

SECTION 02115

TEMPORARY EROSION CONTROL

PART 1 - GENERAL

1.1 SCOPE OF THE WORK

- A. Erosion control shall be employed during the construction period and shall include all necessary temporary measures required to prevent soil erosion from the site until permanent erosion control and finished surfaces are installed.
- B. Erosion control measures shall be considered incidental to all construction involving land disturbing activities.

1.2 QUALITY ASSURANCE

- A. The Contractor shall comply with applicable codes, rules, ordinances, regulations, and laws of local, municipal, state or federal authorities having jurisdiction over the project.
- B. Work on the various state and federal highways shall comply with the current Standard Specifications for Construction.
- C. Erosion control measures for construction shall conform to these Specifications and the applicable federal, state, or local codes regarding erosion.

PART 2 - PRODUCTS

2.1 SLOPE DRAINS

Slope drains shall be flexible plastic pipe of a manufacture for the intended purpose.

2.2 FILTER CLOTH

- A. Filter cloth for silt fences shall be a pervious sheet of synthetic polymer filaments forming a stable network so that fibers retain their relative positions. Filter cloth shall be of the type recommended by its manufacturer for the intended application. The filter cloth shall meet the following requirements:
 - 1. Minimum Average Thickness: 30 mils (by ASTM D1777).
 - 2. Air Permeability: 250 to 550 C.F.M./Sq. Ft.

3. Minimum Grab Strength: 110 lbs. (by ASTM D1682).
- B. Silt fence shall be constructed in accordance with the details shown on the drawings or may be a prefabricated proprietary type subject to approval by the Engineer.

PART 3 - EXECUTION

3.1 GENERAL

- A. Temporary erosion control construction shall be directed toward and have the purpose of controlling soil erosion at its potential source. Downstream sediment entrapment measures shall be employed, but only as a backup to primary control at the source.
- B. A continuing program of installation and maintenance of sediment control shall be employed during the construction period.

3.2 TEMPORARY EROSION CONTROL DURING CONSTRUCTION

- A. Temporary erosion control construction shall be employed until such time as permanent paving, planting, and restoration of natural areas is effective in control of erosion from the site.
- B. Silt Fences:
1. Temporary silt fences shall be located at all points where surface water can leave the construction area if the source area is subject to soil erosion.
 2. Silt fences shall be constructed to remove sediments from flowing water through filtration and sedimentation. Silt fences shall be constructed in accordance with the manufacturer's printed instructions.
 3. Silt fences shall be arranged to create ponding behind them. Provision shall be made for removing accumulated sediments and maintaining ponding capacity.
 4. Silt fences shall be removed and the area restored when permanent erosion control is effective.

- C. Grading Operations: Grading operations shall be scheduled so that the ground surface will be disturbed for the shortest possible time before permanent construction is installed. Large areas shall be maintained as flat as possible to minimize soil transport through surface flow.
 - 1. Wherever steeper slopes or abrupt changes in grade are required, a diversion or berm shall be constructed at the top of the slope to cause the surface water to flow along the diversion to a control point to be transported downslope in a slop drain. In no case shall surface water be allowed to flow uncontrolled down slopes.

- D. Slope Drains: Temporary slope drains shall be provided to convey surface water down slopes. Slope drains shall be provided with an apron at their tops to anchor them and properly direct water into them. Stone or rubble shall be placed at slope drain outlets to prevent scour at these points.

- E. Ground Cover:
 - 1. All exposed soils sloping 5% or greater shall be protected by application of ground cover.
 - 2. Ground cover may consist of any effective erosion preventative treatment such as straw or other mulches, plantings, etc.
 - 3. All grassing or planting operations shall include mulching as stabilization until ground cover by planting is effective.

- F. Hay Bales: This work shall consist of construction of baled hay or straw dams to protect against downstream accumulations of silt. The baled hay or straw shall be constructed as detailed or in such a manner to remain securely in place subject to the approval of the Engineer. The dam shall be placed so as to effectively control silt dispersion under conditions present on this project.

3.3 CLEANUP AND REMOVAL

- A. At the time that permanent erosion control is effective temporary devices and their accumulated sediments shall be removed.

END OF SECTION 02115.