

SECTION 329200 - TURF AND GRASSES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Seeding of disturbed areas.

1.02 DEFINITIONS

- A. Duff Layer: The surface layer of native topsoil that is composed of mostly decayed leaves, twigs, and detritus.
- B. Finish Grade: Elevation of finished surface of planting soil.
- C. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- D. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. This includes insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. It also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- E. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. These include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- F. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- G. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or top surface of a fill or backfill before planting soil is placed.
- H. Subsoil: All soil beneath the topsoil layer of the soil profile and typified by the lack of organic matter and soil organisms.
- I. Surface Soil: Whatever soil is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil, but in disturbed areas such as urban environments, the surface soil can be subsoil.

1.03 BUY AMERICAN REQUIREMENTS

- A. Provide certificates to show that all products meet the following requirements.
 - 1. American Iron and Steel (AIS)
 - 2. Build America, Buy America Act
- B. See Supplementary Conditions for details.

1.04 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

1.05 INFORMATIONAL SUBMITTALS

- A. Certification of grass seed.
 - 1. Certification of each seed mixture.
- B. Product certificates.

1.06 QUALITY ASSURANCE

- A. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws, as applicable.

PART 2 - PRODUCTS

2.01 TOPSOIL

- A. Provide topsoil which is fertile, friable, reasonably free of subsoil, clay lumps, brush, weeds and other litter, and free of roots, stumps, stones larger than 3/4-inch in any dimension, and other extraneous or toxic matter harmful to plant growth. Topsoil shall have a pH between 6 and 7.6, contain from 15 to 35 percent organic matter as determined by the Organic Carbon 6A, Chemical Analysis Method described in USDA Soil Survey Investigation Report No. 1. Maximum particle size, 3/4-inch, with 3 percent retained on 1/4-inch screen. Soluble salts shall not exceed 600 ppm. Meeting ADOT&PF standard specification section 726.
- B. Approved alternative to topsoil is Biotic Soil and Erosion Control by Profile, ProGanics DUAL. This is a biodegradable composition of wood and bark fibers mixed (sanitized to eliminate weed seeds and pathogens), fortified with wetting agents, crosslinked biopolymers, water absorbents, regenerated plants and beneficial bacteria to promote vegetative establishment.

2.02 SEED

- A. Grass Seed: Grasses of the type specified shall meet the applicable requirements as outlined by the State of Alaska Department of Natural Resources, Division of Agriculture, "Seed Regulations," latest edition.
- B. Grass Seed shall also meet DOT&PF standard specification section 724-2.02.

- C. Seed Species: Seed shall meet or exceed the percentages of purity and germination as specified below:

1. Sun and Partial Shade: Proportioned by weight as follows:

- a. Disturbed Areas:

<u>Proportion</u>	<u>Name</u>	<u>Min. % Germ.</u>	<u>Min. % Pure Seed</u>	<u>Max. % Weed Seed</u>
30%	Nugget Bluegrass	80	85	0.50
30%	Red Fescue	85	98	0.50
40%	Smooth Brome	80	75	1.00

2.03 FERTILIZERS

- A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:

1. Composition: 20 percent nitrogen, 20 percent phosphorus, and 10 percent potassium, by weight.

- B. Fertilizer shall also meet DOT&PF standard specification section 725-2.02.

PART 3 - EXECUTION

3.01 TOPSOIL

- A. Spread 4 inches uniformly over subgrade in lawn or other areas to be seeded.
- B. For Biotic Soil and Erosion topsoil alternative must achieve 99% ground coverage. Follow manufacturer's installation instructions.

3.02 SEEDING

- A. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.
- B. Sow seed at a total rate of 2 lbs./1,000 sq. ft.
- C. Apply fertilizer uniformly spread over seeded area at rate of 10 lbs./1,000 sq. ft.
- D. Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with fine spray.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

- A. Topsoil and Seeding: measured using the limits shown on the plans and specified in the written authorization for the work issued on-site by the Engineer to compute the in-place per square yard.

4.02 BASIS OF PAYMENT

- A. Payment for landscaping by the Contractor shall include furnishing all necessary personnel, equipment, transportation, and supplies to perform the work as shown and specified.
- B. Landscape work is included in other respective bid items, except as specifically provided for herein or elsewhere in these specifications.

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
329200-1	Topsoil	Square Yards
329200-2	Seeding	Square Yards

END OF SECTION