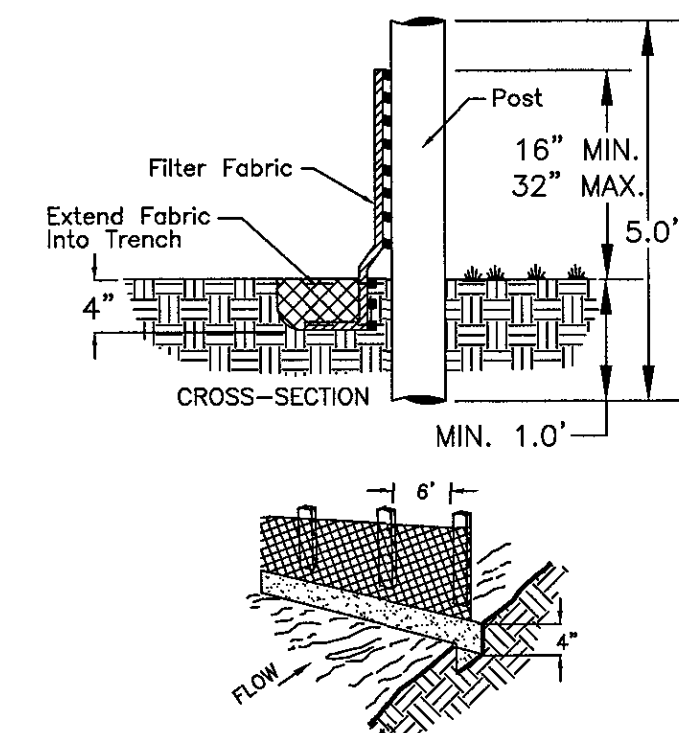


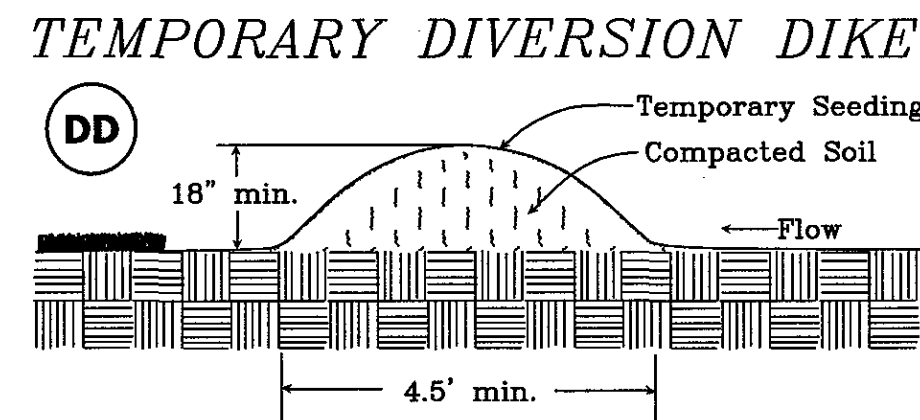
TABLE 3.32-C (Revised June 2003) PERMANENT SEEDING SPECIFICATIONS FOR APPALACHIAN MOUNTAIN AREA		
LAND USE	SEED <sup>1</sup> SPECIES	APPLICATION RATES
Minimum Care Lawn (Commercial or Residential)	Tall Fescue <sup>1</sup> Perennial Ryegrass <sup>2</sup> Kentucky Bluegrass <sup>3</sup>	90-100% 0-10% 0-10% TOTAL: 200-250 lbs.
High-Maintenance Lawn	Minimum of three (3) up to five (5) varieties of Kentucky Bluegrass from approved list for use in Virginia <sup>4</sup>	TOTAL: 125 lbs.
General Slope (3:1 or less)	Tall Fescue <sup>1</sup> Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop <sup>2</sup>	128 lbs. 2 lbs. 2 lbs. TOTAL: 132 lbs.
Low-Maintenance Slope (Steeper than 3:1)	Tall Fescue <sup>1</sup> Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop <sup>2</sup> Crownvetch <sup>5</sup>	108 lbs. 2 lbs. 2 lbs. 20 lbs. TOTAL: 132 lbs.
<sup>1</sup> - When selecting varieties of turfgrass, use the Virginia Crop Improvement Association (VCA) recommended turfgrass variety list. Quality seed will bear a label indicating that they are approved by VCA. A current turfgrass variety list is available at the local County Extension office or through VCA at 804-746-4854 or at <a href="http://www.vca.org">http://www.vca.org</a> . <sup>2</sup> - Perennial Ryegrass will germinate faster and at lower soil temperatures than Tall Fescue, thereby providing cover and erosion resistance for seedbed. <sup>3</sup> - Use seasonal nurse crop in accordance with seeding dates as stated below: March, April - May 15 <sup>th</sup> ..... Annual Rye May 15 <sup>th</sup> - August 15 <sup>th</sup> ..... Fescue Millet August 15 <sup>th</sup> - September, October ..... Annual Rye November - February ..... Winter Rye <sup>4</sup> - All legume seed must be properly inoculated. If Flatpea is used, increase to 30 lbs/acre. If Weeping Lovegrass is used, include in any slope or low maintenance mature during warmer seeding periods, increase to 30-40 lbs/acre. <sup>5</sup> - Crownvetch is necessary to determine the actual amount of time required to adjust the soil pH of site. - Incorporate the lime and fertilizer into the top 4 - 6 inches of the soil by disking or by other means. - When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin #4, 2003 Nutrient Management for Development Sites at <a href="http://www.dcr.state.va.us/eswc/leak.htm#leak">http://www.dcr.state.va.us/eswc/leak.htm#leak</a> .		
FERTILIZER & LIME		
• Apply 10-20-10 fertilizer at a rate of 500 lbs./acre (or 12 lbs./1,000 sq. ft.) • Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs./1,000 sq. ft.)		

### PS PERMANENT SEEDING SPECIFICATIONS



### SF CONSTRUCTION OF A SILT FENCE

EROSION AND SEDIMENT CONTROL STANDARD - 3.05



### Erosion & Sediment Control Technical Bulletin No. 4 Nutrient Management for Development Sites

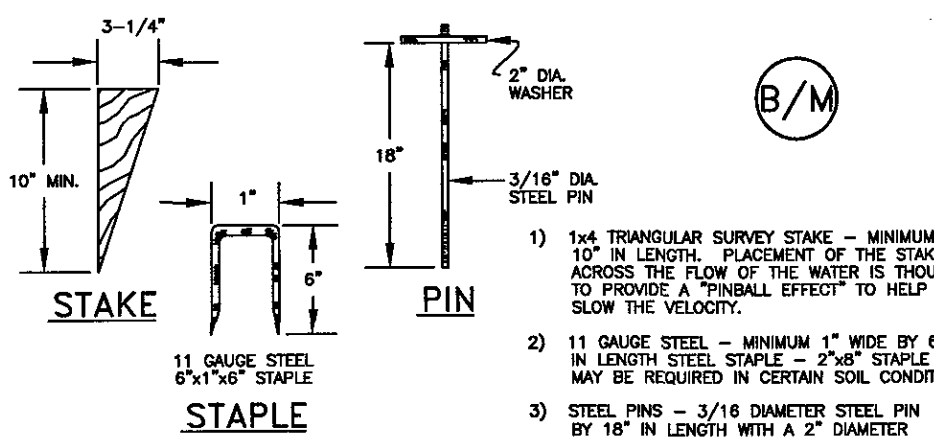
C. When applying maintenance fertilizer on established sod,

Month	Type of Grass			
	Tall Fescue	Kentucky Bluegrass	Bermudagrass	Zoysiagrass
September	1	1	0	0
October	1	1	0	0
Early November	0	0	0	0
April	0	0	0	0
May	0-0.5	0-0.05	1	1
June	0	0	1	0
July/August	0	0	0	1
Yearly Lbs. N/1000 sf	2.5	2.5	2	2

Month	Type of Grass			
	Tall Fescue	Kentucky Bluegrass	Bermudagrass	Zoysiagrass
August 15	1.5	1.5	0	0
October 1	1.5	1.5	0	0
April	0	0	1.5	1.5
May 15	0	0	0	0
June	0	0	1.5	1.5
Yearly Lbs. N/1000 sf	3	3	3	3

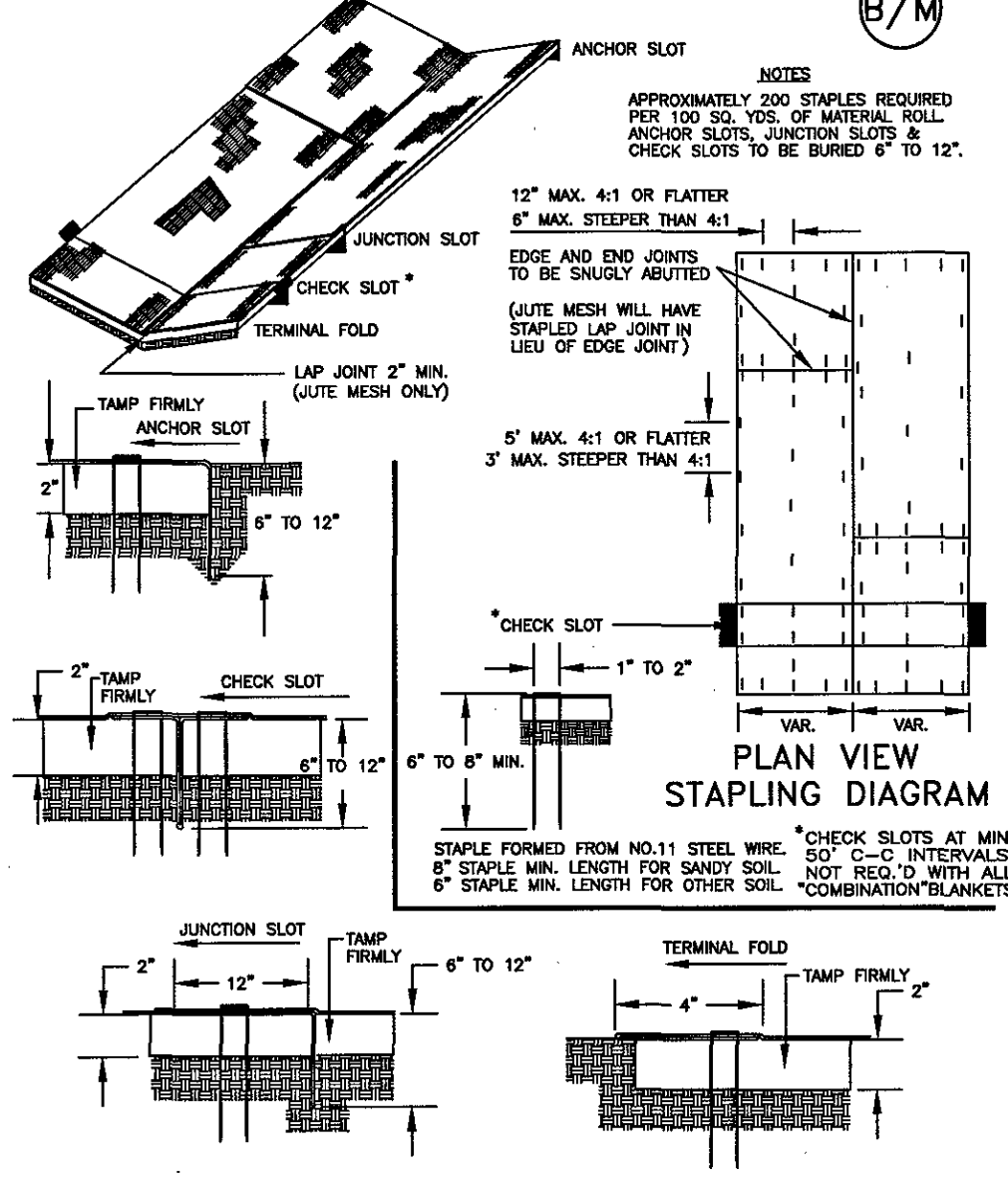
### FERTILIZER SPECIFICATIONS AND RATES FOR MANAGEMENT

### STAKES, STAPLES, & PINS FOR INSTALLATION OF TREATMENT - 2 SOIL STABILIZATION MATTING



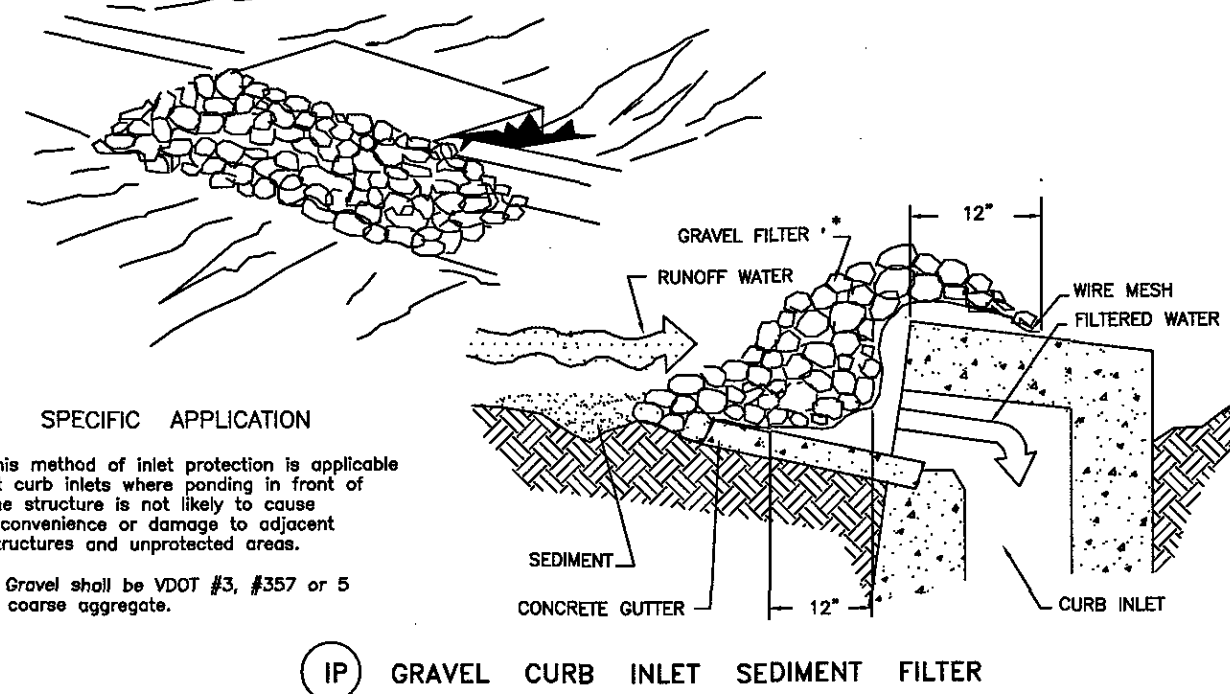
SOURCE: PRODUCT LITERATURE FROM GREENSTREAK, INC. PLATE: 3.36-3

### TYPICAL TREATMENT - 1 (SOIL STABILIZATION BLANKET) INSTALLATION CRITERIA



SOURCE: VDOT ROAD AND BRIDGE STANDARDS PLATE: 3.36-2

### B/M BLANKET MATTING



**SPECIFIC APPLICATION**  
This method of inlet protection is applicable at curb inlets where ponding in front of the structure is not likely to cause inconvenience or damage to adjacent structures and unprotected areas.  
\* Gravel shall be VDOT #3, #57 or 5 coarse aggregate.

### IP GRAVEL CURB INLET SEDIMENT FILTER

### TABLE 3.31-B (Revised June 2003) TEMPORARY SEEDING SPECIFICATIONS QUICK REFERENCE FOR ALL REGIONS

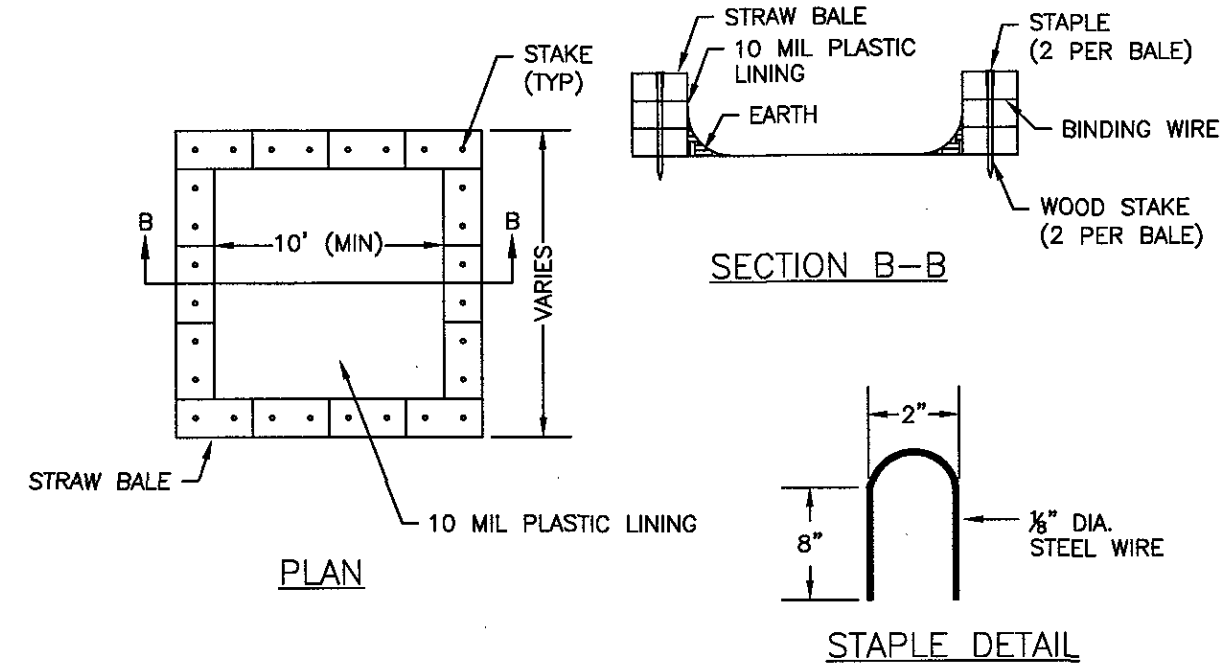
APPLICATION DATES	SEED SPECIES	APPLICATION RATES
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (lolium multi-florum) & Cereal (Winter) Rye (Secale cereale)	50 - 100 (lbs/acre)
Feb. 16 - Apr. 30	Annual Ryegrass (lolium multi-florum)	60 - 100 (lbs/acre)
May 1 - Aug. 31	German Millet	50 (lbs/acre)

### FERTILIZER & LIME

- Apply 10-10-10 fertilizer at a rate of 450 lbs./acre (or 10 lbs./1,000 sq. ft.)
- Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs./1,000 sq. ft.)

**NOTE:**  
1 - A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.  
2 - Incorporate the lime and fertilizer into the top 4 - 6 inches of the soil by disking or by other means.  
3 - When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin #4, 2003 Nutrient Management for Development Sites at <http://www.dcr.state.va.us/eswc/leak.htm#leak>.

### TS TEMPORARY SEEDING SPECIFICATIONS



### CONCRETE TRUCK WASHOUT DETAIL

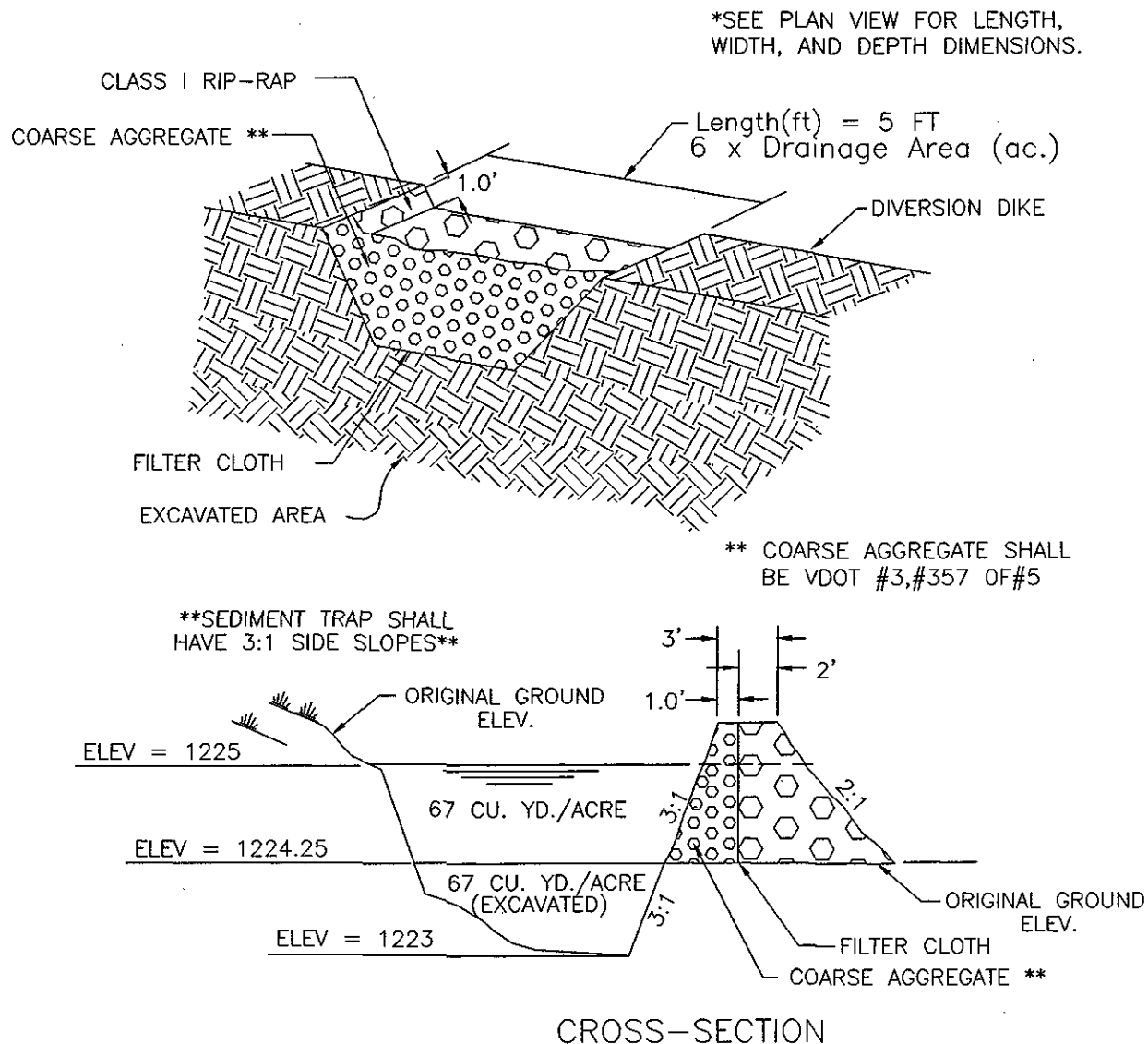
- GENERAL NOTES:**
1. ACTUAL SIZE TO BE DETERMINED IN FIELD. A MINIMUM OF 10' WIDE BY 10' LONG AND SIZED TO CONTAIN ALL LIQUID AND SOLID WASTE. A MINIMUM OF 12" FREEBOARD SHALL BE INCLUDED.
  2. THE CONCRETE WASHOUT SHALL NOT BE PLACED WITHIN 50' OF STORM DRAINS.
  3. EXCESS AND SLUMP TEST SOLIDS SHALL BE PLACED ON PLASTIC LINER UNTIL HARDENED. CONTRACTOR MAY CONSIDER INSTALLING WIRE OR REBAR HOOD FOR LATER PICKUP REMOVAL.
  4. INSPECTORS SHALL USE THE WASHOUT FACILITY OR PLASTIC FOR CLEANING OF THEIR TOOLS.
- MAINTENANCE NOTES:**
1. CHECK ALL CONCRETE WASHOUT FACILITIES DAILY TO DETERMINE IF THEY HAVE BEEN FILLED TO 75% CAPACITY. THE FACILITY SHALL BE CLEANED OUT OR CHANGED WHEN 75% FULL.
  2. INSPECT LINERS DAILY TO ENSURE THAT LINERS ARE INTACT AND SIDEWALLS HAVE NOT BEEN DAMAGED BY CONSTRUCTION ACTIVITIES. LINERS SHALL BE REPLACED IF THERE ARE HOLES OR TEARS OBSERVED.
  3. CONCRETE WASTE SHALL BE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN. THE HARDENED CONCRETE SHALL BE BROKEN UP AND DISPOSED OF OFFSITE PER APPLICABLE VA, DEQ RULES AND REGULATIONS. LIQUIDS SHALL NOT BE DISCHARGED DIRECTLY INTO WATERWAYS, STORM DRAINS, SWALES, OR DIRECTLY ONTO THE GROUND.
  4. REMOVE LIQUIDS OR COVER STRUCTURE BEFORE PREDICTED STORMS TO PREVENT OVERFLOWS.
  5. INSTALL A NEW PLASTIC LINER AFTER EVERY CLEANING.

### SEDIMENT TRAP SUMMARY TABLE

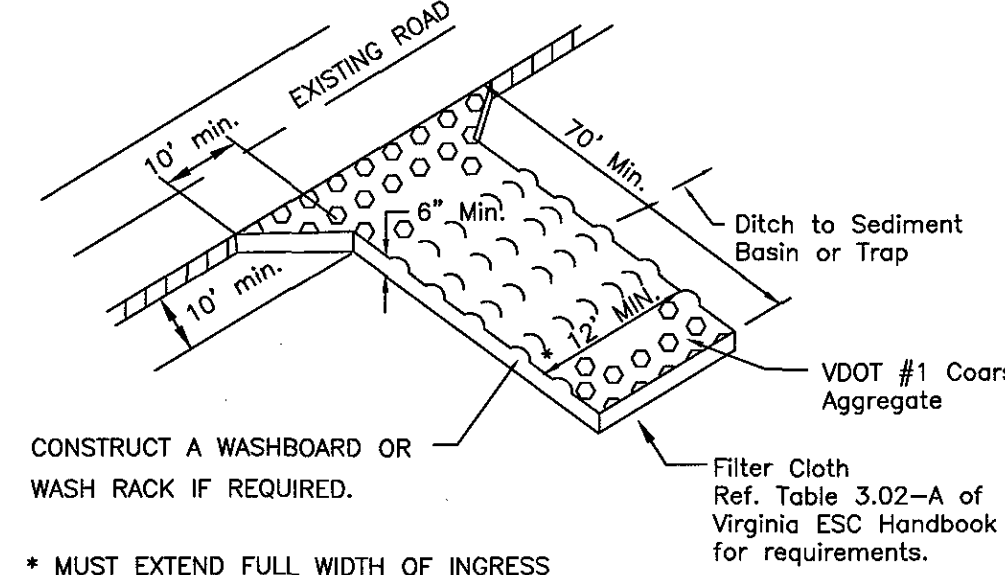
DRAINAGE AREA ID	ST-1
TOTAL DRAINAGE AREA SIZE	0.5 AC
LENGTH	86LF (TOP)
WIDTH	18LF (TOP)
DEPTH	2'
BERM HEIGHT	1'
WEIR LENGTH	5 LF
WEIR HEIGHT	1'
STORAGE REQUIRED (CY)	34 WET - 34 DRY
STORAGE PROVIDED (CY)	36 WET - 36 DRY

### SEDIMENT TRAP #1 DETAIL

\* SEE PLATE 3.13-1



### ST TEMPORARY SEDIMENT TRAP SPECIFICATIONS



### CE

### TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



**BALZER AND ASSOCIATES, INC.**  
REFLECTING TOMORROW

[www.balzer.cc](http://www.balzer.cc)

Roanoke  
New River Valley  
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RESIDENTIAL LAND DEVELOPMENT ENGINEERING  
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ARCHITECTURE  
STRUCTURAL ENGINEERING  
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ENVIRONMENTAL & SOIL SCIENCE  
WETLAND DELINEATIONS & STREAM EVALUATIONS

**Balzer and Associates, Inc.**  
1208 Corporate Circle  
Roanoke, VA 24018  
540-772-9580  
FAX 540-772-8050

**VALLEYPOINTE OFFICE BUILDING**  
0 VALLEY PARK DRIVE  
E.S.C. DETAILS  
CATAWBA DISTRICT  
ROANOKE COUNTY, VIRGINIA

DRAWN BY CLL  
DESIGNED BY CPB  
CHECKED BY CPB  
DATE 10/3/2018  
SCALE AS NOTED

REVISIONS:  
10/29/2018  
11/15/2018

SHEET NO. **C8**

JOB NO. 04180061.00