
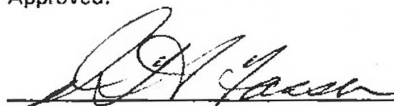


<p>SUPERSEDED BY EI 99-024 EFFECTIVE 11/4/99</p>		<p><i>New York State</i> <i>Department of</i> <i>Transportation</i> ENGINEERING BULLETIN</p>	<p>EB 98-062</p>								
<p><i>Expires one year after issue unless replaced sooner</i></p>											
<p>Title: CORRECTION TO EI 98-035</p>											
<p>Distribution:</p> <table border="0"> <tr> <td><input type="checkbox"/> Manufacturers (18)</td> <td><input type="checkbox"/> Surveyors (33)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Main Office (30)</td> <td><input checked="" type="checkbox"/> Consultants (34)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Local Govt. (31)</td> <td><input type="checkbox"/> Contractors (39)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Regions/Agencies (32)</td> <td><input type="checkbox"/> _____ ()</td> </tr> </table>	<input type="checkbox"/> Manufacturers (18)	<input type="checkbox"/> Surveyors (33)	<input checked="" type="checkbox"/> Main Office (30)	<input checked="" type="checkbox"/> Consultants (34)	<input checked="" type="checkbox"/> Local Govt. (31)	<input type="checkbox"/> Contractors (39)	<input checked="" type="checkbox"/> Regions/Agencies (32)	<input type="checkbox"/> _____ ()	<p>Approved:</p> <p> D. Fasser, Director, Landscape Architecture Bureau</p> <p style="text-align: right;">12/15/98 Date</p>		
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This Engineering Bulletin supplements EI 98-035.

We have made some minor changes to the EI. Please replace pages 5&6 of Section 612-Sodding and Placing Erosion Control Materials (Pay Item No. 612.020910 m was added) and Section 713-07 Erosion Control Materials in it's entirety (several wording changes and addition of Class III, Type D, erosion control materials).

Questions concerning this change should be directed to Gary Glath of the Landscape Architecture Bureau at (518) 457-4460.

after a suitable period of time has elapsed, the Contractor shall re-establish the grade, replace the erosion control materials, and re-establish turf, in the same manner as specified in the contract documents until a satisfactory turf has been established. Any work to be corrected shall be at the Contractor's expense. The Contract will not be accepted until a satisfactory turf has been produced, unless the work necessary to assure satisfactory turf will be done under the provisions of an uncompleted work agreement.

D. Care and Repair. The Contractor shall care for the areas where erosion control materials have been placed until acceptance of the Contract or acceptance of the turf, whichever is later. Where necessary, such care shall consist of providing approved warning signs or barricades for protection against traffic. Any surfaces that have settled, become gullied or otherwise damaged, do to the Contractor's operations, shall be repaired at the Contractor's expense to re-establish the grade and soil conditions that existed prior to placing erosion control materials. Turf shall be re-established as specified in the contract documents. In locations where mowing is specified, the turf shall be mowed unless otherwise approved, to a height of 100 mm when growth reaches 200 mm until acceptance of the Contract.

612-4 METHOD OF MEASUREMENT

612-4.01 Sodding. Sodding will be measured as the number of square meters of surface area that have been acceptably completed.

612-4.02 Furnishing and Placing Erosion Control Materials. Furnishing and placing erosion control materials will be measured as the number of square meters of surface area that have been acceptably completed.

612-5 BASIS OF PAYMENT

612-5.01 Sodding. The unit price bid per square meter shall include the cost of all labor, equipment, materials, including topsoil placed under the sod, water used during planting, and necessary excavation, equipment and incidentals necessary to acceptably complete and care for the work as specified. When the quantity of sod is equal to or less than 400 square meters, the watering necessary to establish the sod after planting shall be included in the price bid for sodding. When the quantity of sod exceeds 400 square meters, the watering, except initial watering at time of planting, shall be paid for under the watering vegetation item in the Contract.

612-5.02 Furnishing and Placing Erosion Control Materials. The unit price bid per square meter shall include the cost of all labor, materials, equipment and incidentals necessary to complete and care for the work as specified, except that furnishing and

placing seed, fertilizer and, where specified, mulch are paid for under the turf establishment item and furnishing and placing topsoil will be paid for under the topsoil item in the Contract.

Payment will be made under:

<i>Item No.</i>	<i>Item</i>	<i>Pay Unit</i>
<i>612.01 m</i>	<i>Sodding</i>	<i>Square Meter</i>
<i>612.0201 m</i>	<i>Class I Type A Erosion Control Material</i>	<i>Square Meter</i>
<i>612.0202 m</i>	<i>Class I Type B Erosion Control Material</i>	<i>Square Meter</i>
<i>612.0203 m</i>	<i>Class I Type C Erosion Control Material</i>	<i>Square Meter</i>
<i>612.0204 m</i>	<i>Class II Type A Erosion Control Material</i>	<i>Square Meter</i>
<i>612.0205 m</i>	<i>Class II Type B Erosion Control Material</i>	<i>Square Meter</i>
<i>612.0206 m</i>	<i>Class II Type C Erosion Control Material</i>	<i>Square Meter</i>
<i>612.0207 m</i>	<i>Class III Type A Erosion Control Material</i>	<i>Square Meter</i>
<i>612.0208 m</i>	<i>Class III Type B Erosion Control Material</i>	<i>Square Meter</i>
<i>612.0209 m</i>	<i>Class III Type C Erosion Control Material</i>	<i>Square Meter</i>
<i>612.020910 m</i>	<i>Class III Type D Erosion Control Material</i>	<i>Square Meter</i>
<i>612.0210 m</i>	<i>Class IV Type A Erosion Control Material</i>	<i>Square Meter</i>
<i>612.0211 m</i>	<i>Class IV Type B Erosion Control Material</i>	<i>Square Meter</i>

LANDSCAPE DEVELOPMENT MATERIALS

Make the following changes to the Standard Specifications of January 2, 1995.

Page 7-141.

Replace §713-07 JUTE MESH OR OTHER APPROVED EROSION CONTROL MATERIALS in its entirety with the following:

713-07 EROSION CONTROL MATERIALS.

SCOPE. This specification covers the material requirements for Erosion Control Materials.

MATERIAL REQUIREMENTS.

Class I: *Short term duration* (approximately 6 months), light duty, organic or synthetic erosion control material (unless only 100% organic products are specified).

Type A: Products for use where the slopes do not exceed 1:4. No minimum shear stress flow is required. The product shall be capable of withstanding moderate foot traffic without tearing or puncturing.

Type B: Products for use on slopes 1:3 and flatter. Products shall be capable of withstanding shear stress flows of at least 50 Pa.

Type C: Products for use on slopes 1:3 or flatter, or, in channels where the calculated shear stress flow is 70 Pa or less. Products shall be capable of withstanding shear stress flows of at least 70 Pa.

Class II: *A long term duration* (3 yrs. min.), erosion control material.

Type A: *Jute Mesh.* For use on slopes 1:2 or flatter. Jute Mesh shall be of a uniform open plain weave of undyed and unbleached single jute yarn. Jute mesh shall be woven as follows:

Approximately 55 warp ends per meter width.

Approximately 37 weft ends per linear meter.

Mass of jute mesh shall average 0.5 kilogram per square meter (plus or minus 5%).

Type B: *Organic or non-organic products for use on slopes 1:2 or flatter, or in channels when the calculated shear stress flow is 95 Pa or less. Products shall be capable of withstanding shear stress flows of at least 95 Pa.*

Type C: *Products made entirely of organic materials. For use on slopes 1:2 or flatter, or in channels when the calculated shear stress flow is 95 Pa or less. Only 100% organic materials are allowed. Products shall be capable of withstanding shear stress flows of at least 95 Pa.*

Class III: Permanent (10 yrs. min.) synthetic, ultra violet stablized erosion control materials.

Type A: *Products for use on slopes 1:2 or flatter, or in channels. Products shall be capable of withstanding shear stress flows of at least 95 Pa.*

Type B: *Products for slopes 1:2 or flatter, or in channels. Products shall be capable of withstanding shear stress flows of at least 170 Pa.*

Type C: *Products for slopes 1:1 or flatter, or in channels. Products shall be capable of withstanding shear stress flows of at least 240 Pa.*

Type D: *Products for slopes 1:1 or flatter, or in channels. Products shall be capable of withstanding shear stress flows of at least 380 Pa.*

Where applicable, the geotextile component of Erosion Control Material Type, A, B, C and D shall be appropriate for the intended use as shown on the plans and as shown on the Approved List issued by the Department's Material Bureau. The geotextile component of the erosion control material designated for use on a slope shall meet the Geotextile Slope Protection item requirements that are in effect as of the Contract letting date. The geotextile component of the erosion control material designated for use in a channel shall meet the Geotextile Bedding item requirements that are in effect as of the Contract letting date.

Class IV: Soil Stabilizers-*Soil stabilizers are considered a short term duration (approximately 6 months) erosion control device. When used alone, they shall be used on slopes 1:3 or flatter. They shall not be used in channels.*

Type A: *A cementitious soil binder which is added to wood cellulose fiber*

mulch, or a bonded fiber matrix. They are intended to form a thick heavy bodied crust or mat like barrier that controls water and wind induced erosion. Type A, may be used by itself, and is approved for use with Class III, Type A, B and C erosion mats where those mats are used on slope applications.

Type B: *A polyacrylamide (PAM) and calcium solution intended to reduce the erodibility of bare soils during construction activities or to enhance the performance of mulching on permanent slopes. Soil stabilizer, Type B, shall bond soil particles and shall effectively increase the soil particle size to 1.0 mm or larger. It shall reduce the movement of soil through chemical bonding, increase the particle size thus making silt fence more effective, and increase the water absorption of the soil.*

BASIS OF ACCEPTANCE: *Acceptance of Class I, II, III and IV Erosion Control Material is based upon the supplier's name and address on the product container label appearing on the Department's Approved List, and a certification of compliance with these specifications.*

As an erosion control material is received on a project site, the Engineer shall remove two square meters, for quality assurance, and submit it to the Geotechnical Engineering Bureau for testing. This pertains to Classes I, II, and III only, Class IV does not require a submission. The results of the quality assurance testing will not affect the use of a material on the project for which it is supplied. It is for the purpose of monitoring any changes in manufacturing processes which may affect the original properties that were determined at the time of initial approval.

The erosion control material will be tested for mass per unit and thickness. If the results are below the minimum acceptable for approval, the product's status on the Approval List will be reevaluated. The manufacturer will be notified of the review. Possible actions range from retesting of the manufacturer's line of products to immediate removal of those products from the Approved List.

Application for addition to the Approved List can be made to the Landscape Architecture Bureau. This evaluation will be performed in accordance with procedural directives of the Landscape Architecture Bureau. A geotextile component may be included in Class III Erosion Control Material. The geotextile component will be evaluated in accordance with procedural directives of the Geotechnical Engineering Bureau. Suppliers seeking addition to the Department's Approved List should allow 6 months for the evaluation.