

DIVISION 4 - MASONRY

A. SPECIFICATIONS

Masonry products shall be furnished and installed in accordance with the recommendations of the Colorado Masonry Institute and the latest editions and applicable portions of ASTM standards for installation of masonry products. Specification description of methods and materials shall clearly outline all requirements of the work. ASTM Standards numbers should be used as reference only to expand or substantiate the basic information shown in the specification. Shop drawings and/or manufacturers submittals for reinforcement, grout mix designs, and masonry units shall be required.

B. SAMPLES

1. Physical full size samples of each type of brick and block shall be provided to Owner for approval and acceptance prior to ordering material. Sample walls, 5' x 7' in size, shall be provided if requested.
2. All brick or block for the entire project shall be supplied from a single run of brick or block for color uniformity.

C. STANDARDS AND TESTING

1. Call out specific Brick Institute of America, Concrete Masonry Association of America, ANSI, ASTM, and other applicable standards.
2. Require prism tests, if size of project warrants, which will be paid for by Owner.
3. On additions, materials and colors shall match (compliment) existing masonry.

D. MORTAR AND GROUT

1. List all mortar materials. Use ASTM designation numbers for each.
2. Mortar proportions. Mortar shall have a minimum compressive strength of 1,800psi at 28 days. Grout shall have a minimum compressive strength of 2,500psi at 28 days. Design mix shall be submitted, with tests being made at the Owner's option and expense. Use of fly ash and calcium chloride admixtures are prohibited.
3. On additions, observe mortar color before specifying, and require color matching, including possible use of white cement and coloring agent, if necessary.
4. Grout Proportions. Specify in accordance with structural requirements for this project. Specify minimum strength required at 28 days. Design mix shall be submitted.

E. BRICK AND BLOCK

1. Materials:
 - a) Brick. Brick from at least two manufacturers should be selected and included in the specifications by name by the Architect.
 - b) Masonry Block. Specify color, texture, classification and compressive strength. Require bullnose block at all external corners in building interior and all special shapes required to complete the design detail.
 - c) All materials should match those used on approved sample panel, where sample panel is specified.
 - d) Seal exterior walls, especially concrete block and specify appropriate through wall flashing.
 - e) Use of split face or ground face CMU shall be reviewed and approved by the Owner.

F. ACCESSORIES

1. Call for specific engineered masonry ties at masonry veneer construction, to suit wall construction.
2. Call for all miscellaneous accessories, including but not limited to reinforcing steel, horizontal reinforcing, flashing and insulating materials.
3. Provide for cornerstone, time capsule, or other historic storage device or method.

G. REINFORCING

1. Specify placement of masonry reinforcing type, size, and spacing.
2. Call for cleanouts for grout lifts of more than 4 feet. Cleanouts should not be visible after completion of wall.

H. EXECUTION

1. Specify mortar batching controls applicable to the job.
2. Specify hot and cold weather requirements for masonry work.
3. Tool all exposed joints. Concave round is preferred.
4. Specify requirements for replacement or patching of damaged masonry units.
5. Specify brick cleaning materials and methods approved by manufacturer of masonry units. If possible, specify that masonry cleaning be done within a short period of being laid, and not at end of construction.
6. Masonry block units should be cleaned of all mortar spots, fins, and projections. Block wall surface should be smooth to the touch prior to painting.
7. Apply sealant and anti-graffiti material to walls vulnerable to vandalism, as approved by Owner.
8. Seal exposed interior faces of integral color or ground face masonry units.

I. CONSTRUCTION SHORING

Construction shoring is required by Contractor. Wind danger is high in much of the School District.

<<<<END OF DIVISION 4>>>>