

## ADDENDUM NO. 1

**TO: PLANS AND SPECIFICATIONS FOR STATE OF MISSOURI**

**Repair Paving/Infrastructure and Stone Wall  
Bellefontaine Habilitation Center  
10695 Bellefontaine Road  
St. Louis, Missouri 63137  
Project No. M1904-01**

**Bid Opening Date: 1:30 PM, Thursday, January 18, 2024 (Not Changed)**

**Bidders are hereby informed that the construction Plans and/or Specifications are modified as follows:**

### **SPECIFICATION CHANGES:**

1. Section 313219 – ADD
  - a. Additional Specification is being added for Geotextile Separation Fabric, Section 313219, consisting of 5 pages. Any new construction or any subgrade failure areas shall incorporate geotextile fabric.

### **DRAWING CHANGES:**

1. Sheet C-103, Symbols/Abbreviations Legend
  - a. REVISE General Note on the Symbols / Abbreviation Legend to change milling 1 ½” and overlay to milling 2” and overlay to align with Detail 3 on Sheet C-503.
2. Sheets C-109, C110, and C-111
  - a. These three sheets address the roadway cross sections for the roadway improvement plan on Sheet C-108. Additional cross sections with stationing were added, along with adding horizontal and vertical scale as noted.

### **GENERAL COMMENTS:**

1. The Pre-Bid Meeting was held on January 4, 2024, at 10:00 AM. The Pre-Bid Meeting sign-in sheet is attached.
2. FMDC will not be releasing the estimated construction cost. Bidders are to base that information on their own review and pricing for bid bond purposes.
3. Please contact Paul Girouard, Contract Specialist, at 573-751-4797 or Paul.Girouard@oa.mo.gov for questions about bidding procedures, MBE\WBE\SDVE Goals, and other submittal requirements.
4. The deadline for technical questions was January 10, 2024 at noon.
5. Changes to, or clarification of, the bid documents are only made as issued in the addenda.
6. All correspondence with respect to this project must include the State of Missouri project number as indicated above.
7. Current Plan holders list available online at <https://www.oafmdcplanroom.com/jobs/2198/plan-holders/c2223-03-cipp-lining-repl-storm-sewer-piping-western-missouri-correctional-center>
8. Prospective Bidders contact American Document Solutions, 1400 Forum Blvd Suite 1C, Columbia MO 65201, 573-446-7768 to order official plans and specifications.

9. All bids shall be submitted on the bid form without additional terms and conditions, modifications, or stipulations. Each space on the bid form shall be properly filled. Failure to do so will result in rejection of the bid.
10. MBE/WBE/SDVE participation requirements can be found in DIVISION 00. The MBE/WBE/SDVE participation goals are 10%/10%/3%, respectively. Only certified firms as of the bid opening date can be used to satisfy the MBE/WBE/SDVE participation goals for this project. If a bidder is unable to meet a participation goal, a Good Faith Effort Determination Form must be completed. Failure to complete this process will result in rejection of the bid.

**ATTACHMENTS:**

1. Pre-Bid Meeting Sign-In Sheet
2. Section 313219, Geotextile Separation Fabric (5 pages)
3. Plan Sheets C-109, C-110, and C-111

**January 11, 2024**

**END OF ADDENDUM NO. 1**

**PRE-BID MEETING FOR B.H.C. - REPAIR PAVING/INFRASTRUCTURE AND STONE WALL  
PROJECT NO. M1904-01**

JANUARY 4, 2024

**Sign-in Sheet**

Name	Organization	Title / Position	EMAIL ADDRESS
1 Scott E. Vogler	MCCO Engineering	Engineer	svogler@mccoengineering.com
2 Michael Schroder	CA/FMDC	Project Manager	michael.schroder@ca.no.gov
3 Mike Howard	DA/FMDC	CA	Mike.Howard@ca.no.gov
4 Terry Tobias	EBRIS	Contractor	terry.tobias@brookswoodroof.com
5 Wayne Martin	A. Eilers	Lead	Wayne@a.eilersconstruction.com
6 L. Scott Samuels	DA/FMDC	Project Manager	SCOTT.SAMUELS@DA.MD.GOV
7 Kevin Dalton	DA/FMDC	Supervisor	Kevin.Dalton@da.md.gov
8 Mike Tyler	DA/FMDC	Supervisor	mickey.tyler@da.md.gov
9 Rick Elliott	ASPHALT SERVICES	ESTIMATOR	rick@ASPHALT-SERVICES.COM
10 Jesse Czerniewski	Leritz Contracting	Estimator	jesse@leritzcontracting.com

11	BOB MOSKE	RAISER CONSTRUCTION	ESTIMATOR	moske@minericonstruction.com
12	Jane Rusland	MITT	Project Manager	jrussland@meccengineering.com
13	Soe Blackwood	DA-FMDC	Maintenance Supervisor	soeph.blackwood@da.mo.gov
14	MIKA MARY	DA-FMDC	SLM	Michael.Mary@DA.MO.GOV
15	El Miller	DA-FMDC	Maintain Supervisor	el.miller@da.mo.gov
16	Rebecca Post	SHH - Surg	Supt	rebecca.post@cluh.mo.gov
17	Marcy Hargis	RHC-Assist. Sup	Assist. Sup	Marcy.Hargis@dmf.mo.gov
18	Jason Kolks	DA-FMDC	IT Coordinator	Jason.Kolks@da.mo.gov
19	Jose Renteria	DA-FMDC	Trades Supervisor	jose.renteria@da.mo.gov
20	BRAD FRANCIS	FORD ASPHALT	VP	brfranke@fordasphalt.com
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## **DIVISION 32 – EXTERIOR IMPROVEMENTS**

### **SECTION 313219 - GEOTEXTILE SEPARATION FABRIC**

#### **PART 1 - GENERAL**

##### **1.1 DESCRIPTION OF WORK:**

- A. The geotextile separation fabric material shall be Propex Geotex 315ST Geotextile Fabric or approved equal.
- B. This work shall consist of furnishing and placing a geotextile for use as a permeable separator to prevent inter-mixing of dissimilar materials such as subgrades and surfaced or unsurfaced pavement materials; and foundations and selected fill materials. The geotextile shall be designed to allow passage of water while retaining in-situ soil.

##### **1.2 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

##### **1.3 SUBMITTALS**

- A. Shop Drawings: NOT APPLICABLE.
- B. Material Certification:
  - 1. Geotextile Fabric
- C. The fabric producer's laboratory shall maintain records of its quality control results and the contractor shall provide, upon request of the Owner's Representative prior to shipment, manufacturer's certificate. The certificate shall include:
  - 1. Name of manufacturer.
  - 2. Chemical composition.
  - 3. Product description.
  - 4. Statement of compliance to specification requirements.
  - 5. Signature of legally authorized official attesting to the information requested.

##### **1.4 QUALITY ASSURANCE:**

- A. The average roll minimum value (weakest principle direction) for strength properties of any individual roll tested from the manufacturing lot or lots of a particular shipment shall be in excess of the average roll minimum value (weakest principal direction) as specified in the materials section.
- B. A competent laboratory must be maintained by the producer of the fabric at the point of manufacture to insure quality control in accordance with ASTM testing procedures.

##### **1.5 DELIVERY, STORAGE AND HANDLING:**

- A. Geotextile Shipment/Storage: the geotextile rolls shall be furnished with suitable wrapping for protection against moisture and extended ultraviolet exposure prior to placement. Rolls shall be stored in a manner that protects them from the elements. If stored outdoors, they shall be elevated and protected with a waterproof cover. At no time shall the geotextile be exposed to ultraviolet light for a period exceeding 14 days. The geotextile rolls shall be labeled as per ASTM D4873, "Guide for Identification, Storage and Handling of Geotextiles".
- B. The engineering fabric shall be provided in rolls wrapped with protective covering to protect the fabric from mud, dirt, dust, and debris.
- C. The fabric shall be free of defects or flaws which significantly affect its physical properties.
- D. Each roll of fabric in the shipment shall be labeled with a number or symbol to identify that production run.

## PART 2 - PRODUCTS

### 2.1 MATERIALS:

- A. The geotextile shall be composed of synthetic fibers formed into a woven or nonwoven fabric. Fibers used in the manufacture of the geotextile shall be composed of at least 85 percent by weight polyolefins, polyesters, or polyamides. The geotextile shall be free of defects or flaws which significantly affect its physical properties. The geotextile shall meet the requirements of **Table 5.1**. The choice of a geotextile for this application is determined by the ability of the geotextile to survive installation stresses as shown in **Table 5.2**.
- B. The geotextile fabric shall be Propex Geotex 315ST Geotextile Fabric or approved equal and conform as specified in quality assurance section and as follows:
1. Grab tensile strength (ASTM 4632) shall be 300 pounds minimum.
  2. Elongation at failure (ASTM 4632) shall be 15%.
  3. Burst strength (ASTM D3786) shall be 600 pounds per square inch minimum.
  4. Puncture strength (ASTM D4833) shall be 120 pounds per square inch minimum.
  5. Trapezoid tear (ASTM D4533) shall be 120 pounds per square inch minimum.
  6. Ultraviolet resistance (ASTM D4355) stability shall be 70/150 percent minimum of the grab tensile strength after fadometer exposure of 300 hours.
- C. Site Preparation: The installation area shall be prepared by clearing all debris or obstructions which may damage the geotextile. Trees and large bushes should be cut at ground level. In most cases, all native vegetation, roots and topsoil must be removed prior to geotextile placement. Where required by the contract documents, soft and otherwise unsuitable areas shall be identified, excavated, and backfilled with selected material in accordance with the contract documents. Stabilization of these areas may be enhanced by use of a geotextile at the bottom of the excavation before backfilling. However, when designed for soft or wet conditions, native vegetation, roots, and topsoil may be left in place so as to limit disturbance and resulting shear strength loss of the subgrade soil.
- D. Geotextile Placement: The geotextile shall be unrolled as smoothly as possible on the prepared area in the direction of construction. Geotextile rolls shall be overlapped in the direction of placement. The geotextile shall be overlapped or seamed in accordance with the minimum requirements provided in **Table 5-3**.

If required, the geotextile may be held in place prior to placement with pins, sand bags, or piles of fill or rock. On curves, the geotextile may be folded or cut to conform to the curve as illustrated in **Figure 5-1**. If site conditions require geotextile seaming, the geotextile shall be cut and seamed on the curve. The fold or overlap shall be in the direction of construction and shall be held in place as prescribed above. The geotextile shall not be dragged across the constructed area.

Damaged geotextiles, as identified by the Owner's Representative, shall be repaired immediately. The damaged area plus an additional 3 ft. around the damaged area shall be cleared of all fill material. A geotextile patch extending 3 ft. beyond the perimeter of the damage shall be constructed as directed by the Owner's Representative. Sewing of a geotextile patch may be required over soft subgrades as directed by the Owner's Representative.

## PART 3 - CONSTRUCTION REQUIREMENTS

### 3.1 PERFORMANCE:

- A. Inspection:
1. The contractor shall use mechanical laydown equipment as supplied by the supplier and place the fabric in accordance with manufacturer's specifications. The placement of the fabric shall be in such a manner that the fabric will be laid down without wrinkles and folds or both.
  2. The contractor shall be responsible for providing notification to allow sufficient time for inspection.
  3. Under no circumstances will work be accepted without the inspections being performed by the Owner's Representative.

**TABLE 5-1**

**PHYSICAL REQUIREMENTS**      1, 2, 3

**GEOTEXTILES IN SEPARATION APPLICATIONS**

Property	Units	Required Values		Test Method
		Medium Survivability <sup>4</sup>	High Survivability <sup>4</sup>	
Tensile Strength	lbs	180	270	ASTM D 4632
Elongation	%	50	50	ASTM D 4632
Seam Strength	lbs	160	240	ASTM D 4632
Puncture Strength	lbs	70	100	ASTM D 4833
Trapezoid Tear Strength	lbs	70	100	ASTM D 4533
Permittivity	l/sec	.02(5)	.02(5)	ASTM D 4491
Apparent Opening Size	U.S. Standard Sieve	(6)	(6)	ASTM D 4751
Ultraviolet <sup>7</sup> Stability	%	70	70	ASTM D 4355

Notes:

1. Conformance of geotextiles to specification property requirements shall be determined according to ASTM D 4759, "Practice for Determining the Specification Conformance of Geosynthetics."
2. Contracting agency may require a letter from the manufacturer certifying the geotextiles meet specification requirements.
3. All numerical values, except those of elongation, represent minimum average roll values (i.e., average test results from any sampled roll in a lot shall meet or exceed the minimum average roll values) in weaker principal direction. Values of elongation represent maximum average roll values. Lot sampled according to ASTM D 4354, "Practice for Sampling Geosynthetics for Testing".
4. Recommended survivability ratings are provided in **Table 5-2**.
5. Permittivity shall be greater than the specified minimum value and result in a geotextile permeability which is greater than the permeability of the subgrade soil.
6. Minimum #30 U.S. Standard Sieve (maximum 0.6mm) for subgrade soils with 50 percent or greater particles by weight passing the #200 U.S. Standard Sieve. Minimum #50 U.S. Standard Sieve (maximum 0.297 mm) for subgrade soils with more than 50 percent particles by weight passing the #200 U.S. Standard Sieve. Design apparent opening size to be selected by the design engineer based on site soil and groundwater conditions.
7. Percent of tensile strength retained as evaluated using ASTM D 4632, "Test Method for Grab Breaking Load and Elongation of Geotextiles" after conditioning for 500 hours.

**TABLE 5-2**

**CONSTRUCTION SURVIVABILITY RATINGS**      1, 2, 3, 4

Subgrade CDB At Installation	<1	1-2	>2
Equipment Contact Pressure (psi)	>50   <50	>50   <50	>50   <50
Compacted Thickness Aggregate (in)(5)			

4(6)	NR	NR	H	M	M	M
6	NR	NR	H	H	M	M
12	NR	H	M	M	M	M
18	H	M	M	M	M	M

Notes:

1. From "Geotextile Design and Construction Guidelines", Federal Highway Administration, Publication No. FHWA-HI-90-001, October 1989.
2. H-High
3. M-Medium
4. NR-Not Recommended
5. Maximum aggregate size not to exceed one-half the compacted thickness.
6. The 4 in. minimum cover is intended for existing road bases and not intended for use in new construction.

**TABLE 5-3**

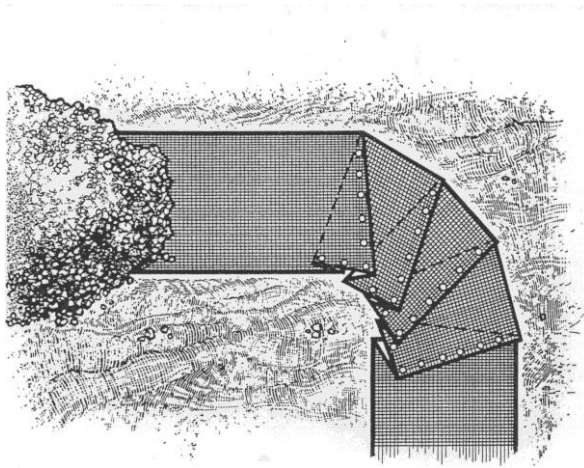
**SEAM RECOMMENDATIONS 1, 2**

Soil Strength (CBR)	Minimum Overlap (ft)
Less than 0.5	(3)
$0.5 \leq \text{CBR} < 1$	(3)(4)
$1 \leq \text{CBR} \leq 2$	2.5(5)
Greater than 2	1.5(5)

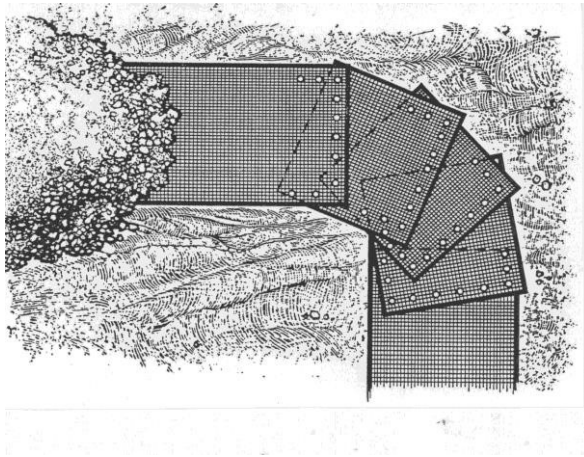
Notes:

1. Adapted from Task Force 25 and "Geotextile Design and Construction Guidelines", Federal Highway Administration, Publication No. FHWA-HI-90-001, October 1989.
2. Overlap requirements are not applicable to sewn seams.
3. Overlaps are not recommended for soil CBR less than 0.5.
4. Sewn seams of adjacent geotextile rolls are preferred for soil CBR greater than 0.5 but less than or equal to 1.
5. Sewn seams are acceptable for all soil CBRs.





A. FORMING A CURVE USING FOLDS

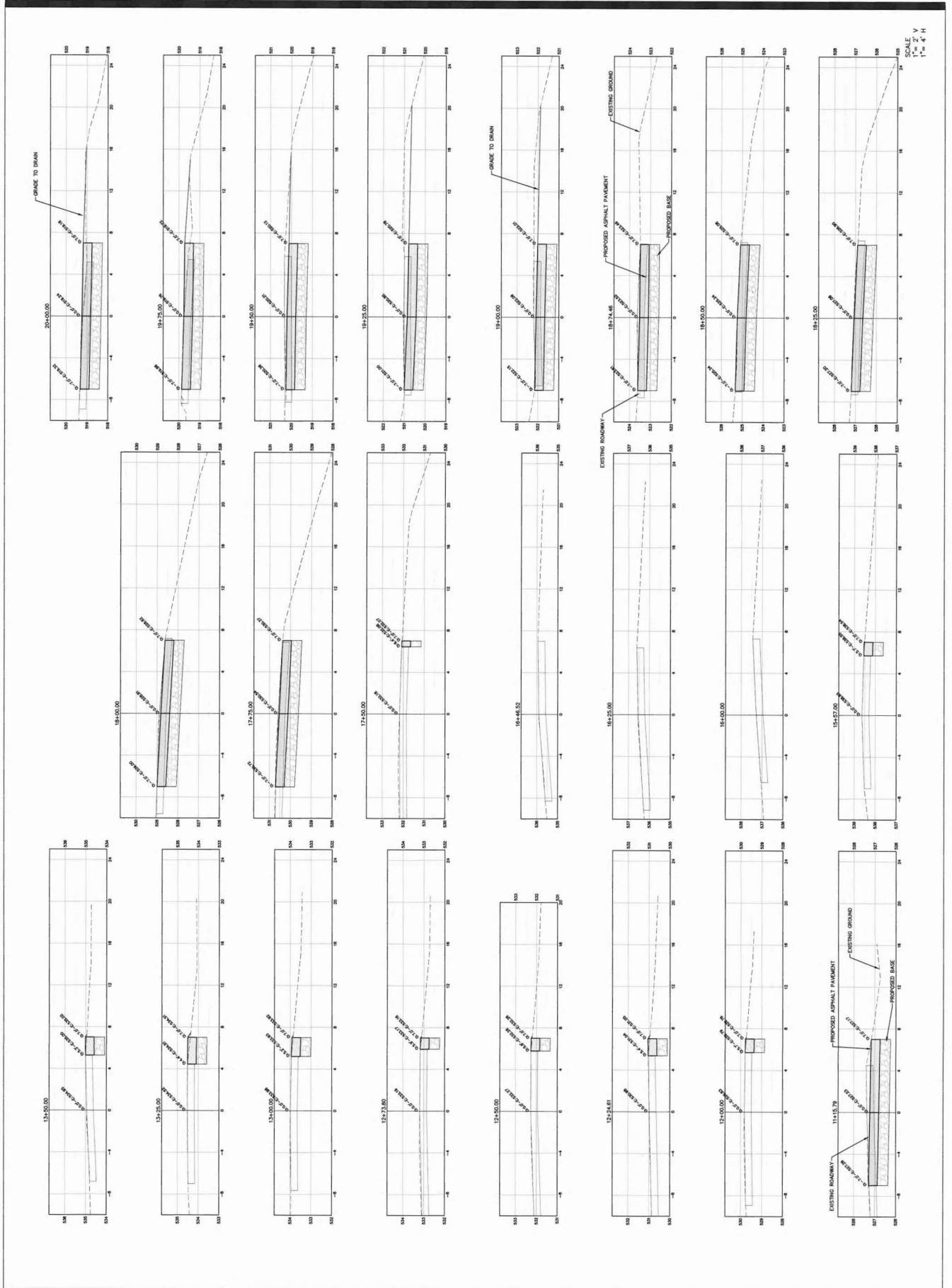


B. FORMING A CURVE USING CUT PIECES

**Figure 5-1:** Placement of separation geotextile on curves (FHWA, 1989)  
(Note: o – indicates locations of pins, sandbags, piles of fill or rock, or other means of temporarily anchoring geotextile. Anchors shall be placed on 2ft. centers minimum.)

**END OF SECTION 313219**





SCALE  
1" = 2' V  
1" = 4' H

