

Recommended Specifications

Include in 04220 Concrete Masonry Units

Part 1 - General

1.01 Section Includes

- A. Concrete unit masonry, including ground-face units (Hill Country Stone) where indicated.

1.02 Related Sections

- A. Section 07190 - Water Repellents

1.03 References

- A. ASTM C90 - Hollow Load Bearing Concrete Masonry Units
- B. ASTM C129 – Hollow Non-Load Bearing Concrete Masonry Units

1.04 Submittals

- A. Samples for initial selection of ground-face masonry units from manufacturer's standard colors.
- B. Full-size units as samples for verification of ground-face masonry units selected.
- C. Material certificates for ground-face units, signed by manufacturer, certifying that ground-face units comply with the requirements.
- D. Submit manufacturer's product literature.
- E. Material test reports from a qualified independent testing agency, indicating and interpreting test results relative to compliance of ground-face units with requirements indicated.
- F. Qualification data for manufacturer of ground-face units specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Lists of completed projects with project names and addresses, and names and addresses of architects and owners.

1.05 Quality Assurance

- A. **Manufacturer Qualifications:** The ground-face concrete masonry manufacturer shall have a minimum of five years experience manufacturing and grinding ground-face CMU at their current facility.
- B. **Preconstruction Testing:** Employ and pay a qualified independent testing agency to test ground-face units for strength, absorption, and moisture content per ASTM C140.
- C. **Single-Source Responsibility:** Obtain ground-face concrete masonry units from one source and by a single manufacturer for each color required.
- D. **Mockup:** Prior to installing ground-face concrete unit masonry, construct 4' x 4' sample wall panels of ground-face concrete masonry to remain for the duration of the project. After sample panels have been properly cleaned and are dry, apply FBP-707 Ground-Face Concrete Masonry Acrylic Sealer. Architect to verify that sample panel conforms aesthetically to selections made from sample submittals and demonstrates aesthetic effects of materials and execution required for installed work.
- E. All ground-face concrete masonry units shall be factory-ground. Units not ground in the factory will not be acceptable.
- F. Ground-face concrete masonry units shall specifically conform to paragraph 7.2.1 of ASTM C90 with regard to imperfections (chips and cracks).

1.06 Delivery, Storage and Handling

- A. Ground-face concrete masonry units shall be delivered to the jobsite banded on wood pallets with protective material between layers of units.
- B. Store ground-face concrete masonry units on elevated platforms, under waterproof cover, and in a dry location to protect them from moisture, temperature changes, and contaminants. Do not install wet units.
- C. Handle ground-face concrete masonry units with extreme care to avoid chippage and breakage.

Part 2 - Products

2.01 Ground-face Concrete Masonry Units

- A. Ground-face concrete masonry units shall be made from natural and manufactured aggregates, cement and color.

All of these materials are derived from nature and will vary in uniformity of size, shape, texture and particle color. The manufacturer shall exercise reasonable care in the manufacturing process to minimize these variations in size, shape, texture and particle color so that completed product will match approved samples and mockup. Some variation in color and texture will be acceptable to the extent the approved samples and mockup exhibit variation. Edge and corner chips will be acceptable to the extent ASTM C90, paragraph 7.2.1 allows chips and cracks.

- B. Basis of Design: Provide Hill Country Stone as manufactured by Featherlite Building Products, 508 McNeil Road, Round Rock, Texas 78681 (512) 255-2573.
1. All ground faces shall have a factory-applied coating of clear, VOC-compliant acrylic sealer.
 2. Provide special shapes for lintels, corners, jambs, sash, control joints, headers, bonding, and other special conditions.
 3. Provide bull-nose/square-edged/chamfered units for outside corners, as indicated on plans.
 4. All ground-face units shall be manufactured with integral water repellent "Dry-Block" as manufactured by Grace Construction Products.
 5. Comply with ASTM C90 or C 129 and as follows:
 - a. Unit compressive strength:
 - 1) ASTM C90 1,900 psi
 - 2) ASTM C129 600 psi
 - b. Weight classification: light weight or medium weight depending on color selection.
 - c. Size: Manufactured to the dimensions indicated on drawings within tolerances specified in ASTM C90, except that grinding removes approximately 1/16" additional per face.
 - d. Finish: Exposed faces of ground-face units shall match color, pattern, and texture of architect's submittal selection.
- C. Ground-face Concrete Masonry Cleaner: Clean ground-face masonry using Burnished Custom Masonry Cleaner as manufactured by ProSoCo, Inc. Follow ProSoCo's product data instructions for proper application. No other cleaning agents may be used without specific written approval of Architect.

Part 3 - Execution

3.01 Laying Ground-face Concrete Masonry Units

- A. Lay ground-face units only when lighting is adequate.
- B. Cut ground-face units only with a motor-driven saw, using diamond or abrasive blades and OSHA compliant dust collection systems.
- C. Take ground-face units from multiple pallets for blending.
- D. Align ground-face units level, plumb and true with uniform concave tooled 3/8-inch-wide joints. Scored units shall be tuck-pointed and tooled with a concave jointer to match head and bed joints.
- E. Raked joints shall not be used on exterior faces of walls.
 - a. All exterior ground-face units shall be laid using mortar with integral water repellent admixture "Dry-Block Mortar Admixture" at the rate recommended by Grace Construction Products.
- F. Flashing, Weep Holes and Control Joints: Install flashing, weep holes and control joints as specified herein and indicated on the drawings. (Go to www.featherlitetexas.com and click on "VISIT OUR NCMA TEK MANUAL" link for the National Concrete Masonry Association's latest information on location of flashings, weep holes and control joints.)
- G. Cover walls each day after installation to keep open wall protected and dry.
- H. During installation, keep ground-face masonry units clean daily using brushes, burlap, etc.
 1. No high-pressure spray (power wash) cleaning methods shall be used.

Please Note: The initial factory applied coating is a part of the coating system designed to protect the finish during construction and to facilitate cleaning. During the cleaning process, some or all of the initial coating will be stripped. The result will be an uneven appearance in color and sheen. Field applied coatings are required to complete the coating system and restore uniform color and sheen.

Include in Division 7 Water Repellents

Part 2 - Products

2.01 Clear Coatings

- A. Ground-face Concrete Masonry Water Repellent Protection (Field Applied): WRP-700 as distributed by Featherlite Building Products, 508 McNeil Road, Round Rock, Texas 78681, (512) 255-2573
- B. Ground-face Concrete Masonry Acrylic Sealer (Field Applied): FBP-707 as distributed by Featherlite Building Products, 508 McNeil Road, Round Rock, Texas 78681, (512) 255-2573.

3.01 Field Coat Application

- A. Weather Exposed Walls: Water-Repellent Protection
 - 1. After the final clean down when the walls are dry, apply ground-face concrete masonry water repellent protection, WRP-700, as specified herein to all walls laid with ground-face concrete masonry units with one flood coat using an industrial pump sprayer.
 - 2. After water repellent protection has cured as recommended by manufacturer, apply one coat of FBP-707 Ground-face Concrete Masonry Acrylic Sealer evenly as specified herein without runs or drips, using airless spray equipment.
- B. Walls Not Exposed to Weather: Non-Water-Repellent Protection
 - 1. After the final clean down when the walls are dry, apply a jobsite application of Ground-face Concrete Masonry Acrylic Sealer, FBP-707, as specified herein to all walls with ground-face units.
 - 2. Apply one coat evenly without runs or drips, using airless spray equipment.

Failure to follow all of the above recommendations may result in unacceptable appearance and performance.

Include in 04100 Mortar for Unit Masonry

1.01 Section Includes:

Mortar for unit masonry, including ground-face units (Hill Country Stone).

1.02 Related Sections

04220 Concrete Masonry Units

1.03 Mortar shall be ASTM C270 portland cement-lime per proportion specification requirements.

1.04 Admixtures: - Dry-block mortar admixture shall be used in mortar for concrete masonry units containing Dry-block integral water repellent.