

SECTION 02911

MULCH

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Types of mulch and application requirements.

1.2 RELATED WORK

- A. 02922: Seed, Turf Seed, and Turf Sod.

1.3 REFERENCES

- A. TxDOT/TTI Hydraulics and Erosion Control Laboratory Field Performance Testing of Selected Erosion Control Products.
- B. Erosion Control Pilot Study - Caltrans Document No. CTSW-RT-00-012.

1.4 SUBMITTALS

- A. The manufacturer's specifications and recommended installation requirements.
- B. If straw mulch is required, submit a certificate from the Utah Department of Agriculture indicating the straw has been obtained from a weed-free field.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in original wrapping showing the name of the manufacturer and product description.

PART 2 PRODUCTS

2.1 WOOD FIBER MULCHES

- A. Contact UDOT's Region Landscape Architect for Approved List of Wood Fiber Mulches. Approved list is updated annually.

2.2 STRAW MULCH

- A. Clean, cereal straw from a field certified by the Utah Department of Agriculture as weed-free and noxious weed-free.
- B. Air dried with a maximum moisture content of 18 percent.

2.3 TACKIFIER A

- A. A dry powder mixture of three hydrocolloids from natural plant sources, which has been combined with a crosslinking agent.
- B. Will hydrate when incorporated in a water slurry, and resist rewetting when dry on the soil surface, but allow moisture penetration into the soil.
- C. Viability of 6 to 9 months.
- D. Biodegradable and nontoxic to animal and plant life.

2.4 TACKIFIER B

- A. A dry powder produced from grinding the outer coating (psyllium) of the seed collected from the plant, insular plantago.
- B. Will hydrate when incorporated in a water slurry and forms a firm, resilient, rewettable membrane on the soil surface.
- C. Organic, non-toxic, and safe for animals and plants.

PART 3 EXECUTION

3.1 PREPARATION

- A. Complete all required grading and seeding before applying mulch.
- B. Apply the mulch within 24 hours after seeding or before precipitation falls. If the mulch is not installed and a precipitation event occurs creating soil erosion, replace eroded material, rework the soil, and reseed before applying the mulch.

3.2 APPLYING MULCH

A. Wood Fiber Mulch

1. Apply cellulose fiber mulch, tackifier A or B, and water at the following rates per acre:
 - a. Mulch: 2,000 lbs
 - b. Tackifier A: 40 lbs
or Tackifier B: 150 lbs
 - c. Water: 5,000 gal
2. Mix water, tackifier and wood fiber mulch in a hydroseeder, following manufacturer's directions.
3. Apply mulch to form an even cover over the seeded areas.
4. On cut slopes, extend the mulch over the top of the slope to cover all disturbed areas.

B. Straw Mulch

1. Apply 2,500 lbs of straw (having moisture content less than 18 percent) per acre.
2. Apply straw uniformly using a blower-type mulching machine.
3. Begin application at the top of the slope working in a downward direction.
4. On cut slopes, extend straw mulch over the top of the slope and tie in to existing vegetation.

C. Straw Anchoring

1. Demonstrate and obtain approval of the crimping procedure from the Engineer.
2. On accessible slopes, crimp the straw into the soil using a sheep's foot roller, a dull edged disk-type roller or other approved equipment that will anchor the straw into the soil without slicing the straw. Apply water to compacted or dry soils before crimping.
3. On slopes inaccessible to crimping equipment, inject a tackifier at the rate indicated above into the straw as it leaves the blower or apply a tackifier after straw is placed using a hydromulcher. Mix tackifier at rate indicated above, 5,000 gallons of water and 250 lbs of wood fiber mulch per acre.

END OF SECTION