SECTION 02932
BLUEGRASS SODDING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Fertilizer.
   2. Sod.

B. Related Sections:
   1. Section 02815 - Irrigation Systems
   2. Section 02920 - Soil Preparation

1.2 REFERENCES


1.3 SUBMITTALS

A. Quality Control Submittals:
   1. Certificates: State, Federal and other inspection certificates shall accompany the invoice for materials showing source or origin. Submit to Campus Landscape Architect prior to acceptance of material.

B. Contract Closeout Submittals:
   1. Warranty: At completion of work, furnish written warranty to Owner based upon requirements as specified.

1.4 QUALITY ASSURANCE

A. Source Quality Control:
   1. Sod Materials: Supplier must be a member of Rocky Mountain Sod
Growers Association. Sod will be subject to inspection and acceptance. Campus Landscape Architect reserves the right to reject at any time or place prior to acceptance, any work and sod which in the Campus Landscape Architect's opinion fails to meet these specification requirements.

2. Inspection: Primarily for quality; however, other requirements are not waived even though visual inspection results in acceptance. Notify Campus Landscape Architect of intended sod farm prior to cutting for inspection. Inspection at growth site shall not preclude the right of rejection at project site.

3. Promptly remove rejected sod from site.

4. Inspection will be made periodically during sodding, at completion and at end of warranty period by Campus Landscape Architect.

B. Sod Standards:

1. General: Healthy, thick turf having undergone a program of regular fertilization, mowing and weed control; free of objectionable weeds; uniform in green color, leaf texture and density; healthy, vigorous root system; inspected and found free of disease, nematodes, pests and pest larvae by the entomologist of the State Department of Agriculture.

2. Each piece of Sod: Sandy-loam soil base that will not break, crumble or tear during sod installation.

3. Thickness: 1.25" thick, excluding top growth and thatch.

4. Thatch: Not to exceed 1/4" uncompressed.

5. Size: Cut in strips 18" wide no more than 24 hours prior to delivery.

6. All Sod supplied will be comprised of the same turf cultivars. Product must be cut continuously from the same turf field or from a separate field that was seeded with the same cultivars and same percentages of cultivars as original product. During all phases of grow in, establishment phase and warranty phases, color should be even after proper fertilization. Turf must be of even color without addition of specialized nutrient products. If discoloration is evident and it is believed different cultivars of sod were used, contractor bears all responsibility for providing proof that turf is of the same cultivar, including but not limited to: genetic testing done at a location of the Campus Landscape Architects choosing. All costs associated with material testing will be the responsibility of the landscape...
contractor. If it is determined that turf is of different cultivars landscape contractor is solely responsible for all removal and replacement costs. All repairs will be done at a time determined by the Campus Landscape Architect.

1.5 DELIVERY, STORAGE AND HANDLING

A. General: Comply with Section 01600.

B. Sod: Deliver on pallets properly loaded on vehicles and with root system protected from exposure to sun, wind, and heat in accordance with standard practice and labeled with botanical and common name of each grass species in accordance with Federal Seed Act.

1. Protect from dehydration, contamination and heating at all times. Keep stored sod moist and under shade or covered with moistened burlap.

2. Do not drop sod rolls from carts, trucks or pallets.

3. Do not deliver more sod than can be installed within 24 hours.

4. Do not stack sod more than 2 feet deep.

C. Fertilizer: Deliver inorganic or chemical fertilizer to site in original unopened container bearing manufacturer's guaranteed chemical analysis, name, trade name, trademark, warranty and conformance to state law.

1. Material shall be inspected upon arrival at job site.

2. Immediately remove unacceptable material from job site.

1.6 PROJECT/SITE CONDITIONS

A. Existing Conditions:

1. Import and place any fill material required to adjust the fine grade to meet drainage requirements or to match hard surface fine grades.

2. Vehicular accessibility on site shall be as directed by Campus Landscape Architect. Repair damage to prepared grounds and surfaces caused by vehicular movement during work under this section to original condition at no additional cost to Owner.

B. Environmental Requirements:
1. or landscape may be installed between the dates of April 1 - October 1. Variation from these dates requires written authorization from Campus Landscape Architect, and may require extended warranty.

2. Do not install sod on saturated or frozen soil.

1.7 WARRANTY

A. Sod: Warrant sod for a period of one year from date of Substantial Completion be in a healthy, vigorous growing condition.

1. During the original warranty period, replace at once sod areas that die due to natural causes, etc., or which in Campus Landscape Architect's opinions are unhealthy.

2. Replacement will not be required in any season definitely unfavorable for sodding.

3. Install replacements as originally specified and warranted.

1.8 MAINTENANCE

A. General: The maintenance period shall begin immediately after each area is sodded and continue until final acceptance of entire project. During this time, be responsible for watering, mowing, spraying, weeding, aerating, fertilizing, and all related work as necessary to ensure that sodded areas are in a vigorous growing condition. Furnish all supervision, labor, material and equipment to maintain turf areas.

B. Materials: Conform to specification or otherwise be acceptable to Owner.

C. Watering: Water sod sufficiently to moisten subsoil in a manner not to cause erosion, damage, or overwater to a point which firmness of subsoil is compromised must prevent excessive water usage during initial watering to prevent any changes to the grade of the install. Water shall be free of substances harmful to plant growth. Be responsible for furnishing water from underground sprinkler system, quick couplers or other source.

D. Fertilizing: If work has not received final acceptance within 45 days after initial fertilizer application to sodded areas, repeat fertilizer application to maintain optimal sod vigor.

E. Mowing and Trimming:

1. Mow and Trim around trees (keeping mulch in saucers and beds), walls,
fences, etc., maintaining turf at 2½-2 3/4" height. Do not remove more than 33% of grass leaf in single mowing. Remove grass clippings from pavement areas.

F. Resodding: Resod spots larger than 1 sq. ft. not having healthy, uniform stand of grass.

G. Weed Control: As required, using selective herbicides approved by Owner, following current university policies.

H. Insect and Disease Control: As required, using insecticides and fungicides approved by Owner, following current university policies.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Sod: Sod to be provided by a member of the Rocky Mountain Sod Growers Association and have an average N.T.E.P test result of 6.0 or higher in the Color, Vigor, and Density class. The mix should have at least three cultivars of Kentucky bluegrass each with the same N.T.E.P scores as stated above. Submit proposed blend to the Campus Landscape Architect for review and approval prior to application.

B. Water: Free of substances harmful to plant growth. Be responsible for furnishing water from underground sprinkler system, quick couplers or other source.

C. Fertilizer: Inorganic mixture with following chemical composition:

1. First Application: Under Section 02920, 2.01 C.

PART 3 - EXECUTION

3.1 EXAMINATION

A. General - Verify that existing site conditions are as specified and indicated before beginning work under this section.

1. Layout: Verify layout of sodded areas as indicated prior to starting operations.

2. Grades: Verify that grades are within 0.04 ft. of grades indicated and specified.

B. Unsatisfactory Conditions: Report in writing to General Contractor with copy to
C. Beginning of installation means acceptance of existing conditions by this Contractor.

3.2 PREPARATION

A. Protection:

1. Pay for repairs made by contractors designated by Owner & Campus Landscape Architect.

2. Identify prepared sod areas requiring protection and erect barriers for proper protection and traffic control.

3. All areas related to the project are subject to landscape repairs including areas outside of the construction work limit fencing including but not limited to: landscape damage from irrigation shut downs required by the project in areas outside limits of construction fence, all damage related to traffic pattern changes that are caused by fencing or construction operation and other damage caused by the contractor or subcontractors will be the responsibility of the contractor.

B. Sodding Areas: Remove weeds, debris and rocks larger than 1/4" which may hinder sodding. Dispose of accumulated debris off site while taking care to prevent weed seed contamination during removal.

C. Adjustment: Adjust irrigation heads to proper watering height according to depth of sod material but lower than compacted blade height to enable lawn mowers to cut grass freely without damage to the sprinkler system.

D. Fine Grading: Perform as required to maintain positive drainage, prevent ponding and direct run-off into catch basins, drainage structures, etc., and as required to provide smooth well-contoured surface prior to proceeding. Tolerance: ± 0.04 foot. All areas will be inspected by Campus Landscape Architect prior to installation of sod.

3.3 FERTILIZING

A. First Application to newly sodded areas: Under Section 02920 2.1C.

3.4 SODDING

A. Sodding:
1. Soil on which sod is laid: Slightly moist.

2. Lay with longest dimension parallel to contours and in continuous rows.

3. Tightly butt ends and sides of sod together. Stagger and compact vertical joints between sod strips by rolling so sod will be incorporated with the ground surface, insuring tight joints between adjacent pieces.

B. Rolling: When soil and sod are moist, roll sod lightly as soon as possible after it is laid. Delay rolling until just before the second watering.

C. Topsoil: Add along exposed edges to match adjacent grade. Feather topsoil out approximately 2 ft. from edge of sod. Transition to existing sod will be smooth.

D. Drainage: Assure finished areas of sod are such that positive drainage of storm and irrigation water will occur and ponding of water will be minimized.

3.5 REPAIR OF EXISTING SOD AREAS DISTURBED BY RENOVATION

A. Repair existing sod areas disturbed by renovation work (utilities, paving, etc.), as indicated, in accordance with specifications of this section.

3.6 NOTIFICATION OF INSPECTION

A. Notification: Give notice requesting inspection by Campus Landscape Architect at least 7 days prior to the anticipated date of completion. All sod must be alive and healthy in order to be considered complete.

B. Deficiencies: If deficiencies exist, Campus Landscape Architect shall specify such deficiencies to the Contractor who shall make satisfactory adjustments and will again notify the Campus Landscape Architect for final inspection.

3.7 CLEANING

A. Cleaning: Remove pallets, unused sod, and other debris from site. Clean paved and finished surfaces soiled as a result of work under this Section in accordance with directions given by Campus Landscape Architect. Clean out drainage inlet structures.

3.8 PROTECTION

A. General: Provide and install barriers as required and as directed by Campus Landscape Architect to protect sodded areas against damage from pedestrian and vehicular traffic until acceptance by Owner. Contractor is not responsible for
malicious destruction of sodding caused by others.

END OF SECTION 02932