

EROSION CONTROL NOTES

1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER THE END OF CONSTRUCTION. DENUDED AREAS SHALL BE REVEGETATED WITHIN SEVEN DAYS. DENUDED AREAS SHALL BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
2. ALL APPLICABLE EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS A FIRST STEP OF GRADING.
3. ANY DISTURBED AREA NOT PAVED, SODED OR BUILT UPON WITHIN 30 DAYS IS TO BE SEEDED AND MULCHED WITH HAY OR STRAW WITHIN 2 DAYS OF REACHING TEMPORARY GRADE.
4. PROPERTIES AND ROADS ADJACENT TO THIS SITE SHALL BE KEPT CLEAN OF MUD OR SILT CARRIED FROM THE SITE BY EITHER VEHICULAR TRAFFIC OR RUNOFF.
5. ALL EROSION CONTROL DEVICES MUST BE CLEANED OR REPLACED AS NECESSARY.
6. THE ENGINEERING DEPARTMENT AND ALL OTHER INTERESTED COUNTY AGENCIES SHALL MAKE A CONTINUOUS EVALUATION OF THE METHODS USED FOR EROSION AND SEDIMENT CONTROL. THE PLAN MAY BE AMENDED BY THE APPROVING AUTHORITY IF SITE INSPECTION INDICATES THAT THE CONSTRUCTION OF ANY ADDITIONAL EROSION CONTROL MEASURES.
7. THE CONTRACTOR IS TO INSTALL, MAINTAIN AND REMOVE ALL EROSION CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATION VR 625-02-00.
8. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
9. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RAINFALL PRODUING RAINFALL EVENT. THE EROSION CONTROL DEVICES SHALL BE MAINTAINED IMMEDIATELY.

TABLE 6-1

GENERAL EROSION & SEDIMENT CONTROL NOTES

- ES-1 UNLESS OTHERWISE INDICATED, ALL VEGETATION AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.
- ES-2 ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
- ES-3 A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
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- ES-5 PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED NOT THESE PLANS/INCLUDING BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR THE REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
- ES-6 THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL DEVICES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
- ES-7 ALL DISTURBED AREAS TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- ES-8 DURING DEMONSTRATING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
- ES-9 THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUN-OFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

TABLE 3.2.2.0

SITE SPECIFIC SEEDING MIXTURES FOR PIEDMONT AREA

Minimum Care Lawn	Total Lbs. Per Acre
- Commercial or Residential	175-200 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	95-100 lbs.
- Improved Perennial Ryegrass	0-5 lbs.
- Kentucky Bluegrass	0-5 lbs.

High-Maintenance Lawn	200-250 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	100%

General Slope (3:1 or less)	128 lbs.
- Kentucky 31 Fescue	2 lbs.
- Red Top Grass	20 lbs.
- Seasonal Nurse Crop *	20 lbs.
- Cowwived **	150 lbs.

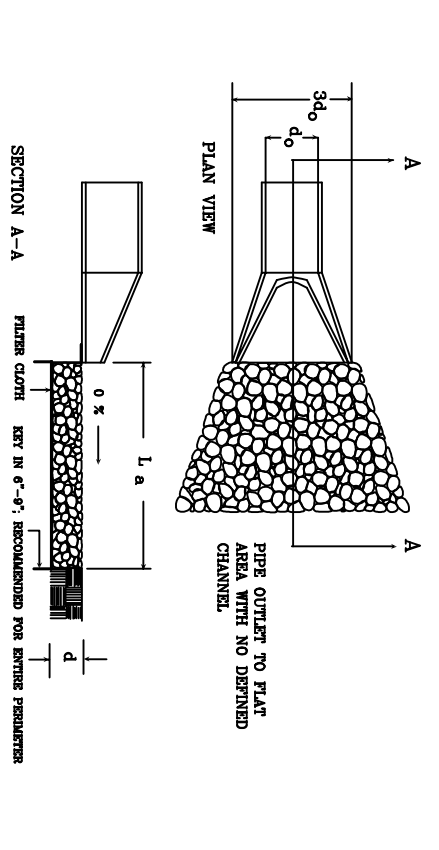
Low-Maintenance Slope (Steepest than 3:1)	108 lbs.
- Kentucky 31 Fescue	2 lbs.
- Red Top Grass	20 lbs.
- Seasonal Nurse Crop *	20 lbs.
- Cowwived **	150 lbs.

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

February 10th through April Annual Ryegrass
 May 1st through August 15th Fescue
 August 16th through October Annual Ryegrass
 November through February 15th Winter Ryegrass

** Substitute Seeded Legumina for Cowwived east of Farmville, Va. (May through September use limited Seeded, all other periods use unplanted Seeded). If Seeded is used east of Farmville, Va. (May through September), all Seeded should be used in the form of a seed mix. Seeding Legumina may be added to any slope or low-maintenance mix during warmer seeding periods, add 10-20 lbs./acre in mixes.

PIPE OUTLET CONDITIONS

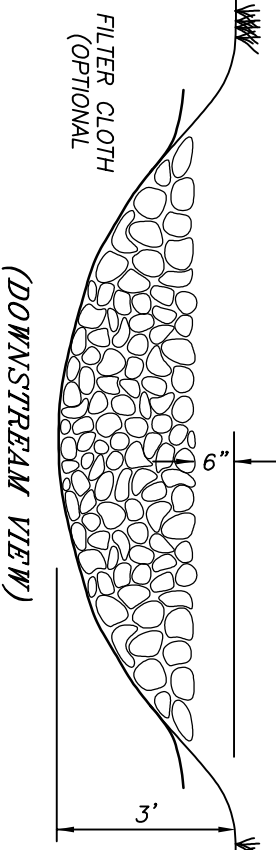


OUTLET PROTECTION

STD. & SPEC. #319
N.T.S.

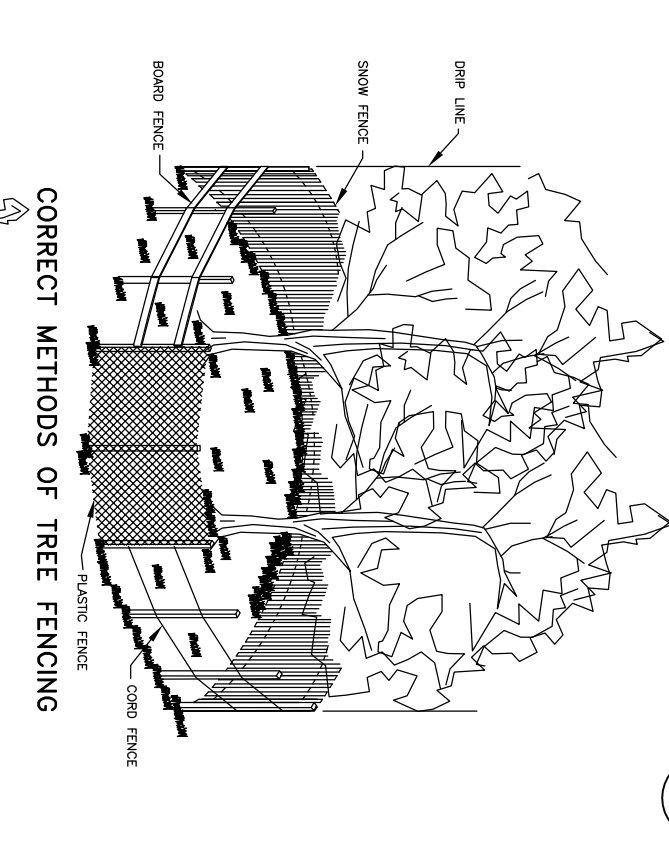
ROCK CHECK DAM

STD. & SPEC. #320
N.T.S.



FENCING AND ARMORING

STD. & SPEC. #308
N.T.S.



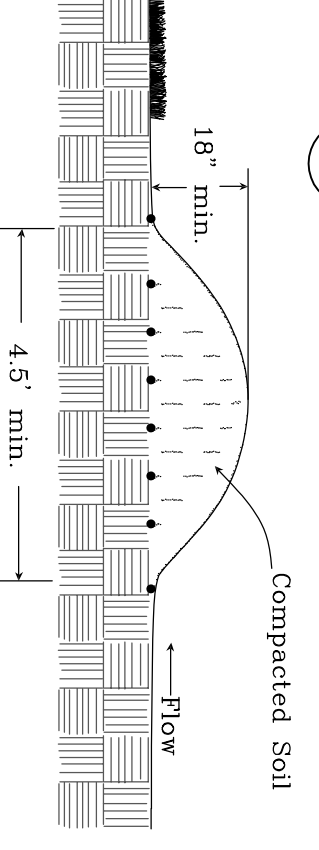
TRIANGULAR BOARD FENCE

TABLE 3.14.8

ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS

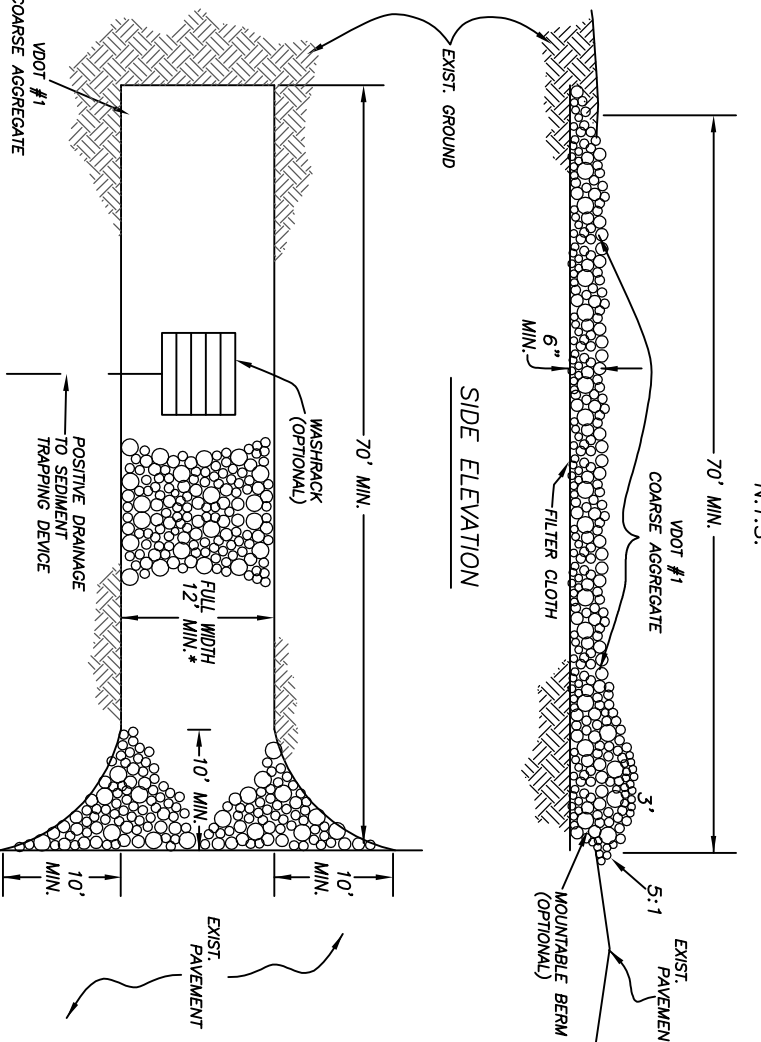
Planting Dates	Species	Rate (lbs./acre)
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (Lulu) and Italian Ryegrass (Scalet) (Scalet)	50 - 100
Feb. 16 - Apr. 30	Annual Ryegrass (Lulu/Italian)	60 - 100
May 1 - Aug. 31	German Millet (Scalet/Lulu)	50

DIVERSION DIKE



STONE CONSTRUCTION ENTRANCE

STD. & SPEC. #302
N.T.S.



EROSION & SEDIMENT CONTROL NARRATIVE

THE PROPOSED LOT SUBDIVISION IS LOCATED AT THE NORTHERN CORNER OF THE INTERSECTION OF ROAD AND LOT 37 IN CHESTERFIELD COUNTY, VIRGINIA. THE PROJECT AREA IS APPROXIMATELY 800' X 100'. THE EXISTING RESIDENCE HAS RECENTLY BEEN ABANDONED. THE FORMER LANE AREAS CONTAINED SMALLER AREAS OF SHRUBS AND HERB ROWS, WHICH MAY NEED RELOCATION, RESULTING FROM ADJACENT AREAS.

THE NEIGHBORING PARCELS CONSIST OF SINGLE FAMILY RESIDENCES AND ARE SITUATED ON SHARPLY ZONED RESIDENTIAL PROPERTY. SOILMAP SUBDIVISION CONTRIBUTING DRAINAGE TO THE REDEVELOPED, BORN THE MAJOR SUBDIVISION, SOUTHERN OUTFALL LOCATION FOR THE DEVELOPMENT. THE STORM SEWER IS CURRENTLY UNDERGROUND. AS A RESULT 2, 10 AND 100 YEAR RETENTION IS BEING PROVIDED UNDERGROUND AT THE REAR OF LOTS 1, 2 AND 3. SEE MS-19 OUTFALL ANALYSIS AND SUPPORTING STORM ROUTINES.

ON-SITE SOILS

THE ON-SITE SOILS PRIMARILY CONSISTS OF VANCE FINE SANDY LOAM WITH 6-8% SLOPES. THERE ARE ONLY A FEW AREAS WHERE THE SLOPES EXCEED 6%. IN ADDITION, THE LOW AREA CONSISTS OF COLDEX SANDY LOAM, WHERE THERE IS A 2% SLOPE. THE SOILS ARE CLASSIFIED AS SANDY SILT LOAM. THE GENERAL PERMIT FOR LESS THAN 1 ACRE, ACCORDING TO THE COE PERMITTED IMPACTS, GREAT CARE MUST BE TAKEN NOT TO IMPACT DOWNSLOPE OF THIS AREA. (REFER TO PLANS FOR APPROXIMATE SOIL BOUNDARIES)

PERMANENT STABILIZATION

SOIL AND TOP-SOIL SURPLUSES SHALL BE USED TO LAYER FILL IN THE LOW AND SEDIMENT TRAP AREA ON LOTS 2 AND 3. ALL DISTURBED AREAS AND SOIL STOCKPILE SHALL BE CONTAINED BY SILT FENCE AND DIRECTED TO THE SEDIMENT TRAP AT ALL TIMES UNTIL SOIL STABILIZATION IS ACHIEVED.

EROSION CONTROL MEASURES

DURING CONSTRUCTION, SEVERAL EROSION CONTROL MEASURES ARE NECESSARY TO PREVENT DENUDED AREAS FROM ERODING TO ADJACENT PARCELS. THE EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. CHECK DAMS, SILT & SAFETY FENCING, AND INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING THE NEWLY CONSTRUCTED STORM SEWER SYSTEM.

MAINTENANCE

THE PHASE I EROSION CONTROL PLAN PROVIDES THE CONSTRUCTION SPECIFICATIONS, CLEARING LIMITS AND SCHEDULING NECESSARY TO PROVIDE ADJACENT PROPERTY PROTECTION, AND SPECIFICS CONSTRUCTION TECHNIQUES TO MINIMIZE EROSION AND SEDIMENT FROM EXISTING EROSION CONTROL MEASURES TO ENSURE FUNCTIONALITY, OR THE NEED FOR ADDITIONAL PROTECTION.

CRITICAL AREAS

THE CRITICAL ENVIRONMENTAL FEATURE LOCATED ON-SITE IS LOCATED ON FUTURE LOT 2, AND CONSISTS OF WOODED WETLANDS, WHICH SHALL BE PROTECTED. THE PROPOSED IMPACTS SHALL REMAIN UNDER THE 0.10 ACRE THRESHOLD, AND THE IMPACTS ARE TO BE PREVENTED UNDER A GENERAL PERMIT. EROSION CONTROL MEASURES IN ADDITION TO THAT SPECIFIED MAY BE REQUIRED TO PROTECT THE DOWNSLOPE WETLAND FEATURES FROM ADVERSE DRAINAGE DISRUPTIONS.

PERMANENT STABILIZATION

PERMANENT STABILIZATION CARE MUST BE TAKEN TO ENSURE THAT RUN-OFF DURING CONSTRUCTION DOES NOT ADVERSELY AFFECT THE EXISTING RESIDENT OF LOT 4. PRIOR TO OBTAINING BUILDING PERMITS, THE RETENTION SYSTEM AND DRAINAGE DITCHES SHOULD BE INSTALLED AND STABILIZED TO THE SATISFACTION OF THE ENVIRONMENTAL ENGINEERING DEPARTMENT TO PREVENT UNSTABILIZED DRAINAGE RUN-OFF CONSIDERATIONS.

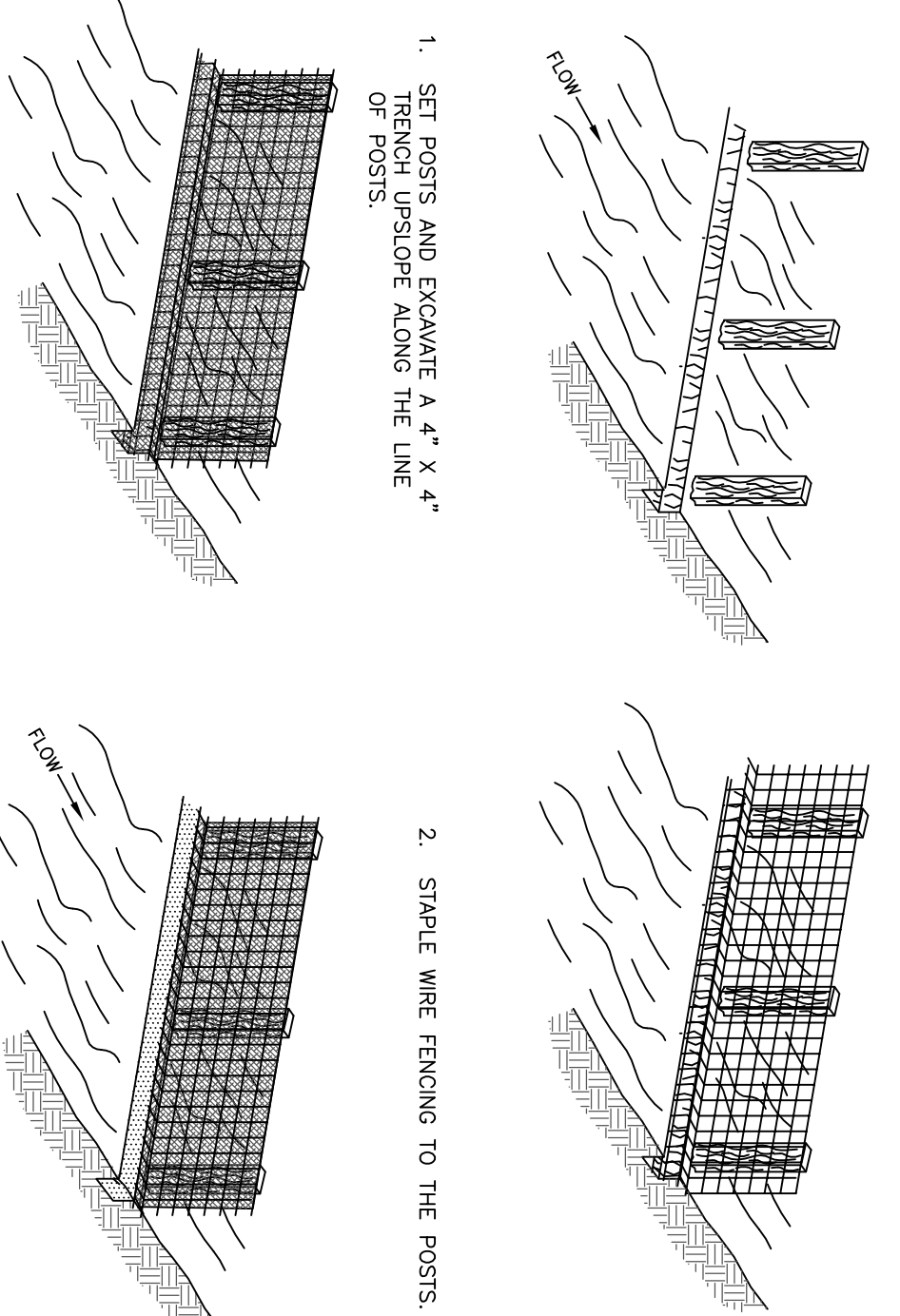
WHEN COMPLETED, THIS SUBDIVISION WILL CONSIST OF 5 BUILDABLE AND 1 EXISTING LOT, INCLUDING THE ROADWAY SHOULDER IMPROVEMENTS, UTILIZED WITH THE EXISTING 4" x 6" COP OUTFALL PIPE THROUGHOUT THE PROJECT AREA. WHICH STORM WATER WILL BE DIRECTED INTO A BARRI DITCH AND EXISTING 24" RCP. THE PEAK 10 YEAR STORM EVENT FOR EACH OUTFALL USING THE RATIONAL METHOD SHOWS THAT THE EXISTING 10 YEAR EVENT, OUTFALLING TO OUTFALL #1, UNDER JOULETTE ROAD WILL REMAIN CONSISTENT, SINCE PRE-POST DETENTION IS PROPOSED. OUTFALL #3 WILL REMAIN UNCHANGED, AND OUTFALL #2, THE ROADSIDE DITCH, WILL SEE ONLY A SLIGHT INCREASE DUE TO FUTURE IMPROVEMENTS AND DITCH REGRADING.

COMPUTATIONS

THE EXISTING 2, 10 & 100 YEAR PEAK DRAGAGE EVENTS FROM THIS SITE WHICH CONTRIBUTE TO OUTFALL #1 ARE 1.48 cfs, 2.07 cfs, AND 2.73 cfs RESPECTIVELY. AFTER THE IMPLEMENTATION OF THIS PLAN, THROUGH INTRODUCTION OF AN UNDERGROUND RETENTION SYSTEM WITH A 6" ORFACE, THE 2, 10 & 100 YEAR STORM EVEN PEAKS ARE 1.3 cfs, 1.6 cfs, AND 2.0 cfs. DURING A REDUCTION OF EACH EVENT AFTER DEVELOPMENT, AND 19 PERCENT OF THE PEAK FLOW WILL BE STORED IN THE UNDERGROUND RETENTION SYSTEM, AS WELL AS RETENTION SYSTEM ROUTINES, UNDER SEPARATE COVER.

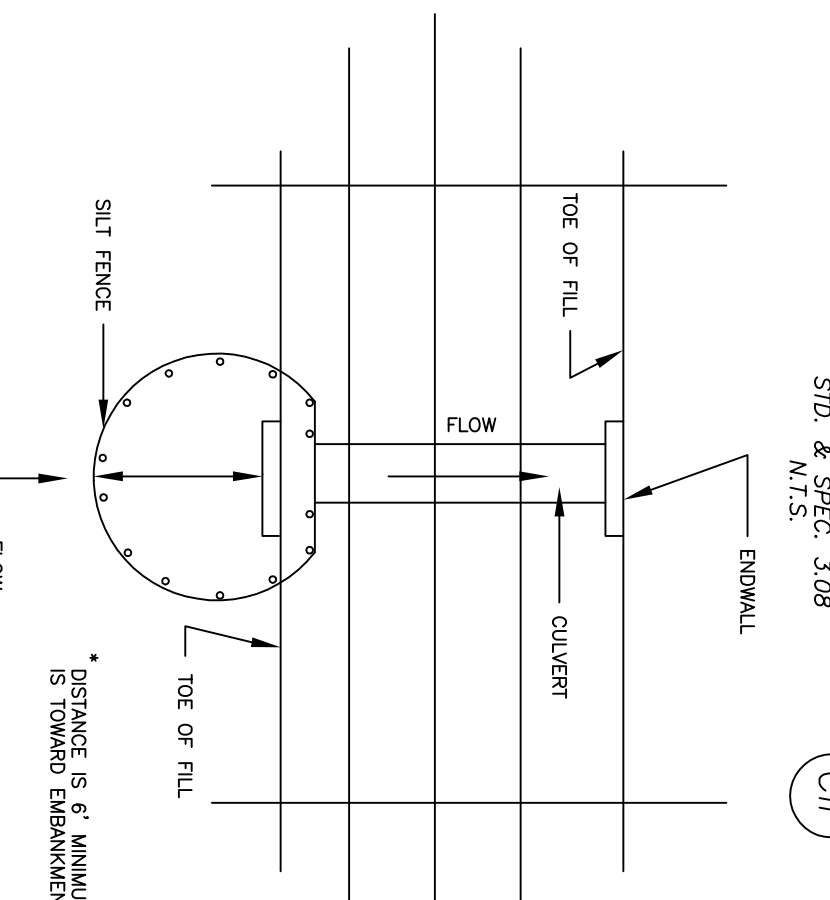
SILT FENCE DETAIL

STD. & SPEC. #105
N.T.S.

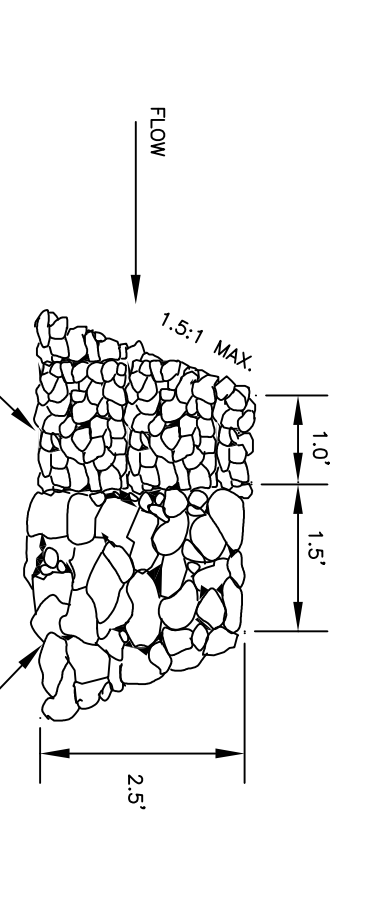


CULVERT INLET PROTECTION

STD. & SPEC. #309
N.T.S.



OPTIONAL STONE COMBINATION

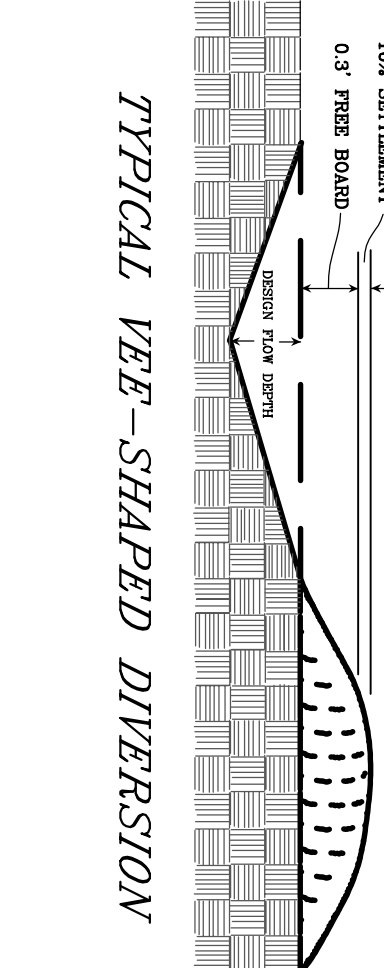
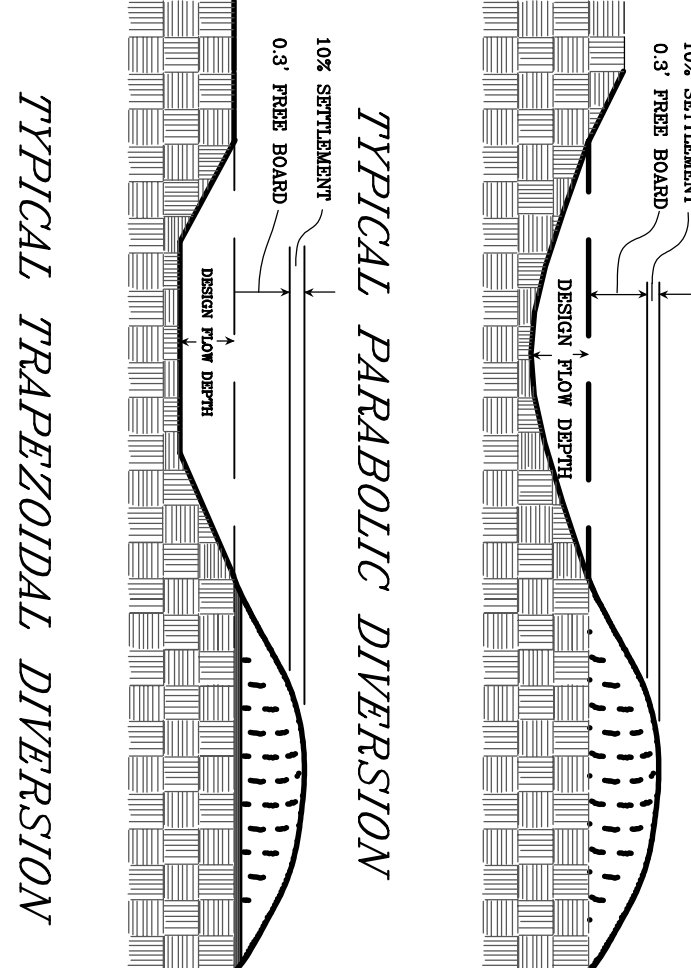


EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS

1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER THE END OF CONSTRUCTION. DENUDED AREAS SHALL BE REVEGETATED WITHIN SEVEN DAYS. DENUDED AREAS SHALL BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
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DIVERSIONS

ALL APPLICABLE



EC NOTES AND DETAILS

SOUTHAM, SECTION F

A RESUBDIVISION OF PART OF LOT 37, JAHNKE PLACE

MIDLOTHIAN DISTRICT

CHESTERFIELD COUNTY, VIRGINIA

POTTS, MINTER, AND ASSOCIATES P.C.

Engineers, Land Surveyors, Land Planners

3520 S. Courthouse Road Richmond, Va. 23236

Phone: (804) 745-2876 Fax: 745-9571

COMMONWEALTH OF VIRGINIA

REGISTERED PROFESSIONAL ENGINEER

Christopher C. Mulligan

License No. 031872

DESIGNED BY: C.C.M.

DRAWN BY: K.M.C.

CHECKED BY: C.C.M.

SHEET NO.: 6 OF 9

DATE: OCTOBER 29, 2010

REMARKS:

11/29/10 PER COUNTY COMMENTS

02/23/11 COMMENTS/DITCH PROFILE

03/24/11 DETAIL/MS-19

SCALE: AS SHOWN

JOB NO.: 1007-06

COUNTY PROJ. 10-0193