

SECTION 02270TEMPORARY EROSION CONTROLPART 1 - GENERAL1.1 DESCRIPTION

## A. Work Included:

1. The work under this section shall include provision of all labor, equipment, materials and maintenance of temporary erosion control devices, as specified herein, as shown on the Drawings and as directed by the Engineer.
2. Erosion control measures shall be provided as necessary to correct conditions that develop prior to the completion of permanent erosion control devices, or as required to control erosion that occurs during normal construction operations.
3. Construction operations shall comply with all federal, state and local regulations pertaining to erosion control.
4. After awarding of or after being awarded the Contract, prior to commencement of construction activities, the Contractor will meet with the Engineer to discuss erosion control requirements and develop a mutual understanding relative to details of erosion control.

## B. Related Work Specified Elsewhere:

1. Site work is specified in appropriate sections of this Division.

## C. Design Criteria:

1. Conduct all construction in a manner and sequence that causes the least practical disturbance of the physical environment.
2. Stabilize disturbed earth surfaces in the shortest time and employ such temporary erosion control devices, as may be necessary, until such time as adequate soil stabilization has been achieved.

1.2 SUBMITTALS

- A. The Contractor shall furnish the Engineer, in writing, his work plan giving proposed locations for storage of topsoil and excavated material, before beginning construction. A schedule of work shall accompany the work plan. Acceptance of this plan will not relieve the Contractor of his responsibility for completion of the work as specified.

PART 2 - PRODUCTS2.1 MATERIALS

## A. Baled Hay:

1. At least 14" by 18" by 30" securely tied to form a firm bale, staked as necessary to hold the bale in place.

## B. Sand Bags:

1. Heavy cloth bags of approximately one cubic foot capacity filled with sand or gravel.

- C. Mulches:
1. Loose hay, straw, peat moss, wood chips, bark mulch, crushed stone, wood excelsior, or wood fiber cellulose.
  2. Type and use shall be as specified by the "Maine Erosion and Sedimentation Control Handbook for Construction - Best Management Practices" prepared by the Maine DEP and the Soil and Water Conservation Commission herein after referred to as the BMP.
- D. Mats and Nettings:
1. Twisted Craft paper, yarn, jute, excelsior wood fiber mats, glass fiber and plastic film.
  2. Type and use shall be as specified in the BMP.
- E. Permanent Seed:
1. Conservation mix appropriate to the predominant soil conditions as specified in the BMP and subject to approval by the Engineer.
- F. Temporary Seeding:
1. Use species appropriate for soil conditions and season as specified in the BMP and subject to approval by the Engineer.
- G. Water:
1. The Contractor shall provide water and equipment to control dust, as directed by the Engineer.
- H. Filter Fabrics:
1. Filter fabric shall be of one of the commercially available brands such as Mirafi, Typar or equivalent. Fabric types for particular applications shall be approved by the Engineer prior to installation.

## 2.2 CONSTRUCTION REQUIREMENTS

- A. Temporary Erosion Checks:
1. Temporary erosion checks shall be constructed as necessary.
  2. Baled hay, sand bags or siltation fence may be used in an arrangement to fit local conditions.
- B. Temporary Seeding:  
Areas to remain exposed for a time exceeding 3 weeks shall receive temporary seeding as indicated below:

<u>Season</u>	<u>Seed</u>	<u>Rate</u>
Summer (5/15 - 8/15)	Sudangrass	40 lbs/acre
Late Summer/Early Fall (8/15 - 9/15)	Oats	80 lbs/acre
	Annual Ryegrass	40 lbs/acre
Fall (9/15 - 10/1)	Winter Rye	112 lbs/acre
Winter (10/1 - 4/1)	Mulch w/Dormant Seed	80 lbs/acre*
Spring (4/1 - 7/1)	Oats	80 lbs/acre
	Annual Ryegrass	40 lbs/acre

\* seed rate only

- C. Siltation fences shall consist of porous filter fabric with a wire mesh backing and shall be supported by posts as per manufacturer's recommendations. Fabric shall be approved by the Engineer.
- D. Mulch All Areas Receiving Seeding:  
Use either wood cellulose fiber mulch (750 lbs/acre); or straw mulch with chemical tack (as per manufacturer's specifications). Wetting for small areas may be permitted. Biodegradable netting is recommended in areas to be exposed to drainage flow.
- E. Erosion control matting for slopes and ditches shall be anchored with pegs and/or staples per manufacturer's recommendations. Contractor shall provide matting along the flowline of all ditches and swales having a longitudinal slope in excess of 0.01 ft/ft, and on all slopes in excess of 3(H) to 1(V).

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Temporary Erosion Checks:
  - 1. Temporary erosion checks shall be constructed in ditches and at other locations designated by the Engineer. The Engineer may modify the Contractor's arrangement of silt fences, bales and bags to fit local conditions.
  - 2. Baled hay, silt fences, or sandbags, or some combination, may be used in other areas, as necessary, to inhibit soil erosion.
  - 3. Siltation fence, if called for in the plans, shall be located and installed as shown.
- B. Erosion control matting for slopes and ditches shall be installed where indicated on the Drawings and as required to stabilize the soil until permanent vegetative stabilization is established.
- C. Maintenance:  
Erosion control features shall be installed prior to excavation wherever appropriate. Temporary erosion control features shall remain in place and shall be maintained until a satisfactory growth of grass is established. The Contractor shall be responsible for maintaining erosion control features throughout the life of the construction contract. Maintenance will include periodic inspections by the Owner or Engineer for effectiveness of location, installation and condition with corrective action taken by the Contractor, as appropriate.
- D. Removing and Disposing of Materials:
  - 1. When no longer needed, material and devices for temporary erosion control shall be removed and legally disposed of upon approval by Engineer.
  - 2. When removed, such devices may be reused in other locations, provided they are in good condition and suitable to perform the erosion control for which they are intended.

3. When dispersed over adjacent areas, the material shall be scattered to the extent that it causes no unsightly conditions nor creates future maintenance problems.

END OF SECTION