

SECTION 06 20 23
INTERIOR FINISH CARPENTRY
(Architectural elements made of Molded Stone)

PART 1 - GENERAL

1.01 SUMMARY

- A. Decorative Molded Stone (Factory-molded architectural elements for interior use).
 - 1. This section includes furnishing all materials, labor, equipment, and related services necessary to supply and install decorative Molded Stone fabrications, parts and/or panels for interior use as indicated in the contract documents, and in compliance with applicable codes.

1.02 RELATED SECTIONS

- A. Section 06 20 00 Millwork
- B. Section 06 61 00 Simulated Stone Fabrications
- C. Section 09 27 13 Glass Fiber Reinforced Plaster Fabrications
- D. Section 06 10 00 Rough Carpentry - for connection attachment to structural steel framing.
- E. Section 09 22 00 Supports for Plaster and Gypsum Board – for connection attachment to structural steel framing.

1.03 REFERENCES

- A. ASTM International (ASTM)
 - 1. E84 Standard Test Method for Surface Burning Characteristics of Building Materials
 - 2. C754 Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.
 - 3. C1007 Specification for Installation of Load Bearing (Transverse and Axial) Steel Studs and Related Accessories.

1.04 SUBMITTALS

- A. Product Data: Submit product data sheets for each specified product.
- B. Samples: Submit 2 flat samples of the Molded Stone of each color and texture indicated.
- C. Shop Drawings: Submit drawings for approval showing plans, sections, details, joint treatment, built-in reinforcement, fastening/mounting methods, color references, and the relationship of the Molded Stone parts to the surrounding construction.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer shall have a minimum of 5 years experience having successfully supplied Molded Stone parts and panels for other projects similar in scope and complexity for the work of this Contract.
- B. Installer Qualifications: Installer shall have a minimum of 5 years experience having successfully completed projects of similar scope and complexity for the work of this Contract.
- C. Substrates to accept Molded Stone parts shall be installed straight and true and shall be free of obstructions and interference that prohibits correct alignment and attachment of the Molded Stone parts.

- D. The Alpha gypsum cement used to make the Molded Stone parts is to be mined and processed in the USA with a purity of not less than 90% in accordance to ASTM C1355. Provide a Manufacturer's Certification of Raw Materials.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Molded Stone parts shall be kept clean and dry and stored to prevent distortion, warping, and other physical damage in accordance with the manufacturer's recommendations.
- B. The Molded Stone parts shall not be stacked or placed on other parts. Do not "lean" as this may result in warpage. Parts must be protected from jobsite damage prior to, during, and after installation.

1.07 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install the Molded Stone parts until the building is enclosed and weatherproof, wet work is complete, and the HVAC system maintains temperature and humidity at normal occupancy levels.
- B. Acclimatize the Molded Stone parts for a minimum of 48 hours to the ambient temperature and humidity levels of spaces in which they are to be installed.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

- A. Formglas Products Ltd. – Tel: 416-635-8030
Contact your local representative – www.formglas.com/representatives or send requests for quotations directly to estimating@formglas.com

2.02 QuarryCast® (Architectural elements made of Molded Stone).

- A. Fabrications: Molded Stone parts are to be made in accordance with the approved shop drawings and consistent with the approved samples.
- B. Materials: Molded Stone parts to be made with Alpha gypsum cement materials with integral color pigments, aggregates and glass fiber reinforcement for strength.
- C. Color and Texture: Molded Stone parts to be supplied in the color and texture as per approved samples.
- D. Embedments: Molded Stone parts to have built-in reinforcement of galvanized steel or wood, if required, for the purposes of suspension, attachment and stiffness.
- E. "Veneer" Molded Stone panels are available. Premade outside 90° "Veneer" corners can also be supplied.
- F. Sealer: Molded Stone parts to have a factory applied clear (non-gloss) sealer.
- G. Joint Treatment: As detailed in the approved drawings. Follow manufacturer's instructions.
- H. Adhesive: Installer to use a manufacturer recommended adhesive to ensure proper adhesion of parts and prevent bleed through.

2.03 PHYSICAL PROPERTIES

- A. Molded Stone parts to be made of non-combustible materials:
 - 1. Materials which will not ignite and burn. Such materials are consisting entirely of cement, concrete, gypsum, glass, sand and other stone aggregates or similar materials or any combination thereof; or,
 - B. Molded Stone parts shall be tested in accordance to ASTM E84 Standard for Surface Burning Characteristics of Building Materials and have:
 - 1. Flame Spread Index = 0
 - 2. Smoke Development Index = ≤ 25

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Site Conditions: Verify the conditions for compliance with the requirements including environmental conditions, installation tolerances and other conditions affecting the installation and performance of Molded Stone parts. Any unsatisfactory conditions to be corrected prior to installation.
- B. Field Dimensions: Field dimensions to be verified including those not shown on the drawings. Any discrepancies are to be brought to the attention of the Architect with resolutions to the discrepancies to be mutually agreed upon by all parties involved. Details of any required changes must be incorporated into the manufacturer's shop drawings prior to commencing the manufacture of the Molded Stone parts.

3.02 PREPARATION

- A. Substrate: Substrates to accept Molded Stone parts, provided by others, shall be installed straight and true within 1/8 in. in 8 ft. (3mm in 2500mm) and shall be free of obstructions and interference that prohibits correct attachment of the Molded Stone parts.
- B. Metal framing members, provided by others, shall be of the proper size and design for the intended use and shall be sufficient to properly support the installed Molded Stone parts. Metal framing members shall be installed in accordance with ASTM Standards C754 or C1007 as required.

3.03 INSTALLATION

- A. It is the Installer's responsibility to verify scope and to order the correct quantities of parts (including a waste allowance).
- B. Supply and install shims and brackets required for work in this section and to ensure a solid and secure installation of the Molded Stone parts.
- C. Position the Molded Stone parts carefully into place and align with adjacent parts and materials in accordance to the drawings. Attach Molded Stone parts to substrates and framing with fastening devices and adhesives as specified by the manufacturer and use concealed shims as required.
- D. As with most natural stone, Molded Stone parts will have texture and color shading variations. DO NOT try to match shadings in specific areas. Mix varying parts at random.
- E. Where Molded Stones parts are suspended, use the suspension points indicated on the shop drawings as a minimum requirement and use additional support(s) as required.
- F. Complete joint treatment, hole filling, patching and cleaning in accordance to the manufacturer's recommendations. Plan in advance to secure Architect approval of any use of color matching caulk (to be supplied by the installer).

END OF SECTION

Note to Specifiers: Depending on the nature of the construction project and other related work to be carried out, QuarryCast® Architectural Elements made of Molded Stone may be specified in other MasterFormat sections. For example, Section 09 27 13 Glass Fiber Reinforced Plaster Fabrications and Section 06 61 00 Simulated Stone Fabrications. Delete this note.