

SECTION 04 22 00 - STANDARD CONCRETE UNIT MASONRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Standard concrete masonry units (non-decorative).
2. See other Division 04 Sections for other types of unit masonry to be built into unit masonry assemblies.

1.2 SUBMITTALS

A. Material Certificates: For each type of product indicated. Include statements of material properties indicating compliance with requirements including compliance with standards and type designations within standards.

1. Provide statement from masonry unit manufacturer that proposed masonry cleaner will not discolor or cause fading of masonry color.

B. Material Test Reports: For masonry units, substantiating compliance with requirements.

1.3 QUALITY ASSURANCE

A. Fire-Resistance Ratings: Where indicated, provide materials and construction identical to those of assemblies with fire-resistance ratings determined per ASTM E 119 by a testing and inspecting agency, by equivalent concrete masonry thickness, or by other means, as acceptable to authorities having jurisdiction.

B. Field Constructed Mock-Ups: Build mock-up to verify selections made under sample submittals and to demonstrate aesthetic effects.

1. Build mock-up as part of unit masonry mock-up as specified in Division 04 Section "Common Work Results for Masonry" to represent completed masonry work for qualities of appearance, materials and construction to be approved by the Owner's Representative.

1.4 PROJECT CONDITIONS

A. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.

1. Remove any ice or snow formed on masonry bed by carefully applying heat until top surface is dry to the touch.

- B. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.
- C. Do not place concrete masonry units directly on the ground while being stored.

PART 2 - PRODUCTS

2.1 CONCRETE MASONRY UNITS (CMUs)

A. General:

- 1. Shapes: Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
- 2. Integral Water Repellent: For concrete masonry units exposed to weather (painted or unpainted), provide units made with integral water-repellent admixture that does not reduce flexural bond strength.
- 3. Construction: Modular size, straight, uniform, sound, clean and free from cracks and chips. Texture shall be fine, based on a block mix approximately 3.00 fineness modulus.

B. Concrete Masonry Units: ASTM C 90.

- 1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of **1900 psi (13.1 MPa)**.
- 2. Weight Classification: Normal weight.

2.2 MASONRY ACCESSORIES

- A. Refer to Division 04 Section "Common Work Results for Masonry" for ties and anchors, embedded flashing materials, miscellaneous masonry accessories, and insulation.

2.3 MASONRY CLEANERS

A. Proprietary Cleaner: Concentrated, general-purpose acidic cleaner

- 1. Products: As specified in Division 04 Section "Common Work Results for Masonry."

2.4 MORTAR AND GROUT MIXES

- A. Refer to other Division 04 Section "Common Work Results for Masonry" for mortar and grout mixes.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Install units in the bond pattern indicated in strict accordance with manufacturer's instructions and as specified in Division 04 Section "Common Work Results for Masonry."

3.2 FIELD QUALITY CONTROL

- A. Refer to Division 04 Section "Common Work Results for Masonry."
- B. Concrete Masonry Unit Test: For each type of unit provided, per ASTM C 140.

END OF SECTION 04 22 00

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