

SECTION 04700

SIMULATED MASONRY

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Manufactured stone veneer.
- B. Manufactured brick veneer.
- C. Mortar.
- D. Metal nails, staples, or screws for fastening lath and accessories.
- E. Metal lath and accessories.

1.2 RELATED SECTIONS

- A. Section 05400 - Cold-Formed Metal Framing: Frame supports for substrate.
- B. Section 06100 - Rough Carpentry: Wall framing and sheathing.
- C. Section 07900 - Joint Sealers: Perimeter sealing at openings.
- D. Section 09200 - Plaster and Gypsum Board: Finish plaster.
- E. Section 10300 - Fireplaces and Stoves.
- F. Section _____ - _____.

1.3 REFERENCES

- A. ASTM C 91 - Specification for Masonry Cement.
- B. ASTM C 150 - Specification for Portland Cement.
- C. ASTM C 177 - Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
- D. ASTM C 207 - Specification for Hydrated Lime for Masonry Purposes.
- E. ASTM C 270 - Specification for Mortar for Unit Masonry.

- F. UL 273 - Test for Surface Burning Characteristics of Building Materials.
- G. Uniform Building Code (UBC) Standard No. 14-1. Kraft Waterproof Building Paper.
- H. Uniform Building Code (UBC) Standard No. 26-10 Parts I and IV: Test Method for Compressive Strength of Cylindrical Concrete Specimens.
- I. _____.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Submit samples for selection under provisions of Section 01300.
- C. Submit manufacturer's installation instructions under provisions of Section 01300.

1.5 QUALITY ASSURANCE

- A. Applicator: Company experienced in installation of simulated masonry of the type specified.
 - 1. Three years experience.
 - 2. _____ years experience.

1.6 MOCK-UPS

- A. Erect mock-up under provisions of Section 01400.
- B. Erect 3-foot by 4-foot (0.914 by 1.219 m) sample panel at job site at location as directed.
- C. Illustrate field pattern of simulated masonry, including color and tooling of joints. Show field cutting of units where required.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Deliver products to site, store, and protect under provisions of Section 01600.

- B. Store mortar and other moisture-sensitive materials in protected enclosures. Handle by methods which avoid exposure to moisture.

1.8 PROJECT CONDITIONS

- A. Maintain materials and surrounding air temperature to minimum 40 degrees F (4 degrees C) prior to, during, and for 48 hours after completion of work.
- B. Protect materials from rain, moisture, and freezing temperatures prior to, during, and for 48 hours after completion of work.
- C. Allow no construction on opposite side of wall during installation and for 48 hours after completion of work.

1.9 WARRANTY

- A. Provide manufacturer's warranty under provisions of Section 01700.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Stone Products Corporation, P.O. Box 270, Napa, CA 94559-0270; ASD. Tel: (800) 255-1727 (US and Canada), (707) 255-1727 (outside USA), Fax: (707) 255-5572; email: cltrdstn@culturedstone.com; website: <http://www.culturedstone.com>
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.
- C. Substitutions: Not permitted.
- D. Provide all simulated masonry from a single manufacturer.

2.2 MATERIALS

- A. Cultured Stone(R), Texture:
 - 1. Type: Carolina LedgeStone:
 - a. Color: Onyx Brown.
 - b. Color: Pewter Gray.
 - c. Color: Silver Sand.
 - d. Color: Vintage Sand.
 - 2. Type: Castle Stone, Gray.

3. Type: Cobblefield(R):
 - a. Color: Austin.
 - b. Color: Bark.
 - c. Color: Brown.
 - d. Color: Desert Blend(R).
 - e. Color: Gray.
 - f. Color: Ohio.
 - g. Color: Texas Cream.
4. Type: Dressed Fieldstone.
 - a. Color: Aspen.
 - b. Color: Brandywine.
 - c. Color: Bucks County.
 - d. Color: Chardonnay.
5. Type: Driftstone:
 - a. Color: Blond.
 - b. Color: Glacier(R).
 - c. Color: Regular.
6. Type: Drystack LedgeStone:
 - a. Color: Caramel.
 - b. Color: Cedar.
 - c. Color: Chardonnay.
 - d. Color: Mist.
 - e. Color: Suede.
7. Type: European Castle Stone:
 - a. Color: Golden Blend.
 - b. Color: Granite.
 - c. Color: Gray.
8. Type: Fieldstone, Napa Valley.
9. Type: Limestone:
 - a. Color: Buckeye.
 - b. Color: Graphite.
 - c. Color: Lake Erie.
 - d. Color: White Vein.
10. Type: Pro-Fit LedgeStone(R):
 - a. Color: Autumn.
 - b. Color: Gray.
 - c. Color: Mojave.
 - d. Color: Platinum.
 - e. Color: Shale.
 - f. Color: Southwest Blend.
11. Type: River Rock:
 - a. Color: Earth Blend.
 - b. Color: Lakeshore Blend.
 - c. Color: Lake Tahoe.
 - d. Color: Michigan.
 - e. Color: Whitewater.
12. Type: Split Face:

- a. Color: Granite.
 - b. Color: Great Lakes.
 - c. Color: Superior.
 - d. Color: Weber Canyon.
13. Type: Split Quarried:
- a. Color: Apache.
 - b. Color: Flintstone.
 - c. Color: Palo Verde.
14. Type: Southern Ledgestone:
- a. Color: Fawn.
 - b. Color: Fog.
 - c. Color: Walnut.
 - d. Color: White Oak.
15. Type: Stream Stone, 'Std' size or 'Std' size with a percentage of 'Skimmers':
- a. Percentage of 'Skimmers': _____.
 - b. Color: Spring.
 - c. Color: Summer.
 - d. Color: Fall.
 - e. Color: Winter.
16. Type: Water Wash:
- a. Color: Tehama.
 - b. Color: Yosemite.
17. Type: Weather Edge Ledgestone:
- a. Color: Fox Valley.
 - b. Color: Mesa.
 - c. Color: Silverado.
 - d. Color: Wisconsin.
18. Type: Blending Textures:
- a. Color: 80 percent Fog Southern Ledgestone with 20 percent Aspen Dressed Fieldstone.
 - b. Color: 80 percent Bucks County Southern Ledgestone with 20 percent Bucks County Dressed Fieldstone.
 - c. Color: 80 percent Rustic Southern Ledgestone with 20 percent Brandywine Dressed Fieldstone.
 - d. Color: 80 percent Chardonnay Southern Ledgestone with 20 percent Chardonnay Dressed Fieldstone.

B. Cultured Brick(R), Texture:

1. Type: Used:
- a. Color: Antique Red.
 - b. Color: California Drift(R).
 - c. Color: Chicago Used.
 - d. Color: Old Used.
 - e. Color: White Speckle.
 - f. Color: Vintage Used.

2. Type: Clinker, Antique Red.

C. Trim Products: Cultured Stone(R):

1. Quoins:

- a. Champagne.
- b. Gray.
- c. Buckskin.
- d. Taupe.

2. Capstones:

- a. Champagne.
- b. Gray.
- c. Buckskin.
- d. Taupe.

3. Water Table/Sill:

- a. Champagne.
- b. Gray.
- c. Buckskin.
- d. Taupe.

4. Keystones:

- a. Champagne.
- b. Gray.
- c. Buckskin.
- d. Taupe.

5. Chateau Window and Door Trim:

- a. Champagne.
- b. Gray.
- c. Buckskin.
- d. Taupe.

6. Trim Stones:

- a. Champagne.
- b. Gray.
- c. Buckskin.
- d. Taupe.

D. Hearthstones:

1. 19 inches by 20 inches (483 x 508 mm):

- a. Color: Blond.
- b. Color: Cream.
- c. Color: Drift.
- d. Color: Gray.
- e. Color: Great Lakes.
- f. Color: Marsh.
- g. Color: Napa.
- h. Color: Silver Sand.
- i. Color: Whitewater.

E. Mortar:

1. Cement: Portland Cement, ASTM C 150, Type I, or Masonry Cement, ASTM C 91, Type N.
 2. Masonry Sand.
 3. Lime: ASTM C 207.
 4. Iron Oxide Pigments.
- F. Masonry Sealer: Breather type (non-film forming) sealer.
- G. Weather-Resistant Barrier: Kraft waterproof building paper, UBC Standard No. 14-1.
- H. Metal Lath:
1. 18 gauge galvanized woven wire mesh.
 2. Galvanized 2.5 lb. flat diamond mesh.
 3. Galvanized 3.4 lb. flat rib.

2.3 MANUFACTURED UNITS - SIMULATED MASONRY

- A. Shipping Weight: 8 to 12 pounds per sq. ft. (3.9 to 5.9 g/sq. cm).
- B. Compressive Strength: Tested in accordance with UBC Standard No. 26-10, Parts I and IV.
- C. Shear (Adhesion) Strength: Tested in accordance with ASTM C 482 using a unit thickness approximately the same as the stone unit.
- D. Thermal Resistance: K factor of 2.82 in accordance with ASTM C 177; R factor of 0.355 per 1 inch of thickness.
- E. Fire Hazard Test on 1-7/8 Inch Thick Sample: Flame Spread 0, smoke development 0, per UL 723.

PART 3 EXECUTION

3.1 PREPARATION

- A. Open Stud:
1. Install paperbacked metal lath to studs using galvanized nails or staples which penetrate a minimum of 1 inch (25 mm) and 4 inches (100 mm) on center.
 2. Apply 1/2 to 3/4 inch (12 to 19 mm) scratch coat and allow to dry 48 hours.
 3. Wrap weather-resistant barrier and metal lath a minimum of 16 inches (400 mm) around all outside and inside corners.

- B. Sheathed Surfaces:
 - 1. Install one layer of weather-resistant barrier with lap joints 4 inches (100 mm) shingle fashion.
 - 2. Apply code-approved metal lath; attach with galvanized nails or staples which penetrate a minimum of 1 inch (25 mm).
 - 3. Apply 6 inches (150 mm) on center vertically, 16 inches (400 mm) on center horizontally.
 - 4. Wrap weather-resistant barrier and metal lath a minimum of 16 inches (400 mm) around all outside and inside corners.

- C. Concrete and Masonry Surfaces (New, Clean, and Untreated):
 - 1. Examine finished surface of newly placed concrete to ensure that no releasing agents (form oils) are present.
 - 2. Etch surfaces containing form oil using muriatic acid; rinse thoroughly and/or score with a wire brush or use high pressure water or sandblasting to remove.

- D. Existing Concrete and Masonry Surfaces:
 - 1. Etch surfaces containing paint, coatings, sealers, or dirt using muriatic acid; rinse thoroughly and/or score with a wire brush or use high pressure water or sandblasting to remove.

- E. Existing Concrete and Masonry Surfaces:
 - 1. Apply metal lath to surfaces, attached with galvanized concrete nails penetrating 1 inch (25 mm) minimum. Apply 6 inches (150 mm) apart, 16 inches (400 mm) on center.

3.2 MORTAR MIXING

- A. Thoroughly mix mortar ingredients in quantities needed for immediate use in accordance with ASTM C 270, Type N.

- B. Do not use anti-freeze compounds to lower the freezing point of mortar.

3.3 APPLICATION

- A. Apply in accordance with manufacturer's installation instructions.

- B. Apply 1/2 to 3/4 inch (12 to 19 mm) of mortar to lath or dampened masonry, stucco, or concrete surfaces, covering a maximum of 10 square feet (0.929 square m) at one time.
- C. Press units firmly into position in soft mortar bed; wiggle and apply slight pressure to unit to ensure firm bonding, causing mortar to extrude slightly around edges of units.
- D. Install hearth pieces in a full 1/2 to 3/4 inch (12 to 19 mm) deep mortar setting bed.
- E. Place units with uniform mortar joints.
 - 1. Joint Width: 1/2 inch (12 mm).
 - 2. Joint Width: 3/4 inch (19 mm).
- F. When installing 'pre-fitted' stone textures, fit units tight against each other with no allowance for mortar joints.
- G. Maintain uniform 3/8 inch (9.5 mm) wide brick joints, horizontal joints level.
 - 1. Head Joints: Evenly spaced and centered above units below.
 - 2. Head Joints: _____.
 - 3. Outside Corner Return Units: Short and long lengths alternated.
- H. Plan work to minimize job site cutting. Perform necessary cutting with proper tools to provide uniform edges; take care to prevent breaking unit corners or edges.
- I. Remove excess mortar; do not allow mortar to set up on face of units.
- J. Point, rake, and tool joints before mortar has set.
- K. Clean and finish joints in accordance with manufacturer's instructions.

END OF SECTION