ProStone®

3-Part Specification

SECTION 04 70 00

MANUFACTURED ASONRY

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GENERAL NOTES TO SPECIFIER:

THIS SPECIFICATION SECTION HAS BEEN PREPARED TO ASSIST DESIGN PROFESSIONALS IN THE PREPARATION OF PROJECT OR OFFICE MASTER SPECIFICATIONS. IT FOLLOWS GUIDELINES ESTABLISHED BY THE CONSTRUCTION SPECIFICATIONS INSTITUTE (CSI), AND THEREFORE MAY BE USED WITH MOST MASTER SPECIFICATION SYSTEMS WITH MINOR EDITING.

EDIT CAREFULLY TO SUIT PROJECT REQUIREMENTS. MODIFY AS NECESSARY AND DELETE ITEMS THAT ARE NOT APPLICABLE. VERIFY THAT REFERENCED SECTION NUMBERS AND TITLES ARE CORRECT. (NUMBERS AND TITLES REFERENCED ARE BASED ON *MASTERFORMAT*, 2004 EDITION).

THIS SECTION ASSUMES THE PROJECT MANUAL WILL CONTAIN COMPLETE DIVISION 1 DOCUMENTS INCLUDING SECTIONS 01 25 13–PRODUCT SUBSTITUTION PROCEDURES, 01 33 00–SUBMITTAL PROCEDURES, 01 62 00–PRODUCT OPTIONS, 01 66 00–PRODUCT STORAGE AND HANDLING REQUIREMENTS, 01 74 00–CLEANING AND WASTE MANAGEMENT, 01 77 00–CLOSEOUT PROCEDURES, AND 01 78 00–CLOSEOUT SUBMITTALS. CLOSE COORDINATION WITH DIVISION 1 SECTIONS IS REQUIRED. IF THE PROJECT MANUAL DOES NOT CONTAIN THESE SECTIONS, ADDITIONAL INFORMATION SHOULD BE INCLUDED UNDER THE APPROPRIATE ARTICLES.

THIS IS A CLOSED PROPRIETARY SPECIFICATION.

NOTES TO THE SPECIFIER ARE CONTAINED IN BOXES AND SHOULD BE DELETED FROM FINAL COPY.

OPTIONAL ITEMS REQUIRING SELECTION BY THE SPECIFIER ARE ENCLOSED WITHIN BRACKETS, E.G. [35] [40] [45]. MAKE APPROPRIATE SELECTIONS AND DELETE OTHERS.

ITEMS REQUIRING ADDITIONAL INFORMATION ARE UNDERLINED BLANK SPACES, E.G. _____ .

BOLD FACE TYPE IDENTIFIES OPTIONAL PARAGRAPHS AND FEATURES THAT MAY BE INCLUDED OR DELETED DEPENDING ON PROJECT REQUIREMENTS. CONVERT THE BOLD FACE TYPE TO REGULAR TYPE WHEN INCLUDING THESE PARAGRAPHS OR FEATURES. WHEN DELETING A PARAGRAPH, BE CERTAIN THAT ALL SUBPARAGRAPHS ARE ALSO DELETED.

REVISE FOOTER TO SUIT PROJECT/OFFICE REQUIREMENTS.

ELECTRONIC VERSIONS OF THIS SPECIFICATION UTILIZE AUTOMATIC PARAGRAPH NUMBERING.

WHEN EDITING IS COMPLETE, DELETE ALL TEXT ON THIS PAGE, THEN REMOVE THE SECTION BREAK AT THE TOP OF THE NEXT PAGE TO REMOVE THIS PAGE FROM THE DOCUMENT.

SPECIFICATION BEGINS ON THE FOLLOWING PAGE.

SECTION 04 70 00

(MasterFormat, 1995 Edition, 04700)

MANUFACTURED MASONRY

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: [Manufactured stone veneer,] [Manufactured stone trim,] and application materials.

B. Related Sections:

ENTER SECTION(S) IN 1. BELOW THAT SPECIFIES SUBSTRATE FOR MANUFACTURED MASONRY. ADD/DELETE OTHER SECTIONS AS APPROPRIATE.

1. _____.
2. **Division 05, or 06 Section specifying weather resistive barrier over framed walls.**
3. **Division 07 Section specifying flashing materials.**
4. **Division 09 Section specifying Portland cement plastering.**
5. **Division 10 Section specifying fireplaces and stoves.**

INCLUDE APPROPRIATE LANGUAGE BELOW IF PRODUCTS SPECIFIED IN THIS SECTION ARE TO BE BID AS ALTERNATES. OTHERWISE DELETE FOLLOWING PARAGRAPH.

C. Alternates:
1. Reference Section 01 23 00−Alternates.

1.02 REFERENCES

A. American Concrete Institute (ACI).

B. American Society for Testing and Materials (ASTM):
1. ASTM C 39, Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
2. ASTM C 67, Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
3. ASTM C 177, Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
4. ASTM C 192, Standard Practice for Making and Curing Concrete Test Specimens in the Laboratory.
5. ASTM D 226 Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing
6. ASTM C 270, Standard Specification for Mortar for Unit Masonry.
7. ASTM C 482, Standard Test Method for Bond Strength of Ceramic Tile to Portland Cement.
8. ASTM D 226, Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
9. ASTM E 2556/E 2556M Standard Specification for Vapor Permeable Flexible Sheet Water Resistive Barriers Intended for Mechanical Attachment.

C. Building Materials Evaluation Commission.

D. International Code Council (ICC) Evaluation Service:
1. ICC-ES Report.

E. Masonry Standards Joint Committee (MSJC) of The Masonry Society.

F. Texas Department of Insurance Product Evaluation.

G. Underwriters Laboratories (UL):
   1. UL 723, Standard for Safety for Surface Burning Characteristics of Building Materials.

H. US Department of Housing and Urban Development (HUD): Material Release Number.

1.03 SUBMITTALS

A. Reference Section 01 33 00−Submittal Procedures; submit following items:
   1. Product Data: Manufactured masonry and application materials including mortar color charts, and water resistive barrier.
   2. Samples: Panel containing full-size samples of specified manufactured masonry showing full range of colors and textures complete with specified mortar.
      a. Actual size of masonry sample approximately 12 by 12 inches (300 by 300 mm).
   3. Quality Assurance/Control Submittals:
      a. Qualifications:
         1) Proof of manufacturer qualifications.
         2) Proof of installer qualifications.
      b. Certificates: ICC-ES Report.
      c. Test Reports for physical properties.
      d. Manufacturer's Installation Instructions.

B. Closeout Submittals: Reference Section 01 78 00−Closeout Submittals; submit following items:
   1. Maintenance Instructions.
   2. Special Warranties.

1.04 QUALITY ASSURANCE

A. Qualifications:
   1. Manufacturer Qualifications:
      a. Minimum five years experience in producing manufactured masonry.
      b. Member of following organizations:
         1) MSJC.
         2) ACI.
         3) ASTM.
   2. Installer Qualifications: Company with documented experience in installation of manufactured masonry including minimum 5 projects within 400 mile radius of this Project.

EDIT FOLLOWING LISTINGS BASED ON PROJECT AND LOCAL REQUIREMENTS. DELETE "BUILDING MATERIALS EVALUATION COMMISSION" EXCEPT FOR CANADIAN PROJECTS.

B. Certifications:
   1. Current ICC-ES Report.
   2. HUD: Material Release Number.
   3. Texas Department of Insurance Product Evaluation.

IF FOLLOWING PARAGRAPH IS RETAINED, INSERT SPECIAL CONDITIONS DESIRED TO BE REVIEWED IN THE BLANK SPACE.

C. **Field Samples: Provide in a location selected by Architect showing representative sample of installed product including penetration and termination details, corner detail, _____, and mortar color and tooling.**

1. Reference Section 01 45 00 − Quality Control.
2. Minimum Size: [4 by 4 feet (1200 by 1200 mm)] [__ by ___ feet (___ by ___ mm)] .
3. Approved field samples may remain as part of completed Work.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Reference Section 01 66 00−Product Storage and Handling Requirements.

B. Follow manufacturer's instructions.

C. Store moisture-sensitive materials in weather protected enclosures.

1.06 PROJECT/SITE CONDITIONS

A. Environmental Requirements: Maintain materials and ambient temperature in area of installation at minimum 40 degrees F (4 degrees C) prior to, during, and for 48 hours following installation.

1.07 WARRANTY

A. Special Warranty: Provide manufacturer's standard limited warranty against defects in manufacturing for a period of 50 years following date of [Substantial Completion] [Final Acceptance].

1.08 MAINTENANCE

A. Extra Materials: Furnish extra manufactured stone material in a variety of shapes and sizes in quantity equal to three percent of the installed stone.

PART 2 - PRODUCTS

2.01 MANUFACTURER

A. ProStone®
2256 Centennial Road
Toledo, OH 43617

Tel: (800) 255-1727
Fax: (866) 213-3037
Website: www.elevatewithstone.com

INSERT NAME, ADDRESS AND PHONE NUMBERS OF LOCAL DISTRIBUTOR BELOW.

1. Manufacturer's Distributor:

B. Substitutions: None permitted.

2.02 MANUFACTURED MASONRY MATERIALS

SELECT PRODUCTS FROM A., B., AND C. BELOW AS REQUIRED FOR THE PROJECT. DELETE THOSE NOT USED.

A. ProStone® Textures:

SELECT EITHER SINGLE TEXTURE OR BLENDED TEXTURE BELOW. FOR SINGLE TEXTURE DESIGNATE TEXTURE NAME AND COLOR. FOR BLENDED TEXTURES, DESIGNATE PERCENTAGE (OF EACH TEXTURE), TEXTURE NAME AND COLOR; FOR EXAMPLE:

a. 80 Percent Ledgestone, Glacier Valley.

b. 20 Percent Aged Fieldstone, Vintage Wine.

SELECT TEXTURES AND COLORS FROM CURRENT PROSTONE® PRODUCT RESOURCES. https://www.allthingsstone.com/ca-en/brands/prostone-exclusively-for-csi/#

1. Single Texture: _____, _____.
2. Blended Textures:
   a. ___ Percent _____, _____.
   b. ___ Percent _____, _____.

B. Manufactured Masonry Physical Properties:

1. Compressive Strength: ASTM C 192 and ASTM C39>, 1800 psi (12.4 MPa), 5 specimen average, 1500 psi (10.3 MPa) minimum for individual unit.
2. Bond Between Stone Unit, Type N or Type SMortar, and Backing: ASTM C 482, 50 psi (345 kPa).
3. Thermal Resistance: ASTM C 177, R-factor, 0.355 per inch (25.4 mm) of thickness.
4. Freeze/Thaw: ASTM C 67, no disintegration and less than 3 percent weight loss.
5. Fire Hazard Test, UL 723:
   a. Flame spread: 0.
   b. Smoke Development: 0.
6. Maximum Veneer Unit Weight: 15 psf (73 kg/m^2).

2.03 RELATED MATERIALS

EDIT FOLLOWING MATERIALS BASED ON LOCAL USAGE AND BUILDING CODE REQUIREMENTS. DELETE MATERIALS SPECIFIED IN SEPARATE SECTIONS.

A. Water Resistive Barrier: [Kraft waterproof building paper, UBC Standard No. 14-1] [No. 15, Type I, asphalt saturated felt, ASTM D 226] or other meeting requirements of ICC-ES AC 38 or other meeting ASTM E 2556/E 2556M.

B. Metal Lath: 2.5 lb/yd2 (1.4 kg/m2) (or heavier) self-furring metal lath meeting ASTM C847;
Welded wire lath complying with ASTM C933;
18 gauge (or heavier) woven wire lath meeting ASTM C1032; or
The lath product is consistent with the AMSV manufacturer's installation instructions and has an evaluation acceptance report from an accredited evaluation service showing compliance with ICC-ES Acceptance Criteria 275 (AC275), or equivalent, and ASTM C1788.

C. Fasteners:

1. Wood framing - For lath, corrosion resistant staples, corrosion resistant roofing nails, or corrosion resistant screws and washers. For cement board, corrosion resistant cement board

screws as recommended by the cement board manufacturer. Fasteners must be of sufficient length to penetrate a minimum of 3/4 inch (19 mm) into framing members.

Metal framing or panels - For lath, corrosion resistant staples, corrosion resistant roofing nails, or corrosion resistant screws and washers. For cement board, corrosion resistant cement board screws as recommended by the cement board manufacturer. Fasteners must be of sufficient length to penetrate a minimum of 3/8 inch (9.5 mm) through metal studs or panels.

Masonry or concrete walls or panels - Corrosion resistant concrete screws or powder actuated fasteners (or cap fastener). For cement board, use 1 ¾ inch to 2 ¼ inch long 3/16 inch diameter concrete screws with 1-¼" diameter 25 gage galvanized washer.

D. Mortar:

Site Mixed: Meets the requirements of ASTM C270 Type N or Type S

Preblended: Meets the requirements of ASTM C1714 /C1714M Type N or Type S

Modified Mortar: Meets the requirements of ASNI 118.4 or ANSI 118.15

1. Mortar Color: Iron oxide pigments.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrates upon which manufactured masonry will be installed.

B. Coordinate with responsible entity to correct unsatisfactory conditions.

C. Commencement of work by installer is acceptance of substrate conditions.

3.02 PREPARATION

A. Protection: Prevent work from occurring on the opposite of walls to which manufactured masonry is applied during and for 48 hours following installation of the manufactured masonry.

B. Surface Preparation: Follow manufacturer's instructions designated below for the appropriate type of manufactured masonry and substrate.

3.03 INSTALLATION

MANUFACTURER'S INSTALLATION INSTRUCTIONS COVER NORMAL INSTALLATION CONDITIONS. UNUSUAL CONDITIONS MAY REQUIRE ADDITIONAL INFORMATION IN THIS ARTICLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR TYPE OF STONES TO BE INSTALLED WITH MORTARLESS JOINTS.

A. Install ProStone® products in accordance with manufacturer's ProStone® installation instructions using [grouted] [mortarless] joints**.**

3.04 FIELD QUALITY CONTROL

INSERT NUMBER OF ANTICIPATED SITE VISITS BELOW. DELETE THIS ARTICLE IF MANUFACTURE'S FIELD SERVICES ARE NOT REQUIRED.

A. Manufacturer’s Field Services: Provide ____ periodic site visits, each of approximately [one] [__] hours duration.

3.05 CLEANING

A. Reference Section 01 74 00−Cleaning and Waste Management.

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

3.06 PROTECTION

A. Protect finished work from rain during and for 48 hours following installation.

B. Protect finished work from damage during remainder of construction period.

END OF SECTION[1]

1[1] Comments or suggestions for improvement to this specification should be addressed to: Westlake Royal Stone Products LLC, 2256 Centennial Road, Toledo, OH 43617