

DIVISION 4 – MASONRY**4.1 Masonry Units**

All concrete masonry units (CMU) shall be 8 inch by 16 inch face size, thicknesses as indicated on the Drawings, and conform to the "Standard Specifications for medium and or normal weight Hollow Load-Bearing Concrete Masonry Units," ASTM C90, Type I, Grade 4. Aggregate shall conform to ASTM C33 for split face units and ASTM C331 for smooth face units.

All masonry exposed on the exterior of the building shall be either colored split face or colored smooth face concrete masonry units. Provide colored smooth face unit at the metal siding and coping interfaces. Color shall be selected from standard manufacturer's colors by the Owner. All exterior concrete block shall be made with polymer chemicals to aid in low water absorption and be or be similar to "Dry Block" as manufactured by Grace Construction Products.

Provide bullnose units at all external corners, door and window jambs, and other openings exposed on the interior or exterior of the buildings. Provide solid units, jamb blocks, 4" high units, etc., as required by the Work.

Reference standard, "Specification for Design and Construction of Concrete Masonry" by the National Concrete Masonry Association.

4.2 Mortar Type

Mortar for unit masonry shall conform to ASTM C270, Type S, with a minimum compressive strength of 2,000 psi ASTM C270. Mortar color shall match masonry units.

4.3 Water Repellant Admixture

For use in all CMUs and CMU mortar: Integral water repellent admixture shall be a compound designed to reduce capillarity. Provide Dry-Block Mortar admixture as manufactured by Grace Construction, or approved equal.

4.4 Structural Grout Requirements

Structural grout for unit masonry shall conform to ASTM C476. All grout shall be prepared with Portland Cement conforming to ASTM C150, Type I sand and No. 8 gravel, ASTM C404. Grout shall reach a minimum strength of 2,500 psi at 28 days, but shall in no case be less than the 28-day strength of the mortar. Maximum slump shall be 6".

4.5 Horizontal/Vertical Joint Reinforcing

Install horizontal joint reinforcing in accordance with joint reinforcing manufacturer's instructions. Reinforcement shall be truss-type welded steel wire, 9-gauge minimum, equal to standard DUR-O-WALL, Inc. placed at 16" O.C. vertical spacing. Vertical masonry reinforcement, where called for on the Drawings, shall conform to ASTM A615-90, Grade 60.

4.6 Expansion/Contraction Joints/Weep Holes

Expansion and contraction joints shall be located in walls as required. Masonry control joints shall be Rapid Control Joint Rubber Compound-Regular Type as manufactured by DUR-O-WALL, Inc., or approved equal. All expansion joints shall be properly caulked upon completion of the Work.

Head, sill, and thru-wall flashing shall be 2 ounce copper fabric flashing similar or equal to "Copper Fabric Flashing" as manufactured by Advanced Building Products Inc. Phone 800-252-2306. Install thru-wall flashing at the head and sill of all openings in exterior walls, at the base of

all exterior masonry building walls and above or below all wall openings and where indicated on the drawings. Flashing shall be installed by holding the outer edge 1/2 inch outward from the exterior face of the masonry and trimmed to within 1/4" of masonry upon completion of cleaning.

Weepholes shall be clear plastic tubes, 1/4" inside diameter and shall be or be similar to #330 as manufactured by Heckman Building Products Inc. Weepholes shall be installed in conjunction with all masonry flashing at 24 inches o.c. horizontally in the head joints of the first course immediately above the flashing.

- 4.7 Protect masonry against freezing when the temperature of the surrounding air is 40 degrees F and falling. Comply with the requirements of International Masonry Industry All Weather Council Reference 62 & 73 for cold weather construction.

END OF SECTION