



Florida Department of Transportation

JEB BUSH
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

DENVER J. STUTLER, JR.
SECRETARY

June 28, 2006

Mr. Greg Williams
Program Operations Engineer
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Re: Office of Design, Specifications
Section 981
Proposed Specification: 9810000 Performance Turf Materials

Dear Mr. Williams:

We are submitting, for your approval, two copies of a proposed Supplemental Specification for Performance Turf Materials.

This change was proposed by David Sadler of the State Office of Construction to include all grassing operation materials under this one Section.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via Email to SP965DB or duane.brautigam@dot.state.fl.us.

If you have any questions relating to this specification change, please call Duane F. Brautigam, State Specifications Engineer at 414-4110.

Sincerely,

Duane F. Brautigam, P.E.
State Specifications Engineer

DFB/ft

Attachment

cc: General Counsel
Florida Transportation Builders' Assoc.
State Construction Engineer

TURF MATERIALS.**(REV ~~9-7-055-2-066-27-06~~)**

SECTION 981 (Pages 920-922) is deleted and the following substituted:

SECTION 981
~~GRASSING AND SODDING~~TURF MATERIALS

981-1 General.

The types of seed and sod will be specified in the Contract Documents. All seed and sod shall meet the requirements of the Florida Department of Agriculture and Consumer Services and all applicable State laws, and shall be approved by the Engineer before installation.

All seed, sod and mulch shall be free of noxious weeds and exotic pest plants, plant parts or seed listed in the current Category I "List of Invasive Species" from the Florida Exotic Pest Plant Council (FLEPPC, www.fleppc.org). Any plant officially listed as being noxious or undesirable by any Federal Agency, any agency of the State of Florida or any local jurisdiction in which the project is being constructed shall not be used. Furnish to the Engineer, prior to incorporation onto the project, a certification from the Florida Department of Agriculture and Consumer Services, Division of Plant Industry, stating that the seed, sod or mulch materials are free of noxious weeds. Any such noxious or invasive plant or plant part found to be delivered in seed, sod or mulch will be removed by the Contractor at his expense and in accordance with the law.

All materials shall meet plant quarantine and certification entry requirements of Florida Department of Agriculture & Consumer Services, Division of Plant Industry Rules.

981-~~12~~ Seed.

~~981-1.1 General:~~ The types of seed and their mixture will be specified in the Contract Documents. The separate types of seed used shall be thoroughly dry mixed immediately before sowing.

~~All seed shall meet the requirements of Florida Department of Agriculture and Consumer Services and all applicable State laws, and shall be approved by the Engineer before being sown.~~ The seed shall have been harvested from the previous year's crop. All seed bags shall have a label attached stating the date of harvest, ~~LOT-~~*lot* number, percent purity, percent germination, noxious weed certification and date of test.

~~All quantities of seed specified shall be for pure live seed. It is the responsibility of the Contractor to calculate and apply the actual pure live seed poundage based on the label attached to each bag of seed. Shipping tickets shall indicate both pure live seed weight and bulk weight for each species. When a low percentage of grassturf seed or wildflower seed germination causes the quality of the seed to fall below the minimum pure live seed percentage (the product of pure seed and germination) as specified below, the Contractor may elect, subject to the approval of the Engineer, to increase the rate of application sufficiently to obtain the minimum germination rate specified. No payment will be made for the added seed.~~

981-1.2 Grass Seed: Each of the species or varieties of seed shall be furnished and delivered in separate labeled bags. During handling and storing, the seed shall be cared for in such a manner that it will be protected from damage by heat, moisture, rodents and other causes.

————All permanent and temporary *grassturf* seed shall have been tested within a period of six months of the date of planting.

————All permanent and temporary *grassturf* seed shall have a minimum percent of purity and germination as follows:

————1. All Bahia *grass* ~~Seed~~ shall have a minimum pure *live* seed content of 95% with a minimum germination of 80%.

————2. Bermuda *grass* ~~Seed~~ shall be of common variety with a minimum pure *live* seed content of 95% with a minimum germination of 85%.

————3. Annual Type Ryegrass ~~Seed~~ shall have a minimum pure *live* seed content of 95% with a minimum germination of 90%.

981-23 Sod.

981-23.1 Types: Unless a particular type of sod is called for *in the Contract documents*, sod may be of either centipede, bahia ~~grass~~, or bermuda ~~grass~~ at the Contractor's option. It shall be well matted with roots. Where sodding will adjoin, or be in sufficiently close proximity to, private lawns, other types of sod may be used if desired by the affected property owners and approved by the Engineer.

981-23.2 Dimensions: The sod shall be taken up in commercial-size rectangles, or rolls, preferably 12 by 24 inch ~~{300 by 600 mm}~~ or larger, except where 6 inch ~~{150 mm}~~ strip sodding is called for, or as rolled sod at least 12 inches ~~{300 mm}~~ in width and length consistent with the equipment and methods used to handle the rolls and place the sod. Sod shall be a minimum of 1 1/4 inch ~~{32 mm}~~ thick including a 3/4 inch ~~{18 mm}~~ thick layer of roots and topsoil. Reducing the width of rolled sod is not permitted after the sod has been taken up from the initial growing location. Any netting contained within the sod shall be certified by the manufacturer to be bio-degradable within a period of three months from installation.

981-23.3 Condition: The sod shall be sufficiently thick to secure a dense stand of live *grassturf*. The sod shall be live, fresh and uninjured, at the time of planting. It shall have a soil mat of sufficient thickness adhering firmly to the roots to withstand all necessary handling. ~~It shall be free of noxious weeds and seeds.~~ It shall be planted as soon as possible *within 48 hours* after being *dug cut* and ~~shall be shaded and kept moist~~ from the time it is *dug cut* until it is planted. *No sod which has been cut for more than 48 hours may be used unless specifically authorized by the Engineer. A letter of certification from the turf Contractor as to when the sod was cut, and what type, shall be provided to the Engineer upon delivery of the sod to the job site.*

The source of the sod may be inspected and approved by the Engineer prior to being cut for use in the work.

~~After approval, the area from which the sod is to be harvested shall be closely mowed and raked as necessary to remove excessive top growth and debris.~~

————Approved devices, such as sod cutters, shall be used for cutting the sod and due care shall be exercised to retain the native root ~~soil layer~~ intact.

————No sod which has been cut for more than 72 hours may be used unless specifically authorized. A letter of certification from the grassing Contractor as to when

the sod was cut, and what type shall be provided to the Engineer upon delivery of the sod to the job site.

981-34 Mulch.

The mulch material shall be ~~dry straw or hay, consisting of oat, rye, or wheat straw, or of pangola, peanut, coastal bermuda or bahia grass, hay or compost~~ *meeting the requirements of Section 987, hardwood barks, shavings or chips; or inorganic mulch materials as approved by the Engineer; or hydraulically applied wood fiber mulch or bonded fiber matrix (BFM).*; and shall be free from noxious weeds and plants. Any plant officially listed as being noxious or undesirable by any Federal Agency, any agency of the State of Florida or any local jurisdiction in which the project is being constructed shall not be used. Furnish to the Engineer, prior to incorporation onto the project, a certification from the Florida Department of Agriculture and Consumer Services, Division of Plant Industry, stating that the Mulch materials are free of noxious weeds. Any such noxious plant or plant part found to be delivered as mulch will be removed by the Contractor at his expense and in accordance with the law. Only undeteriorated mulch which can readily be cut into the soil shall be used. The "air dry" weight (as defined by the Technical Association of the Pulp and Paper Industry, for wood cellulose) shall be marked on each package by the producer.

981-45 Source Requirements for Sod and Mulch.

The Contractor shall comply with all current restrictions in regard to movement of sod and mulch material, as required by the Division of Plant Industry, Florida Department of Agriculture and Consumer Services (http://www.doacs.state.fl.us/pi/plantinsp/pi_reg_summary.html), and the Plant protection Quarantine requirements of Animal and Plant Health Inspection Services, U.S. Department of Agriculture (<http://www.aphis.usda.gov/ppq/>).

The Contractor shall comply with all current restrictions in regard to movement of sod and mulch material, into or within areas which are outside of quarantine boundaries for the *japanese beetle*, white fringed beetle, witchweed, and West Indian sugar cane borer weevil, as issued by the Division of Plant Industry, Florida Department of Agriculture and Consumer Services, and the Animal and Plant Health Inspection Services, U.S. Department of Agriculture.

TURF MATERIALS.**(REV 6-27-06)**

SECTION 981 (Pages 920-922) is deleted and the following substituted:

**SECTION 981
TURF MATERIALS****981-1 General.**

The types of seed and sod will be specified in the Contract Documents. All seed and sod shall meet the requirements of the Florida Department of Agriculture and Consumer Services and all applicable State laws, and shall be approved by the Engineer before installation.

All seed, sod and mulch shall be free of noxious weeds and exotic pest plants, plant parts or seed listed in the current Category I "List of Invasive Species" from the Florida Exotic Pest Plant Council (FLEPPC, www.fleppc.org). Any plant officially listed as being noxious or undesirable by any Federal Agency, any agency of the State of Florida or any local jurisdiction in which the project is being constructed shall not be used. Furnish to the Engineer, prior to incorporation onto the project, a certification from the Florida Department of Agriculture and Consumer Services, Division of Plant Industry, stating that the seed, sod or mulch materials are free of noxious weeds. Any such noxious or invasive plant or plant part found to be delivered in seed, sod or mulch will be removed by the Contractor at his expense and in accordance with the law.

All materials shall meet plant quarantine and certification entry requirements of Florida Department of Agriculture & Consumer Services, Division of Plant Industry Rules.

981-2 Seed.

The seed shall have been harvested from the previous year's crop. All seed bags shall have a label attached stating the date of harvest, lot number, percent purity, percent germination, noxious weed certification and date of test.

Each of the species or varieties of seed shall be furnished and delivered in separate labeled bags. During handling and storing, the seed shall be cared for in such a manner that it will be protected from damage by heat, moisture, rodents and other causes.

All permanent and temporary turf seed shall have been tested within a period of six months of the date of planting.

All permanent and temporary turf seed shall have a minimum percent of purity and germination as follows:

1. All Bahia seed shall have a minimum pure live seed content of 95% with a minimum germination of 80%.
2. Bermuda seed shall be of common variety with a minimum pure live seed content of 95% with a minimum germination of 85%.
3. Annual Type Ryegrass seed shall have a minimum pure live seed content of 95% with a minimum germination of 90%.

981-3 Sod.

981-3.1 Types: Unless a particular type of sod is called for in the Contract documents, sod may be either centipede, bahia, or bermuda at the Contractor's option. It shall be well matted with roots. Where sodding will adjoin, or be in sufficiently close proximity to, private lawns, other types of sod may be used if desired by the affected property owners and approved by the Engineer.

981-3.2 Dimensions: The sod shall be taken up in commercial-size rectangles, or rolls, preferably 12 by 24 inch or larger, except where 6 inch strip sodding is called for, or as rolled sod at least 12 inches in width and length consistent with the equipment and methods used to handle the rolls and place the sod. Sod shall be a minimum of 1 1/4 inch thick including a 3/4 inch thick layer of roots and topsoil. Reducing the width of rolled sod is not permitted after the sod has been taken up from the initial growing location. Any netting contained within the sod shall be certified by the manufacturer to be biodegradable within a period of three months from installation.

981-3.3 Condition: The sod shall be sufficiently thick to secure a dense stand of live turf. The sod shall be live, fresh and uninjured, at the time of planting. It shall have a soil mat of sufficient thickness adhering firmly to the roots to withstand all necessary handling. It shall be planted within 48 hours after being cut and kept moist from the time it is cut until it is planted. No sod which has been cut for more than 48 hours may be used unless specifically authorized by the Engineer. A letter of certification from the turf Contractor as to when the sod was cut, and what type, shall be provided to the Engineer upon delivery of the sod to the job site.

The source of the sod may be inspected and approved by the Engineer prior to being cut for use in the work.

981-4 Mulch.

The mulch material shall be compost meeting the requirements of Section 987, hardwood barks, shavings or chips; or inorganic mulch materials as approved by the Engineer; or hydraulically applied wood fiber mulch or bonded fiber matrix (BFM).

981-5 Source Requirements for Sod and Mulch.

The Contractor shall comply with all current restrictions in regard to movement of sod and mulch material, as required by the Division of Plant Industry, Florida Department of Agriculture and Consumer Services (http://www.doacs.state.fl.us/pi/plantinsp/pi_reg_summary.html), and the Plant protection Quarantine requirements of Animal and Plant Health Inspection Services, U.S. Department of Agriculture (<http://www.aphis.usda.gov/ppq/>).