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MANUFACTURED MASONRY VENEER SECTION 04 70 00

PART 1: GENERAL

1.01 SUMMARY

A. Section Includes:

1. Portland cement based manufactured [stone] [and] [brick] veneer.
2. Stone Accessories

ONLY INCLUDE SECTIONS AND DOCUMENTS THAT DIRECTLY AFFECT THE WORK OF THIS SECTION. DO NOT INCLUDE DIVISION 00 DOCUMENTS OR DIVISION 01 SECTIONS SINCE IT IS ASSUMED THAT ALL TECHNICAL SECTIONS ARE RELATED TO ALL PROJECT DIVISION 00 DOCUMENTS AND DIVISION 01 SECTIONS TO SOME DEGREE. REFER TO OTHER DOCUMENTS WITH CAUTION SINCE REFERENCING THEM MAY CAUSE THEM TO BE CONSIDERED A LEGAL PART OF THE CONTRACT. EDIT THE FOLLOWING PARAGRAPHS TO SUIT SPECIFIC PROJECT CONDITIONS.

B. Related sections:

1. Section 05 40 00 - Cold Formed Metal Framing
2. Section 05 50 00 - Metal Fabrications
3. Section 06 10 00 - Rough Carpentry
4. Section 06 16 00 - Sheathing
5. Section 07 92 00 - Joint Sealants
6. Section 09 29 00 - Gypsum Board

7. Section 07 21 00 - Thermal Insulation
8. Section 07 27 00 - Air Barriers
9. Section 07 62 00 - Sheet Metal Flashing and Trim
10. Section 08 11 00 - Metal Doors and Frames
11. Section 08 14 00 - Window Doors
12. Section 08 14 00 - Entrances and Store Fronts
13. Section 08 44 00 - Curtain Walls and Glazed Assemblies
14. Section 08 44 00 – Windows

1.02 REFERENCES

- A. **American National Standards Institute (ANSI A118.4) Prepackaged Latex Portland Cement Mortar.**

- B. **American Society for Testing and Materials (ASTM):**
 1. ASTM C39 - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
 2. ASTM C67 - Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile
 3. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar
 4. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes
 5. ASTM C270 - Standard Specification for Mortar for Unit Masonry
 6. ASTM C482 - Standard Test Method for Bond Strength of Ceramic Tile to Portland Cement
 7. ASTM C567 - Standard Test Method for Determining Density of Structural Lightweight Concrete
 8. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation
 9. ASTM C847 - Standard Specification for Metal Lath
 10. ASTM C932 - Standard Specification for Surface-Applied Bonding Compounds for Exterior Plastering.
 11. ASTM C979 - Standard Specification for Pigments for Integrally Colored Concrete
 12. ASTM C1032 - Standard Specification for Woven Wire Plaster Base
 13. ASTM C1059 - Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete
 14. ASTM C1063 - Standard Specification for Installation of Lathing and Furring to receive Interior and Exterior Portland Cement-Based Plaster
 15. ASTM C1289 – Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board
 16. ASTM C1329 - Standard specification for Portland cement
 17. ASTM E2556 - Standard Specification for Vapor Permeable Flexible Sheet Water-Resistive Barriers Intended for Mechanical Attachment

- C. **Canadian Standards Association (CSA):**
 1. CAN/CGSB-51.32-M77, Sheathing, Membrane, Breather Type
 2. CAN/CSA A179-14, Mortar and Grout for Unit Masonry
 3. CAN/CSA A371-14, Masonry Construction for Buildings
 4. CSA A23.1-09/A23.2-09, Concrete Materials and Methods of Concrete Construction/Test Methods and Standard Practices for Concrete
 5. CSA A3000-13, Cementitious Materials Compendium
 6. CSA G30.18-09(R2014), Carbon Steel Bars for Concrete Reinforcement
 7. CSA S304-14, Design of Masonry Structures

D. **Underwriter Laboratories of Canada (ULC):**

1. CAN/ULC- S102-10, Surface Burning Characteristics of Building Materials and Assemblies
2. CAN/ULC-S114-05, Standard Method of Test for Determination of Non-combustibility in Building Materials
3. CAN/ULC-S134-13, Standard Method of Fire Test for Exterior Wall Assemblies

INCLUDE THE FOLLOWING SECTION IF THIS PROJECT REQUIRES A GREEN RATING SYSTEM. EDIT TO SUIT WHICH RATING SYSTEM IS REQUIRED ON THIS PROJECT, IF THE LEED RATING SYSTEM HAS NOT BEEN SELECTED.

E. **Canadian Green Building Council (CaGBC):**

1. LEED Canada for New Construction (NC) and Major Renovations 2009
2. LEED Canada for Core and Shell Development (CS) 200

1.03 SUBMITTALS

- A. Reference Section 01 33 00-Submittal Procedures; submit following items:
1. **Product Data:** Submit data sheets for manufactured masonry and application materials including weather resistive barriers.
 2. **Samples:**
 - a. Submit sample boards of proposed colour and texture of Stone Veneer and accessories for consultant approval.
 - b. [Where blending of styles and/or colours offered by the manufacturer are selected for the project, submit for approval of sample boards of each design blend, at a size large enough to show the design intent for Consultant's approval.]
- B. **Closeout Submittals:**
1. Maintenance Instructions
 2. Special Warranties

1.04 QUALITY ASSURANCE

- A. **Installer Qualifications:** Experienced Mason with minimum 5 years of experience and familiar with local building codes.
- B. **Manufacturer Qualification:** Innovative Stonecraft Inc.

IF RETAINING THE BELOW SECTION, EDIT OR DELETE THE PARTS BASED ON YOUR PROJECT REQUIREMENT

- C. **Field Samples:** Prepare sample at 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.
 4. Obtain Architect's approval.

1.05 DELIVERY, STORAGE AND HANDLING

- A. **Reference Section 01 66 00–Product Storage and Handling Requirements.**
- B. **Follow manufacturer’s instructions.**

1.06 PROJECT/SITE CONDITIONS

- A. **Cold weather installations:** Maintain materials and ambient temperature at minimum 40 degrees F (4.5 degrees C) prior to, during, and for 48 hours following installation.
- B. **Hot weather installations:** Mist water on the scratch coated surface and the backs of the masonry veneer for installations that exceed 90 degrees F (32 degrees C).

1.07 WARRANTY

- A. **Special Warranty:** Manufacturer’s standard warranty coverage against defects in materials when installed in accordance with the Masonry Veneer Manufacturers Association (MVMA) installation instructions.

PART 2: PRODUCTS

2.01 MANUFACTURER

- A. **Innovative Stonecraft Inc.**
2401 Wheaton Ave
Saskatoon, SK S7L 5Y3
Tel: 306 244 4305
Email: info@innovativestonecraft.ca
Website: www.innovativestonecraft.ca

INSERT NAME, ADDRESS AND CONTACT INFORMATION OF LOCAL DISTRIBUTOR BELOW

- 1. Manufacturer’s Distributer:

- B. **Substitution: Not Permitted.**

2.02 MATERIALS

SELECT THE DESIRED STONE OR BRICK VENEER PRODUCT FROM INNOVATIVE STONECRAFT WEBSITE OR CATALOG AND INSERT THE DETAILS BELOW. IF CHOOSING A CUSTOM COLOR THAT IS NOT IN THE CATALOGUE WRITE “CUSTOM COLOR”. ALSO FILL IN THE STONE ACCESSORIES SECTION AND THE COLOR. DELETE THE SECTIONS NOT REQUIRED FOR YOUR PROJECT.

A. **Stone Veneer**

1. Profile: _____. Include matching corners.
2. Stone Accessories: _____.
 - a. Color: [Buff] [Charcoal] [Light Grey] [Brown]

B. **Brick Veneer**

1. Profile: _____. Include matching corners.
 - a. Color: _____.

C. **Veneer Units Properties:**

1. Compressive Strength: ASTM C 192 and ASTM C 39, greater than 1,800 psi (12.4MPa).
2. Shear Bond: ASTM C 482: 50 psi (345kPa), minimum.
3. Freeze-Thaw Test: ASTM C 67: Less than 3 percent weight loss and no disintegration.
4. Thermal Resistance: ASTM C 177: 0.473 at 1.387 inches thick
5. Weight per square foot: 2012 IBC and 2012 IRC, ASTM C1670, less than 15 pounds.

EDIT BELOW MATERIALS PER LOCAL BUILDING CODE. DELETE FROM THIS SECTION IF SPECIFIED IN OTHER SECTIONS.

- D. **Weather Barrier:** [ASTM D 226, Type 1, No. 15, non-perforated asphalt-saturated felt paper] [UBC Standard 14-1, Kraft waterproof building paper] or [UBC Standard No. 14-1, Kraft Waterproof Building Paper] or [ICC AC-38, synthetic house wrap]
- E. **Reinforcing:** [ASTM C 847, 2.5lb/yd² (1.4kg/m²) galvanized expanded metal lath] or complying with local code agency requirements for the type of substrate over which stone veneer is installed.
- F. **Fasteners:**
 1. Wood Studs: Minimum 3/4" (19 mm) crown galvanized staples or minimum 1/8" (3.1 mm) shank diameter galvanized nails that penetrate the stud minimum 3/4" (19 mm).
 2. Metal Studs: Minimum 7/16" (11.1 mm) head diameter, corrosion resistant, self-drilling self-tapping, pancake head screws of sufficient length to penetrate 3/8" (9.5 mm) minimum by threads into stud.

EDIT SECTION BELOW TO MEET YOUR PROJECT INSTALLATION REQUIREMENTS. DELETE THE SECTIONS THAT ARE NOT REQUIRED.

G. **Mortars and Grouts:**

1. Standard Installation (Grouted Joints):
 - a. Mix mortar in accordance with ASTM C 270
 - b. Polymer modified mortar complying with ANSI A118.4
 - c. [Add color pigment in grout joint mortar in accordance with pigment manufacturer's instructions not to exceed 10% by weight of cement.]

OR

1. Jointless/Dry-Stacked Installation:
 - a. Polymer modified mortar complying with ANSI A118.4
 - b. Mortar prepared to comply with ASTM C270. Type S mortar
 - c. [Add color pigment in accordance with pigment manufacturer's instructions]

PART 3: EXECUTION

3.01 EXAMINATION

- A. Examine substrates upon which work will be installed.
- B. Coordinate with responsible entity to perform corrective work on unsatisfactory substrates.
- C. Commencement of work by installer is acceptance of substrate.

3.02 PREPARATION

- A. Protection: Protect adjacent areas to the work.
- B. Surface Preparation: Prepare substrate in accordance with manufacturer's installation instructions for the type of substrate.

3.03 INSTALLATION

- A. Install and clean stone in accordance with Masonry Veneer Manufacturer Association (MVMA) installation instructions for Standard Installation (Grouted Joint) or Jointless/Dry-Stacked installation as specified above.
- B. [Apply repellent in accordance with repellent manufacturer's application instructions.]

EDIT / DELETE BELOW SECTION TO MEET YOUR PROJECT NEEDS.

3.04 FIELD QUALITY CONTROL

- A. Manufacturer's Field Representatives: Provide [____] periodic site visits as requested by Architect.

3.05 CLEANING

- A. Cleaning: Reference Section 01 74 00 - Cleaning and Waste Management.
- B. Remove excess mortar and smears using a soft bristle brush within 1 to 2 hours of installation.
- C. Remove protective coverings from adjacent work.
- D. Cleaning Veneer Units:
 - 1. Wash with soft bristle brush and water/granulated detergent solution.
 - 2. Rinse immediately with clean water
- E. Removing Efflorescence:
 - 1. Allow veneer to dry thoroughly.
 - 2. Scrub with soft bristle brush and clean water
 - 3. Rinse immediately with clean water; allow to dry.
 - 4. If efflorescence is still visible, contact manufacturer for assistance.

END OF SECTION

This document was designed specifically for Innovative Stonecraft Inc. All comments, questions, or concerns need to be forwarded to Innovative Stonecraft Inc.

Thank you.