

SECTION 3700 – LAWNS AND GRASSES

LAWNS AND GRASSES

PART 1 – GENERAL

1.01 Section Summary

- A. Restoration of construction areas using topsoil, seed, mulch, and other materials.

1.02 Related Sections

- A. Section 1200 – Temporary Erosion and Sediment Control
- B. Section 1500 - Removals
- C. Section 1800 – Excavation and Embankment

1.03 References

- A. North Dakota Department of Transportation "Standard Specifications for Road and Bridge Construction," 2014 Edition, as revised.
 - 1. Section 202 - Removals
 - 2. Section 203 – Excavation and Embankment
 - 3. Section 251 – Seeding
 - 4. Section 252 – Sodding
 - 5. Section 253 - Mulching
 - 6. Section 255 – Erosion Control Blanket and Turf Reinforcement Mat.
 - 7. Section 856 – Erosion Control Blanket and Turf Reinforcement Mat.

1.04 Submittals

- A. Provide Engineer verification of seed type used on the project per Section 1000 – Quality Requirements.

1.05 Quality Assurance

- A. At the end of the Correction Period, a final inspection shall be made to determine areas of insufficient growth of the specified seed type. Areas of insufficient growth shall be re-seeded and established at the sole expense of the Contractor.

PART 2 – PRODUCTS

2.01 Topsoil

- A. Topsoil shall consist of loose, friable, loamy topsoil free of excess acid, alkali, and objectionable amounts of sod. Topsoil shall have demonstrated the growth of healthy crops or grasses.

2.02 Fertilizer

- A. Conform to NDDOT Specification Section 251.03.G except as modified herein:
 - 1. At least 70% of the nitrogen component shall be slow-release water-soluble nitrogen.
 - 2. Fertilizer shall be in granular or granulated form, provided in closed containers clearly marked with the following information:
 - a. Its weight.
 - b. Type of nutrients.
 - c. Manufacturer’s guaranteed analysis.

2.03 Seed Mixtures

- A. Regularly maintained urban areas (turf areas):

Sunny Mix

Common Name	Bulk Rate lb/acre	% of Mixture Component
Bluegrass – Park	72	60
Ryegrass – Fineleaf Perennial	36	30
Red Fescue, creeping	12	10
Totals	120	100.00

Heavily Shaded Mix

Common Name	Bulk Rate lb/acre	% of Mixture Component
Bluegrass – Park	42	35
Ryegrass – Fineleaf Perennial	36	30
Red Fescue, creeping	42	35
Totals	120	100.00

- B. Levees
 - 1. Dry side and levee top: Conform to Sunny Mix.
 - 2. Wet side: Conform to NDDOT Specification Section 251.03.F, Wetland Seed Mix – West.
 - C. Areas not regularly maintained: Conform to NDDOT Specification Section 251.03.D, Class I.
- 2.04 Sod
- A. Conform to NDDOT Specification Section 252.
- 2.05 Mulch
- A. Conform to NDDOT Specification Section 253.
- 2.06 Erosion Control Blanket
- A. Conform to NDDOT Specification Section 856.
- 2.07 Weed Control Herbicide
- A. Non-Selective Herbicide: broad-spectrum glyphosate-based.
 - B. Selective Herbicide: Trimec, 2-4-D, or approved equal.

PART 3 – EXECUTION

- 3.01 General
- A. Prior to beginning restoration activities, the Contractor will review the site with the Engineer to determine the extent of restoration to take place and to verify seed mix(es) to be used.
 - B. The Contractor shall notify the Engineer at least 14 days in advance of placing topsoil to allow the Engineer to have the topsoil tested.
 - C. All finish grading activities shall be completed and accepted by the Engineer prior to topsoil placement.
 - D. The Contractor shall maintain newly established areas until the project is completed and accepted by the Owner.
 - 1. Watering shall be adequate to establish and maintain healthy, uniform coverage.
 - 2. Mowing to a height of 3 to 4 inches shall be performed when grass reaches a height of 5 to 6 inches.

3.02 Sod

- A. Where shown on the Plans, sod shall be installed according to NDDOT Specification Section 252.

3.03 Seeding

- A. Conform to NDDOT Specification Section 251 except as modified herein:
 1. Seedbed Preparation: Topsoil shall be placed 6 inches thick, areas that settle or hold water will be repaired by the Contractor.
 2. Sowing Seed: No seeding shall occur when sustained wind velocities exceed 20 mph. A Brillion type seeder is an acceptable piece of equipment for sowing seed if it places seed at the specified depth and rate and rolls in a single operation.
 3. Fertilizer: Fertilize in turf areas only. One application either immediately prior to or after seeding. Another application when the grass has been evenly established to a height of 2 inches. Water the turf after each application.
 4. The Contractor assumes full risk if seeding is performed outside the seasonal limitations outlined in the NDDOT Specification. All areas damaged by erosion or not established because of seeding outside the recommend dates shall be repaired at no cost to the Owner.
 5. Areas of inadequate or non-uniform coverage shall be re-seeded at the Contractor's expense.

3.04 Hydraulic Mulch (hydro-mulch)

- A. In all urban areas where a manicured lawn will be installed (turf areas), the seed shall be covered with hydro-mulch according to NDDOT Specification Section 253.

3.05 Erosion Control Blanket

- A. Where shown on the Plans, the seed shall be covered with erosion control blankets according to NDDOT Specification Section 255.

3.06 Straw Mulch

- A. In all other areas, the seed shall be covered with straw mulch conforming to NDDOT Specification Section 253.03.C.

3.07 Weed Control

A. General

1. Herbicide applications shall be performed according to federal, state, and local regulations.
2. Products shall be used consistent with their labeling.
3. All products, mixes and applications must be approved by the Engineer prior to use.
4. The Contractor or subcontractor applying herbicides is responsible for their purchase, storage, record keeping, and disposal.

B. Applicator Requirements

1. Herbicides may only be applied by qualified applicators who have been trained regarding the product and application method.
2. Applicators must hold, or be directly supervised by someone who holds, a valid North Dakota Pesticide Applicator Certification.
3. All herbicide applications shall be documented by the applicator, who shall submit a copy to the Engineer after each application.
4. Applicators must use extreme caution when applying herbicides near water and adjacent properties that might be damaged.

C. Selective Herbicide: Apply 2 to 3 days after the first mowing to seeded areas identified by the Engineer.

D. Non-Selective Herbicide: Apply only where indicated on the Plans or as directed by the Engineer.

PART 4 – MEASUREMENT AND PAYMENT

- A. Seeding shall be measured and paid for according to NDDOT Specification Section 251, except all costs for the following shall be included in the price bid for each seeding bid item:
 - 1. Mowing, watering, and other turf maintenance as specified.
 - 2. Furnishing and applying fertilizers as specified.
 - 3. Installing hydraulic mulch or straw mulch as specified.
- B. Erosion Control Blanket: Shall be measured and paid for according to NDDOT Specification Section 255.
- C. Sod: Shall be measured and paid for according to NDDOT Specification Section 252.
- D. Topsoil (for Seeding): Shall be paid for by the cubic yard (CY) based on a volume computed by multiplying the area covered by the topsoil thickness.
- E. Herbicide – Selective: Shall be paid for by the square yard (SY) based on the measured area of application. This bid item may or may not be used depending on the growing conditions encountered.
- F. Herbicide – Non-Selective: Shall be paid for by the square yard (SY) based on the measured area of application.
- G. All costs to properly complete the work specified herein and/or shown on the Plans shall be included in the prices bid for these or other items unless applicable bid items are included on the Bid Form.

END OF SECTION