SECTION 124

FABRIC FORMED CONCRETE MAT MATERIAL

124.1 REQUIREMENTS

A. Fabric Forming Material shall consist of specially woven multiple panels of double layer, open-selvage fabric joined in a mat configuration. The two (2) fabric layers shall each be no lighter than 18 x18 count/inch, 1000 denier nylon or 1000 denier polyester tire cord, of which at least 50 percent by weight shall be producer bulked continuous multifilament tire cord nylon. The porosity of the fabric, when tested in accordance with ASTM D 737, shall not be less than 100 cubic feet/minute/square foot. Fabric of equal or greater strength and comparable porosity may be used with approval. Fabric forming material shall bear the trademark of the manufacturer.

B. Fabric Forms

Individual mill width fabric panels shall be cut to suitable length and the two (2) layers of fabric separately joined edge to edge by double stitching with heavy nylon thread. The tensile strength of stitched joints shall be not less than 100 lbs. per inch.

1. Uniform Cross Section Fabric Forms shall consist of multiple panels of double layer, fabric joined by interwoven ties of the length required to provide the mat thickness specified and spaced no farther than three (3) inch centers.

   Hydrostatic uplift pressure relief points shall be woven or sewn into the fabric envelopes at the center of each individual mill width and spaced a maximum of ten (10) feet longitudinally.

2. Relief Point Joined Fabric Forms shall consist of multiple panels of double layer fabric woven together on spaced centers to provide points for relief of hydrostatic uplift pressure.

3. Fabric Forms, regardless of type, shall meet the following requirements:

   a. Points for relief of hydrostatic uplift pressure shall be of the configuration, size, and weave recommended by the manufacturer and shall be an integral feature of the fabric forms as received from the manufacturer.

   b. Slurry stops to provide lateral containment of the slurry during injection of a section shall be provided as an integral feature of the forms.

C. Test Specimen

When a bid item, Fabric Mat Test Specimen, is provided in the contract, suitability of the fabric design shall be verified by the following test procedure:

At the start of the slurry injection of the placed forms or shortly thereafter, five (5) specimens, consisting of 5 ½ inches diameter by 24-inch long sleeves constructed of the same fabric used in individual form layers shall be injected with slurry under a pressure of 10 to 15 psi. The pressure shall be maintained by a standpipe or other acceptable means for ten (10) minutes. The specimens shall be cured under job site conditions for five (5) days.

Three companion test cylinders shall be made and cured in accordance with AASHTO T 23 at the same time the injected cylinders are made.

After the curing period, 5 ½ inches x 12 inches cylinders shall be cut from the middle of each injected specimen.

Three (3) specimens shall be tested for compressive strength at seven (7) days in accordance with AASHTO T 22. The three (3) companion test cylinders shall also be tested for compressive strength at this time.

The average seven (7) day compressive strength of the injected specimens shall be at least 20 percent higher than the average of the companion test cylinders. The remaining two (2) injected specimens, when tested at 28 days, shall have a minimum average compressive strength of 2500 psi.

The Contractor shall furnish labor, materials, and equipment to make the test specimens. The City will oversee and conduct required compressive strength testing of specimens.

124.2 METHOD OF MEASUREMENT &
124.3 BASIS OF PAYMENT

Concrete mat fabric forming material will be measured and paid for in accordance with Section 67 of these Specifications.

END OF SECTION