

## SECTION 04 20 00 - UNIT MASONRY

### PART I - GENERAL

#### 1.1 SUBMITTALS

- A. Sample: A sample brick panel shall be provided by the Contractor and must be approved by the AE and the Owner's Architectural Review Committee (ARC).

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Face brick shall conform to ASTM C216, Grade SW. No cracked brick shall be installed, nor brick with chips larger than 1/4-inch. Since the designations of FBS and FBX have to do with dimensional tolerances rather than the ability of the material to withstand weathering, either type may be used.
- B. Common brick shall conform to ASTM C62 for Grade SW or better, unless confined to strictly interior application. "Chicago" common brick shall not be used.
- C. Block and stone with chips larger than 1/4-inch shall not be used.
- D. Mortar type shall be chosen based on the recommendations in Brick Industry Association Technical Notes 8 and 8B ([www.gobrick.com](http://www.gobrick.com))., Generally, Type N Portland Cement and Lime mortar will be the most appropriate. Portland Cement shall be the air-entraining type.
- E. Stone anchors and dowels shall be stainless steel.
- F. Through wall flashing shall be 24 gage stainless steel or 16 ounce copper.
- G. Weeps shall be cotton rope or manufactured PVC vents. Nylon rope is not allowed.
- H. All exterior lintels and shelves shall be hot-dipped galvanized steel or stainless steel.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Mortar joints shall be tooled concave. Raked mortar joints are specifically prohibited. Mortar joints (vertical, head or bed joints) shall not exceed 3/8-inch unless necessary to match existing masonry.
- B. Masonry units shall be dry just prior to installation. Provisions, such as the use of tarps, shall be made to protect the material from weather.
- C. Expansion joints shall be provided within 5 feet of each corner (both ways) and no less than 20 feet apart. See BIA technote 18A for detailed information.
- D. Weeps shall be installed above all items such as through-wall flashing, lintels, and bond beams and spaced no more than 24 inches apart. Weeps shall be installed with a minimum of 2 per lintel. If rope weeps are used, they shall be cut off flush with the face of the masonry. Rope wicks shall be cotton.

- E. Through wall flashing shall be provided above all items such as shelf angles, doors, windows and lintels and below all copings, sills, caps and bottom courses. Flashing shall project 1/4-inch or more past the face of the brick or lintel, to provide a drip edge. Through wall flashing shall be copper or stainless steel. Flexible or self-adhesive flashing materials may only be used to cover the upper termination of the through wall flashing within the cavity. Flashing at lintels, etc. shall be provided with end dams. End dam construction shall feature welded or soldered corners that do not rely solely on sealant for water tight integrity.
- F. Steel Lintels & Shelf Angles
1. Avoid long, continuous shelf angles. Compute expansion of a 60 degree temperature differential and allow 1/2-inch gap between angles. Fill expansion gap with compressible foam to prevent mortar from filling gap.
  2. Lintels and shelf angles shall be carefully detailed to prevent extremely thin mortar joints, to permit proper anchorage, to permit expansion and contraction of dissimilar materials and to prevent concentrated loads on very small areas of masonry. At the face of shelf angles, omit mortar and fill with non-hardening, color matched sealant.

#### END OF SECTION 04 20 00

This section of the *U of I Facilities Standards* establishes minimum requirements only.  
It should not be used as a complete specification.