, Product Data for Credit EQ 2: For products and materials to comply with low emittance standards, provide documentation substantiating that products comply with requisite low emittance standards.
   4. LEED v 4, Product Data for Credit for location and distance from Project of material manufacturer and point of extraction, harvest or recovery for main raw material.

E. Selection Samples: For each finish product specified, two complete sets of color sample representing manufacturer's full range of available colors and textures.

F. Verification Samples: For each finish product specified, two samples, minimum size 8 inches (203 mm) square, representing actual product, color, and texture.

G. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

H. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for cleaning and repair of components.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: Manufacturer who is a current member of Masonry Veneer Manufactures Association (MVMA) with a minimum of 5 years documented experience manufacturing and marketing all Manufactured Stone products of the type specified in this section.

B. Installer Qualifications: Company with documented experience in installation of manufactured masonry of the type specified including at least five projects within a 400 mile (650km) radius of the Project.

C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
   1. Finish panel of size and location designated by Architect.
   2. Minimum size 3 foot by 3 foot and showing transition to adjacent materials anticipated.
   3. Do not proceed with remaining work until workmanship, color, texture and pattern are approved by Architect.
   4. Refinish mock-up area as required to produce acceptable work.

D. Pre-Installation Conference:
   1. Contractor shall arrange a meeting not less than thirty days prior to starting stone veneer work.
   2. Attendance: Contractor, Architect/Owner Representative, veneer stone installer and manufacturer's representative.

1.7 DELIVERY, STORAGE & HANDLING

A. Store and handle products in conformance with the manufacturer's requirements and recommendations.

B. Store products off the ground on pallets in manufacturer's unopened packaging until ready for installation.

C. Protect materials from precipitation and freezing temperatures. Product with visible frozen moisture should not be installed.

1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

B. Cold weather installations: Maintain materials and ambient temperature at minimum 40 degrees F (4 degrees C) prior to, during, and 48 hours after installation.

C. Hot weather installations: Mist water on the scratch coated surface and the backs of the masonry veneer for installations that exceed 90 degrees (32 degrees C).

1.9 WARRANTY

A. Provide manufacturers 50-year limited warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: **Cultured Stone**® by **Boral,**® which is located at: 200 Mansell Court E. Suite 305; Roswell, GA 30076; Toll Free Tel: 800-255-1727; Email to request info: **boralstoneanswers@boral.com**; Web: **www.culturedstone.com**

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 MANUFACTURED STONE VENEER–GENERAL

A. Manufactured Stone Veneer Performance Requirements: Conforming to ASTM C 1670 and as follows:

1. Compressive Strength: Not less than 1800 psi (12.4 MPa) average for 5 specimens and not less than 2100 psi (14.4 MPa) for individual specimen when tested in accordance with ASTM C 39 & ASTM C 192.
2. Bond Between Manufactured Masonry Unit, Mortar and Backing: Not less than 50 psi (345 kPa) when tested in accordance with ASTM C 482 using Type S mortar.
3. Thermal Resistance: R-value of not less than 0.355 per inch (25.4 mm) of thickness when tested in accordance with ASTM C 177.
4. Freeze/Thaw: No disintegration and less than 3 percent weight loss when tested in accordance with ASTM C 67.
5. Water Absorption: Tested in accordance with UBC 15-5 9-22% depending on density value.
6. Unit Weight: Not more than 15 psf (73 kg/m2) saturated.
7. Surface Burning Characteristics: Not more than the following when tested in accordance with UL 723:
   a. Flamespread: 25.
   b. Smoke Development: 450.
8. UV Stable - Mineral oxide pigments.

B. Certifications:

1. ICC ES AC 51 Acceptance Criteria for Manufactured Stone Veneer
2. ICC Evaluation Service - Evaluation Report ESR 1364 & ASTM C 1670.
3. HUD Material Release Number 1316c
4. UL Tested for Surface Burning Characteristics
5. Texas Department of Insurance Product Evaluation EC-21
6. Florida Product Approval Number FL15047

2.3 CULTURED STONE VENEER

A. Cultured Stone Ancient Villa Ledgestone:
Includes matching corner pieces.

1. Height: Variable from 2 inches to 12 inches (50 mm to 304 mm).
2. Lengths: Variable from 5 inches to 16 inches (127 mm to 406 mm).
3. Color: Chianti.
4. Color: Palisades.
5. Color: Sevilla.
6. Color: Siena.
7. Color: Solistice.
8. Color: Umber Creek.
9. Walls: Provide with Single Color and Texture throughout.
10. Walls: Provide with Blended Color/Texture:
    a. Percent: _____ ,
       Color: _____ .
    b. Percent: _____ ,
       Color: _____ .

B. Cultured Stone Cast-Fit:
Includes matching corner pieces.

1. Dimensions: 8 inches by 16 inches or 12 inches by 24 inches (200 mm by 400 mm or 305 mm by 610 mm).
2. Color: French Gray.
3. Color: Parchment.

C. Cultured Stone Cobblefield:
Includes matching corner pieces.

1. Heights: Variable from 2 inches to 8 inches (50 mm to 200 mm).
2. Lengths: Variable from 4 inches to 20 inches (100 mm to 500 mm).
3. Color: Chardonnay.
4. Color: Desert Blend.
5. Color: Echo Ridge.
6. Color: Gray.
7. Color: San Francisco.
8. Color: Texas Cream.
9. Walls: Provide with Single Color and Texture throughout.
10. Walls: Provide with Blended Color / Texture:
    a. Percent: _____ ,
       Color: _____ .
    b. Percent: _____ ,
       Color: _____ .

D. Cultured Stone Coral Stone:
Includes matching corner pieces.

1. Pattern: Random Ashlar or Repeating.
2. Stone sizes: Variable sizes in increments of 4 inches from 4 inches by 4 inches to 12 inches by 16 inches (100 mm from 100 mm by 100 mm to 204 mm to 304 mm).
3. Corner sizes: 4 inch, 8 inch and 12 inch heights with 4 inch and 8 inch lengths.
4. Average thickness: 1⅛ inches and sized for a ½ inches (12.5 mm) mortar joint.
5. Color: Fossil Reef.
6. Walls: Provide with Single Color and Texture throughout.
7. Walls: Provide with Blended Color/Texture:
   a. Percent: _____ ,
      Color: _____ .
   b. Percent: _____ ,
      Color: _____ .

E. Cultured Stone Country Ledgestone:
Includes matching corner pieces.

1. Heights: Variable from 1½ inches to 6½ inches (38 mm to 162 mm).
2. Lengths: Variable from 4¾ inches to 22 inches (120 mm to 560 mm).
3. Color: Ashfall.
4. Color: Aspen.
5. Color: Black Rundle.
6. Color: Bucks County.
7. Color: Caramel.
8. Color: Chardonnay.
9. Color: Echo Ridge.
10. Color: Eucalyptus.
11. Color: Grand Mesa.
12. Color: Hudson Bay.
13. Color: Mojave.
14. Color: Red Rock.
15. Color: Sevilla..
16. Color: Skyline.
17. Color: Umber Creek.
18. Color: White Oak.
19. Color: Wolf Creek.
20. Walls: Provide with Single Color and Texture throughout.
21. Walls: Provide with Blended Color/Texture:
    a. Percent: _____ ,
       Color: _____ .
    b. Percent: _____ ,
       Color: _____ .

F. Cultured Brick Veneer Handmade Brick:
Includes matching corner pieces.
1. Height: Variable from 2¾ inches (70 mm)
2. Lengths: Variable from 8³⁄₁₆ inches (208 mm)
3. Color: Moroccan Sand.
4. Color: Rustic Manor.
5. Walls: Provide with Single Color and Texture throughout.
6. Walls: Provide with Blended Color/Texture:
   a. Percent: _____ ,
      Color: _____ .
   b. Percent: _____ ,
      Color: _____ .

G. Cultured Brick Veneer Used Brick:
Includes matching corner pieces.
1. Height: Variable from 2½ inches (63 mm).
2. Lengths: Variable from 8 inches (200 mm).
3. Color: Antique Red.
4. Color: High Desert.
5. Walls: Provide with Single Color and Texture throughout.
6. Walls: Provide with Blended Color/Texture:
   a. Percent: _____ ,
      Color: _____ .
   b. Percent: _____ ,
      Color: _____ .

H. Cultured Stone Del Mare Ledgestone:
Includes matching corner pieces.
1. Height: Variable from 1 inch to 9¼ inches (25 mm to 235 mm).
2. Lengths: Variable from 4½ inches to 16 inches (114 mm to 406 mm).
3. Color: Black Isle.
4. Color: Burnt Ochre.
5. Color: Palermo.
6. Walls: Provide with Single Color and Texture throughout.
7. Walls: Provide with Blended Color/Texture:
   a. Percent: _____ ,
      Color: _____ .
   b. Percent: _____ ,
      Color: _____ .

I. Cultured Stone Dressed Fieldstone:
Includes matching corner pieces.
1. Sizes: Variable from 2½ inches to 22 inches (63 mm to 560 mm).
2. Color: Aspen.
3. Color: Bucks County.
4. Color: Chardonnay.
5. Color: Echo Ridge.
6. Color: Sevilla.
7. Color: Wolf Creek.
8. Walls: Provide with Single Color and Texture throughout.
9. Walls: Provide with Blended Color/Texture:
   a. Percent: _____ ,
      Color: _____ .
   b. Percent: _____ ,
      Color: _____ .

J. Cultured Stone Drystack Ledgestone:
Includes matching corner pieces.
1. Heights: Variable from 1 inch to 4 inches (25 mm to 100 mm).
2. Lengths: Variable from 4 inches to 16 inches (100 mm to 400 mm).
3. Color: Chardonnay.
4. Color: Suede.
5. Walls: Provide with Single Color and Texture throughout.
6. Walls: Provide with Blended Color/Texture:
   a. Percent: _____ ,
      Color: _____ .
   b. Percent: _____ ,
      Color: _____ .

K. Cultured Stone European Castle Stone:
Includes matching corner pieces.
1. Heights: Variable from 2 inches to 12 inches (50 mm to 300 mm).
2. Lengths: Variable from 2 inches to 16 inches (50 mm to 400 mm).
3. Color: Bucks County.
4. Color: Chardonnay.
5. Walls: Provide with Single Color and Texture throughout.
6. Walls: Provide with Blended Color/Texture:
   a. Percent: _____ ,
      Color: _____ .
   b. Percent: _____ ,
      Color: _____ .

L. Cultured Stone Hewn Stone:
Includes matching corner pieces.
1. Size: Provide sizes required to match customized pattern selected by the Architect from the following.
   a. 3 inch by 8 inch
   b. 3 inch by 14 inch
   c. 5 inch by 14 inch
   d. 5 inch by 22 inch
   e. 8 inch by 22 inch
2. Corner sizes: 3 inch and 7 inch heights with 3 inch and 8 inch lengths.
3. Average thickness: 1½ inches (38 mm).
4. Color: Foundation
5. Color: Span
6. Color: Talus
7. Walls: Provide with Single Color and Texture throughout.
8. Walls: Provide with Blended Color/Texture:
   a. Percent: _____ ,
      Color: _____ .
   b. Percent: _____ ,
      Color: _____ .

M. Cultured Stone Limestone:
Includes matching corner pieces.
1. Heights: Variable from 1¼ inches to 6 inches (30 mm to 150 mm).
2. Lengths: Variable from 4 inches to 16¾ inches (100 mm to 420 mm).
3. Color: Bucks County.
4. Color: Chardonnay.
5. Color: Golden Buckeye,
6. Color: Suede.
7. Walls: Provide with Single Color and Texture throughout.
8. Walls: Provide with Blended Color/Texture:
   a. Percent: _____ ,
      Color: _____ .
   b. Percent: _____ ,
      Color: _____ .

N. Cultured Stone Old Country Fieldstone:
Includes matching corner pieces.
1. Heights: Variable from 1½ inches to 10 inches (38 mm to 250 mm).
2. Lengths: Variable from 4 inches to 16 inches (100 mm to 400 mm).
3. Color: Chardonnay.
4. Color: Coastal Fog.
5. Color: Echo Ridge.
6. Color: Summit Peak.
7. Color: Tudor.
8. Walls: Provide with Single Color and Texture throughout.
9. Walls: Provide with Blended Color/Texture:
   a. Percent: _____ ,
      Color: _____ .
   b. Percent: _____ ,
      Color: _____ .

O. Cultured Stone Pro-Fit Ledgestone:
Includes matching corner pieces.
1. Heights: 4 inches (102 mm)
2. Lengths: Variable from 8 inches to 20 inches (200 mm to 500 mm).
3. Color: Autumn.
4. Color: Gray.
5. Color: Mojave.
6. Color: Platinum.
7. Color: Shale.
8. Color: Southwest.
9. Walls: Provide with Single Color and Texture throughout.
10. Walls: Provide with Blended Color/Texture:
    a. Percent: _____ ,
       Color: _____ .
    b. Percent: _____ ,
       Color: _____ .

P. Cultured Stone Pro-Fit Alpine Ledgestone:
Includes matching corner pieces.
1. Height: 4 inches (102 mm).
2. Lengths: Variable from 8 inches to 20 inches (200 mm to 500 mm).
3. Color: Black Mountain.
4. Color: Black Rundle.
5. Color: Chardonnay.
6. Color: Dark Ridge.
7. Color: Echo Ridge.
8. Color: Pheasant.
9. Color: Summit Peak.
10. Color: Umber Creek.
11. Color: Winterhaven.
12. Walls: Provide with Single Color and Texture throughout.
13. Walls: Provide with Blended Color/Texture:
    a. Percent: _____ ,
       Color: _____ .
    b. Percent: _____ ,
       Color: _____ .

Q. Cultured Stone Pro-Fit Modera Ledgestone:
Includes matching corner pieces.
1. Heights: 4 inches (101.6 mm)
2. Lengths: Variable from 8 inches to 20 inches (203 mm to 500 mm).
3. Corner Returns: 4 inches, or 8 inches, or 12 inches
4. Thickness: Variable from ½ inch to 1¾ inches
5. Color: Carbon
6. Color: Intaglio
7. Color: Vellum
8. Walls: Provide with Single Color and Texture throughout.
9. Walls: Provide with Blended Color/Texture:
   a. Percent: _____ ,
      Color: _____ .
   b. Percent: _____ ,
      Color: _____ .

R. Cultured Stone River Rock:
Includes matching corner pieces.
1. Sizes: Variable from 2 inches to 14 inches (50 mm to 350 mm).
2. Color: Earth Blend.
3. Color: Lake Tahoe.
4. Color: Lakeshore.
5. Color: Whitewater.
6. Walls: Provide with Single Color and Texture throughout.
7. Walls: Provide with Blended Color/Texture:
   a. Percent: _____ ,
      Color: _____ .
   b. Percent: _____ ,
      Color: _____ .

S. Cultured Stone Rockface:
Includes matching corner pieces.
1. Heights: Variable from 2 inches to 8 inches (50 mm to 200 mm).
2. Lengths: Variable from 4 inches to 20 inches (100 mm to 500 mm).
3. Color: Bucks County.

T. Cultured Stone Southern Ledgestone:
Includes matching corner pieces.
1. Heights: Variable from ½ inch to 6 inches (13 mm to 150 mm).
2. Lengths: Variable from 4 inches to 20 inches (100 mm to 500 mm).
3. Color: Aspen.
4. Color: Bucks County.
5. Color: Chardonnay.
6. Color: Echo Ridge.
7. Color: Fog.
8. Color: Gray.
9. Color: Hudson Bay.
10. Color: Rustic.
11. Color: Wolf Creek.
12. Walls: Provide with Single Color and Texture throughout.
13. Walls: Provide with Blended Color/Texture:
    a. Percent: _____ ,
       Color: _____ .
    b. Percent: _____ ,
       Color: _____ .

U. Cultured Stone Stream Stone:
Includes matching corner pieces.
1. Sizes: Variable from 2 inches to 12 inches (50 mm to 300 mm).
2. Skimmer Stones: Smaller fill stones, average 2½ inches (63 mm) tall by 3½ inches to 8 inches (89 mm to 200 mm).
3. Color: Spring
4. Color: Summer.
5. Walls: Provide with Single Color and Texture throughout.
6. Walls: Provide with Blended Color/Texture:
   a. Percent: _____ ,
      Color: _____ .
   b. Percent: _____ ,
      Color: _____ .

2.4 ARCHITECTURAL TRIM STONES

A. Pier Capstones:
1. Surface Texture: Flagstone.
2. Nominal Size: 24 inches by 24 inches (610 mm by 610 mm).
3. Nominal Size: 32 inches by 32 inches (813 mm by 813 mm).
4. Color: Champagne.
5. Color: Gray.
6. Color: Mocha.
7. Color: Taupe.

B. Flat Wall Capstones:
1. Nominal Size: 10 inches by 20 inches (254 mm by 508 mm).
2. Nominal Size: 12 inches by 20 inches (305 mm by 508 mm).
3. Color: Champagne.
4. Color: Gray.
5. Color: Mocha.
6. Color: Taupe.

C. Capstones/Peaked Flagstone Texture:
1. Nominal Size: 12 inches by 20 inches (305 mm by 508)
2. Nominal Size: 16 inches by 20 inches (404 mm by 508)
3. Color: Champagne.
4. Color: Gray.
5. Color: Mocha.
6. Color: Taupe.

D. Hearthstones:
1. Nominal Size: 19 inches by 20 inches (483 mm by 508 mm).
2. Color: Blond.
3. Color: Chardonnay.
4. Color: Cream.
5. Color: Marsh.
6. Color: Gray.
7. Color: Nightfall.

E. Trimstones:
1. Nominal Size: 6 inches by 8 inches by 1⅞ inches (152 mm by 203 mm by 48 mm).
2. Color: Champagne.
3. Color: Gray.
4. Color: Mocha.
5. Color: Taupe.

F. Keystones:
1. Nominal Size: 8½ inches by 10 inches by 1⅞ inches (216 mm by 254 mm by 48 mm).
2. Color: Champagne.
3. Color: Gray.
4. Color: Mocha.
5. Color: Taupe.

G. Tuscan Lintels:
1. Nominal Size: 22 inches by 6 inches by 2⅝ inches (559 mm by 152 mm by 67 mm).
2. Color: Champagne.
3. Color: Gray.
4. Color: Mocha.
5. Color: Taupe.

H. Watertable/Sill Rock Face Texture:
1. Nominal Size: 2 inches front, 2½ inches back, by 3 inches by 18 inches (51 mm front, 64 mm back by 76 mm by 455 mm).
2. Color: Champagne.
3. Color: Gray.
4. Color: Mocha.
5. Color: Nightfall.
6. Color: Taupe.
7. Provide sloped top surface & drip edge.

I. Watertable/Sill Cast-Fit Texture:
1. Nominal Size: 2½ inches by 20 inches (63 mm by 500 mm).
2. Color: French Gray
3. Color: Parchment

J. Watertable/Sill Cast-Fit Texture:
1. Nominal Size: 2½ inches by 20 inches (63 mm by 500 mm).
2. Color: French Gray.
3. Color: Parchment.

K. Light Fixture Stones:
   1. Nominal Size: 8 inches by 10 inches by 1⅞ inches (203 mm by 254 mm by 47 mm).
   2. Nominal Size: 9½ inches by 15 inches by 1⅞ inches (242 mm by 381 mm by 47 mm).
   3. Nominal Size: As shown on Contract Drawings.
   4. Color: Gray.
   5. Color: Mocha.
   6. Color: Taupe.
   7. Provide 4 inch by 1½ inch (102 mm by 38 mm) UL approved metal octagon extension box.

L. Receptacle Stones:
   1. Single Receptacle Nominal Size: 6 inches by 8 inches by 1⅞ inches (152 mm by 203 mm by 48mm)
   2. Color: Gray.
   3. Color: Mocha.
   4. Color: Taupe.
   5. Electrical Box: 4 inch by 1½ inch (102 mm by 38 mm) UL approved metal octagon extension box supplied by others.

M. Special Shapes:

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared in conformance with ASTM C 1780 for the backup wall system indicated on the Drawings.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install manufactured stone masonry veneer in accordance with MVMA Installation Guide for Adhered Manufactured Stone Veneer, ASTM C 1780 and applicable Codes.

C. Install/Apply Related Materials in accordance with type of substrate and manufactured stone veneer manufacture's installation instructions.

D. General:
   1. Walls: Provide with Single Color and Texture throughout.
   2. Walls: Provide with Blended Color / Texture specified.
   3. Special Shapes: Color to match stones specified.
      a. Provide Stones manufactured specifically for installation at corners where located on the Drawings.
      b. Install Quoins on corners as indicated on the Drawings.
   4. Mortar Joints
      a. Style:
         1) Tight Fit joints.
         2) Standard ½ inch tooled
         3) Wide joint
         4) Wide Overgrout
      b. Strike all grout joints flush.
      c. Tool all grout joints.
      d. Overgrout all grout joints.
   5. Stone Direction:
      a. Random placement
      b. Horizontal placement
      c. Vertical placement
   6. Windows, Doors & Wall Openings:
      a. Butt field stones to wall opening.
      b. Install specified trim stones where located on the Contract Drawings.
   7. Sills: Install Sills where located on the Drawings.
   8. Caps: Install Capstones where located on the Drawings.

E. Seal all joints at wall openings and penetrations with a sealant approved for use with masonry products.

F. Flashing: Coordinate with Flashings specified in Section 07 62 00 - Sheet Metal Flashing and Trim.

G. Rainscreen: Coordinate with Rainscreens specified in Section 07 27 00 - Air Barriers.

3.4 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Provide periodic site visits as requested by Architect. Report any discrepancies to the Contractor with copies to the Architect within 24 hours of each visit.

3.5 CLEANING

A. Clean manufactured masonry in accordance with manufacturer's installation instructions

3.6 PROTECTION

A. Protect finished work from rain and work on either side of the wall during and for 48 hours following installation.

B. Protect installed products until completion of project.

C. Clean prior to project closeout.

D. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

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CULTURED STONE®

50-YEAR TRANSFERABLE LIMITED WARRANTY

LIMITATIONS ON THE TRANSFERABILITY OF THIS WARRANTY ARE SET FORTH HEREIN

INTRODUCTION

Thank you for your recent purchase of **Cultured Stone**® by **Boral**® manufactured stone veneer products ("Product(s)"). This express limited warranty ("Warranty") only covers Cultured Stone manufactured stone veneer products manufactured by Boral Stone Products LLC ("Boral").

WHO IS COVERED & FOR HOW LONG

Subject to the following terms, Boral warrants its Products for fifty (50) years to the original purchaser (the "Purchaser") (based upon the date of retail purchase, date of substantial completion of the installation if professionally installed, or date of settlement of the purchase of a newly constructed building, whichever is applicable). This Warranty is personal to you; however, the Warranty may be transferred to any subsequent purchaser(s) of your home or building during the first fifteen (15) years after the original purchase date (as described above), but the warranty period as to such subsequent owners is limited to fifteen (15) years from the original purchase date (as described above).

WHAT BORAL WARRANTS

Boral, subject to the conditions and limitations listed herein, warrants its Products to be manufactured in compliance with the International Code Council Acceptance Criteria 51 ("ICC AC 51) for Precast Stone Veneer; however, Products that are accessories and Products that are not wall veneer shall not meet the weight, density and dimension parameters of ICC AC 51.

WHAT IS NOT COVERED

We do not cover damage to the Product due to any cause not expressly covered herein. This Warranty does not cover any problems with non-defective material caused by conditions or handling beyond our control.

Some examples of conditions not covered by this Warranty include:

1. Improper application, use of accessories which do not properly receive and/or secure our Products, or installation not in strict adherence to the applicable installation instructions or installation not in accordance with local building code requirements.
2. Damage resulting from accident, misuse, neglect, casualty, fire, vandalism, plant growth, impact of foreign objects, salt or de-icing chemicals, excessive exposure to water due to things such as standing water, water backups, improper flashing, leaks, seepage or irrigation systems, failure of or damage to the wall substrate on which the Product was applied caused by movement, distortion, cracking, or settling of such wall or the foundation of the building, surface discoloration due to airborne stains, pollutants, algae, fungi, lichens or cyanobacteria, exposure to harmful chemicals, external heat sources (including, but not limited to, a barbecue grill, fire, or reflection from windows and doors), acts of God, or other such occurrences beyond the control of Boral;
3. Product or material that has been painted, varnished, sealed with non-breathable sealer, or similarly coated over the manufacturer's original finish; and
4. The use of sandblasting, power washing, silicone treatments, or any other form of chemical wash.

Products shall not be in breach of this Warranty if they contain or exhibit (i) minor chipping, as defined under ASTM C1364, Section 8.2; or (ii) minor cracks, as defined under ASTM C 90-05, Section 7.2.1, incidental to the usual methods or materials of manufacture or minor chipping resulting from customary methods of handling in shipment and delivery which do not affect the proper placement of the unit or significantly impair the strength or permanence of the construction.

Products are not warranted against discoloration caused by air pollution, exposure to harmful chemicals, or "normal weathering" resulting from exposure to the elements. "Normal weathering" is defined as the damaging effects of sunlight and extremes of weather and atmosphere that may cause any colored surface to oxidize, fade, or become soiled or stained over time.

Boral strives to accurately reproduce the colors of its masonry stone veneer Products in its marketing literature and sample boards. The Product colors that you see are as accurate as technology allows. Boral makes no warranty with respect to any real or perceived color differences between those depicted in its marketing literature and sample boards and those of the actual Products that will be installed on or within the home or building. Boral recommends that you look at actual Product samples before making a color selection for your home or building.

WHAT IS YOUR REMEDY

If the Products are not in conformance with our Warranty, Boral will, in its sole discretion, either (i) repair or replace the nonconforming Products at no charge to you, or (ii) refund the price paid for the Products. Labor costs for removal or installation are not covered. Any Products repaired or replaced hereunder will continue to be covered under the terms of this Warranty for the remainder of the original warranty period.

SUBMITTING A WARRANTY CLAIM

To obtain performance under this Warranty, the Purchaser(s) shall notify Boral of the claim promptly following its discovery, and shall submit with such notification proof of date of purchase and/or installation, and proof of property ownership, in order to provide Boral an opportunity to investigate the claim and examine the material claimed to be defective. All notifications shall be provided to Boral at **Boral Stone Products Warranty Department, 2256 Centennial Road, Toledo, Ohio 43617** or call **1-800-255-1727**. Shortly after we receive your communication, we will contact you regarding your claim. To fully evaluate your claim, we may ask you to provide pictures of your Products or samples for us to test. If you have any questions, do not hesitate to write us at the address above or call **1-800-255-1727**.

REPLACEMENT & PRODUCT VARIATIONS

As a result of our ongoing efforts to improve and enhance our product line, we reserve the right to discontinue or modify our Products, including their colors, without notice to the Purchaser(s) and shall not be liable to the Purchaser(s) as a result of such discontinuance or modification. We are not liable to you if you make a warranty claim in the future and any replacement Products you receive vary in color or finish because of normal weathering or changes in our product line. You should understand that if we replace any Products under this Warranty, we reserve the right to provide you with substitute Products that are comparable only in quality and price to your original Products.

LIMITATIONS

EXCEPT AS SET FORTH ABOVE, BORAL MAKES NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ANY PRODUCT SOLD. ORAL STATEMENTS CONCERNING THE PRODUCT(S) COVERED BY THIS WARRANTY, OR STATEMENTS CONTAINED IN BORAL'S GENERAL ADVERTISING, PAMPHLETS OR OTHER PRINTED MATERIALS DO NOT CONSTITUTE WARRANTIES, AND PURCHASER ACKNOWLEDGES THAT IT HAS NO RIGHT TO RELY UPON SAME. BORAL, WHETHER AS A MANUFACTURER OR CARRIER, SHALL NOT BE LIABLE FOR ANY COMMERCIAL LOSSES, SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES, OR FOR ANY LOSS, DAMAGE OR EXPENSE ARISING UNDER OR IN CONNECTION WITH ANY SALE OF PRODUCT. BORAL'S LIABILITY FOR DAMAGES OF ANY KIND SHALL IN NO EVENT EXCEED THE ORIGINAL PURCHASE PRICE OF THE PARTICULAR ORDER, LOT OR SHIPMENT (OR THE ORIGINAL PURCHASE PRICE OF THAT PORTION THEREOF WHICH IS NOT REPAIRED OR REPLACED) WITH RESPECT TO WHICH A CLAIM IS ASSERTED. IN PARTICULAR, BORAL SHALL NOT BE LIABLE FOR LOSS OF SALES, REVENUES OR PROFITS OR CLAIMS OF ANY THIRD PARTIES.

LEGAL RIGHTS

Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. Some states do not allow the exclusion or limitation on incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. If the laws of a particular state require terms other than or in addition to those contained in this Warranty, this Warranty shall be deemed modified so as to comply with the appropriate laws of such state, but only to the extent necessary to prevent the invalidity of this Warranty or any provision of this Warranty or to prevent the imposition of any fines, penalties or any liability.

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The Cultured Stone® collection of manufactured veneer products is engineered to meet or exceed specifications for all major code approvals. Building code requirements vary from area to area. Check with local authorities for building code requirements in your area. Carefully read all installation instructions before proceeding with your Cultured Stone products application. Observe safety precautions. Cultured Stone products are covered by a 50-Year Limited Warranty when installed in accordance with the manufacturer's installation instructions. See the complete warranty on our website at **www.culturedstone.com**.

For additional information on Cultured Stone products and services, visit online at **www.culturedstone.com** or call **1.800.255.1727**.

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• PRODUCT CONTAINS A MINIMUM OF 50% RECYCLED CONTENT
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