PART 1 - GENERAL

1.01 SUMMARY

- A. The scope of work includes all labor, materials, appliances, tools, equipment, facilities, transportation and services necessary for, and incidental to performing all operations in connection with furnishing, delivery, and installation of sod (also known as "landscaping") complete as shown on the drawings and as specified herein.
- B. The scope of work in this section includes, but is not limited to, the following:
 - 1. Preparation of subsoil.
 - 2. Placing topsoil.
 - 3. Fertilizing.
 - 4. Sod installation.
 - 5. Maintenance.

1.02 CONTRACT DOCUMENTS

A. Shall consist of specifications and general conditions and the construction drawings. The intent of these documents is to include all labor, materials, and services necessary for the proper execution of the work. The documents are to be considered as one. Whatever is called for by any parts shall be as binding as if called for in all parts.

1.03 RELATED DOCUMENTS AND REFERENCES

- A. Drawings and general provisions of contract including general and supplementary conditions and Division I specifications apply to work of this section.
- B. Related Specification Sections
 - 1. Section 01 65 00 Product Delivery Requirements (as applicable)
 - 2. Section 01 66 00 Product Storage and Handling Requirements (as applicable)
 - 3. Section 01 70 00 Execution and Closeout Requirements (as applicable)
 - 4. Section 32 90 00 Planting
 - 5. Section 32 91 13 Soil Preparation

C. References: Turfgrass Producers International "Guideline Specifications to Turfgrass Sodding."

1.04 DEFINITIONS

A. Weeds: Includes but is not limited to Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.

1.05 MAINTENANCE DATA

- A. Submit under provisions of Section 01 70 00 (as applicable)
- B. Maintenance Data: Contractor shall submit a weekly report detailing maintenance performed and establishment progress until the turf is accepted.

1.06 QUALITY ASSURANCE

- A. Sod: Minimum age of 18 months, with root development that will support its own weight without tearing, when suspended vertically by holding the upper two corners.
- B. Labeling: Every shipment of turfgrass sod shall be accompanied by an invoice or sales slip indicating whether the material is of a single variety, a blend or a mixture and the quality.
- Submit sod certification for grass species and location of sod source to PARKWAYS.

1.07 QUALIFICATIONS

- A. Sod Producer: Company specializing in sod production and harvesting, certified by the State of Louisiana.
- B. Installer Qualifications: Company specializing in sod installation and licensed by the State of Louisiana.
- C. Contractor shall have a current and valid Louisiana Landscape Horticulturalist License as issued by the Louisiana State Horticultural Commission. The Contractor or Subcontractor shall be required to perform the work specified in the drawings and specifications. All Landscape Horticulturalists shall also have appropriate experience related to the work specified herein.
- D. The Contractor shall provide proof of qualifications for verification.

1.08 REGULATORY REQUIREMENTS

A. Comply with regulatory agencies for fertilizer and herbicide composition.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of Sections 01 65 00 and 01 66 00 as applicable.
- B. Deliver sod on pallets in rolls. Protect exposed roots from dehydration.
- C. Do not deliver more sod than can be laid within 24 hours.

1.10 COORDINATION

A. Coordinate work under this section and other related work.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Sod: ASPA Approved Field grown Premium grade turfgrass sod; the turf shall be of sufficient density so that no surface soil is visible when mowed to a height of 1.5 inches (40 mm), free of stones, burned or bare spots. Maximum mowing height shall be 2.5 inches (60 mm). At the time of sale, the turf shall contain no more than one percent undesirable grasses or clover and not more than two weeds per 50 square yards (50 sq m). The thickness of the soil portion of the turfgrass sod should be between one-half inch (15mm) to one inch (25mm).
 - 1. St. Augustine Grass (*Stenotaphrum secundatum*); acceptable varieties include Captiva, Delmar, Floratam, Floratine, Palmetto, Raleigh, or Seville.
 - 2. Bermuda Grass (*Cynodon dactylon*) hybrids; acceptable varieties include Celebration, MS Pride, MS Choice, Tifsport, or Tifway 419.
 - 3. Supplier source of the sod shall be made known to PARKWAYS at least five (5) days prior to cutting.
 - 4. Delivered sod shall be approved by PARKWAYS prior to installation.
 - 5. Sod shall be of uniform width and in convenient lengths for handling. Soil shall be retained on roots of sod during excavating, hauling and handling.
 - 6. Sod cut more than 48 hours before placing shall not be used unless authorized.
 - 7. Sod taken from areas that may produce inferior growth will not be accepted.
- B. Soil fill for fine grading:
 - 1. Refer to Section 32 91 13 for soil preparation as included in project specifications.
 - 2. Unless otherwise specified, topsoil shall be a loamy sand, sandy loam, clay loam, loam, silt loam, sandy clay loam or other soil approved by PARKWAYS. It shall not have a mixture of subsoil and shall contain no slag, cinders, stones, lumps of soil, sticks, roots, trash or other extraneous materials larger than 1.5 inches (40 mm) in diameter.
 - If included in topsoil mixture, Mississippi River pump sand must be free of sticks, roots, stones, lumps of clay, debris and other objectionable materials. Spillway dirt will not be accepted.
 - 4. Topsoil must also be free of weeds.

- 5. Unless otherwise specified, all topsoil shall be tested by a reputable laboratory for pH and soluble salts; results must be submitted to PARKWAYS prior to installation.
- 6. As needed, pH correction material shall be applied at a rate sufficient to correct the pH to a range of 6.0 to 7.0. Soluble salts shall not be higher than 500 parts per million.
- C. Fertilizer: Soil tests shall be made to determine fertility and soil pH in order to prescribe the exact requirements for any amendments. Soil tests shall be conducted by a reputable laboratory and results provided to PARKWAYS.
 - 1. All fertilizers (either granular or liquid) shall be uniform in composition, free flowing and suitable for application with approved equipment.
 - 2. Fertilizers shall be delivered to the site fully labeled, according to applicable fertilizer laws and shall bear the name, trade name or trademark, and warranty of the producer or manufacturer.
 - 3. Fertilizer applications shall be determined by soil tests. If soil testing is waived where there is insufficient time for complete soil tests, fertilizer materials that supply the following levels of nutrients can be applied: nitrogen fifteen percent (15%), phosphoric acid five percent (5%), soluble potash ten percent (10%).
- D. Water: Clean, fresh and free of substances or matter which could inhibit vigorous growth of grass.

2.02 HARVESTING SOD

A. Machine cut sod and load on pallets in accordance with ASPA Guidelines.

2.03 TESTS

A. Testing is not required if recent tests are available for imported topsoil. Submit these test results to a reputable testing laboratory or the LSU AgCenter for recommendations regarding necessary amendments, fertilizers, or pH adjustments necessary. Provide a copy of the results and/or recommendations to PARKWAYS.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that prepared soil base is ready to receive the work of this section.

3.02 PREPARATION OF SUBSOIL

A. See Part 3 of Section 32 91 13, Soil Preparation.

3.03 PLACING TOPSOIL

A. See Part 3 of Section 32 91 13, Soil Preparation.

3.04 FERTILIZING

A. See Part 3 of Section 32 91 13, Soil Preparation.

3.05 LAYING SOD

- A. Moisten prepared surface immediately prior to laying sod.
- B. Lay sod immediately after delivery to site to prevent deterioration.
- 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. Place top elevation of sod flush with adjoining paving.
- E. Water sodded areas immediately after installation. Saturate sod through the top six (6) inches of soil.
- F. After sod and soil have dried, roll sodded areas to ensure good bond between sod and soil and to remove minor depressions and irregularities. Roll sodded areas with roller not exceeding 200 lbs. Where rolling is impractical, sod shall be tamped by approved hand methods.
- G. In the event that sod is laid in place after September 15th and before March 31st, the Contractor may be required to over-seed the sod with the required Annual Ryegrass seed as stated in Section 32 92 19 Part 2 Section 2.01.A and 2.01.B in addition to meeting all related horticultural requirements.
- H. When directed, sod surface will be top dressed with sand to smooth out uneven spots.

3.06 MAINTENANCE

- A. The Contractor shall produce dense, vigorous, well established lawn and shall maintain lawn areas until final acceptance of the work by PARKWAYS.
- B. The Contractor shall mow grass at regular intervals to maintain at a maximum height of 2-1/2 inches. Do not cut more than 1/3 of grass blade at any one mowing. At least three (3) mowings shall be completed before the work will be accepted.
- C. Neatly trim edges and hand clip where necessary; immediately remove clippings after mowing and trimming.
- D. Water to prevent grass and soil from drying out. Watering shall be done in a manner which will prevent erosion due to the application of excessive quantities, and the watering equipment shall be of a type that will prevent damage to the finished surface. A minimum amount of rainfall would be two (2) one (1) inch rainfalls per week. If more water is needed it is the responsibility of the Contractor to provide it.
- E. Roll surface to remove minor depressions or irregularities.
- F. Control growth of weeds. Apply herbicides in accordance with manufacturer's instructions. Remedy damage resulting from improper use of herbicides.
- G. The Contractor shall fertilize the lawn areas after eight (8) weeks and the first two grass cuttings have been made, or as otherwise directed by PARKWAYS.
- H. Immediately replace sod to areas which show deterioration or bare spots.
- I. Protect sodded areas with warning signs during maintenance period.

3.07 ACCEPTANCE

- A. Inspection of work to determine its final acceptance will be made by PARKWAYS. No plant material will be accepted unless it is alive and healthy and all related work conforms to the drawings and specifications.
- B. Should any portion of the work be unacceptable, Contractor shall make all work acceptable and request a re-inspection by PARKWAYS, within five (5) business days.
- C. The Contractor will be notified by letter of acceptance within five (5) business days after reinspection, should the latter be necessary.
- D. A satisfactory stand of grass is defined as a cover of living weed free grass in which gaps larger than four (4) inches do not occur at the time of acceptance by PARKWAYS.

END OF SECTION