

DIVISION 2

SECTION 02930 - SOD CONSTRUCTION

PART 1 - GENERAL

1.01 Work Included

- A. The Contractor shall furnish all labor, materials, tools, equipment and perform all work and services necessary for sod construction in the quantities required.
- B. Furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a healthy, sound, and complete, craftsman-like installation. Work to include:
 - 1. Application of herbicides.
 - 2. Soil preparation.
 - 3. Fine grading of all planting areas.
 - 4. Sod installation.
 - 5. Maintenance during establishment.

1.02 Submittals & Quality Assurance

- A. Submit three copies of:
 - 1. Manufacturer's specifications and literature on all products.
 - 2. Manufacturer's tests (within 6 months of application) on supplied products.
 - 3. Sod grower's letter certifying the sod's species composition.
- B. Provide at least one person who shall be present at all times during execution of this portion of the work and who shall be thoroughly familiar with the type of materials being installed and the best methods for their installation and who shall direct all work performed under this section.

1.03 Inspection

- A. Initial Inspection:
 - 1. Contractor will inspect existing site conditions and note irregularities affecting the work of this section. Verify that grading operations have been satisfactorily completed and that topsoil of adequate quantity and quality has been placed in all disturbed areas as specified. Verify that the areas to be sodded are protected from concentrated runoff and sediment from adjacent areas. Note any previous treatments to the areas such as temporary seeding or mulching and discuss with the City Representative how these treatments will affect permanent revegetation. Report all irregularities affecting work of this section to the City Representative before initiating work. When the Contractor begins work under this section, it implies acceptance of existing conditions.
- B. Substantial and Final Acceptance:
 - 1. Contractor shall notify City Representative prior to start of work. City Representative will be responsible to monitor the work.
 - 2. Sodded areas shall receive "Final Acceptance" provided a healthy, even colored, viable turf is established, free of weeds and undesirable grass species, disease and insects.

1.04 Guarantee

- A. Guarantee sod against defects for a period of one growing season from the date of final acceptance.
- B. This guarantee shall not be enforced should sod die due to vandalism, improper maintenance by Owner, lawn mower damage or other circumstances beyond the control of the Contractor.
- C. Replace sod when it is no longer in a satisfactory condition as determined by the Owner’s Representative for the duration of the guarantee period.
- D. Areas sodded in the spring shall be inspected for required coverage the following fall not later than October. Areas sodded in the fall will be inspected in October of the following year.

PART 2 - MATERIALS

2.01 Herbicide

- A. Round-Up

2.02 Soil Amendment

- A. Use compost or two year cured manure free from lumps, stones or other foreign matter. Soil amendment must be free of mineral matter or chemical composition harmful to plant life and have the following properties:

- Organic Matter: 35-45%
 - pH: 7.4 to 8.5
 - Salt: < 7 mmhos/cm

2.03 Fertilizer

- A. Commercial Fertilizer (20 – 20 – 10) apply at manufacturers recommendation.

2.04 Sod

- A. Provide strongly rooted sod not less than 2 years old and free of weeds.
- B. Species composition shall be a mix of Kentucky Bluegrass and Perennial Rye. Furnish in rolls:
 - 1. Uniformly mowed height when harvested.
 - 2. Free of disease, nematodes, pests and pest larvae.
 - 3. Thickness: Soil thickness of sod cuts shall not be less than 3/4 inch nor more than 1 inch.
- C. Weeds:
 - 1. Free of Bermuda grass, Quack grass, Johnson grass, poison ivy, nut sedge, nimble will, Canada thistle, bindweed, bent grass, wild garlic, ground ivy, perennial sorrel.
 - 2. Containing less than 10 Jimsonweed, mustard, lamb's quarter, chickweed, cress or crab grass plant per 100 sq. ft.

2.05 Water

- A. Free of substances harmful to plant growth. Contractor responsible for watering even if area sprinkler system is not operational.

2.06 Pegs

- A. Softwood, 3/4 inch diameter, 8 inch length.

PART 3 - EXECUTION

3.01 Site Preparation

- A. Prepare areas as follows:
 - 1. Remove any existing vegetation not scheduled to remain.
 - 2. Rip existing topsoil to a minimum depth of eight (8) inches in one direction using an agricultural ripper with tines spaced at no greater than 18 inches. Areas adjacent to walks, structures, curbs, etc., where the use of large mechanical equipment is difficult, shall be worked with smaller equipment or by hand.
 - 3. Place soil amendment at a rate of six (6) cubic yards per 1,000 square feet.
 - 4. Till all areas to be planted to a depth of six (6) inches.
 - 5. In tree protection areas, the topsoil shall be worked by hand to a depth of 3 inches.
 - 6. Remove all rubble, stones, plant material and extraneous material over 1½ inches in diameter from the site.
 - 7. Apply pre-planting fertilizer as specified in Part 2 of the Section.
 - 8. Restore fine grade with float drag to remove irregularities resulting from tilling operations. Float drag in two directions. Coordinate restoration of fine grade to establish the vegetation subgrade at one inch below adjacent paved surfaces. Match grade at property lines and work-limit lines.
- B. Remove any additional stones over 1½ inches that have come to the surface. Perform drainage test by applying water with the irrigation system. Do not plant until the finished grade is reviewed by City Representative. This review does not reduce Contractor's responsibility to provide a finished product that drains properly.

3.02 Installation

- A. Sod areas indicated on drawings.
- B. Selection of the time of sodding shall be the Contractor's responsibility, consistent with weather limitations. Coordinate with Parks Maintenance if fall watering is required for establishment.
- C. Begin sodding from bottom of slopes.
- D. Lay first row of sod in a straight line with long dimension of pads parallel to slope contours.
- E. Butt side and end joints.
- F. Stagger end joints in adjacent rows.
- G. Do not stretch or overlap sod.
- H. Peg sod on slopes greater than 3 to 1 with a minimum of two pegs per sq. yd.
- I. Water sod immediately after transplanting.
- J. Roll sod, except on pegged areas, with roller weighing not more than 150 lbs. per foot of roller width.
- K. Water sod and soil to a depth of 4 to 6 inches within four hours after rolling.
- L. Provide sufficient barriers and signage notifying the public to keep off the newly sodded areas.

3.03 Maintenance

- A. Sod establishment period:

1. Sod establishment period shall begin immediately after installation and continue through the second or third mowing when turf is established. Maintenance shall include watering, mowing, fertilizing and weed control as necessary.
2. Watering: Water sod areas as needed to keep wet to a depth of 4 to 6 inches for 2 to 3 weeks until grass is established. Avoid standing water, surface wash or erosion from over-watering. Reduce water application after the first few weeks.
3. Mowing: Mow when grass is over four (4) inches. Mow at a height of three (3) inches. Do not mow more than one third (1/3) height of grass. Reduce irrigation prior to mowing to prevent damage to turf. Mow with walk behind mower.
4. Disease and Insect Control: A licensed applicator shall apply fungicides and insecticides as required to control disease and insects in accordance with state law requirements.

3.04 Re-sod and Repair

- A. Resod areas where there is not a satisfactory stand of grass at the end of establishment period.
- B. Sod shall be established at least 30 days prior to Final Acceptance.
- C. Re-sod spots larger than 1 sq. ft. not having a uniform stand of grass.

END OF SECTION