SECTION 32 92 23 SODDING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - Fertilizing.
 - 2. Sod installation.
 - 3. Maintenance.
- B. Related Sections:
 - 1. Section 32 92 19 Seeding.
 - 2. Section 32 93 00 Plants.

1.2 REFERENCES

- A. ASTM International:
 - ASTM C602 Standard Specification for Agricultural Liming Materials.
- B. SCDOT Standard Specifications:
 - 1. Standard Specifications for Highway Construction, 2007, published by the South Carolina Department of Transportation.
- C. Turfgrass Producers International:
 - TPI Guideline Specifications to Turfgrass Sodding.

1.3 DEFINITIONS

A. Weeds: Vegetative species other than specified species to be established in given area.

1.4 SUBMITTALS

- A. Section 01 33 00 Submittal Procedures: Requirements for submittals.
- B. Product Data: Submit data for sod grass species, fertilizer, mulch, and other accessories.
- C. Test Reports: Indicate topsoil nutrient and pH levels with recommended soil supplements and application rates.
- D. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.
- E. Invoices or proof of purchase to verify quantities specified.

1.5 CLOSEOUT SUBMITTALS

- A. Section 01 70 00 Execution and Closeout Requirements: Requirements for submittals.
- B. Operation and Maintenance Data: Submit maintenance instructions, cutting method and maximum grass height; types, application frequency, and recommended coverage of fertilizer.

1.6 QUALITY ASSURANCE

- A. Sod: Root development capable of supporting its own weight without tearing, when suspended vertically by holding upper two corners.
- B. Perform Work in accordance with Section 813 of SCDOT Standard Specifications.
- C. Maintain one copy of document on site.

1.7 QUALIFICATIONS

- A. Sod Producer: Company specializing in manufacturing Products specified in this Section with minimum three years documented experience.
- B. Installer: Company specializing in performing work of this section with minimum three years documented experience.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 Product Requirements: Product storage and handling requirements.
- B. Deliver sod on pallets. Protect exposed roots from dehydration.
- C. Do not deliver more sod than can be laid within 24 hours.

1.9 MAINTENANCE SERVICE

A. Maintain sodded areas immediately after placement until grass is well established and exhibits vigorous growing condition for three cuttings.

PART 2 PRODUCTS

2.1 GENERAL

A. Furnish materials in accordance with South Carolina Board of Agriculture rules and regulations as specified in Section 813 of SCDOT Standard Specifications.

2.2 TOPSOIL MATERIALS

A. Conform to Section 32 91 19. Topsoil: Original surface soil typical of the area, which is capable of supporting native plant growth; free of large stones, roots, waste, debris, contamination, or other unsuitable material, which may be detrimental to plant growth; pH value of 5.4 to 7.0.

2.3 SOD

A. Sod: TPI defined Field grown; cultivated grass sod; type indicated below; with strong fibrous root system, free of stones, burned or bare spots; containing no more than five weeds per 1,000 square feet.

Cool Season Grasses	Varieties	Region
Kentucky Bluegrass Blend		Mountain
Tall Fescue Blend	Adventure, Brookston, Falcon, Finelawn, Galway,	Mountain and Piedmont

	Houndog, Jaguar, Olympic, Rebel	
Tall Fescue/Kentucky Bluegrass Blend		Mountain and Piedmont
Warm Season Grasses	Varieties	Region
Hybrid Bermuda Grass	Vamont, Tifway, Tifway II, Tifgreen	Piedmont and Coastal Plain
Zoysia Grass	Emerald, Meyer	Piedmont and Coastal Plain
Centipede Grass		Piedmont and Coastal Plain
St. Augustine Grass	Raleigh	Piedmont and Coastal Plain

2.4 ACCESSORIES

- A. Fertilizer: Commercial grade; recommended for grass; of proportion necessary to eliminate deficiencies of topsoil, as indicated in analysis. When test is not available, use 10-10-10 mixture of Nitrogen, phosphoric acid, and soluble potash.
- B. Lime: ASTM C602, Class T or Class O agricultural limestone containing a minimum 80 percent calcium carbonate equivalent.
- C. Water: Clean, fresh, and free of substances or matter capable of inhibiting vigorous growth of grass.
- D. Herbicide: As required to combat type of weeds encountered.
- E. String: Inorganic fiber.
- F. Wood Pegs: Softwood, sufficient size and length to anchor sod on slope.
- G. Surface Mesh: Interwoven hexagonal plastic mesh of 2 inch size.

2.5 HARVESTING SOD

- A. Machine cut sod and load on pallets in accordance with TPI guidelines.
- B. Cut sod in area not exceeding 1 sq yd, with minimum 1/2 inch and maximum 1 inch topsoil base.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Administrative Requirements: Verification of existing conditions before starting work.
- B. Verify prepared soil base and topsoil are ready to receive the Work of this Section.

3.2 FERTILIZING

- A. Apply lime at the application rate recommended by topsoil analysis or 2 tons per acre (100 pounds per 1000 square feet). Work lime into top 6 inches of soil.
- B. Apply fertilizer at application rate recommended by soil analysis or 1,000 lbs per acre (25 pounds per 1,000 square feet) of 10-10-10 fertilizer in fall or 5-10-10 fertilizer in spring.
- C. Apply after smooth raking of topsoil and prior to roller compaction.
- D. Do not apply fertilizer at same time sod is applied.
- E. Mix fertilizer thoroughly into upper 2 inches of topsoil.
- F. Lightly water soil to aid dissipation of fertilizer. Irrigate top level of soil uniformly.

3.3 LAYING SOD

- A. Moisten prepared surface immediately prior to laying sod.
- B. Lay sod within 48 hours of being cut and within 24 hours after topsoil is prepared and fertilized.
- C. Lay sod tight with no open joints visible, and no overlapping; stagger end joints 12 inches minimum. Do not stretch or overlap sod pieces.
- D. Lay smooth. Align with adjoining grass areas.
- E. Place top elevation of sod 1/2 inch below adjoining paving.
- F. On slopes 6 inches per foot and steeper, lay sod perpendicular to slope and secure every row with wooden pegs at maximum 2 feet on center. When using "big roll", lay sod parallel to slope. Drive pegs flush with soil portion of sod.
- G. Do not place sod when temperature is lower than 32 degrees F.
- H. Prior to placing sod, on slopes exceeding 8 inches per foot or where indicated, place surface mesh over topsoil. Securely anchor mesh in place with wood pegs sunk firmly into ground.
- I. Water sodded areas immediately after installation. Saturate soil to 4 inches.
- J. After sod and soil have dried, roll sodded areas to bond sod to soil and to remove minor depressions and irregularities. Roll sodded areas with roller not exceeding 112 pounds.
- K. Roll before first watering.

3.4 MAINTENANCE

- A. Mow grass at regular intervals to maintain at maximum height of 2-1/2 inches. Do not cut more than 1/3 of grass blade at each mowing. Perform first mowing when seedlings are 40 percent higher than desired height.
- B. Neatly trim edges and hand clip where necessary.

- C. Immediately remove clippings after mowing and trimming. Do not let clippings lay in clumps.
- D. Water to prevent grass and soil from drying out.
- E. Roll surface to remove minor depressions or irregularities.
- F. Control growth of weeds. Apply herbicides. Remedy damage resulting from improper use of herbicides.
- G. Immediately reseed areas showing bare spots.
- H. Repair washouts or gullies.
- I. Protect sodded areas with warning signs during maintenance period.

3.5 SCHEDULE

- A. Lawn Area: Sod Type 1, 4-inch top soil.
- B. Pond Slopes: Sod Type 2, 4-inch top soil.

END OF SECTION