

# GUIDE SPECIFICATION

**Manufacturer:**

StoneCoat International, Inc.  
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Farmers Branch, TX 75234  
972-380-2700  
www.stonecoat.com

**SECTION 047010****APPLIED HYDRAULIC LIMESTONE VENEER**

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This guide specification has been prepared by StoneCoat International, Inc., as an aid to specifiers in preparing written construction documents for applied hydraulic limestone, projected or hand tooled, and pigmented, limestone veneer coating known as StoneCoat Carve® and StoneCoat Smooth®. StoneCoat Carve® and StoneCoat Smooth® are suitable for both interior and exterior applications and results in a significant weight, space, installation time, and cost savings over conventionally installed quarried stone masonry veneer, manufactured (cementitious) stone veneer and traditional stone and cement stucco alternatives. Because StoneCoat Carve® and StoneCoat Smooth® are custom applied in the field by trained and certified StoneCoat® artisans, there are an infinite number of natural, cast stone and stucco-like appearances that can be created. StoneCoat® is a patented product and process and has been tested and approved to meet ICC AC 11 equivalency. StoneCoat® is a natural, green limestone veneer and has been certified to produce up to 5 x less carbon emissions, cradle to grave, than Portland-Limestone Cement, cradle to gate.

Because of its characteristics of being lightweight and customizable it can broaden the ability to specify stone or stucco where it may have been otherwise structurally non-feasible. In addition, because it is a limestone veneer, therefore, a masonry material, it allows the specifier the ability to specify StoneCoat® where restricted code or municipal masonry material restrictions may prevent the use of other products (including EIFS)

Edit entire master to suit project requirements. Modify or add items as necessary. Delete items which are not applicable. Words and sentences within brackets reflect a choice to be made regarding inclusion or exclusion of a particular item or statement. Editor notes to guide the specifier are included between lines of asterisks to assist in choices to be made. Remove these notes before final printing of the specification.

This guide specification is written around the Construction Specifications Institute (CSI), SectionFormat and PageFormat standards and references to section names and numbers are based on MasterFormat 2020.

For specification assistance on specific product applications, please contact our offices above or any of our local product representatives.

StoneCoat® reserves the right to modify these guide specifications at any time. Updates to this guide specification will be posted to the manufacturer's web site and/or in printed matter as they occur. StoneCoat® makes no expressed or implied warranties regarding content, errors, or omissions in the information presented.

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**PART 1 - GENERAL****1.1 SUMMARY**

- A. This Section includes the following:

1. Hydraulically applied limestone veneer.
2. [Water repellent sealer]
3. [Metal lath and accessories].

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 Edit the "Related Sections" paragraph to identify other sections that may relate to work of this section.  
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B. Related Sections include the following:

1. Division 03 Section "Precast Tilt Wall Concrete" for concrete substrate supporting veneer system.
2. Division 03 Section "Cast in Place Concrete" for concrete substrate supporting veneer system.
3. Division 04 Section "Unit Masonry" for masonry substrate supporting veneer system.
4. Division 05 Section "Cold Formed Metal Framing" for steel studs supporting veneer system.
5. Division 06 Section "Rough Carpentry" for wood stud framing and sheathing supporting veneer system.
6. Division 06 Section "Gypsum Sheathing" for sheathing behind veneer system.
7. Division 07 Section "Sheet Membrane Air/Moisture Barrier" for water-resistant barrier behind exterior veneer system.
8. Division 07 Section "Fluid-Applied Membrane Air/Moisture Barrier" for water-resistant barrier behind exterior veneer system.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show locations and installation of control and expansion joints, elevations, sections, details of components, and attachments to other work.
- C. Certificates: Provide "certified applicator" certificate.
- D. Provide confirmation that materials and assemblies meet the testing indicated in the Quality Assurance paragraphs.

1.3 INFORMATIONAL SUBMITTALS

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 Retain "A" below for LEED certified projects. Other sustainability credits may apply for alternative rating systems.  
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A. Sustainable Design Documentation Submittals:

1. Environmental Product Declarations complying with LEED requirements.
2. Documentation for products that comply with LEED requirements for multi-attribute optimization.
  - a. Include documentation for regional materials, indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material and costs of regional materials.
3. Sustainability reports for products that comply with LEED requirements for raw material and source extraction reporting.
4. Documentation for products that comply with LEED requirements for leadership extraction practices. Include the following:
  - a. Product data and certification letter from product manufacturers, indicating participation in an extended producer responsibility program and statement of costs.
  - b. Product data and certification for bio-based materials, indicating that they comply with requirements. Include statement of costs.
  - c. Product data and chain-of-custody certificates for products containing certified wood. Include statement of costs.
  - d. Receipts for salvaged and refurbished materials used for Project, indicating sources and costs.
  - e. Product data and certification letter from product manufacturers, indicating percentages by weight of postconsumer and pre-consumer recycled content for products having recycled content. Include statement of costs.
  - f. Documentation for regional materials, indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material and costs of regional materials.

5. Material ingredient reports for products that comply with LEED requirements for material ingredient reporting.
  6. Documentation for products that comply with LEED requirements for material ingredient optimization.
  7. Documentation for products that comply with LEED requirements for product manufacturer supply chain optimization.
    - a. Include documentation for regional materials, indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material and costs of regional materials.
- B. Provide copy of manufacturer's written installation instructions.

#### 1.4 QUALITY ASSURANCE

- A. Certified Applicator: Applicators must be trained and certified by manufacturer.
- B. Mockups: Prior to installing work, construct panels for each type of finish and application required to verify selections made and to demonstrate aesthetic effects as well as qualities of materials and execution. Build mockups to comply with the following requirements, using materials indicated for final unit of Work.
  1. Locate mockups on-site in the location and of the size indicated or, if not indicated, as directed by Architect.

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 Adjust mock-up size to suit specifier's preference and scope of project. Select weather mock-ups is to be a located adjacent to or may be a part of the actual completed wall, and what orientation is preferred  
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2. Erect mockups minimum 48 inch (1200 mm) by 48 inch (1200 mm) by full thickness using materials, including lath, support system, and control joints, indicated for final Work. Step work back to clearly show each application. [Construct mock-up separate from work intended to remain] [Mockup may remain as part of the completed construction]
  3. Notify Architect 3 business days in advance of the dates and times when mockups will be constructed.
  4. Demonstrate the proposed range of aesthetic effects and workmanship, including sills, heads, copings, quoins, moldings, and outside corners.
  5. Obtain Architect's approval of mockups before starting Work.
  6. Retain and maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
- C. Pre-installation Conference: Conduct conference at Project site.
- D. Verify that supporting substrate is sufficiently rigid to resist deflection of L/360 under code required loads.
- E. Verify that surface preparation is properly completed.
- F. Assemblies shall have been tested according to the following standards:
1. ASTM E-119-18c Fire Resistance Rating: 60 minutes.
  2. ASTM E-2226-15b Hose Stream: Pass.
  3. ASTM E-136-19 Non-Combustibility: Pass.
  4. ICC-ES AC-11 Accelerated Weathering, Freeze-Thaw Resistance, Combustibility: Pass.
  5. ICC TAS 202 and TAS 203 Wind Loading, Deflection Recovery, Crack Resistance: Pass.
  6. ICC-ES ESR-4815 Compliance to:
    - a. 2020 Florida Building and Residential Codes.
    - b. 2019 California Building Code and Residential Codes.
    - c. 2020 City of Los Angeles Building Code and Residential Codes.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original packages, containers, or bundles, labeled with manufacturer's name, product brand name, and lot number.
- B. Store materials inside, under cover, and dry, protected from weather, direct sunlight, surface contamination, aging, corrosion, and damage from construction traffic and other causes.

#### 1.6 PROJECT CONDITIONS

- A. Cold-Weather Requirements: Provide heat and protection, temporary or permanent, as required to protect work from freezing for at least 48 hours after application. Distribute heat uniformly to prevent concentration of heat on limestone near heat sources; provide deflection or protective screens.
- B. Warm-Weather Requirements: Wet substrate wall before final coat application. Protect work against uneven and excessive evaporation and from strong flows of dry air, both natural and artificial. Apply and

cure work as required by climatic and job conditions to prevent dry out during cure period. Provide suitable coverings, moist curing, barriers to deflect sunlight and wind, or combinations of these, as required.

C. Exterior Work:

1. Apply and cure work to prevent drying out during curing period. Use procedures required by climatic conditions, including moist curing, providing coverings, and providing barriers to deflect sunlight and wind.
2. Apply limestone when ambient temperature is greater than 40 deg F (4.4 deg C).
3. Protect limestone coats from freezing for not less than 48 hours after set of limestone surface has occurred.

D. Factory-Prepared Finishes: Comply with manufacturer's written recommendations for environmental conditions for applying finishes.

E. Protect contiguous work from soiling and moisture deterioration caused by work of this section. Provide temporary covering and other provisions necessary to minimize harmful spattering of work onto other work.

1.7 WARRANTY

A. Warrant products to be free from defects in materials and fabrication for 20 years from date of substantial completion.

B. Warrant workmanship for a period of 2 years from date of substantial completion, to be free from defects, including:

1. Cracking (not related to curing or structural movement).
2. Adhesion to substrate.
3. Surface deterioration (not related to adverse weather conditions, abuse, or damage caused by others).
4. Significant color change after 28-day cure period.

**PART 2 - PRODUCTS**

2.1 MANUFACTURER

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Note that metal lath is recommended, but not required behind properly prepared concrete and masonry substrates. Delete "A 2" and "A 3" below if no lathing or accessories are required.  
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A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Ready-Mixed Limestone Products:
  - a. StoneCoat International Inc, 11431 Ferrell Drive, Suite 204, Farmers Branch, TX 75234; (972) 380-2700; [www.stonecoat.com](http://www.stonecoat.com)
2. Expanded-Metal Lath:
  - a. Alabama Metal Industries Company; a Gibraltar Industries company.
  - b. CEMCO; California Expanded Metal Products Co.
  - c. ClarkDietrich Building Systems.
  - d. MarinoWARE.
  - e. Phillips Manufacturing Co.
3. Metal Accessories:
  - a. Alabama Metal Industries Company; a Gibraltar Industries company.
  - b. CEMCO; California Expanded Metal Products Co.
  - c. ClarkDietrich Building Systems.
  - d. MarinoWARE.
  - e. Phillips Manufacturing Co.

2.2 LIMESTONE MATERIALS AND ACCESSORIES

A. Limestone Veneer: Blown Stone by StoneCoat®, and having the following attributes:

1. Primary Composition: Calcium carbonate.
2. Cured Density: 6 lb/s.f. (2.7 Kg), applied at ½ inch (12 mm) thickness).

- B. Colorant: Mineral oxide composition, of colors necessary to create desired effect. Colorant may be batched into mix to create an overall change in veneer and/or spray applied in field to face of stone for variegated effect.

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Note that metal lath is recommended, but not required over properly prepared concrete and masonry substrates. Delete "2.3" below if no lathing or accessories are required.

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## 2.3 METAL LATH

- A. Expanded-Metal Lath: Comply with ASTM C 847 for material, type, configuration, and other characteristics indicated below.
1. Material: Fabricate expanded-metal lath from sheet metal conforming to the following:
    - a. Galvanized Steel: Structural-quality, zinc-coated (galvanized) steel sheet complying with ASTM A 653, G60 (ASTM A 653M, Z180) minimum coating designation, unless otherwise indicated.
  2. Diamond-Mesh Lath: Comply with the following requirements:
    - a. Configuration: Self-furring, with integrally applied felt paper backing.
      - 1) Weight: 2.5 lb/sq. yd. (1.4 kg/sq. m).

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Note that metal accessories are recommended to terminate the system and control cracking, but not required except over full building expansion joints. Delete "2.4" below if no lathing or accessories are required.

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## 2.4 ACCESSORIES

- A. General: Comply with material provisions of ASTM C 1063 and the requirements indicated below; coordinate depth of accessories with thicknesses and number of coats required.
1. Galvanized Steel Components: Fabricated from zinc-coated (galvanized) steel sheet complying with ASTM A 653, G40 (ASTM A 653M, Z90) minimum coating designation.
- B. Metal Corner Reinforcement: Expanded, large-mesh, diamond-metal lath fabricated from zinc-alloy or welded-wire mesh fabricated from 0.0475-inch-(1.2-mm-) diameter, zinc-coated (galvanized) wire and specially formed to reinforce external corners of work on exterior exposures while allowing full encasement by limestone application.
- C. Casing Beads: Square-edged style, with expanded flanges of the following material:
1. Zinc Alloy: Minimum 0.0207 inch (0.53 mm) thick.
- D. Control Joints: Prefabricated, of material and type indicated below:
1. Zinc Alloy: Minimum 0.0207 inch (0.53 mm) thick.
  2. One-Piece Type: Folded pair of non-perforated screeds in M-shaped configuration, with expanded or perforated flanges.
    - a. Provide removable protective tape on face of control joints.
- E. Expansion Joints:
1. One-Piece Expansion Joints: Fabricated from zinc-coated (galvanized) steel; folded pair of unperforated screeds in M-shaped configuration; with expanded flanges.
- F. Foundation Sill (Weep) Screed: Standard profile designed for use at sill plate line to form stop and prevent limestone from contacting damp earth.
1. Basis of Design Product: SWS Superior Weep Screed (#7 sill screed) as manufactured by Superior Metal Trim.
- G. Lath Attachment Devices: Material and type required by ASTM C 1063 for installations indicated.

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Retain "D" below if system is to be direct applied over smooth finished concrete without lath.

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## 2.5 MISCELLANEOUS MATERIALS

- A. Water for Mixing and Finishing Limestone: Potable.
- B. Steel Drill Screws: For metal-to-metal fastening, ASTM C 1002 or ASTM C 954, as required by thickness of metal being fastened; with pan head that is suitable for application; in lengths required to achieve penetration through joined materials of no fewer than three exposed threads.
- C. Fasteners for Attaching Metal Lath to Substrates: Complying with ASTM C 1063.
- D. Bonding Agent: Versa Bond Thin-Set Mortar by Custom Building Products or approved equal.

- E. [Clear Water Repellent Sealer: Modified Siloxane with Diffused Quartz Carbide, by StoneCoat®. Refer to manufacturer's website for additional information].

## 2.6 MIXES AND COMPOSITIONS

- A. Thoroughly mix 1.25 gallons of water for every 50-pound bag of StoneCoat Carve® or 1.5 gallons for every 50-pound bag of StoneCoat Smooth® in a mechanical mixer of sufficient capacity and power to properly blend materials.

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Make selections below, or if appearance is not known at time of specification preparation, use option 3. Understand that sub-contractors cannot accurately bid a project without specific information relative to texture, pattern, and color. Refer to manufacturer's website for standard color, texture, and coursing patterns available.

<https://stonecoat.com/stonecoat-carve/>  
<https://stonecoat.com/stonecoat-smooth/>

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- B. Color, Texture, Coursing of Finished Limestone Veneer:

1. StoneCoat Carve®: [Fieldstone] [Ashlar] [Cobblestone] [Limestone Block], in coursing, colors, and textures, as selected by Architect.
2. StoneCoat Smooth®: Texture and color as selected by Architect.
3. As selected by Architect from full manufacturer's available range.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine areas and substrates, with applicator present, for compliance with requirements and other conditions affecting performance of the Work.
- B. Verify that secondary moisture barrier is complete, in the proper location, and has been inspected by Contractor, Architect, and authorities having jurisdiction.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Protect adjacent work from soiling, spattering, moisture deterioration, and other harmful effects caused by limestone veneer application.

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Prior to beginning a direct application of system to concrete or masonry substrate, verify that surfaces to which system must bond, are not contaminated with curing compounds, bond breakers, or other contaminants that might affect bond.

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- B. Properly prepare solid substrates for application of limestone veneer which must directly bond to the substrate. Remove contaminants, including curing compounds and bond breakers by necessary means to leave substrate sufficiently absorptive for an adhered hydraulically applied limestone veneer system.
- C. If lath is not utilized, apply a bonding agent to smooth finished concrete substrates in accordance with manufacturer's recommendations.

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Delete 3.3 and 3.4 below if lathing and accessories are not required.

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### 3.3 INSTALLATION OF LATH

- A. Expanded-Metal Lath: Install according to ASTM C 1063.
- B. Install supplementary framing, blocking, and bracing at terminations in work and for support of fixtures, equipment services, and similar work to comply with details indicated or, if not otherwise indicated, to comply with applicable written instructions of lath and furring manufacturer.
- C. Install metal lath in accordance with manufacturer's recommendations.

### 3.4 INSTALLATION OF ACCESSORIES

- A. General: Install according to ASTM C 1063 and at locations indicated on Drawings or if not shown, as recommended in reference standard.
- B. Miter or cope accessories at corners; install with tight joints and in alignment. Attach accessories securely to bases to hold accessories in place and in alignment during limestone installation. Install accessories of type indicated at following locations:
  - 1. External Corners: Install corner reinforcement at external corners.
  - 2. Terminations: Install casing beads, unless otherwise indicated.

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Delete C below for a more natural appearance and where occasional cracking is a desirable feature.  
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- C. Control Joints: Install at locations indicated or, if not indicated, at locations complying with the following criteria and approved by Architect:
  - 1. Where an expansion or contraction joint occurs in surface of construction directly behind membrane.
  - 2. Distance between Control Joints: Dependent on product and substrate. See manufacturer's website for recommendations.
  - 3. Where work areas change dimensions, to delineate rectangular-shaped areas (panels) and to relieve the stress that occurs at the corner formed by the dimension change.

### 3.5 LIMESTONE VENEER APPLICATION

- A. Apply materials, composition, and mixes to comply with ASTM 926 and to manufacturer's recommendations.
- B. Do not use materials that are frozen, caked, lumpy, dirty, or contaminated by foreign materials.
- C. Do not use excessive water in mixing and applying limestone materials.
- D. Hydraulically apply limestone veneer with equipment of sufficient capacity to apply material at not less than 120 psi pressure at nozzle.
- E. Apply limestone veneer to a nominal thicknesses as indicated below, and not less than ½ inch (12 mm) over top of lath at tooled joints.
  - 1. StoneCoat Carve®: Scratch coat at not less than 1/8 inch followed by finish coat of ½-3/4 inch.
  - 2. StoneCoat Smooth®: Scratch coat at not less than 1/8 inch followed by finish coat of not less than 3/8 inch.
- F. Pot Life: Do not apply materials that have been discharged from mixed longer than 30 minutes.
- G. After initial application of limestone veneer, allow surface to set-up sufficiently to allow proper application of texture, coursing, and colorant.
- H. Test surface to determine optimal time for application of field applied sprayed colorants.
- I. Moist-cure finished work in accordance with manufacturer's recommendations.

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Include 3.6 below if a surface sealer is needed to provide additional water penetration resistance and minimize dirt accumulation.  
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### [3.6 SURFACE SEALER

- A. Apply clear sealer with low pressure (20-30 psi) sprayer, at rate and manner as recommended by manufacturer.]

### 3.7 CUTTING AND PATCHING

- A. Cut, patch, replace, repair, and point-up work as necessary to accommodate other work. Repair cracks and indented surfaces. Point-up surfaces around items that are built into or penetrate limestone surfaces.
- B. Repair or replace work to eliminate cracking, dry outs, efflorescence, and similar defects. Repair or replace work as necessary to comply with required visual effects.

### 3.8 CLEANING AND PROTECTING

- A. Remove temporary covering and other provisions made to minimize spattering of limestone veneer on adjacent work. Promptly remove overspray from door frames, windows, and other surfaces. Repair

surfaces stained, marred or otherwise damaged during work. When work is completed, remove unused materials, containers, equipment, and debris.

- B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer that ensures work is without damage or deterioration at the time of Substantial Completion.

**END OF SECTION**