SECTION 07 42 43.02 – COMPOSITE STONE WALL PANELS – ADHESIVE 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. Flame spread rating: Class A, tested to ASTM E84.

B. Manufacturer Qualifications: Minimum [5] [__] 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.
3. Required, project-specific training by Omnis or adhesive 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

Commented [ZD1]: This section includes editing notes to assist the user in editing the section to suit project requirements. These notes are included as hidden text, and can be revealed or hidden by the following method in Microsoft Word:

Display the FILE tab on the ribbon, click OPTIONS, then DISPLAY. Select or deselect HIDDEN TEXT.

This guide specification section has been prepared by Omnis Panels, LLC for use in the preparation of a project specification section covering Petrarch composite stone wall panels with adhesive attachment for exterior wall assemblies.

The following should be noted in using this specification:

Hypertext links to manufacturer websites are included after manufacturer names to assist in product selection and further research. Hypertext links are contained in blue, e.g.:

www.omnisusa.com

Optional text requiring a selection by the user is enclosed within brackets and as red text, e.g.: AColor: [Red.] [Black.]"

Items requiring user input are enclosed within brackets and as red text, e.g.: "Section [__ __ __ - _____]."

Optional paragraphs are separated by an "OR" statement included as red text, e.g.:

**** OR ****

For assistance in the use of products in this section, contact Omnis Panels, Inc. by calling 630-463-0519 or visit their website at www.omnisusa.com.

This specification has been prepared based on SimpleSpecs™ specification templates. The SimpleSpecs™ Master Guide Specification system comprises a full architectural master specification that can be used to specify all project requirements. For additional information on SimpleSpecs™ products visit the ZeroDocs.com website at www.zerodocs.com.

Commented [ZD2]: Retain this paragraph for a pre-installation conference held prior to start of product installation.

Commented [ZD3]: Retain this paragraph to specify minimum experience of fabricator and installer.

Commented [ZD4]: Retain this paragraph for a full-scale mockup at the project site.

A. Manufacturer's 50 year warranty against structural failure of composite stone wall panels.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Contract Documents are based on Petrarch by Omnis Panels, Inc., www.omnispanels.com.

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

Commented [ZD5]: Edit the following to indicate whether substitutions will be allowed for the products in this section.

2.2 MATERIALS

A. Composite Stone Wall Panels:
1. Source: Petrarch.
2. Description: Composite sheets consisting of natural stone and/or calcium carbonate granules or powder, polyester resin, glass fiber, pigments, and fire retardant, homogeneous color throughout.
3. Panel thickness: Nominally 5/16 inch.
4. Modulus of rupture: 5690 PSI, tested to ASTM D790/D790M.
5. Tensile strength: 2960 PSI, tested to ASTM D638.
6. Thermal conductivity: 4.862 BTU-in/hr sq ft, tested to ASTM C177.
7. Thermal expansion: 15.8 x 10^{-6} in/in degree C.
8. Izod impact: 0.49 ft-lb/in of notch, tested to ASTM D256.
9. Barcol hardness: 64, tested to ASTM D785.
10. Moisture absorption: Maximum 0.08 percent, tested to ASTM D570.
11. Color: [____.] [To be selected from manufacturer's full color range.]
12. Texture: [Riven.] [Smooth.] [Smooth Matt.] [Riven Matt.]

Commented [ZD6]: Retain this paragraph for 5/16 inch thick panels.

**** OR ****

B. Composite Stone Wall Panels:
1. Source: Petrarch.
2. Description: Composite sheets consisting of natural stone and/or calcium carbonate granules or powder, polyester resin, glass fiber, pigments, and fire retardant, homogeneous color throughout.
3. Panel thickness: Nominally 7/16 inch.
4. Modulus of rupture: 5850 PSI, tested to ASTM D790/D790M.
5. Tensile strength: 2880 PSI, tested to ASTM D638.
6. Thermal conductivity: 5.822 BTU-in/hr sq ft, tested to ASTM C177.
7. Thermal expansion: 15.8 x 10^{-6} in/in degree C.
8. Izod impact: 0.49 ft-lb/in of notch, tested to ASTM D256.
9. Barcol hardness: 64, tested to ASTM D785.
10. Flame spread rating: 15, tested to ASTM E84.
11. Moisture absorption: Maximum 0.06 percent, tested to ASTM D570.
12. Color: [____.] [To be selected from manufacturer's full color range.]
13. Texture: [Riven.] [Smooth.] [Smooth Matt.] [Riven Matt.]

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C. Subframing: Aluminum, [mill finish with primer.] [Anodized.] [Painted.] [Powder coated.]

**** OR ****

D. Subframing: Steel, [galvanized with primer.] [Painted.] [Powder coated.]

**** OR ****

E. Subframing: Wood, [primed.] [covered in EPDM foil tape.]

2.3 ACCESSORIES

A. Structural Silicone Setting System:
1. Aluminum bearing plates: 6063-T5 alloy, 0.090 inch thick, clear anodized finish.
2. Bearing plate fasteners: Stainless steel screws, type and size recommended by composite stone panel manufacturer.
3. Structural silicone: Single component structural silicone glazing sealant, type recommended by composite stone Bostik PanelTack HM System or Sika SikaTack Panel 50 System.
4. Cellular foam adhesive tape: Type and size recommended by composite stone panel manufacturer.
5. Adhesion promoter: Type recommended by composite stone panel manufacturer.
6. Setting blocks: Silicone, 80 to 90 Shore A durometer, size recommended by composite stone 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 inside and outside corners.

G. Fabricate panels with shiplap (Martlet) joints.

Commented [ZD8]: Retain this paragraph for shiplap panel joints.

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