

**ITEM 616.20----25 - BIORETENTION AND DRY SWALE SOIL - THRUWAY**

**1. DESCRIPTION:**

- 1.01 This work shall consist of furnishing and installing Bioretention and Dry Swale Soil in accordance with the Contract Documents and as directed by the Engineer.

**2. MATERIALS:**

- 2.01 The soil for Bioretention areas and Dry Swales shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than 1 inch in diameter. No other materials or substances shall be mixed or dumped within the Bioretention area and Dry Swale that may be harmful to plant growth, or prove a hindrance to planting or maintenance operations. The Bioretention and Dry Swale soil shall be visibly free of noxious weeds.

- 2.02 Bioretention and Dry Swale soil shall meet the following characteristics:

Parameter	Characteristic
PH Range	5.2 to 7.0
Organic Content	1.5 to 4.0% by dry weight
Percent soil finer than .002 mm	0 to 10%
Percent soil passing no. 200 sieve	0 to 40%
Percent soil passing no. 10 sieve	80 to 100%

- 2.03 Acceptance of Bioretention and Dry Swale soil will be based upon the test results unless otherwise specified.

- 2.04 **Testing:** The Contractor shall have the material tested by a Materials Testing Firm approved by the Engineer. Material tests required by this specification will be done in conformance with the procedures contained in the appropriate publications for test methods current on the date of advertisement for bids. Bioretention and Dry Swale soil sampling shall follow the sampling procedure for stockpiled Topsoil described in MURK 1B, Construction Inspection Manual, Section 713, with the exception that the "Topsoil Documentation Form" cannot be used for Bioretention and Dry Swale Soil. In lieu of the "Topsoil Documentation Form" the "Bioretention and Dry Swale Soil Documentation Form" contained in this specification shall be used.

**3. CONSTRUCTION DETAILS:**

- 3.01 Bioretention and Dry Swale Soil shall be furnished and placed at the locations and to the depth as shown in the Contract Plans. Placement of Bioretention and Dry Swale Soil shall be done in lifts of 12 inches to 18 inches. The soil shall be loosely compacted by tamping lightly with a dozer or backhoe bucket.

**4. METHOD OF MEASUREMENT:**

- 4.01 This work shall be measured as the number of cubic yards of Bioretention and Dry Swale Soil satisfactorily furnished and installed.

**5. BASIS OF PAYMENT:**

- 5.01 The unit price bid shall include the cost of furnishing all testing, labor, materials, and equipment necessary to satisfactorily complete the work.

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**BIORETENTION & DRY SWALE SOIL DOCUMENTATION FORM**

**SECTION A**

**SECTION B**

<b>PROJECT IDENTIFICATION</b>	<b>STOCKPILE DATA</b>
Contract No.: _____	Location: _____ _____
Contract Quantity _____ cubic meters.	Remarks: _____ _____
County: _____	Item No.: _____ Stockpile Quantity Cubic Meters _____

**SECTION C**

SAMPLED BY:

NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

<b>TEST RESULTS</b>				
Sample No.				
PH				
% Organic Content				
% finer than 0.002 mm				
% Passing No. 200 sieve				
% Passing No. 10 sieve				
Tested by: _____ Title: _____ Date: _____				
Checked by: _____ Title: _____ Date: _____				

**SECTION D**

**APPROVAL:** The test results indicate that the material represented by this sample(s) numbered \_\_\_\_\_ meets the quality requirements specified for Bioretention & Dry Swale Soil on the project identified above, and is acceptable for use subject to the following conditions:

\_\_\_\_\_

\_\_\_\_\_

NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

**REJECTION:** The test results indicate that the material from this stockpile is not acceptable for use as Bioretention & Dry Swale Soil.

NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

**INSTRUCTIONS:**

**Project Engineer**

**Complete Section A**

Retain One (1) copy

Submit One (1) copy to Contractor

**Complete Section D**

Retain One (1) copy of the form

Forward One (1) copy to the Contractor.

**Contractor**

**Complete Section B**

Submit form to Testing Firm

approved by Project Engineer.

**Testing Firm**

Collect samples in accordance with Specification.

**Complete Section C**

Forward form to Project Engineer.