SECTION 02270 – EROSION CONTROL

1. GENERAL

1.1 SCOPE

A. Work Included: Perform all work necessary and required for the construction of the project as indicated. Such work includes but is not limited to the following.

1. Erosion and sediment control structures.

B. Related Work in Other Sections: The following items of associated work are included in other section of these specifications:

1. Earthwork.
2. Site clearing.
3. Sewer collection system.
4. Subsurface Investigation

1.2 QUALITY ASSURANCE:

Requirements of Regulatory Agencies: Comply with local governing and regulatory agencies where more stringent than herein specified.

1.3 SOILS REPORT:

A subsurface investigation report as included in Section 02010 has been made for the purpose of design only and neither the Architect, Engineer, the Owner, nor the Soils Engineer guarantee adequacy or accuracy of the data, or the data are representative of all condition to be encountered. Such information is made available for general information only and shall not relieve the Contractor of the responsibility for making his own investigations, tests, and analyses.

2. PRODUCTS

2.1 MATERIALS

A. Stone: Crushed stone complying with Section 308 of:

Maryland Department of Transportation
State Highway Administration
Standard Specifications for Construction Materials
2001 or latest Edition & Addendums

B. Filter Cloth: Mirafi, Polyfilter X or an approved equal.

C. Steel Fencing:

1. Fabric: No. 14 gauge, 6 inch mesh.
2. Posts: Painted steel, minimum 48 inches long.

D. Bales: Straw of other material acceptable to authorities having jurisdiction. Linear shapes standard for area, securely tied to maintain shape.

E. Stakes: At the Contractor's option, provide one of the following:

1. Nominal 2 inch x 2 inch hardwood, minimum 60 inches long.
2. Steel reinforcing bars, No. 2 or larger, minimum 30 inches long.

3. EXECUTION

3.1 GENERAL

A. Provide erosion and sediment control devices in locations and configurations as indicated.

B. Construction sediment control devices so as to prevent sediment from entering any storm drains, ditches, public rights-of-way of watercourses by means indicated or as approved by authorities having jurisdiction.

C. Wash wheels of vehicles as required to prevent sediment deposits on public rights-of-way. Wash vehicles on areas stabilized with crushed stone, in a manner to prevent sediment runoff.

3.2 STABILIZED CONSTRUCTION ENTRANCE (SCE)

A. Construct SCE in location and to size and configuration indicated (if required per drawings).

B. Installation:

1. Lay filter cloth full width and length of SCE prior to placement of crushed stone.
2. Place stone in manner to prevent damage to filter cloth.
3. Provide smooth transition between SCE and public rights-of-way.

3.3 SILT FENCE

A. Install fence posts at 8 foot maximum intervals. Set posts a minimum of 18 inches into ground.

B. Attached fence fabric to posts with heavy duty wire staples, min. 1" long or hog rings. Provide minimum of three (3) ties per post.

C. Excavate trench to size and shape and in location as indicated.

D. Filter Cloth

1. Attached filter cloth to fence fabric with staples or wire ties at 24 inch x 24 inch intervals or as recommended by manufacturer.
2. Extend bottom of filter cloth full width of trench and minimum of 22 inches vertically.

E. Backfill trench, fully embedding filter cloth.

3.4 STORM INLET SEDIMENT TRAPS

A. Construct sediment traps to sizes and configurations at storm inlet as indicated.

B. At inlets adjacent to paved areas, close off flow of water into inlet from paved area. Provide temporary opening into inlet from sediment trap. If curb is constructed provide dike or one foot opening in curb to allow water to reach sediment trap.

C. Maximum slope of sidewalls of trenches, 2:1.

3.5 MAINTENANCE

A. Contractor shall inspect sediment control devices on a regular basis. Make additional inspection following rainstorms.

B. Maintain sediment control structures in full operating condition throughout construction period. Remove sediment and silt as required.

C. If bale dike is constructed, provide new bales to replace deteriorated or saturated bales as required. Maintain shape and continuity of dike.

D. Maintain effectiveness of SCE by providing additional layers of stone.

3.6 REMOVAL

A. At the completion of the stabilization of areas disturbed during construction, remove all excess sediment and silt from sediment control structures.

B. Remove all sediment control structures and materials.

C. Backfill trenches and traps to final grades. Comply with requirements of other Division 2 section.

D. Provide final stabilization (i.e., seeding or sodding) of sediment control areas as indicated.

END OF SECTION 02270