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**SECTION 02030  
ROCK FILTER DAMS**

**PART I: GENERAL**

**1.1 GENERAL REQUIREMENTS**

- A. Section includes requirements for furnishing, installing, maintaining and removing rock filter dams.

**1.2 MEASUREMENT AND PAYMENT**

- A. Unit Prices:
  - 1. Measurement and payment is as noted on the Unit Price Schedule.
  - 2. Refer to Section 01270 – Measurement and Payment for unit price procedures.
  - 3. Geotextile, excavation and disposal, granular fill and reinforcing wire shall not be measured separately.
  - 4. No separate payment shall be made for removal of accumulated sediment. Maintenance and removal and subsequent reinstallation, if required, of the rock filter dam shall be incidental to the cost of the rock filter dam.
- B. Stipulated Price (Lump Sum):
  - 1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price.

**1.3 REFERENCES**

- A. ASTM – American Society for Testing and Materials.
  - 1. ASTM A975 – Double-Twisted Hexagonal Mesh Gabions and Revet Mattresses (Metallic-Coated Steel Wire or Metallic-Coated Steel Wire with Polyvinyl Chloride (PVC) Coating).
- B. CFTS – City of Friendswood Technical Specifications.

**PART II: PRODUCTS**

**2.1 GRANULAR FILL**

- A. Provide granular fill consisting of concrete or stone. Provide granular fill that is dense, durable and hard material.
- B. Provide granular fill, as shown on the Drawings or as directed by the Project Manager, to the following dimensions:
  - 1. Provide three inch (3 In) to five inch (5 In) granular fill with no material diameter less than three inches (3 In) and no material diameter greater than five inches (5 In).

**2.2 WIRE COATING**

- A. Style 1 – zinc coated prior to being double twisted into mesh in accordance with ASTM A975.

**2.3 WIRE MESH FOR REINFORCEMENT**

- A. Provide twenty (20) gauge galvanized double-twisted hexagonal wire mesh and tie wires or as shown on the Construction Plans.

**2.4 CONNECTION WIRES AND STIFFENERS**

- A. Provide spiral binders, lacing wire and stiffeners made of wire having the same coating material and same wire size as the wire mesh for reinforcement.

**2.5 GEOTEXTILE SEPARATION FABRIC**

- A. Provide a geotextile of woven or spunbond nonwoven fibers consisting of long-chain synthetic polymers composed of at least ninety-five percent (95%) by weight of polyolefins. Provide geotextile fabric equal as specified in TABLE 4.1 – MINIMUM AVERAGE ROLL VALUE and TABLE 4.2 – MAXIMUM AVERAGE ROLL VALUE in this section.
- B. Refer to Section 02015 – Geotextile for storage and handling precautions and requirements.

**PART III: EXECUTION**

**3.1 GENERAL**

- A. Except as otherwise directed or otherwise shown on the Drawings, provide non-woven geotextile filter fabric rock filter dams to prevent erosion and control sedimentation.
- B. Maintain rock filter dams until the project is accepted by the City.
- C. At the City's option, rock filter dams may remain in place after acceptance.
- D. Maintenance and removal of rock filter dams shall comply with all requirements as specified in Section 02000 – Erosion Control Systems.

**3.2 SEDIMENT DISPOSAL**

- A. Refer to Section 01580 – Waste Material Disposal.

**PART IV: TABLES**

**4.1 MINIMUM AVERAGE ROLL VALUE**

<b>MINIMUM AVERAGE ROLL VALUE</b>	
Elongation	< 50 percent
Grab Strength	≥ 200 pounds
Puncture Strength	≥ 75 pounds
UV Stability (retained strength)	≥ 50 percent <sup>1</sup>

<sup>1</sup>After five hundred hours (500 Hrs) of exposure.

**4.2 MAXIMUM AVERAGE ROLL VALUE**

<b>MAXIMUM AVERAGE ROLL VALUE</b>	
Apparent Opening Size	0.212 to 0.6 mm <sup>1</sup>

<sup>1</sup>#70 to #30 US sieve.

**END OF SECTION**