

**SECTION 04220**  
**Vitrified Clay Wall Coping**  
**2014**

**PART 1 GENERAL**

**1.1 DESCRIPTION**

A. SCOPE OF WORK

1. Provide new coping as indicated on Drawings.

B. RELATED SECTIONS

1. Section 02050: Selective Demolition.
2. Section 07650: Metal Flashing.
3. Section 04510: Masonry Cleaning.

C. REFERENCES

1. ASTM C1167- Standard Specification for Clay Roof Tiles
2. ASTM C67- Standard Methods of Sampling and Testing Brick and Structural Clay Tile.
3. ASTM C212- Standard Specification for Structural Clay Facing Tile

**1.2 QUALITY ASSURANCE**

- A. Subcontracts Qualification: All work to be performed by mechanics experienced in handling and setting of clay wall coping.

- B. Approved Manufacture: Superior Clay Corporation- 6566 Superior Road, Uhrichsville OH 44683 740-922-4122 or 1-800-848-6166.

**1.2 SUBMITTALS**

- A. Submit under provisions of Section 01300.

- B. Submit manufactures product literature including drawing indicating design of coping with overall unit dimensional information.

C. Samples:

1. Unglazed: Submit one 4 inch by 4 inch sample showing clay color and texture for approval.
2. Glazed: Submit one 4 inch by 4 inch sample showing clay body, glaze color and texture for approval.

D. Material Testing:

1. Testing in accordance with ASTM standards. Use a certified laboratory for testing. Manufacture to supply current test data.

**1.4 PRODUCT HANDLING, STORAGE, AND DELIVERY**

- A. Delivery shall be made to correspond to sequencing as directed by customer unless otherwise stated.
- B. The contractor shall become responsible for the product at time it is received.
- C. The contractor has a 72-hour window for inspecting delivery. Any non-conformity must be communicated immediately in writing to the seller, within that time frame.
- D. If damaged in transit, the seller shall be notified in writing. The responsibility for cost of such replacement shall be determined at the point of delivery. The customer shall assume the responsibility for necessary proof.
- E. Storage at job site.
  1. Units shall stay in their original packing material until ready to use.
  2. Pallets shall not be stacked and remain in upright position.
  3. Store on firm, level and smooth surface, protect from weather to prevent staining.

**1.5 JOB CONDITIONS**

- A. Cold Weather: Perform work in accordance with ACI 530.1 current edition.
- B. Hot Weather: Perform work in accordance with ACI530.1 current edition.
- C. At the end of each workday, or during rainy weather, cover masonry work exposed to weather with waterproof coverage and securely anchor as necessary.

**PART 2 PRODUCTS**

**2.1 MATERIAL**

- A. Terra Cotta *Camelback* wall coping, manufactured by Superior Clay Corporation, Uhrichsville Ohio 44683. 1-800-848-6166.

**B. Quality Control:**

1. Wall Coping shall conform to the physical requirements listed below as performed in accordance with ASTM specifications
  - A. Absorption- C67
  - B. Freeze Thaw- C67
  - C. Compressive Strength- C67
2. Dimension Tolerance: Variation in dimensions shall not exceed +/- 5% in any direction from dimension specified. ASTM-C1167
3. Finish faces that will be exposed when installed shall be free from chips, blisters or other imperfections detracting from the appearance when viewed for a distance of 40 ft. ASTM-C1167

**MATERIAL SPECIFICATIONS**

Test Average (based on 5 samples)	Method	Criteria
Absorption (5 hour boil) - 8%	ASTM-67	ASTM-C212
Freeze/Thaw Resistance	ASTM-C67	ASTM-C1167
Compressive Strength-8000psi	ASTM-C67	ASTM-C212

4. If mechanical anchoring is required, all anchors shall be stainless steel or non corrosive metals.

**2.2 MORTARS**

- A. Mortars shall comply with ASTM C270
- B. Grouts shall comply to ASTM C476
- C. Cementious Materials:
  1. Portland Cement: ASTM C150, Type II or I: Low-alkali per ASTM C150, table 2.
  2. Hydrated Lime: ASTM C207, Type S.
- D. Aggregates:
  1. Sand: Clean, washed natural or manufactured silica sand grated according to ASTM C144. Sand contains no more than 50 parts per million of chloride ions and shall be free of organic contaminants.

2. Course Aggregates: ASTM C404 with a maximum size of 3/8" diameter. Aggregates shall contain no more than 50 parts per million of chloride ions and shall be free of organic contaminants.

E. Water: Potable, clean and free from injurious amounts of oil, alkali, organic matter or other deleterious material.

### **PART 3 EXECUTION**

#### **3.1 INSTALLATION GENERAL**

A. Establish lines, levels and coursing. Protect from disturbance.

B. Coping shall be set in bed of mortar laid upon existing or new wall. Head joints may be either of mortar or approved caulking.

C. Exposed free standing construction, subject to absorption of water through mortar joints and liable to injury from subsequent freezing, or expansion of improper filling material, should generally be left unfilled and should be ventilated by means of small, inconspicuously placed weep holes.

D. Maintain uniform joint widths.

E. All anchors shall be either stainless steel or non corrosive metals.

F. Flash per methods as required by referenced standards.

#### **3.2 MIXING MORTAR**

A. Mixing and proportion cementitious materials for site made setting beds:

1. Setting Mortar:

Use Type M mortar, in accordance with ASTM C270 with the following material mix proportion by volume:

Portland cement: 1 part

Hydrated Lime: ¼ part

Sand: 3 ½ parts

a. Color of mortar shall match building's existing cleaned mortar, or as specified by the architect.

b. Use colored sand to obtain desired mortar color.

B. Pointing Mortar: Use setting mortar for new construction. If new construction is adjacent to existing, match color of mortar.

Mortar for pointing:

Use Type N mortar, in accordance with ASTM C270, with the following partial mix proportion by volume:

Portland Cement: 1 part

Hydrated Lime: 1 part

Sand: 6 parts

- a. Color of mortar shall match building existing cleaned mortar, or as specified by architect.
- b. Use color sand to obtain mortar color.

### **3.3 POINTING JOINTS**

#### **A. Pointing**

1. Refer to ASI 530.1 current edition for hot and cold weather construction.
2. Wet joint thoroughly prior to pointing and between pointing lifts. Allow water to soak in so that no free standing water is visible.
3. Point in two lifts, pack joints to within 3/8" of surface on first lift; allow first lift to set prior to pointing second lift.
4. As soon as mortar has taken its initial set, tool joint surfaces to be slightly concave.
  - a. After initial 24 hour set, moisten until cured. Allow mortar to cure completely prior to cleaning operations, minimum 30 days.
  - b. Clean up after pointing operations are complete. Remove mortar stains, excess mortar, etc., from all surrounding surfaces. Do not use acids, rinse thoroughly after clean up operations.

#### **B. Caulked Joints:**

1. Use approved sealant as specified.
  - a. Rake joints out 1/2". Install backer rods and sealant per manufacturers specifications.

### **3.4 CUTTING AND FITTING**

- A. Cutting and fitting of coping may be required at site. Cutting shall be done by the installation contractor.

**END OF SECTION**

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