

MATERIALS DIVISION



MEMORANDUM

<b>GENERAL SUBJECT: MOI Revision on Silt Fence</b>		<b>NUMBER: MD 358-13</b>
<b>SPECIFIC SUBJECT: Sec. 204.20, 205, 207.02 revisions on silt fence and other fabric sampling and testing requirements</b>		<b>DATE: May 13, 2013</b>
<b>DIRECTED TO: District Materials Engineers</b>	<b>SIGNATURE:</b>  <b>Charles A. Babish, PE</b> <i>Signature on original copy of memorandum</i>	

*This Memorandum notifies the users of the Materials Division Manual of Instructions that Sections 204.20, 205, and 207.02 have been revised to reflect changes to VDOT Road and Bridge Specification 245. See attached. The major change is that silt fence tests must now be conducted by suppliers, with VDOT performing verification testing and approval of lots. There are also minor clarifications to sampling and testing of other fabric types.*

## **Sec 204.20 Landscape Materials (Roadside Development) and Geotextiles**

### **(f) Geotextiles**

This section covers geotextiles used for silt fence, riprap bedding, drainage fabric, and subgrade and embankment stabilization, as specified in VDOT Road and Bridge Specification 245.03, (a) through (d). Each lot of geotextile shall be sampled at the Supplier by a VDOT Materials Division Quality Assurance (QA) Section Industrial Inspector or a VDOT Materials Representative (Industrial Inspector) and the sample submitted to the VDOT Central Office Laboratory for testing. If there is no evidence of test when the material arrives at the project, it shall be sampled at the project.

In addition, the Manufacturer or Supplier shall certify the following material test results as VDOT does not perform these tests:

Silt Fence – ultraviolet stability

Riprap Bedding – apparent opening size, ultraviolet stability, puncture strength

Drainage Fabric – apparent opening size

Subgrade Stabilization Fabric – apparent opening size, tear strength, puncture strength

Embankment Stabilization Fabric – apparent opening size, tear strength, puncture strength

In addition, for silt fence geotextile, the Supplier shall be responsible for having each lot of material it stocks, tested for filtering efficiency, flow rate, and grab strength. These results shall be from a GAI-accredited laboratory, which in addition is specifically certified by GAI on tests ASTM D5141 (Flow Rate and Filtering Efficiency) and D4632 (Grab Strength). Manufacturer test results on manufacturer lots shall not be used; Supplier lots shall be a maximum of 250,000 square feet as described below.

These certifications shall be presented to the VDOT Industrial Inspector before sampling and testing of the material for approval. The VDOT Materials QA Section will maintain the documentation and will not place state seals, stamps, or decals on materials that do not have the appropriate documentation.

A visual inspection shall be made of the Supplier's lot of geotextile to see that the geotextile is uniform in composition, packaging and free of obvious defects resulting from shipment or storage. All rolls shall have roll and style numbers as identifiers. Rolls not meeting visual inspection requirements shall be removed from the lot.

The Supplier shall have a shipping document containing all roll numbers for the materials being evaluated. A copy of this shipping document and the manufacturer's certifications of material test results described above shall be given to the Industrial Inspector and a lot number assigned to this grouping of rolls. The Industrial Inspector shall label these shipping document sheets with the assigned lot numbers and retain them as part of the material's permanent documentation. A sample of the geotextile, at least 10 linear feet and full width of the roll is then taken at random by the Industrial Inspector. Pertinent information on the geotextile is then recorded on a TL-10 and is submitted with the sample to the VDOT Central Office Materials Division for testing. Lot size shall be no greater than 250,000 square feet per sample. The number of samples collected shall be in accordance with Table 3 of ASTM D4354, Standard Practice for Sampling of Geosynthetics for Testing. (This is one (1) sample for up to 200 rolls, two (2) samples for 201 to 500 rolls, three (3) samples for 501 to 1,000 rolls, and four (4) samples for 1001 or more rolls.) A separate sample shall be taken for each lot and a separate TL-10 written for each sample.

Acceptable lots of material, those that meet the VDOT specification requirements, shall be sealed, stamped, or decal labeled by the Industrial Inspector.

Lots of material may be retested once, if requested by the Supplier. Sampling for retests shall be done in accordance with ASTM D4354 D4759, Standard Practice for Determining the Specification Conformance of Geosynthetics. This shall be interpreted to mean the same number of samples as initially collected per lot shall be again collected, and that the average of the original and resampled results must meet the VDOT specification requirements. Otherwise the lot shall be considered failing. For silt fence, in the event the Supplier results pass and the VDOT results fail for filtering efficiency, flow rate, or grab strength, the cause of the difference shall be investigated and a determination made as to the adequacy of the material.

The Industrial Inspector shall notify Suppliers of failing lots. The Suppliers shall then be required to remove that material from consideration for use on VDOT projects.

The Industrial Inspector shall issue a TL-109 when geotextiles are being shipped to VDOT state projects, or for material from Suppliers participating in the VDOT Materials Quality Assurance Program, the material paperwork shall be stamped with the certification stamp. The Industrial Inspector shall issue a Physical Release when geotextiles are sold or transferred to subconsignees or other providers contracting to VDOT. To facilitate this documentation, the Supplier shall notify the Industrial Inspector of shipment of material to other Suppliers where the material may ultimately be purchased by VDOT.

No material shall be used on a VDOT project if the material does not carry the state seal, stamp, or a decal of approval. The Industrial Inspector shall be contacted in the event that there is no evidence of testing and approval on geotextiles at the project.

No special packaging is required. Samples shall be marked, in accordance with Sec. 203, using Form TL-10, as outlined in Sec. 800. Length and width measurements as well as lot number, manufacturer, brand name and style shall be shown on the TL-10. Laboratory tests of geotextiles shall be reported on Form TL-47, as outlined in Sec. 800.

Under Section 205, the table of Minimum Acceptance Sampling Requirements, Item 20

(f) Geotextiles		One piece 10 ft. x full width to VDOT Central Office Laboratory, together with required Manufacturer's and Supplier's certifications	At Supplier.	No packaging necessary.	(f) Geotextiles
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207.02, Item 21

(21) Geotextiles. (Up to 3 rolls of material may be accepted on Contractor's certification that materials were tested for a previous project.)

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