

**SODDING****PART 1 - GENERAL****1.01 SECTION INCLUDES**

Sod Installation

**1.02 DESCRIPTION OF WORK**

This section includes preparation of the sodbed, furnishing and installing sod, fertilizing, watering, and maintenance for completed sodded areas.

**1.03 SUBMITTALS**

Comply with Division 1 - General Provisions and Covenants, as well as the following:

- A. Sod grower's certification of grass species and location of sources.
- B. Certification of the fertilizer analysis.
- C. Written instructions recommending procedures for maintenance of sodded lawns, prior to final acceptance of sod.

**1.04 SUBSTITUTIONS**

Comply with Division 1 - General Provisions and Covenants.

**1.05 DELIVERY, STORAGE, AND HANDLING**

Comply with Division 1 - General Provisions and Covenants, as well as the following:

- A. Harvest, deliver, and transplant sod within a period of 24 hours unless a suitable preservation method is approved by the Engineer prior to delivery.
- B. Do not harvest or transport sod when moisture content may adversely affect sod survival.
- C. Protect sod that cannot be placed immediately on delivery from sun, wind, dehydration, and rain prior to installation.
- D. Sod showing visible signs of heating or dehydration will be rejected.
- E. Do not tear, stretch, or drop sod during handling and installation.
- F. Deliver fertilizer to the site in original, unopened, and non-damaged containers, each bearing the manufacturer's guaranteed analysis.
- G. Store packaged materials off the ground and protect from moisture and deterioration.

**1.06 SCHEDULING AND CONFLICTS**

Comply with Division 1 - General Provisions and Covenants, as well as the following:

- A. Notify the Engineer at least 3 calendar days prior to start of sodding operations.
- B. Perform sod installation after planting and other work affecting ground surface has been completed, or as approved by Engineer.

**1.07 SPECIAL REQUIREMENTS**

None.

**1.08 MEASUREMENT AND PAYMENT****A. Sod:**

1. **Measurement:** Measurement will be in squares, each square containing 100 square feet of sod.
2. **Payment:** Payment will be at the unit price per square of sod.
3. **Includes:** Unit price includes, but is not limited to, preparation of sod and sodbed, stakes, fertilizing, watering, maintenance, and clean up. Also includes any necessary sod replacements during maintenance period.

**PART 2 - PRODUCTS****2.01 SOD**

- A. Provide a well-established (no less than 18 months old), well rooted, healthy, nursery-grown sod blend of improved Kentucky Bluegrass with a uniform color, leaf texture, density, and varieties consisting of a minimum of three cultivars selected from the following list:

Allowed Kentucky Bluegrass Cultivars:

4-Seasons	Liberator
Arrowhead	Midnight
Award	NuBlue
Beyond	NuDestiny
Blue Chip Plus	NuGlade
Concerto	Rubicon
Everest	Rugby II
Everglade	Rush

- B. Sod grown in peat bedded soil will not be accepted.
- C. Ensure sod is free from objectionable grasses and broadleaf weeds, roots of trees or shrubs, stones, thatch, and other objectionable materials, nematodes and soil-born insects, and free from disease. Sod will be considered free of weeds if less than two such plants are found per 100 square feet of area.
- D. Mow at a height of 2 inches prior to cutting.
- E. Cut sod with a sod machine in strips of uniform width and length, with square ends. Cut to a uniform soil thickness of approximately 1 inch; thickness measurement excludes top growth.
- F. Ensure sod is moist when placed.

**2.02 FERTILIZER**

Comply with Iowa DOT Article 4169.03.

**2.03 STAKES**

- A. Softwood Stakes:** 3/4 inch diameter and 8 inches long.
- B. Steel Pins:** Tee shaped with a 4 inch head and 8 inch leg.

**2.04 WATER**

Unless otherwise specified in the contract documents, provide water and watering equipment such as hoses and sprinklers. Provide water free of substances harmful to plant growth.

**PART 3 - EXECUTION****3.01 PREPARATION OF SODBED**

- A. Limit preparation to areas that will be immediately sodded.
- B. Where weed growth has developed, remove all weeds and weed debris.
- C. Shape and fine grade sodbed to remove washes or gullies, water pockets, and irregularities. Provide an even surface, true to grade and cross-section.
- D. Rototill and cultivate sodbed to a fine and mellow condition to a minimum depth of 3 inches. Clear the top 3 inches of soil lumps, stones over 3/4 inch, and foreign material using hand labor as required.

**3.02 FERTILIZING - FIRST APPLICATION**

- A. Provide a guaranteed analysis of 20-26-6 commercial fertilizer or the equivalent units of nitrogen (N), phosphate (P), and potash (K) by weight at the rate of 200 pounds per acre.
- B. Incorporate fertilizer into soil to a depth of 1 1/2 inches prior to placing sod.

**3.03 SOD INSTALLATION**

- A. Do not install sod between the dates of June 15 and August 15, unless authorized by the Engineer.
- B. Do not lay frozen sod; do not lay sod on frozen soil or when freezing conditions are forecasted within 24 hours.
- C. Dampen dry soil prior to placing sod.
- D. Firm or heal in soil along the edges of the sodded areas.
- E. Carefully place sod in rows or strips evenly, with the longest edge parallel to the finished contours, and at right angles to the centerline of ditches and channels. On slopes, begin placing sod at the bottom and progress upward.
- F. Minimize traffic on newly laid sod during installation. Provide plank or wood sheets to protect sod already laid from equipment and vehicles.
- G. Tightly fit each strip against each other without voids. Do not overlap edges. Stagger joints at the ends of sod strips with adjacent strips of sod.
- H. Finish sod edges at walks, curbs, planting, mulch edges, and other vertical surface by cutting and fitting tightly to edge.
- I. Place sod mat approximately 1 inch below finished surface of walks, pavement, curbs, or other permanent features. Remove any sod not conforming to this requirement, adjust the subgrade, and re-lay the sod.
- J. Where new sod joins existing lawns, cut straight and neatly into existing lawn and level subgrade to match height.
- K. Stake sod on grades exceeding 4:1 and in drainage channels. Stake each roll at 2 foot intervals or as required to prevent movement during rainfall and stormwater runoff events.
- L. Roll lightly-watered sod with a small mechanical or hand sod roller to sufficiently set or heal sod into soil and remove lumps. Roll as required to firm and level the sodded areas.

**3.04 WATERING**

- A. Water sod within 1 hour of placement. During initial watering, thoroughly wet sod and sodbed.
- B. Water all sodded areas during the maintenance period as necessary to maintain sod and soil moisture, supplement rainfall, promote growth and proper rooting, ensure sod survival, and prevent dormancy.
- C. Apply water uniformly and consistently on all sodded areas to prevent damage to sod, trees, and shrubs.

**3.05 FERTILIZING - SECOND APPLICATION**

Apply second application of fertilizer with a guaranteed analysis of 10-10-10 commercial fertilizer or the equivalent units of nitrogen (N), phosphate (P), and potash (K) at the rate of 300 pounds per acre 2 weeks after laying sod and prior to final acceptance.

**3.06 MAINTENANCE**

- A. Begin maintenance immediately following installation of sod and continue for a period until the sod is well established with sod rooted in place. The maintenance period will be for 30 days.
- B. Maintenance of sodded areas includes:
  - 1. Watering.
  - 2. Weeding.
  - 3. Mowing. Once sod has grown to a height between 3 and 4 inches, mow to a 2 to 2 1/2 inch height.
  - 4. Remove and replace sodded areas that fail to survive.

**3.07 CLEAN UP**

- A. Remove all excess materials, debris, and equipment from site.
- B. Clean all paved surfaces.
- C. Repair any damage resulting from sodding operations.

**3.08 ACCEPTANCE**

- A. Sod acceptance will be based on the following criteria:
  - 1. All requirements for the completed installation and maintenance have been met.
  - 2. Sodded areas are healthy and even-colored, and a viable lawn is established, free from weeds, undesirable grass species, disease, and insects.
  - 3. Sod is knit down to the soil so that it cannot be pulled up.
  - 4. Sodded areas are without scattered bare spots and dead or dormant sod.
  - 5. Clean up operations are completed.

**3.08 ACCEPTANCE (Continued)**

- B. Replacement sod work will be re-inspected before acceptance.

END OF SECTION