

SECTION 02370 - EROSION CONTROL

PART 1 - GENERAL

- 1.1 **Section Includes:** Providing adequate protection against erosion and sediment transport off the site(s) during the execution of the Work, including, but not limited to, installation and removal of those features specifically shown on the approved Erosion and Sediment Control Plan, if any, which is applicable to the Work.
- 1.2 **Related Sections:** SECTION 02920 GRASSING AND LANDSCAPING
- 1.3 **Reference Standards:**
- A. "Manual for Erosion and Sediment Control in Georgia", Fifth Edition, Revised 2000, prepared by the Georgia Soil and Water Conservation Commission.
 - B. "Standard Specifications for Construction of Transportation Systems, 2001 Edition," Georgia Department of Transportation. Referred to herein as the "DOT Specifications."
 - C. "Emerson Soil Erosion and Sedimentation Control Ordinance," as adopted by the City of Emerson, and subsequent amendments.
- 1.4 **Site Conditions:**
- A. Protect all adjacent public and private property from siltation and other damage due to construction activities.
 - B. Confirm that a Land Disturbing Activity (LDA) Permit has been obtained for the Work, if applicable. Comply with approved Erosion and Sediment Control Plan and with all local and state regulations relating to erosion/sediment control.
 - C. If one acre or more will be disturbed, confirm that a Notice of Intent (NOI) has been filed under the applicable NPDES general construction permit.
 - D. Maintain all temporary controls in place until permanent grassing, landscaping and other controls have been completed.
 - E. Do not excavate pipeline trenches more than 100 feet in advance of pipe laying.
 - F. **Provide supplementary erosion and run-off control measures whenever it becomes apparent that additional problems exist.**
 - G. **The installation of erosion and sedimentation control measures and practices shall occur prior to, or concurrent with, land-disturbing activities.**

PART 2 - PRODUCTS

- 2.1 **Mulch and Hay/Straw Bales:** DOT Section 893.2.02 and 719.2.
- 2.2 **Silt Fence Filter Fabric:** DOT Section 881.2.07 as listed on Georgia DOT Qualified Products List #36. Woven or nonwoven fabric for Type A and Type B fences. For Type C use non-calendered woven fabric constructed with monofilament yarns only.

- 2.3 Stakes and Fencing: DOT Section 894.02.06. Posts for or Type A and Type B Silt Fence: 1.5" x 1.5" x 48" hardwood, or 2" x 4" x 48" soft wood, or 1.15 lb/ft. steel. Provide maximum 6 ft. spacing. Posts for Type C Silt Fence: Steel 1.15 lb/ft. minimum weight and woven wire fencing.
- 2.4 Grass Seed or Sod: DOT Section 890.2. Select plants appropriate to the season, location, and site conditions from DOT Section 700.3 Seeding Table, for Planting Zone 1. Temporary grass shall be a quick growing species such as millet, rye grass, Italian rye grass, or cereal grasses suitable to the area providing a temporary cover which will not later compete with grasses sown for permanent cover. Seed shall meet the requirements of the Georgia Seed Law and Rules and Regulations.
- 2.5 Lime: DOT Section 882.2.01 Agricultural grade ground or pulverized limestone.
- 2.6 Fertilizer: DOT Section 891.2 Standard commercial grade, 10-10-10 or 6-12-12.
- 2.7 Erosion Control Mats: DOT Section 716.
- 2.8 Stone for Construction Exit/Entrance Pad: National Stone Association R-2 (1-1/2 inch to 3-1/2 inch stone), or DOT Specifications. Section 800, Size No. 3 (1 inch to 2-1/2 inch).
- 2.9 Riprap: Conforming to DOT Specifications Section 805.2.01, Stone for Plain Rip Rap, Type 3 (or Type 1 if noted on Drawings).
- 2.10 Corrugated Metal Pipe: 16 gauge, type I or II culvert pipe conforming to AASHTO M36.

PART 3 - EXECUTION

- 3.1 Inspection: Prior to clearing the site, inspect site and determine all preliminary erosion control measures that will be required to prevent erosion and sedimentation problems and comply with any applicable Erosion Control Plans approved by local and/or state authorities.
- 3.2 Preparation: Provide all necessary materials at the site prior to clearing and/or grading.
- 3.3 Installation: Install all structural and vegetative erosion control measures strictly in accordance with the "Manual for Erosion and Sediment Control in Georgia."
 - A. Where applicable, provide temporary stone exit/entrance pad located at all points of vehicular ingress and egress to the site and maintain these in service until pavement is placed. Minimum pad thickness shall be 6 inches; minimum width shall be 20 feet; minimum length shall be 50 feet. Maintain pads in a condition that will prevent tracking or flow of mud onto public roads.
 - B. Promptly clean-up any mud and debris tracked on to public roadways. Clean by scraping, power brushing, and hosing down with water.
 - C. If impoundments or sediment traps are required, construct these prior to clearing operations except for minimum clearing necessary for construction of the sediment impoundments.
 - D. Install any permanent site drainage facilities as early as practical in the construction process. Where practical without creating erosion problems, divert run-off into permanent drainage facilities.

- E. Provide temporary sediment barriers around drainage structures and all grading areas and excavations where subgrades are being prepared.
 - F. Provide diversion berms or dikes at top of all slopes and abrupt changes in slope. Diversion dikes or berms to be minimum 2 feet in width and 18 inches in height. Machine compact and provide temporary seeding immediately after construction.
 - G. Provide temporary drains where necessary to convey water down slopes. Drains may consist of pipes, filter cloth, rubble, concrete, asphalt, or plastic sheets. Inspect for damage after each rainfall event and repair as required.
 - H. Provide riprap or other protection at all drainage discharge points to prevent scour at these points. Provide 4 inch filter material under riprap.
 - I. As soon as practical following grading of areas to be paved, apply an initial base course of stone of at least 4 inch thickness and maintain by periodic top dressing until final base course and pavement are installed.
 - J. Provide temporary seeding immediately on all disturbed areas which will not receive final grading or landscaping within 14 days.
 - K. Where no specific controls are called for on the Drawings for drainage leaving the site, provide check dams to create ponding for sediment deposition and collection of debris. Maximum height shall be 4 feet and the impounded area shall be kept cleaned out as often as practical.
- 3.4 Temporary Grass: Provide temporary grassing or other vegetative cover as specified in the "Manual for Erosion and Sediment Control in Georgia" and Specification Section 2920 for all disturbed areas which will not receive final grading or landscaping within 14 days. Furnish all required preparation, liming, fertilizer, seed, mulch, or watering. Grassed areas will be considered acceptable when a viable stand of grass covers at least 98% of the total area, with no bare spots exceeding one square foot and the ground surface is fully stabilized against erosion.
- 3.5 Maintenance: **Inspect for damage after each significant rainfall event.** Clear all debris and accumulated sediment from behind barriers, check dams, etc. so that the functional capacity of these items is not significantly reduced throughout the construction period. The Contractor shall be responsible for keeping traffic off of grassed areas until acceptance of the work.
- 3.6 Removal of Temporary Facilities: Following completion of permanent site drainage, landscaping, and establishment of full stand of permanent grassing, remove and dispose of all temporary erosion control facilities.
- 3.7 Clean-Up and Restoration: Remove all debris and waste materials from the site and dispose of in a manner approved by the City Engineer and in compliance with the law. Seed and mulch any areas that are disturbed by removal activities and restore to conform to, and blend with, the remainder of the site landscaping.

END OF SECTION