

# INSTALLATION SPECIFICATIONS

## ENGINEERED CAST STONE - MEDALLIONS, FRIEZES AND SCULPTED PANELS

### PART 1 • GENERAL

#### **1-1 DESCRIPTION:**

This section covers all material, labor, accessories and appliances necessary for the complete installation of Sculpted Panels made with Engineered Cast Stone manufactured by Pineapple Grove Designs.

#### **1-2 MANUFACTURER:**

All Engineered Cast Stone Panels used in this work shall be manufactured by Pineapple Grove Designs, Palm Beach County, FL 33425, (800) 771-4595, and shall meet the specifications as indicated in the manufacturer's Tech Data sheets.

#### **1-3 SUBMITTALS:**

- A)** Shop Drawings: Submit in accordance with Architect's Section. Indicate materials, construction, dimensions, locations, connections and installation details.
- B)** Custom Work: Furnish dimensioned camera-ready line art of proposed custom designs to manufacturer.
- C)** Product Data: Submit manufacturer's descriptive literature and installation instructions.
- D)** Samples: Submit samples of Engineered Cast Stone material to architect for approval of color, shade, finish and material.

#### **1-4 ORDERING:**

All Engineered Cast Stone Panels used in this work will be manufactured specifically for this project. Material order shall be placed with Pineapple Grove Designs immediately to prevent delays.

### PART 2 • PRODUCTS

#### **2-1 COMPOSITION:**

All Engineered Cast Stone Panels shall be a matrix of proprietary ingredients including cement, crushed and graded stone, AR glass fiber, iron oxide pigment and admixtures necessary to achieve required physical properties. Non-metallic reinforcement material will be incorporated in each panel as required for additional structural properties.

Ingredients Include:

- A)** Cement: Type 1 White meeting ASTM C150.
- B)** Aggregate: Graded and washed natural sands and crushed graded stone meeting ASTM C33, except that gradation may vary to achieve desired finish and texture;  $\pm$  20% Post Consumer Glass and Aggregate.
- C)** Fiber: Alkaline resistant AR glass fibers.
- D)** Coloring: Inorganic synthetic iron oxide pigments meeting ASTM C979 dispersed integrally throughout the mix.
- E)** Admixtures: Proprietary list of ingredients necessary to achieve required air entrainment, low permeability, accelerated cure, increased flexural and compressive strength and freeze-thaw resistance.

#### **2-2 RELATED MATERIALS:**

- A)** Mechanical Fasteners (Lugs): 1/4" x 20 female stainless steel threaded embed anchors shall be cast in the rear of the Engineered Cast Stone Panel by Pineapple Grove Designs. Manufacturer shall also provide 1/4" x 20 stainless steel studs to be threaded into each anchor at job site. Studs shall project from rear of Engineered Cast Stone Panel a minimum of 1" for insertion into hole drilled in the structural substrate of the mounting wall. Number of anchors provided will vary by size of Engineered Cast Stone Panel.
- B)** Adhesive: Construction adhesive or cement thinset mortar with bonding agent manufactured by and provided by others specifically designed for vertical tile or masonry bonding.
- C)** Joint Finishing: Caulked joints and perimeter shall be caulking sealant type and color recommended by caulking manufacturer and approved by architect. Grouting or pointing mortar by others shall be composed of one part non-staining cement (ASTM C91), one part hydrate lime (ASTM C207 Type S) and four parts clean, washed sand (ASTM C144). Coloring pigments may be added as required. The architect shall approve color of mortar before proceeding with grouting or pointing.

#### **2-3 FABRICATION:**

Engineered Cast Stone Panels shall be manufactured in accordance with manufacturer's strict guidelines for ingredient ratios, material mixing and consolidation, mold surface integrity, color and finish uniformity and curing methods for maximum strength achievement.

#### **2-4 SHIPPING:**

All Engineered Cast Stone Panels shall be carefully loaded and packed for transportation exercising customary and reasonable precautions against damage while in transit. All products shall be released to freight carrier in a sound, unblemished and unbroken condition.

### PART 3 • EXECUTION

#### **3-1 INSPECTION:**

- A)** Inspect adjacent construction for conditions that would prevent proper installation of Engineered Cast Stone Panels. Inspect substrate for soundness and surface adhesion quality.
- B)** Upon delivery, inspect packing crate for any signs of damage in transit and note damage on shipping manifest prior to accepting delivery. Immediately notify shipper of any visible damage to the unpacked crate. Inspect Engineered Cast Stone Panels inside crates for any hidden damage from shipping. Notify manufacturer of any hidden damage within 24

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hours of receipt. Inspect product for any variations in color, finish, tolerance or design as shown on manufacturer's shop drawings or architect's plans. Report any discrepancy to manufacturer.

### 3-2 INSTALLATION:

Install Engineered Cast Stone Panels true, plumb and level in accordance with manufacturer's installation instructions and Tech Data sheet. All pieces shall be set by experienced and qualified stone masons or tile setters in accordance with the shop drawings and construction documents.

- A)** Installer shall use necessary personal safety equipment to protect against hazards associated with stone and mortar fabrication, assembly and installation.
- B)** All Engineered Cast Stone Panels shall be installed according to specifications included herein. Additional specifications shall apply if requested. Ultimate connection design is the responsibility of Building Design Engineer, Architect or otherwise responsible person charged with the design connection.
- C)** All substrate to receive Engineered Cast Stone Panels shall be prepared as indicated in manufacturer's Tech Data sheet. Substrates shall be clean of any oil, paint, dust or debris. Surface shall be smooth, level, sound and capable of a successful and permanent adhesion to the setting material.
- D)** When setting with mortar, all pieces not thoroughly wet shall be drenched with clear potable water and excess water removed just prior to setting.
- E)** Unless otherwise noted, every piece shall be set in a full bed of mortar with all vertical joints flushed full. All anchors shall be firmly in place and all anchor holes and similar holes filled completely with mortar.
- F)** After setting, if required, each piece shall be braced with a diagonal support to the face and rest on a previously installed temporary horizontal ledger to be removed after full cure of setting material. The face of each piece shall then be sponged off to remove any splashed mortar or mortar smears.
- G)** All pieces shall be protected from splashing mortar or damage by other trades. Any foreign matter splashed or rubbed on the pieces shall be removed immediately.
- H)** A foam or wood "plug" 1/2" larger than the intended piece shall be temporarily installed on the substrate in applications where Engineered Cast Stone Panels are not immediately available or construction conditions prohibit a timely installation. This plug shall be removed and typical installation shall proceed according to this section.
- I)** 1/4" minimum tolerance required in surrounding opening dimensions (i. e. 24" sq. Engineered Cast Stone Panels requires a 24 1/2" sq. opening).

### 3-3 PATCHING:

- A)** The repair of chipped or damaged Engineered Cast Stone Panels shall be done only by mechanics skilled in this work with materials furnished by the manufacturer and according to his direction.
- B)** Engineered Cast Stone Panels shall show no obvious repairs or imperfections other than the minimal color variations when viewed with the unaided eye under good typical lighting.

### 3-4 CLEANING:

The face of all Engineered Cast Stone Panels shall be cleaned where necessary by scrubbing with a bristle fiber brush, using soap powder and water and shall be rinsed thoroughly with clean running water. No acid or prepared cleaners shall be used without the approval of the manufacturer.

### 3-5 SEALING:

After cleaning and drying and full cure of any cementitious grouts (approximately 30 days), Engineered Cast Stone Panels may be sealed with any commercially available masonry or stone sealer. Follow sealer manufacturer's instructions and first apply to an inconspicuous test area to determine job specific results.

## PART 4 • HANDLING AND STORAGE

### 4-1 HANDLING:

All Engineered Cast Stone Panels shall be received and unloaded at the project site by competent workmen with the necessary care and handling to avoid damage and soiling to Engineered Cast Stone Panels

### 4-2 STORAGE:

Engineered Cast Stone Panels shall be stored on the job site in the same crating and packaging used for shipment. The packages and/or crates shall be stored on a level area clear of the ground and protected from the weather and other trades. If pieces are to be stored after uncrating, they should be placed carefully on edge and secured on non-staining supports. Pieces shall be stacked a maximum of one row high and protected from the weather and damage.