

December 2013, rev 00

32 9219 – Turfgrass Seeding

PART 1. - GENERAL

1.01 Section Includes

A. This work consists of complete construction of lawn areas including:

1. Soil Preparation
2. Seeding and fertilizing of all specified areas
3. Erosion, seed and seedbed protection
4. Maintenance and watering until final acceptance.

1.02 Definitions

- A. Amended Topsoil: Soil produced by homogeneously blending and thoroughly incorporating 60% topsoil, 20% coarse sand and 20% mushroom compost.
- B. Finish Grade: Elevation of finished surface of topsoil.
- C. 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.
- D. 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.
- E. Pulverized Topsoil: Topsoil crushed and screened to be free of clumps, rocks and debris.
- F. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or top surface of a fill or backfill before planting soil is placed.
- G. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- H. 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.
- I. Topsoil: Fertile, friable, natural soil of loamy character without admixture of subsoil material, obtained from a well-drained arable site, reasonably free form

clay, lumps, coarse sand, stones, plants, roots, sticks, and other foreign material, with acidity range of between PH 6.0 and 6.8.

1.03 Submittals

- A. Submit seed vendor's certification for required turfgrass see mixture, indicating percentage by weight, percentage of purity, germination and, and weed seed for each grass species. One seed tag for each seed type used on the site shall.
- B. The contractor shall supply maintenance instructions for proper care of the applied seed material.

1.04 Quality Assurance

- A. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor, with a minimum of five years' experience, on Project site when work is in progress.
 - 1. Pesticide/Herbicide Applicator: State licensed, commercial.
- B. Soil Analysis: For each unamended soil type, furnish soil analysis and a written report by a qualified soil-testing laboratory.
 - 1. The soil-testing laboratory shall oversee soil sampling.
 - 2. Report suitability of tested soil for turfgrass growth.
 - a. State recommendations for nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory planting soil suitable for healthy, viable plants.
 - b. Report presence of problem salts, minerals, or heavy metals; if present, provide additional recommendations for corrective action.

1.05 Delivery, Storage, and Handling

- A. Seed shall be delivered to the site in the original unopened sacks as received from the producer, and each sack shall be tagged in accordance with the agricultural seed laws of the United States and the State of Illinois. Each sack shall be tagged showing the dealer's guarantee as to the year grown, percentage of pure seed, analysis of seed mixture, percentage of germination and the date of the test by which the percentages of purity and germination were determined. All seed sown shall have a date of test within six (6) months of the date of sowing.
- B. Any seed delivered prior to use shall be stored in such a manner that it will be protected from damage by heat, moisture, rodents, or other causes.
- C. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

1.06 Project Conditions

- A. Work Notification: Notify the Owner’s representative at least two (2) working days prior to start of seeding operations.
- B. Protect existing utilities, paving and other facilities from damage caused by seeding operations.
- C. Perform seeding work only after planting and other work affecting ground surface has been completed.
- D. Install seed under favorable weather conditions unless approved by Owner’s representative. The conditions of the guarantee and maintenance provision apply regardless of the date of installation. The generally accepted times for seeding are:
 - 1. Spring – April 1 through May 30
 - 2. Fall – August 15 through September 31

1.07 Maintenance Service

- A. Initial Turfgrass Maintenance Service: Provide full maintenance by skilled employees of landscape installer. Maintain as required in Part 3. Begin maintenance immediately after each area is sown and continue until acceptable turfgrass seed is established and mown or until final acceptance of the project by the Owner’s representative.

1.08 Warranty

- A. Provide a uniform stand of grass by watering, mowing, weeding and maintaining seeded areas until final acceptance. Reseed areas with specified seed which fail to provide a uniform stand of grass until all affected areas are accepted by the Owner’s representative.
- B. Special Warranty: Installer agrees to repair or replace turf that fails in materials, workmanship, or growth within specified warranty period.
 - 1. Warranty all work in this section for 12 months following the date of Final Acceptance.

PART 2. - PRODUCTS

2.01 Materials

- A. Turfgrass Seed: Fresh, clean seed from the most recently harvested crop which complies with all local, state and federal seed and weed laws and is free of Poa

annua, Bent grass and noxious weed seeds. A seed mixture of one of the approved mixes listed below or an approved equal:

1. Field of Dreams Athletic Mixture by National Seed
 2. McNabb Tees & Fairway Mixture
 3. The preference of new turfgrasses and overseeding at NIU is a mixture minimum of 50% bluegrass species unless otherwise approved.
- B. Seed Blanket: Bio-degradable and required as a top dressing when seeding between June 1 and August 15 or when requested by the Owner, shall consist of the following or an approved equal:
1. Greenscapes Wood Fiber Seed Blanket
 2. Pennington Wood Fiber Seed Blanket
 3. Seed Blanket stakes shall be Greenscapes Bio-degradable Stakes or an approved equivalent. Metal stakes shall not be used.
- C. Straw Mulch: Clean oat or wheat straw well-seasoned before bailing, free from mature seed-bearing stalks or roots of prohibited or noxious weeds and required as a top dressing when seeding between June 1 and August 15.
- D. Water: Free of substances harmful to seed growth. Furnish hoses or other methods of transportation. Also available from University sources by rental or valve and hydrant connections or pumping from creek and pond.
- E. Fertilizer: Granular, non-burning product composed of not less than 50% organic slow acting, guaranteed analysis professional fertilizer.
1. Starter fertilizer: 10-24-18 with 30% nitrogen in slow release formula.
 2. Over-seed Areas: 22-3-11 with 50% nitrogen in slow release formula.
 3. Post emergent fertilizer: Approx. analysis 30-5-5
 4. Additional fertilizers may be specified in contract specifications.

PART 3. - EXECUTION

3.01 Inspection

- A. Examine finish surfaces, grades, topsoil quality, and depth. Do not start seeding work until unsatisfactory conditions are corrected.

3.02 Preparation

- A. Limit preparation to areas which will be immediately seeded.
- B. Loosen or till topsoil of areas to be seeded to minimum depth of 4". Remove all clumps, clay and sod clods. Stones over 1" in any dimension, sticks, roots, and

undesirable materials prior to final grading. Grading shall meet tolerances specified contract specifications.

- C. Grade areas to be seeded to a smooth, free draining even surface with a loose, moderately coarse texture. Roll and rake, remove ridges, and fill depressions as required to drain.
- D. Apply Starter fertilizer be mechanical or handheld rotary type distributor, thoroughly and evenly incorporate with soil to a depth of 3” by disking or other approved method.
- E. Restore prepared areas to specified condition if eroded, settled, or otherwise distributed after fine grading and prior to seeding.
- F. Provide temporary winter cover when the completion schedule of the work under the contract requires a delay in the seeding operation.
 - 1. Areas not yet seeded or have no vegetative cover shall be seeded immediately with a temporary winter grass.

3.03 Installation

A. Seeding

- 1. Seed immediately after preparation of seed bed.
- 2. Seed indicated areas within contract limits and areas adjoining contract limits disturbed as a result of construction operations.
- 3. Perform seeding operations when the soil is dry and when winds do not exceed 10 miles per hour velocity.
- 4. Re-seeded areas shall have no blanket applied unless the areas is bare earth or has less than 30% seed germination/plants present at time of re-seed.
- 5. Apply seed by mechanical, rotary or drop type distributor. Install seed evenly by sowing equal quantities in two directions, at right angles to each other.
- 6. After seeding, rake soil surface lightly to incorporate seed. Roll with light lawn roller.
- 7. The entire seeded area shall be covered with seed blanket or straw mulch between June 1 and August 15 or on the request of the Owner. All seeded areas must be completely and uniformly covered. Within 24 hours, place seed blanket or straw mulch. If straw mulch, place uniformly at 2¹/₂ tons per acre using manual or mechanical methods. Crimp straw into soil to secure.

Anchor straw mulch with liquid tackifier, applied uniformly at a rate of 60 gallons per acre, on slopes of 3:1 or steeper.

8. Seed shall be applied at the following rates:

Seed	Rate per 1000 square feet
Seed of new turfgrass areas	4.5 to 5 pounds
Reseeding of established areas (over seed in Spring)	2.5 to 3 pounds

B. Hydoseeding

1. Evenly apply a slurry mixture of seed, wood fiber and water to the prepared surfaces at the specified rate. On slopes of 3:1 or greater, or where specified, add tackifier per manufacturer’s recommendations, to the slurry mixture prior to application.

C. Reconditioning Existing Lawn

1. Recondition existing turf damaged by Contractor’s operations, including storage of materials or equipment and movement of construction vehicles.
2. Provide fertilizer, seed and soil amendments as specified for new lawns and as required to provide a satisfactory reconditioned lawn. Provide topsoil as required to fill low areas and meet new finish grades.
3. Cultivate bare and compacted areas thoroughly.
4. Remove diseased or unsatisfactory lawn areas. Do not bury into soil. Remove topsoil containing foreign materials resulting from Contractor’s operations, including oil drippings, stone, gravel, and other constructions materials.
5. Where substantial but thin lawn remains, rake, aerate if compacted, and cultivate soil; fertilize and seed.
6. Water newly seeded areas. Maintain adequate soil moisture until new grass is established.

D. Protection of Seeded Areas

1. Immediately after seeding, the area shall be protected against foot and vehicular traffic or other uses by erecting snow fences or chain link fence, stakes with ropes and ribbons, and/or barricades, as required, and approved signs shall be placed at appropriate intervals until Final Acceptance.

3.04 Maintenance

- A. Maintain all seeded lawn areas for a period of at least 90 days or until Final Acceptance by the Owner's representative.
- B. Maintain seeded lawn areas, including cultivation, fertilizing, watering, mowing, application of herbicides, fungicides, insecticides and re-seeding until a full, uniform stand of grass free of weeds, undesirable brass species, disease, and insects is achieved and accepted by Owner's representative.
- C. Mow seeded lawn areas as soon as top growth reaches a three inch (3") height. Cut back to two inch (2") height. Repeat mowing as required to maintain specified height.
- D. Use of Municipal Water or operation of any fire hydrants with the municipality is strictly prohibited without prior approval of the Director of Public Works. Contractors shall obtain a hydrant meter, pay deposit for meter, and payment for water usage from the local municipality. Water tanks shall also be inspected prior to use. Use of water from a water source outside of the municipality does not require inspection.

3.05 Acceptance

- A. Acceptance of the seeded areas is based on 95% coverage over the entire new seeding area and over-seed areas. Maintenance shall continue by the Contractor until Final Acceptance has been granted by the Owner's Representative.
- B. If an irrigation system is in place, it is the responsibility of the Contractor to ensure that the system is working and is covering all new seed areas. This responsibility continues until the site is turned over to the Owner upon acceptance.
- C. Watering shall continue and be maintained by the contractor for the duration of time until final acceptance. It is the contractor's responsibility to notify the owner's representative that they are on-site performing watering. Notification by fax or email is preferred.

3.06 Cleaning

- A. Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, debris, and equipment. Repair damage resulting from seeding operations.

End of Division 32 9219

**This section of the NIU Design Requirements establishes minimum requirements only.
It should not be used as a complete specification.**