

**Section 02921****HYDROMULCH SEEDING****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Seeding, fertilizing, mulching, and maintaining areas of commercial, industrial, or undeveloped land disturbed during construction and not paved or designated to be paved, or as indicated on Plans.
- B References to Technical Specifications:
  - 1. Section 01200 – Measurement and Payment Procedures
  - 2. Section 01350 – Submittals
  - 3. Section 01500 – Temporary Facilities and Controls
  - 4. Section 02910 – Topsoil
  - 5. Section 02255 – Bedding, Backfill, and Embankment Materials
  - 6. Section 01140 – Contractor’s Use of Premises

**1.02 MEASUREMENT AND PAYMENT**

- A Measurement for hydromulch seeding is on a per acre basis, measured and complete in place.
- B Payment for hydromulch seeding shall include all labor, materials, equipment, and preparation necessary for application and maintenance.
- C No payment shall be made for hydromulch seeding used in restoration of areas disturbed by Contractor outside the limits of construction.
- D Refer to Section 01200 – Measurement and Payment Procedures.

**1.03 SUBMITTALS**

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.
- B Submit certification from supplier that each type of seed conforms to these specification requirements and the requirements of the Texas Seed Law. Certification shall accompany seed delivery.
- C Submit a certificate stating that fertilizer complies with these specification requirements and the requirements of the Texas Fertilizer Law.

**1.04 PROTECTION OF PEOPLE AND PROPERTY**

- A Contractor shall conduct all construction operations under this Contract in conformance with the practices described in Section 01500 – Temporary Facilities and Controls.

**2.0 PRODUCTS****2.01 MATERIALS**

- A Topsoil: Conform to material requirements of Section 02910 – Topsoil.
- B Bank Sand: Conform to material requirements of Section 02255 – Bedding, Backfill, and Embankment Materials.
- C Seed: Conform to U.S. Department of Agriculture rules and regulations of the Federal Seed Act and the Texas Seed Law. Seed shall be certified 90 percent pure and furnish 80 percent germination and meet the following requirements:
1. Rye: Fresh, clean, Italian rye grass seed (*Lolium multi-florum*), mixed in labeled Proportions. As tested, minimum percentages of impurities and germination must be labeled. Deliver in original unopened containers.
  2. Bermuda: Extra-fancy, treated, lawn type common bermuda (*Cynodon dactylon*). Deliver in original, unopened container showing weight, analysis, name of vender, and germination test results.
  3. Wet, moldy, or otherwise damaged seed will not be accepted.
- D Fertilizer: Dry and free flowing, inorganic, water soluble commercial fertilizer, which is uniform in composition. Deliver in unopened containers which bear the manufacturers guaranteed analysis. Caked, damaged, or otherwise unsuitable fertilizer will not be accepted. Fertilizer shall contain minimum percentages of the following elements:
- |                  |            |
|------------------|------------|
| Nitrogen:        | 10 Percent |
| Phosphoric Acid: | 20 Percent |
| Potash:          | 10 Percent |
- E Mulch: Virgin wood cellulose fibers from whole wood chips having a minimum of 20 percent fibers 0.42 inches (10.7 mm) in length and 0.01 inches (0.27 mm) in diameter. Mulch shall be dyed green for coverage verification purposes.
- F Soil Stabilizer: "Terra Tack" 1 or approved equal.
- G Weed control agent: Pre-emergent herbicide for grass areas, "Benefin" or approved equal.

**3.0 EXECUTION****3.01 PREPARATION**

- A Do not start or perform work under conditions that are not satisfactory to perform tasks due to inclement or impending inclement weather.
- B After the areas to receive hydromulch seeding have been brought to grade, rake out any foreign organic or inorganic material, including stones, hard clay lumps, and other debris.

- C Level with Bank Sand or Topsoil, as approved by the Engineer.
- D Loosen the subgrade by discing or by scarifying to a depth of at least 4 inches.
- E Place and compact a layer of topsoil in accordance with requirements of Section 02910 – Topsoil.
- F Surface of topsoil shall be smooth and free of weeds, rocks, and other foreign material immediately before applying hydromulch seeding.

**3.02 APPLICATION**

- A Seed: Apply uniformly at the following rates for type of seed and planting date:

TYPE	APPLICATION RATE POUNDS/A	PLANTING DATE
Hulled Common Bermuda Grass 98/88	40	Jan 1 to Mar 31
Unhulled Common Bermuda Grass 98/88	40	
Hulled Common Bermuda Grass 98/88	40	Apr 1 to Sep 30
Hulled Common Bermuda Grass 98/88	40	Oct 1 to Dec 31
Unhulled Common Bermuda Grass 98/88	40	
Annual Rye Grass (Gulf)	30	

- B Fertilizer: Apply uniformly at a rate of 500 pounds per acre.
- C Mulch: Apply uniformly at a rate of 50 pounds per 1000 square feet.
- D Soil stabilizer: Apply uniformly at a rate of 40 pounds per acre.
- E Weed control agent: Apply at manufacturer's recommended rate prior to Hydromulching.
- F Suspend all operations under conditions of drought, excessive moisture, high winds, or extreme or prolonged cold. Obtain the Engineer’s approval before resuming operations.

**3.03 MAINTENANCE**

- A Maintain grassed areas by watering, fertilizing, weeding, and trimming as required to establish and sustain 70% acceptable vegetative cover.
- B For areas seeded in the fall, continue maintenance the following spring until an acceptable lawn is established.

**3.04 CLEAN-UP AND RESTORATION**

- A Perform clean-up and restoration in and around construction zone in accordance with Section 01140 – Contractor’s Use of Premises.

**3.05 PROTECTION OF THE WORK**

- A Protect and maintain grassed areas a minimum of 90 days, or as required to establish an acceptable lawn.
- B Once a lawn is established, protect and maintain it until completion of the Work.
- C Replace seeded areas damaged by Contractor's operations at no cost to Owner.

END OF SECTION