

SECTION 31 25 13

EROSION CONTROL

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This work shall consist of erosion control on all cut and fill operations, excavation, backfill, or other construction activities within the limits of the construction site, within any temporary or permanent easements, and within any borrow site used during the period of construction. The protection of these sites shall continue throughout the construction period. During flood seasons, protect the sites by sandbagging, the pumping of water, and any other means appropriate to restrain flooding of plant and equipment. During dry weather, sprinkle the sites with water or use other means as necessary to provide dust control.
- B. The temporary pollution control provisions contained herein shall be coordinated with the permanent erosion control features to ensure economical, effective, and continuous erosion control throughout the construction and post construction period.
- C. Since the contractor is responsible for the construction means and method, which in turn are responsible for ensuring that construction does not harm the Waters of Tennessee or Water of the US, the contractor is solely responsible for ensuring that the above-mentioned laws and regulations are met.

PART 2 – PRODUCTS

2.01 TEMPORARY SEEDING AND MULCHING

- A. Temporary seeding and mulching are measures consisting of seeding, mulching, fertilizing, and matting, which should be utilized to reduce erosion. All cut and fill slopes include waste sites and borrow pits shall be seeded and mulched/matted when and where necessary to eliminate erosion.

2.02 TEMPORARY SILT FENCES

- A. Silt fences are temporary measures utilizing woven wire or other approved material attached to posts with filter cloth composed of burlap, plastic filter fabric, etc., attached to the upstream side of the fence to retain the suspended silt particles in the runoff water.

2.03 EROSION CONTROL MATTING

- A. Erosion control mats are blanket type products consisting of degradable or permanent materials installed with pins or stakes and used to prevent earthen materials from eroding from cut or fill slopes.

PART 3 – EXECUTION

3.01 PROJECT REVIEW

- A. The project drawings show the minimum erosion and siltation control measures required for this job. If the contractor desires to stockpile construction materials, stone, earth, etc., the location of same and protection thereof shall be outlined in an Erosion and Siltation Control Plan to be submitted to the A/E for review.

- B. The contractor shall submit a spill prevention plan to the A/E for review. The contents of this spill prevention plan shall depend on what types of chemicals, lubricants and fuels will be used and if these will be stored on site. As a minimum, if fuel or lubricants or other chemicals are stored on site, either temporarily in vehicular tanks or in skid or trailer-mounted tanks, a plan shall be supplied which directs all employees of the contractor in the proper procedures to be followed should a spill occur. For more complex chemical storage requirements, a more complex plan will be required.

3.02 CONSTRUCTION REQUIREMENTS

- A. The A/E has the authority to limit the surface area of erodible earth material exposed by clearing and grubbing, the surface of erodible earth material exposed by excavation, borrow and fill operations and to direct the contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of adjacent streams or other watercourses, lakes, ponds, or other water impoundment. Such work may involve the use of temporary mulches, mats, seeding or other control devices or methods as necessary to control erosion. Cut and fill slopes shall be seeded and mulched as the excavation proceeds to the extent directed by the A/E.
- B. The contractor shall be required to incorporate all permanent erosion control features into the project as early as possible and shall outline this in his work schedule. Temporary pollution control measures shall be used to correct conditions that develop during construction that were not foreseen during the preconstruction stage; that are needed prior to installation of permanent pollution control features; or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with permanent control features on the project.
- C. Where erosion is likely to be a problem, clearing and grubbing operations should be scheduled and performed so that grading operations and permanent erosion control features can follow immediately thereafter if the project conditions permit; otherwise, erosion control measures may be required between successive construction stages. Under no conditions shall the surface or erodible earth material exposed at one time by clearing and grubbing exceed 750,000 square feet without approval of the A/E.
- D. The A/E will limit the area of excavation, borrow, and embankment operations in progress commensurate with the contractor's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent pollution control measures current in accordance with the accepted schedule. Should seasonal limitations make such coordination unrealistic, temporary erosion control measures shall take place immediately to the extent feasible and justified.
- E. Under no conditions shall the amount of surface area or erodible earth material exposed at one time by excavation or fill within the project area exceed 750,000 sq.ft.
- F. In the event of conflict between these requirement and pollution control laws, rules, or regulations, or other federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.

3.03 CONSTRUCTION OF STRUCTURES

- A. Temporary Seeding and Mulching: Seeding and mulching shall be performed in accordance with the Section 32 92 19, Seeding and Sodding.

B. Temporary Silt Fences

1. Temporary silt fences shall be placed on the natural ground, at the bottom of fill slopes, in ditches, or other areas where siltation is a problem. Silt fences are constructed of wire mesh fence with a covering of burlap or some other suitable material on the upper grade side of the fence and anchored into the soil.
2. The contractor shall be required to maintain the silt fence in a satisfactory condition for the duration of the project or until its removal is requested by the owner's representative. The silt accumulation at the fence may be left in place and seeded, removed, etc., as directed by the owner's representative. The silt fence becomes the property of the contractor whenever the fence is removed.

C. Erosion Control Mats

1. Erosion control mats shall be installed on cut or fill slopes or as shown on the plans in accordance with the manufacturer's specifications.

D. Under no circumstances will spent oil wastes be discharged anywhere on the site without the expressed written consent of TDEC.

3.04 MAINTENANCE

- A. The contractor shall acceptably maintain the temporary erosion control features installed by the contractor until no longer needed or permanent erosion control methods are installed. Any materials removed shall become the property of the contractor.

3.05 EROSION CONTROL OUTSIDE PROJECT AREA

- A. Temporary pollution control shall include construction work outside the project area where such work is necessary as a result of construction such as borrow pit operations, haul roads, and equipment storage sites.

3.06 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

- A. General Contractor (GC) and Grading and Utility Sub-contractor (GUSC) shall sign on to and be party to the Owner's Stormwater Pollution Prevention Plan (SWPPP). The owner's SWPPP is a document separate from these specifications, but an integral part of the project.
1. Inspections:
 - a. Inspections shall be performed by qualified inspectors as noted in the SWPPP. Inspections shall be performed at least twice every calendar week, at least 72 hours apart.

END OF SECTION