



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY  
GOVERNOR

ANTHONY J. TATA  
SECRETARY

October 22, 2014

ADDENDUM #3

To: Plan Holders

From: Wanda H. Austin, PE  
Proposals Engineer

RE:  
Contract ID: DN00338  
County: Jackson  
Letting Date: October 28, 2014

The following questions have been asked about the above project. Answers are provided after the question.

1. What the specification for the permanent turf mat item 009? Answer: specification is provided as an attachment.
2. What is the minimum borehole diameter for the soil/rock anchors? Answer: 1" grout cover for the anchors. Since these are 1" bars then the minimum drill hole diameter will be 3".
3. The typical manufacturers spacing for hog rings/mesh clips is every 6 inches in a staggered pattern. The drawing shows every 12 inches vertically in the lap. Which way is being requested for this project? The specs mention refer to manufacturers recommendation. Answer: The drawing is just a typical that we think is necessary to include over and over. The manufacturer's specifications for whatever meets our Type 2 strength and spacing requirements are to be followed.

Please insert this letter into the addendum section of the proposal and sign the verification. Thank you for your attention to this matter.

*Fourteenth Division Office*

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## **PERMANENT SOIL REINFORCEMENT MAT:**

### **Description**

This work consists of furnishing and placing *Permanent Soil Reinforcement Mat*, of the type specified, over previously prepared areas as directed.

### **Materials**

The product shall be a permanent erosion control reinforcement mat and shall be constructed of synthetic or a combination of coconut and synthetic fibers evenly distributed throughout the mat between a bottom UV stabilized netting and a heavy duty UV stabilized top net. The matting shall be stitched together with UV stabilized polypropylene thread to form a permanent three-dimensional structure. The mat shall have the following minimum physical properties:

<b>Property</b>	<b>Test Method</b>	<b>Value</b>	<b>Unit</b>
Light Penetration	ASTM D6567	9	%
Thickness	ASTM D6525	0.40	in
Mass Per Unit Area	ASTM D6566	0.55	lb/sy
Tensile Strength	ASTM D6818	385	lb/ft
Elongation (Maximum)	ASTM D6818	49	%
Resiliency	ASTM D1777	>70	%
UV Stability *	ASTM D4355	≥80	%
Porosity (Permanent Net)	ECTC Guidelines	≥85	%
Maximum Permissible Shear Stress (Vegetated)	Performance Bench Test	≥8.0	lb/ft <sup>2</sup>
Maximum Allowable Velocity (Vegetated)	Performance Bench Test	≥16.0	ft/s

\*ASTM D1682 Tensile Strength and % strength retention of material after 1000 hours of exposure.

Submit a certification (Type 1, 2, or 3) from the manufacturer showing:

- (A) the chemical and physical properties of the mat used, and
- (B) conformance of the mat with this specification.

### **Construction Methods**

Matting shall be installed in accordance with Subarticle 1631-3(B) of the *Standard Specifications*.

All areas to be protected with the mat shall be brought to final grade and seeded in accordance with Section 1660 of the *Standard Specifications*. The surface of the soil shall be smooth, firm, stable and free of rocks, clods, roots or other obstructions that would prevent the mat from lying

in direct contact with the soil surface. Areas where the mat is to be placed will not need to be mulched.

**Measurement and Payment**

*Permanent Soil Reinforcement Mat* will be measured and paid for as the actual number of square yards measured along the surface of the ground over which Permanent Soil Reinforcement Mat is installed and accepted. Overlaps will not be included in the measurement, and will be considered as incidental to the work. Such payment shall be full compensation for furnishing and installing the mat, including overlaps, and for all required maintenance.

Payment will be made under:

**Pay Item**

Permanent Soil Reinforcement Mat

**Pay Unit**

Square Yard

