



Florida Department of Transportation

JEB BUSH
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

DENVER J. STUTLER, JR.
SECRETARY

January 5, 2006

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

Re: Office of Design, Specifications
Section 162
Proposed Specification: 1620000.D03

Dear Mr. Davis:

We are resubmitting, for your approval, two copies of a proposed Supplemental Specification for Prepared Soil Layer. This new draft reflects changes requested by your office.

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,

Signature on file

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

DFB/

Attachment

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

PREPARED SOIL LAYER.

(REV 1-5-06)

SECTION 162 (Pages 188-190) is deleted and the following substituted:

SECTION 162 ~~FINISH~~PREPARED SOIL LAYER

162-1 Description.

162-1.1 Finish Soil Layer: Unless otherwise called for ~~in~~ on the plans, Pprepare a 6 inch [150 mm] thick layer of ~~existing soil~~ mixed ~~with imported~~ material, ~~if necessary to achieve the pH and OM levels required in 162-4, that is~~ favorable to ~~grass~~sturf and ~~ground cover~~ growth over areas of the project which are to be seeded, seeded and mulched, or planted, by ~~applying and~~ mixing in ~~an~~ ~~muck blanket, topsoil~~organic ~~soil~~material, compost, or commercially available ~~soil amendments~~supplements. ~~Use the mixed material~~Prepare finish soil layer in areas to be sodded, when called for ~~in~~ on the plans.

162-1.2 Organic Soil Layer: When required by a permit, prepare a 6 inch [150 mm] thick layer of organic soil, at locations shown on the plans.

162-1.3 Blanket Material: When required by a permit, place a layer of blanket material at the locations and to the depth shown on the plans.

162-2 Materials.

162-2.1 Finish Soil Layer and Organic Soil Layer: Meet the requirements of Section 987.

162-2.2 Blanket Material: Meet the material classification shown on the plans and Design Standards, Index No. 505.

162-3 Ownership of Surplus Materials.

The Department will retain ownership of all materials suitable for construction of the ~~finish~~prepared soil layer until the final job requirements have been fulfilled. Unless otherwise ~~provided by~~shown in the Contract Documents, ~~upon final acceptance, Contractor shall~~ take ownership of any surplus materials ~~then remaining and not needed for job requirements~~ and dispose of, ~~outside the right-of-way or off site, to the Engineer's satisfaction in accordance with 120-5.~~

~~In urban or other areas w~~Where temporary storage of apparent surplus materials within the right-of-way may be impractical~~able~~, the materials may be stockpiled outside the right-of-way in areas provided by the Contractor until needed on the project or declared surplus. With the Engineer's written approval, the Contractor may dispose of excess material with the stipulation that any portion required to fulfill job requirements will be replaced with equally suitable material at no cost to the Department.

No extra compensation is allowed for any rehandling involved under the provisions of this Subarticle.

162-4 Construction Methods.

~~162-4.1 Preparation of Areas: Prior to the beginning of the work, e~~Construct the surface of the earthwork to such lines and elevations that will provide a surface conforming to the plan lines and elevations upon completion of the ~~finish~~*prepared* soil operations. Leave the surface of the earthwork in a roughened and loose condition.

~~Prevent contamination of the finish soil layer materials by other construction operations. Remove any contaminated material and replace at no cost to the Department. Remove and replace all materials which fail to meet the required soil classification or become contaminated after placement, and correct any slippage of this material at no cost to the Department. Spread the appropriate material uniformly over areas to receive treatment.~~

~~162-4.2 Spreading and Mixing: Uniformly spread the necessary material over areas to receive treatment.~~

~~After spreading, mix the material with the underlying soil to a combined depth of 6 inches [150 mm]. Continue mixing to provide a uniform finish soil layer true to line and grade. Correct any slippage of this material at no cost to the Department.~~

~~Immediately after spreading and mixing, sample and test the top 6 inches [150 mm] at a testing laboratory qualified under 6-9. Test sampled material for organic matter content and pH values in accordance with the requirements of Section 987. Take samples at a minimum of three samples per shoulder mile [2 kilometers]. For areas less than 1/4 shoulder mile [400 m] in length, one sample is sufficient. When the source of added material changes, the Engineer will require an additional sample. Test results will be averaged for each shoulder mile [2 kilometers] or increment thereof to determine specification compliance. Out of tolerance individual tests to a minimum of 1% organic content and pH values within an extended range of 4.2 to 8.8 will be allowed.~~

~~Do not seed, seed and mulch, or place sod until acceptable values for organic content and pH are obtained.~~

~~The Engineer reserves the right to take and test additional samples to determine specification compliance. For failing samples, take and test additional samples, as directed by the Engineer, to delineate areas that need re-treatment. Perform re-treatment at no additional cost to the Department.~~

~~Perform additional testing of retreated areas, at locations directed by the Engineer, to determine specification compliance.~~

~~The sampling and testing frequency may be reduced to three samples per 2 shoulder miles [4 kilometers] if the test results, when averaged, meet the specification requirements for three consecutive shoulder miles [6 kilometers]. Sampling and testing will revert to the original frequency of three samples per each shoulder mile [2 kilometers] if the Contractor's or the Department's tested samples do not meet specification requirements.~~

162-4.1 Finish Soil Layer: After spreading, mix the material with the underlying soil to a combined depth of 6 inches [150 mm], unless otherwise called for in the plans. Continue mixing to provide a uniform finish soil layer true to line and grade.

162-4.2 Organic Soil Layer: Spread materials to the depth of 6 inches [150 mm].

162-4.3 Blanket Material: Place the blanket material to the depth shown ~~in~~ on the plans.

162-5 Acceptance Testing.

The Engineer reserves the right to waive or reduce testing requirements for shoulder treatment projects as defined in the *Design Standards, Index 105*.

Immediately after completion of construction operations, sample and test the prepared soil layer at a testing laboratory qualified under 6-9 ~~as approved by the Engineer~~. Take random samples at a minimum of one sample per ~~1,000~~ 2,500 square yards [~~8402,090~~ square meters] of prepared surface. When the source of added material changes, the Engineer will require an additional sample. Test results will be averaged for each ~~5,000~~ 10,000 square yards [~~4,2008,361~~ square meters] to determine specification compliance. The Engineer reserves the right to take and test additional samples to determine specification compliance. For failing samples, take and test additional samples, as directed by the Engineer, to delineate areas that need re-treatment. Perform re-treatment at no additional cost to the Department. Perform additional testing of retreated areas, at locations directed by the Engineer, to determine specification compliance. Provide copies of all test results to the Engineer.

162-5.1 Finish Soil Layer: Test sampled material for organic matter content, pH, primary macronutrients (N, P K) and secondary macronutrients (S, Ca, Mg) content. Acquire from the soil testing laboratory fertilizer recommendations for the specific plants to be grown in the area. Do not seed, seed and mulch, or place sod until acceptable values for organic content and pH are obtained in accordance with the requirements of 987-1.

162-5.2 Organic Soil Layer: Test sampled material for organic matter content in accordance with the requirements of 987-1.

162-5.3 Blanket Material: Test blanket material for depth in accordance with the plans and for soil classification in accordance with AASHTO M-145. Add materials as necessary to achieve the required depth.

162-56 Method of Measurement.

The quantity ~~ies~~ to be paid for will be ~~the area, in square yards [square meters], for the finish soil layer~~ *the plan quantity for the following items* meeting the requirements of ~~162-2~~ *this Section*, completed and accepted:-

- (1) *The area, in square yards [square meters], of Finish Soil Layer.*
- (2) *The area, in square yards [square meters], of Organic Soil Layer.*
- (3) *The area, in square yards [square meters], of Blanket Material.*

162-67 Basis of Payment.

Prices and payments will be full compensation for completing all work specified in this Section, including *furnishing, hauling, and placing materials to the lines and grades shown in the plans.* ~~hauling any material from the project right of way, designated borrow areas, other sources as may be provided by the Contractor, or any combination of the above; furnishing any materials required to meet the required organic levels; and mixing, grading, and/or leveling as required to provide a relatively uniform homogeneous mix throughout the 6 inches [150 mm] within the prescribed lines and grades.~~

Payment will be made under:

- Item No. 162- 3- Finish Soil Layer - per square yard.

1620000.D03
162-3; 2162-3;
162-4; 2162-4;
162-6; 2162-6

Item No. 2162- 3- Finish Soil Layer - per square meter.
Item No. 162- 4- Organic Soil Layer - per square yard.
Item No. 2162- 4- Organic Soil Layer - per square meter.
Item No. 162- 6- Blanket Material - per square yard.
Item No. 2162- 6- Blanket Material - per square meter.

PREPARED SOIL LAYER.

(REV 1-5-06)

SECTION 162 (Pages 188-190) is deleted and the following substituted:

SECTION 162 PREPARED SOIL LAYER

162-1 Description.

162-1.1 Finish Soil Layer: Unless otherwise called for on the plans, prepare a 6 inch [150 mm] thick layer of existing soil mixed with imported material, if necessary to achieve the pH and OM levels required in 162-4, that is favorable to turf and ground cover growth over areas of the project which are to be seeded, seeded and mulched, or planted, by mixing in an organic material, compost, or commercially available soil amendments. Prepare finish soil layer in areas to be sodded, when called for on the plans.

162-1.2 Organic Soil Layer: When required by a permit, prepare a 6 inch [150 mm] thick layer of organic soil, at locations shown on the plans.

162-1.3 Blanket Material: When required by a permit, place a layer of blanket material at the locations and to the depth shown on the plans.

162-2 Materials.

162-2.1 Finish Soil Layer and Organic Soil Layer: Meet the requirements of Section 987.

162-2.2 Blanket Material: Meet the material classification shown on the plans and Design Standards, Index No. 505.

162-3 Ownership of Surplus Materials.

The Department will retain ownership of all materials suitable for construction of the prepared soil layer until the final job requirements have been fulfilled. Unless otherwise shown in the Contract Documents, upon final acceptance, Contractor shall take ownership of any surplus materials and dispose of in accordance with 120-5.

Where temporary storage of apparent surplus materials within the right-of-way may be impractical, the materials may be stockpiled outside the right-of-way in areas provided by the Contractor until needed on the project or declared surplus. With the Engineer's written approval, the Contractor may dispose of excess material with the stipulation that any portion required to fulfill job requirements will be replaced with equally suitable material at no cost to the Department.

No extra compensation is allowed for any rehandling involved under the provisions of this Subarticle.

162-4 Construction Methods.

Construct the surface of the earthwork to such lines and elevations that will provide a surface conforming to the plan lines and elevations upon completion of the prepared soil operations. Leave the surface of the earthwork in a roughened and loose condition. Prevent contamination of the materials by other construction operations.

1620000.D03
162-3; 2162-3;
162-4; 2162-4;
162-6; 2162-6

Remove and replace all materials which fail to meet the required soil classification or become contaminated after placement, and correct any slippage of this material at no cost to the Department. Spread the appropriate material uniformly over areas to receive treatment.

162-4.1 Finish Soil Layer: After spreading, mix the material with the underlying soil to a combined depth of 6 inches [150 mm], unless otherwise called for in the plans. Continue mixing to provide a uniform finish soil layer true to line and grade.

162-4.2 Organic Soil Layer: Spread materials to the depth of 6 inches [150 mm].

162-4.3 Blanket Material: Place the blanket material to the depth shown on the plans.

162-5 Acceptance Testing.

The Engineer reserves the right to waive or reduce testing requirements for shoulder treatment projects as defined in the Design Standards, Index 105.

Immediately after completion of construction operations, sample and test the prepared soil layer at a testing laboratory qualified under 6-9. Take random samples at a minimum of one sample per 2,500 square yards [2,090 square meters] of prepared surface. When the source of added material changes, the Engineer will require an additional sample. Test results will be averaged for each 10,000 square yards [8,361 square meters] to determine specification compliance. The Engineer reserves the right to take and test additional samples to determine specification compliance. For failing samples, take and test additional samples, as directed by the Engineer, to delineate areas that need re-treatment. Perform re-treatment at no additional cost to the Department. Perform additional testing of retreated areas, at locations directed by the Engineer, to determine specification compliance. Provide copies of all test results to the Engineer.

162-5.1 Finish Soil Layer: Test sampled material for organic matter content, pH, primary macronutrients (N, P K) and secondary macronutrients (S, Ca, Mg) content. Acquire from the soil testing laboratory fertilizer recommendations for the specific plants to be grown in the area. Do not seed, seed and mulch, or place sod until acceptable values for organic content and pH are obtained in accordance with the requirements of 987-1.

162-5.2 Organic Soil Layer: Test sampled material for organic matter content in accordance with the requirements of 987-1.

162-5.3 Blanket Material: Test blanket material for depth in accordance with the plans and for soil classification in accordance with AASHTO M-145. Add materials as necessary to achieve the required depth.

162-6 Method of Measurement.

The quantities to be paid for will be the plan quantity for the following items meeting the requirements of this Section, completed and accepted:

- (1) The area, in square yards [square meters], of Finish Soil Layer.
- (2) The area, in square yards [square meters], of Organic Soil Layer.
- (3) The area, in square yards [square meters], of Blanket Material.

1620000.D03
162-3; 2162-3;
162-4; 2162-4;
162-6; 2162-6

162-7 Basis of Payment.

Prices and payments will be full compensation for completing all work specified in this Section, including furnishing, hauling, and placing materials to the lines and grades shown in the plans.

Payment will be made under:

- Item No. 162- 3- Finish Soil Layer - per square yard.
- Item No. 2162- 3- Finish Soil Layer - per square meter.
- Item No. 162- 4- Organic Soil Layer - per square yard.
- Item No. 2162- 4- Organic Soil Layer - per square meter.
- Item No. 162- 6- Blanket Material - per square yard.
- Item No. 2162- 6- Blanket Material - per square meter.