

SECTION 02936

SEEDING

PART 1 GENERAL REFERENCES

- A. FS O-F-241 - Fertilizers, Mixed, Commercial.

1.1 DEFINITIONS

- A. Weeds: Includes Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel and Brome Grass.

1.2 REGULATORY REQUIREMENTS

- A. Comply with regulatory agencies for fertilizer and herbicide composition.

1.3 SUBMITTALS

- A. Submit seed vendor's certified statement for each grass seed mixture required, stating botanical and common name, percentage by weight, and percentage of purity, germination, and weed seed for each grass seed species.
- B. Submit minimum 10 oz sample of grass seed mixture proposed.

1.4 QUALITY ASSURANCE

- A. Provide seed mixture in containers showing percentage of seed mix, year of production, net weight, date of packaging, and location of packaging.

1.5 TESTS

- A. Testing is not required if recent tests are available for imported topsoil. Submit these test results to the testing laboratory for approval. Indicate, by test results, information necessary to determine suitability.

1.6 MAINTENANCE DATA

- A. Submit maintenance data for continuing Owner maintenance under provisions of Section 01400.

- B. Include maintenance instructions, cutting method and maximum height; and types, application frequency, and recommended coverage of fertilizer.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver grass seed in original, sealed containers. Damaged packages are not acceptable
- B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

1.8 MAINTENANCE SERVICE

- A. Maintain seeded areas for three months from Date of Substantial Completion.

PART 2 PRODUCTS

2.1 SEED MIXTURE

- A. Certified seed to be latest season's crop, labeled in conformance with USDA regulations and applicable state laws.
- B. Seed Mixture:
 - 1. Kentucky 31 Fescue: 50 percent.
 - 2. Norlea Perennial Rye: 30 percent.
 - 3. White Clover: 20 percent.

2.2 SOIL MATERIALS

- A. Topsoil: Natural, fertile, agricultural soil typical of locality, capable of sustaining vigorous plant growth, from well drained site free of flooding, not in frozen or muddy condition, not less than 6% organic matter, and pH value of 5.9 to 7.0. Free from subsoil, slag, clay, stones, lumps, live plants, roots, sticks, weeds and foreign matter.
- B. Topsoil: Excavated from site and free of weeds.

2.3 ACCESSORIES

- A. Mulching Material: Oat or wheat straw, free from weeds, foreign matter detrimental to plant life, and dry. Hay or chopped cornstalks are not acceptable.
- B. Fertilizer: FS O-F-241, type and grade recommended for grass, with 50% of the elements derived from organic sources; of proportion necessary to

eliminate deficiencies of topsoil to the following proportions: 18% nitrogen, 24% phosphoric acid, and 6% potassium.

- C. Water: Clean, fresh and free of substance or matter which could inhibit vigorous growth of grass.
- D. Herbicide: 25% Prometon: 2, 4-bis, and 75% inert ingredients.
- E. Stakes: Softwood lumber, chisel pointed.
- F. String: Inorganic fiber.

PART 3 EXECUTION

3.1 INSPECTION

- A. Verify that prepared soil base is ready to receive the work of this Section.
- B. Beginning of installation means acceptance of existing site conditions.

3.2 PREPARATION OF SUBSOIL

- A. Prepare subsoil to eliminate uneven areas and low spots. Maintain lines, levels, profiles and contours. Make change in grade gradual. Blend slopes into level areas.
- B. Protect existing underground improvements from damage.
- C. Remove foreign materials, plants, roots, stones, and debris, from site. Do not bury foreign material.
- D. Remove contaminated subsoil.
- E. Cultivate to depth of 3 inches, area to receive topsoil. Repeat cultivation in areas where equipment has compacted subgrade.

3.3 PLACING TOPSOIL

- A. Spread topsoil to depth of 6 inches over area to be seeded. Place during dry weather, and on dry, unfrozen subgrade. Provide imported topsoil if a sufficient amount is not available on site.
- B. Cultivate topsoil to depth of 6 inches with mechanical tiller. Cultivate inaccessible areas by hand. Rake until surface is smooth.
- C. Remove from site, foreign materials collected during cultivation.

- D. Grade to eliminate rough, low or soft areas where ponding may occur. Maintain smooth, uniform grade.
- E. Assure positive drainage away from buildings.
- F. Finish ground level firm and sufficient to prevent sinkage pockets when irrigation is applied.

3.4 FERTILIZING

- A. Apply fertilizer, at a rate of 16 lbs per 1,000 square feet.
- B. Apply after smooth raking of topsoil and prior to roller compaction.
- C. Do not apply grass seed and fertilizer at same time, in same machine.
- D. Mix thoroughly into upper 2 inches of topsoil.
- E. Lightly water to aid breakdown of fertilizer and to provide moist soil for seed.

3.5 SEEDING

- A. Apply seed at a rate of 8 lbs per 1,000 square feet evenly in two intersecting directions. Rake in lightly. Do not seed area in excess of that which can be mulched on same day.
- B. Do not sow immediately following rain, when ground is too dry, or during windy periods.
- C. Roll seeded area with roller not exceeding 112 lbs.
- D. Immediately following seeding and compacting, apply mulch to a thickness of 1/8 inches. Maintain clear of shrubs and trees.
- E. Apply water with a fine spray after each area has been mulched. Saturate to 4 inches of soil.
- F. Seeding shall be limited to the following planting periods: Spring – March 1 through May 10; Fall – August 15 through October 31. If construction is completed out of sequence with the planting periods, Contractor shall maintain temporary surface restoration as required by Section 01563 and coordinate with the WSD accordingly.

3.6 MAINTENANCE

- A. Maintain surfaces and supply additional topsoil where necessary, including areas affected by erosion.
 - B. Mow grass at regular intervals to maintain at a maximum height of 2-1/2 inches. Do not cut more than 1/3 of grass blade at any one mowing.
 - C. Neatly trim edges and hand clip where necessary.
 - D. Immediately remove clippings after mowing and trimming.
 - E. Water to ensure uniform seed germination and to keep surface of soil damp.
 - F. Apply water slowly so that surface of soil will not puddle and crust.
 - G. After first mowing water grass sufficient to moisten soil from 3 inches to 5 inches deep.
 - H. Apply weed killer when weeds start developing, during calm weather when air temperature is above 50 degrees F.
 - I. Replant damaged grass areas showing root growth failure, deterioration, bare or thin spots, and eroded areas.
- 3.7 RESTORATION
- A. Restore pavement, concrete, grassed areas, planted areas, and structures damaged during execution of work of this Section.
- 3.8 ACCEPTANCE
- A. Seeded areas will be accepted at end of maintenance period when seeded areas are properly established and otherwise acceptable.
- 3.9 FIELD QUALITY CONTROL
- A. Provide Field Quality Control under provisions of Section 01400.
 - B. Correct Work not in conformance with this Section.

END OF SECTION 02936 - SEEDING