

## SECTION 09 7500

### STONE WALL FACINGS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. [Aluminum honeycomb] [Polymer aluminum] [Ceramic back] [Glass back] [Fire-retardant] [Fiberglass] core interior stone wall panels.
  - 2. [Metal framing support components.] [Setting materials.]
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 04 4246 - Exterior Lightweight Stone Cladding System.
  - 3. Section 07 4446 - Lightweight Stone Faced Wall Panels.
  - 4. Section [07 9200 - Joint Sealers.] [\_\_ \_\_\_\_ - \_\_\_\_\_.]

##### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. B221 - Standard Specification for Aluminum-Alloy Extruded Bars, Rods, Wires, Shapes and Tubes.
  - 2. C880 - Standard Test Method for Flexural Strength of Dimension Stone.
  - 3. D897 - Standard Test Method for Tensile Properties of Adhesive Bonds.
  - 4. D1761 - Standard Test Method for Mechanical Fasteners in Wood.
  - 5. E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Include plans, elevations, and details, size and layout of panels, trim, accessories, supports, and attachments.
  - 2. Samples: [4 x 4] [\_\_ x \_\_] inch panel samples showing maximum variations in color and texture.

##### 1.4 QUALITY ASSURANCE

- A. Design Concept:
  - 1. Requirements of Contract Documents that relate to interior stone cladding system are intended to establish overall design intent and standard of quality.
  - 2. Structural design of system and details and methods of construction are Contractor's responsibility. Size and thickness of members, location and type of supports and attachments, and details of functional and concealed components that are not of an aesthetic nature may be modified from that shown if a more efficient method can be used.
  - 3. Maintain design concept shown, without materially increasing member sizes and without altering profiles, finishes, and alignments. Make modifications from what is shown as may be necessary to meet performance requirements and coordinate work.
  - 4. Show deviations from requirements of Contract Documents on Shop Drawings.
- B. Installer Qualifications:
  - 1. Minimum [3] [\_\_] years [documented] experience in work of this Section.
  - 2. Approved by panel manufacturer.
- C. Obtain stone from single quarry and from same area within quarry.
- D. Mockup:

1. Size: [4] [ ] feet high x [8] [ ] feet wide.
2. Show:
  - a. Stone color and texture range.
  - b. [Support components and attachments.]
  - c. Joint profile.
3. Locate [where directed.] [\_\_\_\_\_.]
4. Approved mockup may [not] remain as part of the Work.

E. Pre-Installation Conference:

1. Convene at site [2] [ ] weeks prior to beginning work of this Section.
2. Attendance: Architect, [Owner,] [Contractor,] [Construction Manager,] panel manufacturer's representative, panel installer, and related trades.
3. Review and discuss: Contract Documents, panel manufacturer's literature, project conditions, scheduling, and other matters affecting application.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store panels off ground; prevent contact with materials that could cause staining or damage.

1.6 WARRANTIES

- A. Provide manufacturer's 10 year warranty against delamination and separation of panel components.

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

- A. Contract Documents are based on products by TerraCORE Panels LLC ([www.terracorepanels.com](http://www.terracorepanels.com))
- B. Substitutions: [Under provisions of Division 01.] [Not permitted.]

2.2 MATERIALS

- A. Stone Wall Panel Description: [Aluminum honeycomb] [Polymer aluminum] [Ceramic back] [Glass back] [Fire-retardant] [Fiberglass] core.
- B. Stone Wall Panels:
1. Type: Natural stone bonded to [aluminum] [fiberglass] top sheet and lightweight aluminum honeycomb core, with aluminum sheet backing.
  2. Adhesive bond: Average bond strength of 284 PSI, tested to ASTM D897.
  3. Tensile bond strength for adhesive: Average of 358 PSI, tested to ASTM D897 after 25 thermocycles.
  4. Shear load strength for riveted brackets: Average of 172 PSI, tested to ASTM D1761.
  5. Flexural strength: Minimum 1854 PSI, tested to ASTM C880 with Mocha Creme stone.
  6. Fire hazard classification: Maximum flame spread/smoke developed rating of 10/155, tested to ASTM E84.
  7. Thicknesses:
    - a. Stone: [4] [6] [8] [10] mm.
    - b. [Aluminum] [Fiberglass] top sheet: 1 mm.
    - c. Honeycomb core: [8] [12] [17] [23] [ ] mm.
    - d. Aluminum backing sheet: 1 mm.
    - e. Overall panel thickness: [ ] mm.
  8. Stone facings:
    - a. Stone type: [\_\_\_\_\_.]
    - b. Surface finish: [Honed.] [Flamed.] [Polished.] [Antiqued.] [Sandblasted.] [Acid washed.] [Bushhammered.]

\*\*\*\* OR \*\*\*\*

- C. Stone Wall Panels:
1. Type: Natural stone bonded to polymer aluminum core.
  2. Thicknesses:
    - a. Stone: 4 mm.
    - b. Core: 3 mm.
    - c. Overall panel thickness: 7 mm.
  3. Stone facings:
    - a. Stone type: [\_\_\_\_.]
    - b. Surface finish: [Honed.] [Flamed.] [Polished.] [Antiqued.] [Sandblasted.] [Acid washed.] [Bushhammered.]

\*\*\*\* OR \*\*\*\*

- D. Stone Wall Panels:
1. Type: Natural stone bonded to ceramic core.
  2. Thicknesses:
    - a. Stone: 3 mm.
    - b. Core: 9 mm.
    - c. Overall panel thickness: 12 mm.
  3. Stone facings:
    - a. Stone type: [\_\_\_\_.]
    - b. Surface finish: [Honed.] [Flamed.] [Polished.] [Antiqued.] [Sandblasted.] [Acid washed.] [Bushhammered.]

\*\*\*\* OR \*\*\*\*

- E. Stone Wall Panels:
1. Type: Natural stone bonded to [clear] [green tinted] annealed glass.
  2. Thicknesses:
    - a. Stone: 5 mm.
    - b. Core: [6] [8] [10] mm.
    - c. Overall panel thickness: [11] [13] [15] mm.
  3. Stone facings:
    - a. Stone type: [\_\_\_\_.]
    - b. Surface finish: [Honed.] [Flamed.] [Polished.] [Antiqued.] [Sandblasted.] [Acid washed.] [Bushhammered.]

\*\*\*\* OR \*\*\*\*

- F. Stone Wall Panels:
1. Type: Natural stone bonded to fire retardant core.
  2. Thicknesses:
    - a. Stone: 7 mm.
    - b. Core: [5] [6] [8] [10] mm.
    - c. Overall panel thickness: [12] [13] [15] [17] mm.
  3. Stone facings:
    - a. Stone type: [\_\_\_\_.]
    - b. Surface finish: [Honed.] [Flamed.] [Polished.] [Antiqued.] [Sandblasted.] [Acid washed.] [Bushhammered.]

\*\*\*\* OR \*\*\*\*

- G. Stone Wall Panels:
1. Type: Natural stone bonded to fiberglass core.

2. Thicknesses:
  - a. Stone: [6] [7] mm.
  - b. Core: [1] [2] mm.
  - c. Overall panel thickness: [\_\_] mm.
3. Stone facings:
  - a. Stone type: [\_\_\_\_.]
  - b. Surface finish: [Honed.] [Flamed.] [Polished.] [Antiqued.] [Sandblasted.] [Acid washed.] [Bushhammered.]

## 2.3 ACCESSORIES

- A. Aluminum Extrusions:
  1. ASTM B221, 6063-T5 or T6 alloy and temper.
  2. Manufacturer's standard [[wide] [narrow] interlocking channel] [Z-clip] [anchor plate] support system.
  3. Finish: [Clear] [Bronze] anodized where exposed.
  4. Fasteners: Type suited to application, stainless or corrosion resistant coated steel.

\*\*\*\* OR \*\*\*\*

- B. Stone Adhesive: Latapoxy 300 Adhesive or Latapoxy 310 Stone Adhesive by Laticrete International, Inc. or approved substitute.
- C. Joint Sealers: Specified in Section [07 9200.] [\_\_ \_\_\_\_.]

## 2.4 FABRICATION

- A. Fabricate support components using manufacturer's standard system. Prepare panels to receive supports.
- B. Overall System Depth: [[\_\_] inches.] [[\_\_] mm.]
- C. Where indicated fabricate [90] [\_\_] degree panel returns in factory with hairline joints to appear as monolithic stone.
- D. [Apply Dupont Stain Protected, Protect Plus Surfaces fast dry sealer to exposed stone surfaces at factory.] [Do not seal stone at factory.]

## PART 3 EXECUTION

### 3.1 INSTALLATION

- A. Install panel system in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Set panels aligned, level, and plumb.
- C. Fasten receiving channels to supports. Snap panels into receiving channels.
- D. Install with 3/8 inch wide joints.
- E. Fill panel joints with joint sealer as specified in Section [07 9200.] [\_\_ \_\_\_\_.]
- F. Allowable Tolerances:
  1. Maximum offset from alignment of adjacent members in same plane: [1/16] [\_\_] inch.
  2. Maximum variation from plane: [1/8] [\_\_] inch in 10 feet, noncumulative.
  3. Maximum variation from indicated position: [1/4] [\_\_] inch.

\*\*\*\* OR \*\*\*\*

### 3.2 INSTALLATION

- A. Install panels in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Set panels with stone adhesive using the spot bonding method.
- C. Set panels aligned, level, and plumb.
- D. Install with 3/8 inch wide joints.
- E. Fill panel joints with joint sealer as specified in Section [07 9200.] [\_\_ \_\_\_\_.]
- F. Allowable Tolerances:
  - 1. Maximum offset from alignment of adjacent members in same plane: [1/16] [\_\_] inch.
  - 2. Maximum variation from plane: [1/8] [\_\_] inch in 10 feet, noncumulative.
  - 3. Maximum variation from indicated position: [1/4] [\_\_] inch.

END OF SECTION