

SECTION 07 42 43.06 – COMPOSITE STONE WALL PANELS – FACE ATTACHED

PART 1 GENERAL

1.1 ADMINISTRATIVE REQUIREMENTS

A. Pre-Installation Conference:

1. Attendance: [Architect,] [Owner,] [Contractor,] [Construction Manager,] [Design/Builder] installer, and related trades.
2. Review: Project conditions, manufacturer requirements, delivery and storage, staging and sequencing, and protection of completed work.

1.2 SUBMITTALS

A. Action Submittals:

1. Shop Drawings: Illustrate products, installation, and relationship to adjacent construction.
2. Product Data: Manufacturer's descriptive data and product attributes.
3. Samples: [Selection samples.] [Verification samples.]

B. Informational Submittals:

1. Certificate of Compliance: Certification that installed products meet specified design and performance requirements.

C. Closeout Submittals:

1. Maintenance Data.
2. Extra materials: [] panels in [] x [] size.

1.3 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Fire propagation characteristics: Panels tested and approved for use in NFPA 285 rated wall assembly.
2. Flame spread rating: Class A, tested to ASTM E84.

B. Manufacturer Qualifications: Minimum [20] [] years' experience in manufacture of composite stone wall panels.

C. Fabricator and Installer Qualifications:

1. Minimum [3] [] years' experience in work of this Section.
2. Approved by composite stone wall panel manufacturer.

D. Mockup: [One full size panel.] [] full size panels.] Approved mockup [may] [may not] remain as part of the Work.

1.4 SYSTEM DESCRIPTION

A. Design Requirements:

1. Live and dead loads in accordance with Building Code.
2. Minimum wind pressures in accordance with [ASCE 7,] [Building Code,] [], with maximum allowable deflection of [L/240] [L/360] [], tested in accordance with ASTM E1592].
3. Movement caused by an ambient temperature range of [120] [] degrees F and a surface temperature range of [160] [] degrees F.
4. System design to be performed by qualified professional engineer licensed in State of [].

1.5 WARRANTY

A. Manufacturer's 60 year warranty against structural failure of composite stone wall panels.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Contract Documents are based on Steni by Omnis Panels, LLC., www.omnisusa.com.

B. Substitutions: [Refer to Division 01.] [Not permitted.]

2.2 MATERIALS

A. Composite Stone Wall Panels:

1. Source: Steni Vision.

2. Description: Fiberglass-reinforced composite stone sheets with electron beam-cured acrylic coating on exterior face.

3. Panel thickness: Nominally 1/4 inch.

4. Flexural strength: Minimum 30 N/sq mm, tested to CSTB Method.

5. Tensile strength: Minimum 15 N/sq mm, tested to ISO/R 527-66.

6. Thermal conductivity: 0.55 W/(M k), tested to SINTEF NBI.

7. Thermal expansion: 0.021 to 0.026 mm/(m k), tested to SINTEF NBI at minus 20 to plus 65 degrees

C.

8. Hard/soft body impact: Category 1, tested to EAD 090062.

9. Moisture absorption: Tested to ASTM D570, 1 m deep at 25 degrees C and 100 percent relative humidity.

a. After 24 hours: ca 0.5 percent.

b. After 28 days: ca 2.0 percent.

10. Design: [_____] [To be selected from manufacturer's full pattern range.]

11. Texture: [High gloss.] [Matte.] [Half matte.]

B. Subframing: Aluminum, [mill finish.] [anodized.] [painted.] [powder coated.]

**** OR ****

C. Subframing: Steel, [galvanized.] [painted.] [powder coated.]

**** OR ****

D. Subframing: Wood, covered in EPDM foil tape.

2.3 ACCESSORIES

A. Fasteners: Stainless steel, type and size recommended by composite stone wall panel manufacturer.

2.4 FABRICATION

A. Fabricate panels in accordance with manufacturer's instructions and approved Shop Drawings.

B. Shop fabricate panels to greatest extent possible.

C. Pre-drill fastener holes.

D. Prepare special shapes and cutouts.

E. Miter edges where indicated.

F. Prefabricate outside corners.

PART 3 **EXECUTION**

3.1 INSTALLATION

A. Install composite stone wall panels in accordance with manufacturer's instructions and approved Shop Drawings.

END OF SECTION