

## **EXTREME TERRAIN EROSION CONTROL PROCEDURES:**

### **Description**

Due to the extreme terrain of this project and its proximity to Trout Waters, special procedures will be used for clearing and grubbing, temporary stream crossings, erosion and sedimentation control, and grading operations throughout the project limits. Special procedures will also be used for seeding and mulching and staged seeding operations.

### **Construction Methods**

#### **(A) Staged Erosion and Sedimentation Control**

Erosion and sedimentation control shall be performed in accordance with Division 16 of the *Standard Specifications*. Erodible fill and cut slopes will be constructed in such a manner as to provide sufficient sediment storage for the areas draining to them. Temporary earth berms and temporary slope drains with inlet protection will be utilized as grading operations progress on cut and fill areas throughout the project.

On graded slopes in extreme terrain areas that prevent the use of sediment basins located at the discharge points of the project, staged erosion and sedimentation control will be utilized to transition from the clearing and grubbing phase to the final phase of the erosion and sedimentation control plan.

#### **(B) Seeding and Mulching**

Seeding and mulching shall be performed in accordance with Section 1660 of the *Standard Specifications* and vegetative cover sufficient to restrain erosion shall be installed immediately following grade establishment.

Seeding and mulching shall be performed on the areas disturbed by construction immediately following final grade establishment. No appreciable time shall lapse into the contract time without stabilization of slopes, ditches and other areas within the project corridor.

#### **(C) Stage Seeding**

A vegetative cover shall be established on cut and fill slopes as grading progresses. Seeding and mulching shall be done in stages on cut and fill slopes, which are greater than 15 feet in height or greater than 1 acre in area. Each stage shall not exceed the limits stated above.

#### **(D) Erosion Control Blankets (Matting)**

The installation of erosion control blankets shall be performed in accordance with Section 1631 of the *Standard Specifications*. All erodible slopes steeper than 2:1 should utilize erosion control blankets along with seeding and mulching to stabilize slopes. Installation and location of erosion control blankets on slopes and ditchlines will be as shown on the erosion control plan or as directed.

In *Environmentally Sensitive Areas*, the following shall apply:

(E) Clearing and Grubbing

In areas identified as Environmentally Sensitive Areas, the Contractor may perform clearing operations, but not grubbing operations until immediately prior to beginning grading operations as described in Article 200-1 of the *Standard Specifications*. Only clearing operations (not grubbing) shall be allowed in this zone until immediately prior to beginning grading operations. Erosion control devices shall be installed immediately following the clearing operation.

(F) Grading

Once grading operations begin in an identified Environmentally Sensitive Area, work will progress in a continuous manner until complete. All construction within these areas must progress in a continuous manner such that each phase is complete and areas permanently stabilized prior to beginning of next phase. Failure on the part of the Contractor to complete any phase of construction in a continuous manner in Environmentally Sensitive Areas as specified will be just cause for the Engineer to direct the suspension of work in accordance with Section 108-7 of the *Standard Specifications*.

(G) Temporary Stream Crossings

Any crossing of streams within the limits of this project shall be accomplished in accordance with the requirements of Subarticle 107-13(B) of the *Standard Specifications*.

Additional payments will not be made for the requirements of this section, as the cost for this work shall be included in the contract unit prices for the work involved.