

904 - MULCHING

SECTION 904

MULCHING

904.1 DESCRIPTION

Provide and place mulching materials as shown in the Contract Documents.

**BID ITEMS**

Mulching (Temporary)  
Mulching (Permanent) (Set Price)  
Mulching Tacking Slurry  
Mulching (Hydro)

**UNITS**

Acre  
Acre  
Acre  
Square Yard

904.2 MATERIALS

Provide materials that comply with the applicable requirements.

Mulch and Mulching Tacking Slurry .....	<b>DIVISION 2100</b>
Asphalt Materials .....	<b>DIVISION 1200</b>
Water .....	<b>DIVISION 2400</b>

904.3 CONSTRUCTION REQUIREMENTS

**a. Mulching.**

(1) General. Place and punch the mulch immediately after the fertilizing and seeding operations. Do not allow the mulching operations to lag behind the fertilizing and seeding operations more than 24 hours. If rain is forecast, make every effort to mulch areas the same day they are seeded.

A sufficient length of mulching material is needed for the mulch to interlap and bind together. Short stemmed mulching material is more vulnerable to wind action. When the mulching is applied with a straw blower, if required, remove the cutting knives to prevent cutting the mulch too short.

After an area is fertilized and seeded, uniformly spread the mulch over the area. Apply the mulch at the rates shown in the Contract Documents. The rates shown in the Contract Documents are a guide, the Engineer will determine if the applied mulch is sufficient to protect the seeded area.

After the mulch is applied to an area, punch the mulching material (except wood chips and excelsior material) approximately 2 inches into the ground. Perform the punching operation longitudinally, using a mulch puncher. When needed, use weights on the mulch puncher to punch the mulching material into the soil.

When the slope is too steep to use a mulch puncher, "pat" the mulch with forks as it is placed on the slope. To reduce wind loss, cover the mulch on the upper 1/3 of slope by hand spreading a light application of soil or sand on the mulch.

On lawns and small areas in urban areas, apply the mulch material using hand methods, unless otherwise approved by the Engineer. As the mulch is placed, "pat" the mulch with a fork. To reduce wind loss, hand spread a light application of soil or sand over the mulched area.

(2) Wood Cellulose Fiber Mulch. The Contractor may choose to use wood cellulose fiber mulch. When used, apply the wood cellulose fiber immediately after the seeding and cultipacking. Apply the wood cellulose fiber by means of a standard hydraulic slurry seeding machine. Demonstrate, to the Engineer's satisfaction, that the equipment and methods will result in a uniform application of the wood cellulose fiber.

Mix the wood cellulose fiber at the rate of 50 pounds per 100 gallons of water. Apply the wood cellulose fiber onto the seeded and cultipacked slope at the following rates to maximize adhesion and minimize slumping. Apply coverage at the primary angle of application at the rate of (dry) 1,170 pounds per acre. Apply the secondary angle of coverage at the rate of 630 pounds per acre of seeded slope.

Obtain complete coverage from a consistent angle of approach while applying wood cellulose fiber. Maintain secondary angles of coverage of between 175° and 185° from the primary angle.

**b. Mulching Tacking Slurry.** Immediately after the designated areas are fertilized, seeded and mulched, use hydraulic slurry equipment to apply the mulching tacking slurry. Unless shown otherwise in the Contract

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Documents, apply the mulching tacking slurry at the rate of 900 pounds per acre. Distribute the mulching tacking slurry uniformly over the mulch, leaving no bare spots. Arrange work so the mulching tacking slurry can be placed within 24 hours after each area has been mulched.

**c. Hydro-Mulching.** Apply the bonded fiber matrix over the specified areas by means of a standard hydraulic slurry seeding machine. Demonstrate, to the Engineer's satisfaction, that the equipment and methods will result in a uniform application of the bonded fiber matrix.

Mix the bonded fiber matrix at the rate of 5 pounds per 10 gallons of water. Apply the bonded fiber matrix at the rate of (dry) 3,500 pounds per acre of seeded and cultipacked slope, immediately after the seeding and cultipacking to maximize adhesion and minimize slumping. Obtain complete coverage from a consistent angle of approach while applying bonded fiber matrix. Achieve no less than 65% coverage from the primary angle of application, and 35% coverage from the secondary angle of coverage. Maintain secondary angles of coverage of between 175° and 185° from the primary angle.

### 904.4 MEASUREMENT AND PAYMENT

**a. Contract Quantities.** The Engineer will use the contract quantities for payment, provided the project is constructed essentially to the lines and grades shown in the Contract Documents.

If the Contract Documents are altered, or if the Engineer or Contractor questions the accuracy of the contract quantities for mulch, either party may request measurement of the quantities involved.

If all parties agree, payment for mulch may also be made based on drill measurement less 5%.

**b. Measured Quantities.** All area measurements in this section will be based upon slope measurements.

The Engineer will measure the mulching and mulching tacking slurry by the acre. The recycled paper fibers, tacking agent and water are not measured separately, but are subsidiary to the mulching tacking slurry.

The Engineer will measure mulching (hydro) by square yard.

**c. Payment.** Payment for "Mulching (Temporary)", "Mulching Tacking Slurry" and "Mulching (Hydro)" at the contract unit prices is full compensation for the specified work.

When the quantity of "Mulching Tacking Slurry" overruns or underruns the contract quantity by any amount, the contract unit price shall govern.

Payment for "Mulching (Permanent) (Set Price)" at the contract set unit price (subject to the adjustments in **TABLE 904-1**) is full compensation for the specified work.

<b>TABLE 904-1: PERMANENT MULCHING PAYMENT</b>	
<b>Mulching (Permanent) Quantity, M (acres)</b>	<b>Percent of Contract Set Unit Price Per Acre</b>
$M \leq 15$	100%
$15 < M \leq 30$	90%
$30 < M$	80%