

## SECTION 732 MULCHING

### 732.1 DESCRIPTION

This work consists of placing a mulch cover on slopes or other designated areas following seeding and fertilizing operations.

### 732.2 MATERIALS

- A. Grass Hay or Straw Mulch:** Grass hay or straw mulching material shall be substantially free of noxious weed seeds and objectionable foreign matter. The mulch shall have been baled dry, in bales of approximately equal weight and shall be relatively dry when applied. Materials having characteristics making them unsuitable for the purpose intended will be rejected.

Bromegrass is not an acceptable mulch.

- B. Fiber Mulch:** Fiber mulch shall contain no germination or growth inhibiting factors and shall have the property of becoming evenly dispersed and suspended when agitated in water. When sprayed uniformly **with hydraulic seeding equipment** on the surface of the soil, the fibers shall form a blotter like ground cover which will readily absorb water and allow infiltration to the underlying soil without restricting emergence of seedlings. Weight specification from suppliers, and for all applications, shall refer only to air dry weight of the fiber, considered to be ten percent moisture.

The fiber mulch material shall be supplied in packages marked by the manufacturer to show the air dry weight content. Suppliers shall certify that laboratory and field testing of their product has been accomplished, and that it meets all of the foregoing requirements.

- C. Bonded Fiber Erosion Control Treatment:** Bonded fiber erosion control treatment shall consist of a continuous layer of elongated fiber strands held together by a water resistant bonding agent. The bonded fiber matrix shall be uniformly applied and shall have no gaps between the product and the seeded soil. The product shall be 100 percent biodegradable and composed of 90 percent wood fiber, 9 percent natural binder and 1 percent organic and mineral activators (all by weight). The treatment shall be installed with hydraulic seeding equipment.

### 732.3 CONSTRUCTION REQUIREMENTS

During mulching operations, suitable warning signs shall be provided in accordance with Section 7.10.

- A. Grass Hay or Straw Mulch:**

- 1. Placing:** The mulch shall be placed within 48 hours after the seeding has been completed. Mulching operations shall not be performed during periods of high winds which preclude the proper placing of the mulch. The placing of mulch shall

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begin on the windward side of the areas to be covered.

The mulch shall be machine blown to uniformly distribute mulch over the seeded areas. The machine shall blow or eject mulch, by a constant air stream, that controls the amount of mulch. The machine shall cause a minimum of cutting or breakage of the mulch.

Mulch containing excessive moisture which prevents uniform feeding through the machine shall not be used.

Mulch shall be placed uniformly over the seeded areas at the specified rates. Approximately 10 percent of the soil surface shall be visible through the mulch blanket prior to mulch tiller (punching) operation.

Excessive cover which will smother seedlings shall be avoided. The Engineer may order the placement of mulch on any area where protection is necessary to forestall erosion or encourage turf establishment.

2. **Punching:** Immediately following application, the mulch, shall be punched into the soil by a mulch tiller consisting of a series of dull, flat disks with notched or cutout edges. The disks shall be approximately 20 inches (500 mm) in diameter, ¼ inch (6 mm) thick, spaced approximately 8 inches (200 mm) apart and fitted with scrapers.

Working width of the tiller shall not exceed six feet (1.8 meters) per member, but may be operated in gangs of not over three members. The tiller shall be operated on contour, except that on slopes 3:1 or steeper diagonal operation will be permitted.

Tiller members shall be ballasted, to push mulch into the soil approximately three inches (75 mm) with ends exposed above the soil surface.

The mulch tiller shall follow as closely as possible behind the mulcher. Mulch shall not be blown when wind velocity causes appreciable displacement before it can be anchored by the mulch tiller. More than one pass of the mulch tiller may be required to assure adequate anchoring.

- B. **Fiber Mulch:** Rate of application shall be 2,000 pounds per acre (2,250 kilograms per hectare) unless otherwise specified by the Engineer. Excessive thickness of mulch which will smother grass seedlings shall be avoided.

Mulch shall be placed on a given area as soon as possible, or within 48 hours after seeding.

- C. **Bonded Fiber Erosion Control Treatment:** Rate of application shall be 3900 pounds per acre (3500 kg/hectare) and the mix shall consist of 50 pounds bonded fiber matrix to 125 gallons water (50 kg bonded fiber matrix to one cubic meter water) unless otherwise specified by the Engineer. Treatment shall be placed on a given area as soon as possible,

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or within 48 hours after seeding.

- D. Care During Construction and Final Acceptance:** Traffic, either foot, equipment, or vehicle shall be avoided over the seeded and mulched areas.

Prior to acceptance of the project, any area on which the original mulch has been displaced shall be remulched.

### 732.4 METHOD OF MEASUREMENT

- A. Grass Hay or Straw Mulch:** Grass hay or straw mulching material will be measured to the nearest 0.1 ton (0.1 metric ton). Remulching of areas damaged from causes beyond the control of the Contractor will be measured and added to the original quantities used.
- B. Fiber Mulch:** Fiber mulch shall be measured to the nearest 0.1 ton (0.1 metric ton) of mulch applied. Remulching of areas damaged from causes beyond the control of the Contractor will be measured and added to the original quantities used.
- C. Bonded Fiber Erosion Control Treatment:** Bonded fiber erosion control treatment shall be measured to the nearest 0.1 ton (0.1 metric ton) of mulch applied. Remulching of areas damaged by means beyond the control of the Contractor will be measured and added to the original quantities used.

### 732.5 BASIS OF PAYMENT

- A. Grass Hay or Straw Mulch:** Grass hay or straw mulch will be paid for at the contract unit price per ton (metric ton). Payment will be full compensation for furnishing, hauling, placing, punching, and for materials, equipment, labor, tools, and incidentals necessary.
- B. Fiber Mulch:** Fiber mulch will be paid for at the contract unit price per ton (metric ton). Payment will be full compensation for furnishing, hauling, and placing and for materials, equipment, labor, tools, and incidentals necessary.
- C. Bonded Fiber Erosion Control Treatment:** Bonded fiber erosion control treatment will be paid for at the contract unit price per ton (metric ton). Payment will be full compensation for furnishing, hauling, and placing and for materials, equipment, labor, tools, and incidentals necessary.