### EROSION & SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION
THE PROJECT CONSISTS OF THE CONSTRUCTION OF A ±4,736 SF RETAIL BUILDING, FUEL CANOPY, AND ASSOCIATED IMPROVEMENTS. THE BUILDING WILL BE LOCATED IN THE CENTER OF THE PARCEL AT THE CORNER OF PARHAM ROAD AND THREE CHOPT ROAD. IMPROVEMENTS INCLUDE SIDEWALKS, PARKING, INSTALLATION OF A RIGHT TURN LANE ON THREE CHOPT ROAD, A LEFT TURN LANE EXTENSION ON PARHAM ROAD, AND INSTALLATION OF STORM SEWER, SANITARY SEWER, WATERLINE AND OTHER UTILITIES. THE DISTURBED AREA IS ±2.65 ACRES.

EXISTING SITE CONDITIONS
THE EXISTING SITE CONSISTS OF AN EXISTING GAS SERVICE STATION, CONVENIENCE STORE AND UNDEVELOPED,
WOODED AREA, LELEVATIONS RANGE FROM 272 TO 250 FEET, AND THE SITE DRAINS INTO DITCHES ALONG THE
SOUTHWEST AND NORTHWEST BORDERS OF THE SITE.

ADJACENT PROPERTIES
THIS PROJECT IS BORDERED BY EXISTING RESIDENTIAL TO THE NORTHWEST AND NORTHEAST, PARHAM ROAD TO THE SOUTHEAST, AND THREE CHOPT ROAD TO THE SOUTHEAST,

<u>SONS</u> ACCORDING TO THE NATURAL RESOURCE CONSERVATION SERVICE MAP THE SOILS ON SITE ARE CLASSIFIED AS:

COMPONENT: COLFAX (85%)
THE COLFAX COMPONENT MAKES UP 85 PERCENT OF THE MAP UNIT. SLOPES ARE 0 TO 6 PERCENT, THIS
COMPONENT IS ON HILLSLOPES ON PIEDMONTS. THE PARENT MATERIAL CONSISTS OF RESIDUUM MEATHERED FROM
GRANITE AND GNEISS. DEPTH TO A ROOT RESTRICTIVE LAYER, FRAGIPAN, IS 20 TO 39 INCHES. THE NATURAL
PRAINAGE CLASS IS SOMEWHAT POORLY PRAINED, WATER MOVEMENT IN THE MOST RESTRICT LAYER IS MODERATELY
HIGH, AVAILABLE WATER TO A DEPTH OF 80 INCHES IS LOW SHRINK-SWELL POTENTIAL IS LOW, THIS SOIL IS
FREQUENTLY FLOODED. IT IS OCCASIONALLY PONDED. A SEASONAL ZONE OF WATER SATURATION IS AT 15 INCHES
DURING JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, NOVEMBER, DECEMBER. ORGANIC MATTER CONTENT IN THE
SUPFACE HORIZON IS ABOUT 2 PERCENT, NONIRRIGATED LAND CAPABILITY CLASSIFICATION IS 3 W. THIS SOIL MEETS
HYDRIC CRITERIA

COMPONENT: POUNCEY (8%)
THE POUNCEY COMPONENT MAKES UP 95 PERCENT OF THE MAP UNIT. SLOPES ARE 0 TO 2 PERCENT. THIS
COMPONENT IS ON DEPRESSIONS ON PIEDMONTS. THE PARENT MATERIAL CONSISTS OF LOAMY MARINE DEPOSITS.
DEPTH TO A ROOT RESTRICTIVE LAYER, BEDROCK (LITHIC), IS 20 TO 40 INCHES. THE NATURAL DRAINAGE CLASS IS
POORLY DRAINED. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS LOW. AVAILABLE WATER TO A DEPTH OF 60
INCHES IS LOW. SHRINK-SWELL POTENTAL IS HIGH. THIS SOIL IS REQUENTLY FLOODED. IT IS NOT PONDED. A
SEASONAL ZONE OF WATER SATURATION IS AT 6 INCHES DURING JANUARY, FEBRUARY, MARCH, APRIL ORGANIC
MATTER CONTENT IN THE SUFFACE HORIZON IS ABOUT 3 PERCENT. NONIRRIGATED LAND CAPABILITY CLASSIFICATION
IS 4W. THIS SOIL MEETS HYDRIC CRITERIA.

MAP UNIT: HeB2 - HELENA FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES, ERODED

COMPONENT: HELENA (85%)
THE HELENA COMPONENT MAKES UP 85% OF THE MAP UNIT. SLOPES ARE 2 TO 6 PERCENT, THIS COMPONENT IS ON HILLSLOPES ON PEIDMONTS. THE PARENT MATERIAL CONSISTS OF MIXED MAFIC RESIDUUM. DEPTH TO A ROOT RESTRICTIVE LAYER IS GREATER THAN 60 INCHES. THE NATURAL DRAINAGE CLASS IS MODERATELY WELL DRAINED. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY LOW. AVAILABLE WATER TO A DEPTH OF 60 INCHES IS MODERATE. THIS SOIL IS NOT FLOODED. A SEASONAL ZONE OF WATER SATURATION IS AT 30 INCHES DURING JANUARY, FEBRUARY, MARCH, APRIL. ORGANIC MATTER CONTENT IN THE SUFFACE HORIZON IS ABOUT 1 PERCENT. NONIRRIGATED LAND CAPABILITY CLASSIFICATION IS 3E. THIS SOIL DOES NOT MEET HYDRIC CRITERIA.

MAP UNIT: UE - UDORTHENTS, LOAMY

COMPONENT: UDDORTHENTS (85%)
THE UDDORTHENTS COMPONENT MAKES UP 85 PERCENT OF THE MAP UNIT. SLOPES ARE 0 TO 6 PERCENT. DEPTH TO A ROOT RESTRICTIVE LAYER IS GREATER THAN 60 INCHES. AVAILABLE WATER TO A DEPTH OF 60 INCHES IS VERY LOW, SHRINK-SWELL POTENTIAL IS LOW, THIS SOIL IS NOT FLODED. IT IS NOT PONDED. THERE IS NO ZONED OF WATER SATURATION WITHIN A DEPTH OF 72 INCHES. THIS SOIL DOES NOT MEET HYDRIC CRITERIA.

COMPONENT: KINSTON (1%)
THE KINSTON COMPONENT MAKES UP 40 PERCENT OF THE MAP UNIT. SLOPES ARE 0 TO 2 PERCENT. THIS
COMPONENT IS ON FLOOD PLAINS ON COASTAL PLAINS. THE PARENT MATERIAL CONSISTS OF ALLUVIUM. DEPTH TO A
ROOT RESTRICTIVE LAYER IS GREATER THAN 60 INCHES. THE NATURAL DRAINAGE CLASS IS POORLY DRAINED. WATER
MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY HIGH. AVAILABLE WATER TO A DEPTH OF 80 INCHES IS
HIGH. SHRINK-SWELL POTENTIAL IS LOW. THIS SOIL IS FREQUENTLY FLOODED. IT IS NOT PONDED. A SEASONAL ZONE
OF WATER SATURATION IS AT 6 INCHES DURING JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, NOVEMBER,
DECEMBER, ORGANIC MATTER CONTENT IN THE SURFACE HORIZON IS ABOUT 4 PERCENT. NONIRRIGATED LAND
CAPABILITY CLASSIFICATION IS 6W. THIS SOIL MEETS HYDRIC CRITERIA.

SEE THE FINAL GEOTECHNICAL REPORT FOR MORE GEOTECHNICAL INFORMATION.

CRITICAL EROSION AREAS
CRITICAL AREAS INCLUDE AREAS OF STEEP SLOPES, AREAS ADJACENT TO WETLANDS, AND OTHER AREAS WITH
SERIOUS EROSION POTENTIAL. NO CRITICAL EROSION AREAS APPEAR TO EXIST TODAY ON THE SITE, STEEP FILL SLOPE
TIE-INS IN THE PROPOSED GRADING WHICH COULD BECOME CRITICAL WILL BE STABILIZED WITH PERMANENT SEEDING
AND BLANKET MATTING IMMEDIATELY UPON CONSTRUCTION.

3.02 CONSTRUCTION ENTRANCE: A STABILIZED STONE PAD WITH A FILTER FABRIC UNDERLINER WILL BE PROVIDED AT THE EXISTING ENTRANCE OFF COURTHOUSE ROAD. THE PURPOSE OF THIS PRACTICE IS TO REDUCE THE AMOUNT OF MUDI TRANSPORTED ONTO PAVED PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF.

3.05 SILT FENCE: A TEMPORARY SEDIMENT BARRIER CONSISTING OF A SYNTHETIC FILTER FABRIC STRETCHED ACROSS AND ATTACHED TO SUPPORTING POSTS AND ENTRENCHED WILL BE PROVIDED AROUND MOST OF THE SITE PERIMETER. THE PURPOSE OF THIS PRACTICE IS TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE.

SUPER SILT FENCE: A TEMPORARY SEDIMENT BARRIER CONSISTING OF A SYNTHETIC FILTER FABRIC STRETCHED ACROSS CHAIN LINK FENCE AND ATTACHED TO SUPPORTING POSTS AND ENTRENCHED WILL BE PROVIDED AROUND PORTIONS OF THE SITE PERIMETER.

3.07 INLET PROTECTION: A SEDIMENT FILTER OR AN EXCAVATED IMPOUNDING AREA AROUND A STORM DRAIN DROP INLET OR CURB INLET WILL BE PROVIDED AT ALL INLET LOCATIONS WITHIN THE LIMITS OF DISTURBANCE. THE PURPOS OF THIS PRACTICE IS TO PREVENT SEDIMENT FROM ENTERING STORM DRAINAGE SYSTEMS PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA. THE PURPOSE

3.08 CULVERT INLET PROTECTION: A SEDIMENT FILTER AT THE INLET OF A STORM SEWER CULVERT THAT IS PROPOSED TO PREVENT SEDIMENT FROM ENTERING, ACCUMULATING, AND BEING TRANSFERREDBY A CULVER TO PERMANENT STABILIZATION OF THE DISTURBED AREA.

3.09 DIVERSION DIKE: DIVERSIONS ARE PROPOSED TO MAXIMIZE THE AMOUNT OF DISTURBED TEMPORARY SEDIMENT TRAP, DIVERSIONS ARE ALSO PROPOSED TO DIRECT CLEAN AREA TO PREVENT SEDIMENT CONTAMINATION.

3.13 SEDIMENT TRAP: A TEMPORARY BARRIER OR DAM WITH CONTROLLED STO CONSTRUCTION OF AN EMBANKMENT OF COMPACTED SOIL ACROSS A DRAINAGE SEDIMENT-LADEN RUNOFF FROM DISTURBED AREAS IN WET AND DRY STORAGE THE SEDIMENT TO SETTLE OUT.

G.31 HINU 3.33 PERMANENT AND TEMPORARY STABILIZATION: THE MILL BE ST. DEVELOPMENT INCLUDING PAVED AREAS, SEEDED AREAS AND AN EXAPED AREAS. USED IN ACCORDANCE WITH THE SEEDING CHART SHOWN ON SHEET.

3.35 MULCHING: THE APPLICATION PURPOSE OF THIS PRACTICE IS TO AND REDUCING THE VELOCITY OF OVER THE PROPERTY OF THE PROPERTY OF THE PURPOSE OF THE SOIL SURFACE FROM RAINDROP IMPACT
CHING FOSTERS THE GROWTH OF VEGETATION
ST EXTREME HEAT AND COLD.

SLOPES TO HELP PREVENT SEDIMENT RUNOFF AND AID ROSION CONTROL BLANKETS WILL HELP HOLD THE SOIL JANENT STABILIZATION HAS A CHANCE TO MATURE. 3.36 BLANKET MATTING: A MESI N THE ESTABLISHMENT N PLACE UNTIL PERMAN

BLE TREES FROM MECHANICAL AND OTHER INJURY DURING LAND PURPOSE IS TO ENSURE THE SURVIVAL OF DESIRABLE TREES WHERE HER ENVIRONMENTAL BENEFITS WHILE THE LAND IS BEING CONVERTED OM FORES

ISTRUCTION

TION ON SHEETS CE-101, CE-102, AND CE-103.

MEASURES SHALL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE VIRGINIA EROSION

NOTE: THE HENRICO COUNTY EROSION & SEDIMENT CONTROL ENGINEER & INSPECTOR SHALL HAVE THE AUTHORITY TO ADD OR DELETE EROSION & SEDIMENT CONTROLS AS NEEDED IN THE FIELD, AS SITE CONDITIONS WARRANT.

PERMANENT STABILIZATION
ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING OR SODDING IMMEDIATELY
FOLLOWING FINISH GRADING. SEEDING / SODDING SHALL BE DONE ACCORDING TO STD. & SPEC. 3.32 AND 3.33,
PERMANENT SEEDING, OF THE VIRCINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) AND MULCH (STRAW OR
FIGER) WILL BE APPLIED. CONTRACTOR SHALL SUBMIT TOPSOIL SAMPLES FOR ANALYSIS BY AN ACCREDITED SOIL LAB
AND PROVIDE LIME AND/OR FERTILIZER AS RECOMMENDED.

### MAINTENANCE

BETWEEN THE TIME THE SWPPP IS IMPLEMENTED AND FINAL SITE STABILIZATION IS ACHIEVED, ALL DISTURBED AREAS AND POLLUTANT CONTROLS MUST BE INSPECTED AT ONE OF THE TWO FREQUENCIES BELOW:

AT LEAST ONCE EVERY FOUR BUSINESS DAYS OR,

AT LEAST ONCE EVERY FIVE BUSINESS DAYS AND NO LATER THAN 48 HOURS FOLLOWING A MEASURABLE STORM EVENT. IN THE EVENT THAT A MEASURABLE STORM EVENT OCCURS WHEN THERE ARE MORE THAN 48 HOURS BETWEEN BUSINESS DAYS, THE INSPECTION SHALL BE CONDUCTED ON THE NEXT BUSINESS DAY.

BASED ON THESE INSPECTIONS, THE CONTRACTOR SHALL DECIDE WHETHER IT IS NECESSARY TO MODIFY THE PLAN, ADD OR RELOCATE SEDIMENT BARRIERS, OR INSTITUTE OTHER ACTIONS REQUIRED IN ORDER TO PREVENT POLLUTANTS FROM LEAVING THE SITE VIA STORM WATER RUNOFF.

EXAMPLES OF PARTICULAR ITEMS TO BE EVALUATED DURING SITE INSPECTIONS ARE LISTED BELOW. THIS LIST IS NOT INTENDED TO BE COMPREHENSIVE. DURING EACH INSPECTION, EACH INSPECTOR MUST EVALUATE OVERALL EROSION CONTROL SYSTEM PERFORMANCE, AS WELL AS THE EFFECTIVENESS OF SYSTEM COMPONENTS. ADDITIONAL FACTORS SHOULD BE CONSIDERED AS APPROPRIATE TO THE CIRCUMSTANCES.

- SEDIMENT BARRIERS MUST BE INSPECTED AND, IF NECESSARY, THEY MUST BE ENLARGED OR CLEANED IN ORDER TO PROVIDE ADDITIONAL CAPACITY. ALL MATERIAL EXCAVATED FROM BEHIND SEDIMENT BARRIERS SHALL BE STOCKPILED ON THE UP SLOPE SIDE OF THE BARRIER. ADDITIONAL SEDIMENT BARRIERS MUST BE CONSTRUCTED AS NEEDED. SEDIMENT MUST BE REMOVED FROM SEDIMENT HARPS AND SEDIMENT BARSINS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.

  INSPECTIONS WILL EVALUATE DISTURBED AREAS AND AREAS USED FOR STORING MATERIALS THAT ARE EXPOSED TO RAINFALL FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. IF NECESSARY, THE MATERIALS MUST BE COVERED OR ORIGINAL COVERS MUST BE REPAIRED OR SUPPLEMENTED. ALSO, PROTECTIVE BERMS MUST BE CONSTRUCTED, IF NEEDED, IN ORDER TO CONTAIN RUNOFF FROM MATERIAL STORAGE AREAS. STORAGE AREAS.
- SIUMAGE AREAS.

  GRASSED AREAS WILL BE INSPECTED TO CONFIRM THAT A HEALTHY STAND OF GRASS IS MAINTAINED. THE SITE HAS ACHEVED FINAL STABILIZATION WHEN TURE GRASS COVER PROVIDES PERMANENT STABILIZATION OF THE SOIL SUFFACE EXCLUSIVE OF AREAS THAT HAVE BEEN PAVED OR COVERED BY BUILDING(S). PERMANENT STABILIZATION IS NOT CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
- ALL DISCHARGE POINTS MUST BE INSPECTED TO DETERMINE WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING IMPACTS TO RECEIVING WATERS.

BASED ON INSPECTION RESULTS, ANY MODIFICATION NECESSARY TO INCREASE EFFECTIVENESS OF THE EROSION CONTROL PLAN TO AN ACCEPTABLE LEVEL SHALL BE MADE BY THE CONTRACTOR WITHIN SEVEN CALENDAR DAYS OF THE INSPECTION.

www.dcr.state.va.us/sw/e&s.htm#pubs

# TEMPORARY SEEDING REQUIREMENTS

Revised June 2003) TEMPORARY SEEDING SPECIFICATIONS QUICK REFERENCE FOR ALL REGIONS.

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

FERTILIZER & LIME

Apply 10-10-10 fertilizer at a rate of 450 lbs. / acre (or 1)

- A soil test is necessary to determine the actual amount of time required to a corporate the lime and fertilizer into - When applying Slowly Available Ni le in Erosion & Sediment (

#### SE JIREMENTS

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ı		The same of the sa	
L		SPECIES	APPLICATION PER ACRE
Æ		Tall Fescue <sup>1</sup>	95-100%
Я	Minimum Cares awn	Perennial Ryegrass	0-5%
	(Communicial or Medicential)	Kentucky Bluegrass <sup>1</sup>	0-5%
	Mine		TOTAL: 175-200 lbs.
ľ	high-Maintenance Lawn	Tall Fescue <sup>1</sup>	TOTAL: 200-250 lbs.
1		Tall Fescue <sup>1</sup>	128 lbs.
	General Slope (3:1 or less)	Red Top Grass or Creeping Red Fescue	2 lbs.
		Seasonal Nurse Crop <sup>2</sup>	20 lbs.
I		· ·	TOTAL: 150 lbs.
		Tall Fescue <sup>1</sup>	108 lbs.
	Low-Maintenance Slope	Red Top Grass or Creeping Red Fescue	2 lbs.
	(Steeper than 3:1)	Seasonal Nurse Crop <sup>2</sup>	20 lbs.
	(Geoper trials 6:1)	Crownvetch <sup>3</sup>	20 lbs.
ı			TOTAL: 150 lbs.
When selecting varieties of turigrass, use the Virginia Crop Improvement Association (VCIA) recommunifyrass variety list. Quality seed will bear a label indicating that they are approved by VCIA. A current transfer in the particular to the p			

variety list is available at the local County Extension office or through VCIA at 804-746-4884 or at http://sudan.cses.vt.edu/html/Turf/turf/publications/publications2.html

- Use seasonal nurse crop in accordance with seeding dates as stated below

February 16th - April . Foxtail Miller May 1st - August 15th August 16th - October .... November - February 15th Annual Rye

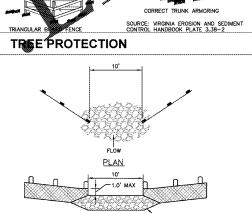
Substitute Sericea lespedeza for Crownvetch east of Farmville, VA (May through September use hulled ser all other periods, use unhulled Sericea). If Flatpea is used, increase rate to 30 lbs./acre. If Weeping Lovegrass i used, include in any slope or low maintenance mixture during warmer seeding periods, increase to 30 -40

### 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.)

A soil test is necessary to determine the actual amount of lime 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 http://www.dcr.state.va.us/sw/e&s.htm#pubs



- CLASS | RIPRAP

ANCHOR SLOT

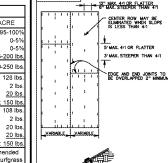
SPECIFICATION REFERENCE

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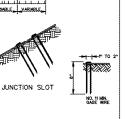
CORRECT METHODS OF TREE FENG

\*TO BE PLACED IN LOW SPOTS ALONG SILT FENCE

## SILT FENCE OVERFLOW DETAIL



EC-2



CUT OR FILL SLOPE INSTALLATION

COMBINE THIRD ROW OF STAPLES ROM EACH STRIP IN LAP WITH LITERNATE SPACING. TERMINAL FOLD CHECK SLOT JUNCTION SLOT NOTES: 1. APPROXIMATE 200 STAPLES REQUIRED PER 4'X 225' ROLL.

2. ANCHOR SLOTS, JUNCTION SLOTS AND CHECK SLOTS TO BE BURIED 6" TO 12 AND VARIABLE. 3. MAX. SPACING C-C CHECK SLOTS 100 SLOPE 4% OR LESS 50 SLOPE SYFERED THAN AT

DITCH INSTALLATION GENERAL NOTES: FOR SOURCES OF APPROVED MATERIAL SEE VDOT'S APPROVED PRODUCTS LIST FOR EC-2 MATERIALS TYPES 1, 2, 3, OR 4.

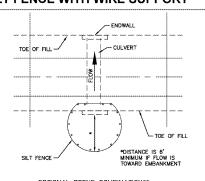
A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. "YME" ROLLED EROSION CONTROL PRODUCT ROAD AND BRIDGE STANDARDS PROTECTIVE COVERING INSTALLATION CRITERIA

VARIABLE

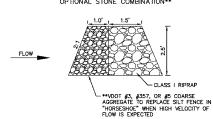
LAP JOINT

WRE INTO THE TRENCH SOURCE: VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK 3.05-1 SILT FENCE WITH WIRE SUPPORT \_\_ CULVERT TOE OF FILL -

. SET POSTS AND EXCAVATE A 4"X4" IRENCH UPSLOPE ALONG THE LINE OF POSTS. 2. STAPLE WIRE FENCING TO THE POSTS. 4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



OPTIONAL STONE COMBINATION\*



SOURCE: VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK 3.08+

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RYAN R. PERKINS Lic. No. 046565 11/09/2018

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**CULVERT INLET PROTECTION** 

PARHAM EE CHOPT

SHEET NUMBER CE-503

WAWA AT FAND THREE PREPARED REBUSE