VSMP STORMWATER POLLUTION PREVENTION PLAN AND CONTRACTOR REQUIREMENTS

THE SUBJECT DEVELOPMENT WILL REQUIRE 6.4 ACRES OF DISTURBED AREA. IT IS ESTIMATED BY THE DESIGN ENGINEER THAT THE EARTHWORK FOR THIS DEVELOPMENT WILL REQUIRE APPROXIMATELY 15,000 C.Y. OF MATERIAL TO BE MANUEVERED WITHIN THE SITE TO PREPARE THE SITE TO THE SLOPES AND GRADES INDICATED. THE GENERAL CONTRACTOR SHALL PROVIDE PERMIT INFORMATION FROM THE APPROVING AUTHORITY FOR ANY POTENTIAL OFF-SITE DEPOSITION SITE(S).

TO OUR KNOWLEDGE, THERE HAVE BEEN NO QUANTITATIVE TESTS PERFORMED TO DETERMINE THE QUALITY OF PRE-DEVELOPMENT SITE RUNOFF.

THERE ARE FEW POSSIBLE CONTAMINANTS THAT COULD CONTRIBUTE TO POLLUTION OF THE ADJOINING AREAS AND WATERWAYS. THE ONE ITEM THAT IS SPECIFICALLY ADDRESSED WITHIN THESE PLANS IS THE POSSIBLE STORAGE OF A FUEL TANK OR FUEL TRUCK FOR CLEARING AND EARTHWORK OPERATIONS EQUIPMENT. IT IS ANTICIPATED THAT EQUIPMENT WILL BE FUELED VIA A DELIVERY TRUCK IN LIEU OF AN ON-SITE TANK, BUT PROVISIONS HAVE BEEN MADE HEREIN TO PROVIDE SPILL PROTECTIONS IN THE EVENT THAT THE CONTRACTOR CHOOSES TO KEEP A TANK OR TRUCK ON-SITE. THE SEEDING AND FERTILIZATION OF DISTURBED AREAS IS TO BE PERFORMED BY THE SITEWORK AND LANDSCAPING CONTRACTORS, AND NO ON-SITE STORAGE OF SEEDING OR FERTILIZING MATERIALS WILL OCCUR. SEEDING, FERTILIZER, AND/OR SODDING MATERIALS WILL BE BROUGHT ONTO THE SITE ONLY IN QUANTITIES THAT WILL BE USED IMMEDIATELY. ALL SANITARY WASTE WILL BE DIRECTLY CONTAINED (PORTABLE UNIT DURING CONSTRUCTION, PUBLIC SANITARY SEWER FOLLOWING CONSTRUCTION), AND NO POTENTIAL POLLUTANTS ARE ANTICIPATED.

THE OFF-SITE RECEIVING CHANNELS ARE CONCRETE PIPES AS CONSTRUCTED FOR THE EXISTING MOUNTAIN VIEW ROAD AND WILL DISCHARGE DIRECTLY INTO THE STORMWATER MANAGEMENT FACILITY. TO THE OWNERS AND ENGINEER'S KNOWLEDGE, THERE ARE CURRENTLY NO DESIGNATED WETLANDS OR SURFACE WATERS LOCATED WITHIN THE AREA TO BE PERMITTED.

DUE TO THE PROXIMITY OF THE SITE TO THE GENERAL CONTRACTORS OFFICE/SHOPS AND DUE TO THE SITE BEING LOCATED WITHIN THE LIMITS OF THE COUNTY OF ROANOKE (ALONG MAJOR ROADWAYS) AN ON-SITE FUEL STORAGE FACILITY FOR THE EARTHWORK EQUIPMENT WILL NOT BE REQUIRED.

THERE ARE NO OTHER DISCHARGES ASSOCIATED WITH THIS PROJECT THAT ARE CONSIDERED A NON-CONSTRUCTION ACTIVITY.

THE GENERAL CONTRACTOR IS REQUIRED TO COMPLETE AND INITIAL THE FOLLOWING RECORD OF LAND DISTURBING ACTIVITIES:

DATE OF NOTICE TO PROCEED WITH SITEWORK: _____
INITIALED BY: _____

DATES OF CLEARING AND GRUBBING OPERATIONS: FROM_____TO_____
INITIALED BY: _____

DATE OF INSTALLATION OF PERIMETER CONTROLS: _____
INITIALED BY: _____

DATES OF EARTHWORK OPERATIONS: FROM_____TO_____
INITIALED BY: _____

INSTALLATION OF PERMANENT STABILIZATION COMMENCED ON: _____

INSTALLATION OF PERMANENT STABILIZATION COMPLETED: _____

THE GENERAL CONTRACTOR IS FURTHER REQUIRED TO KEEP A LOG OF DATES OF TEMPORARY OR PERMANENT DELAYS ASSOCIATED WITH LAND DISTURBING ACTIVITIES, AND TEMPORARY AND PERMANENT STABILIZATION MEASURES FOR AREAS CONTAINED WITHIN THE SITE.

IF CONTROLS OR POLLUTANT PREVENTION AREAS ARE FOUND TO BE IN NEED OF REPAIR OR MODIFICATION, THE GENERAL CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES OR MODIFICATIONS TO EXISTING MEASURES AS REQUIRED. ANY ADDITIONAL MEASURES OR MODIFICATIONS TO EXISTING MEASURES SHALL BE RECORDED AS FIELD REVISIONS TO THESE PLANS. IN THE EVENT THAT ADDITIONAL CONTROLS ARE FOUND TO BE REQUIRED, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THESE CONTROLS BEFORE THE NEXT ANTICIPATED STORM EVENT. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICAL, THEY SHALL BE IMPLEMENTED AS SOON AS PRACTICAL. A REPORT SUMMARIZING THE SCOPE OF INSPECTIONS, NAME OF INSPECTOR, INSPECTOR'S QUALIFICATIONS, DATES OF INSPECTIONS, MAJOR OBSERVATIONS PERTAINING TO THE IMPLEMENTATION OF THESE POLLUTION CONTROL PLANS, AND ACTIONS TAKEN SHALL BE MADE AND RETAINED AS A PART OF THESE POLLUTION CONTROL PLANS. MAJOR OBSERVATIONS OF THESE REPORTS SHALL INCLUDE: THE LOCATIONS OF EXCESSIVE SEDIMENTATION OR OTHER POLLUTANTS FROM THE SITE; LOCATIONS OF CONTROLS IN NEED OF REPAIR; LOCATIONS OF FAILED OR INADEQUATE CONTROLS; AND LOCATIONS WHERE ADDITIONAL CONTROLS ARE NEEDED. WHERE A REPORT DOES NOT IDENTIFY ANY INCIDENTS OF NONCOMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN CONFORMANCE WITH THE STORM WATER POLLUTION CONTROL PLAN AND PERMIT. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH THE PERMIT REGULATION.

NOTICE TO CONTRACTORS
THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR IMPLEMENTING OR OVERSEEING THE IMPLEMENTATION OF ALL CONTROLS REQUIRED HEREIN. IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO REGULATE THE ACTIVITIES OF ALL SUBCONTRACTORS ON THE SITE, TO INSURE COMPLIANCE WITH THE REQUIREMENTS AND IMPLEMENTATION OF CONTROLS REQUIRED HEREIN. PRIOR TO PERFORMING ANY WORK ON THE SUBJECT SITE, THE GENERAL CONTRACTOR SHALL COMPLETE THE FOLLOWING CERTIFICATION. THE GENERAL CONTRACTOR MAY, AT HIS OPTION, REQUIRE SUBCONTRACTORS ASSOCIATED WITH IMPLEMENTATION OF CONTROLS REQUIRED HEREIN TO PROVIDE SIMILAR CERTIFICATIONS, WHICH WILL BECOME A PART OF THESE POLLUTION CONTROL PLANS.

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THIS VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) GENERAL PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES FROM THE CONSTRUCTION ACTIVITY IDENTIFIED AS PART OF THIS CERTIFICATION."

_____
Signed Date

_____
Printed Name Title

_____
General Contractor Firm Name

_____
Address

_____

_____

_____
Telephone Number

_____
Site Location

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION: THE PURPOSE OF THIS PROJECT IS THE PREPARATION OF PROPERTY FOR A RESIDENTAIL SUBDIVISION. THE PROPOSED PROJECT WILL COMPRISE OF REGRADING APPROXIMATELY 8.1 ACRES OF PASTURE/WOODS MIX. THE SITE IS LOCATED ALONG THE NORTHERN SIDE OF MOUNTAIN VIEW ROAD IN THE COUNTY OF ROANOKE, VIRGINIA. THE PROPERTY IS CURRENTLY OWNED BY THE DEVELOPER, A.M. COOPER CONSTRUCTION.

EXISTING SITE CONDITIONS: THE SITE IS CURRENTLY AN UNDEVELOPED TRACT OF LAND THAT HAS IS CURRENTLY COVERED WITH A MIX OF PASTURE/WOODS. THERE ARE NO JURISDICTIONAL WATERS LOCATED ON THE PROPERTY. PRELIMINARY REVIEWS BY THE ARMY CORPS OF ENGINEERS INDICATES THAT THERE ARE SPRINGS AND WETLAND TYPE GRASSES LOCATED WITHIN THE LIMITS OF THE PROPOSED GRADING LIMITS FOR THE SWM FACILITY AND THAT ANY DAMAGE TO THESE JURISDICTIONAL AREAS WILL REQUIRE A PERMIT.

ADJACENT PROPERTY: THE LIMITS OF CONSTRUCTION ARE BOUNDED ON THE SOUTH BY MOUNTAIN VIEW ROAD AND ON THE NORTH BY THE BLUE RIDGE PARKWAY. THE WESTERN BOUNDARY IS THE UNDEVELOPED PARCEL OWNED BY JAY E. AND STEPHANIE BURKHOLDER. THE EASTERN BOUNDARY IS AN UNDEVELOPED PROPERTY OWNED BY NANNIE J. WADE (REFER TO PLAN).

OFF-SITE AREAS: THE DEVELOPMENT WILL BE A "BALANCED" SITE AND NO EXCESS MATERIAL WILL BE EXPORTED NOR WILL ANY MATERIAL BE IMPORTED FROM OTHER PROPERTIES.

SOILS: A SUBSURFACE INVESTIGATION HAS NOT BEEN PROVIDED. SOIL INFORMATION IS AVAILABLE ON THE RESIDUAL SOILS THAT IS SUGGESTED IN THE "SOIL SURVEY OF ROANOKE COUNTY AND THE CITIES OF ROANOKE AND SALEM, VIRGINIA" AS PREPARED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE. THIS SURVEY IDENTIFIES THE ORIGINAL SOIL MATERIAL AS A HAYESVILLE FINE SANDY LOAM. HAYESVILLE SOIL HAS THE FOLLOWING CHARACTERISTICS: 1)WELL DRAINED 2) 0"-4" OF TOPSOIL 3) +/- 4" OF A SANDY LOAM SUBBASE 4) MODERATE PERMEABILITY 5) MEDIUM SURFACE RUN-OFF AND 6) MEDIUM EROSION POTENTIAL.

CRITICAL EROSION AREAS: CRITICAL AREAS ARE NOT ANTICIPATED FOR THIS PROJECT BECAUSE OF THE LOCATION OF THE EXISTING WET POND THAT WILL BE MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
EROSION AND SEDIMENT CONTROL MEASURES:
UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION" (VESCH). THE MINIMUM STANDARDS OF THE VESCH SHALL BE ADHERED TO UNLESS OTHERWISE DIRECTED BY THE LOCAL PROGRAM ADMINISTRATOR.

STRUCTURAL –
CONSTRUCTION ENTRANCE-STD. 3.02.....A STONE PAD, LOCATED AT THE INTERSECTION OF MOUNTAIN VIEW ROAD (RTE 651) AND PROPOSED ROAD 'A' OR AT OTHER POINTS OF VEHICULAR INGRESS AND EGRESS TO THE CONSTRUCTION SITE, TO REDUCE THE SOIL TRANSPORTED ONTO PUBLIC ROADS AND OTHER PAVED AREAS.

CONSTRUCTION ROAD STABILIZATION-STD. 3.03.....THE TEMPORARY STABILIZATION OF ACCESS ROADS, TEMPORARY OR PERMANENT, WITH STONE AFTER GRADING TO REDUCE EROSION CAUSED BY VEHICLES DURING WET WEATHER.

SILT FENCE-STD. 3.05.....A TEMPORARY BARRIER CONSTRUCTED ALONG THE PERIMENTER OF THE DISTURBED AREA AS REQUIRED TO INTERCEPT AND DETAIN SEDIMENT.

INLET PROTECTION-STD. 3.07.....INSTALLATION OF A SEDIMENT TRAPPING MEASURES AROUND DROP INLETS OR CURB INLET STRUCTURES PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA.

DIVERSION DIKE-STD. 3.09.....A RIDGE OF COMPACTED SOIL CONSTRUCTED ALONG A LIMITS OF CLEARING AND/OR GRADING TO INSURE THAT OFFSITE RUNOFF WILL BE DIRECTED TO A STABILIZED AREA WITHOUT ALLOWING ADDITIONAL FLOW RATES ONTO THE RECENTLY DENUDED AREAS AND INCREASING POTENTIAL SEDIMENT DEPOSITS DOWNSTREAM. THESE ITEMS ARE A FIRST LINE OF CONTROL TO PROTECTING THE PROPOSED GRADING AREAS.

RIGHT-OF-WAY DIVERSIONS-STD. 3.11.....A RIDGE OF COMPACTED SOIL OR LOOSE GRAVEL CONSTRUCTED ACROSS PROPOSED ROAD 'A' OR SIMILAR SLOPING AREAS TO DIVERT THE RUNOFF ACROSS AN ACCESS ROUTE TO A STABILIZED OUTLET.

DIVERSION-STD. 3.12.....A RIDGE OF COMPACTED SOIL CONSTRUCTED ALONG A LIMITS OF CLEARING AND/OR GRADING WITH AN ENGINEERED DRAINAGE DITCH TO CONVEY OFFSITE RUNOFF AROUND ANY DENUDED AREAS TO LIMIT INSURE THAT ANY SEDIMENT-LADEN RUNOFF REMAINS ONSITE AND DISCHARGES INTO A SEDIMENT TRAPPING DEVICE.

SEDIMENT BASIN-STD. 3.14.....A PERMANENT DAM WITH A CONTROLLED STORMWATER RELEASE STRUCTURE WHICH IS FORMED BY CONSTRUCTING AN EMBANKMENT OF COMPACTED SOIL ACROSS A DRAINAGE WAY, TO DETAIN SEDIMENT-LADEN RUNOFF FROM LARGE DISTURBED AREAS TO ALLOW FOR SUSPENDED SOLIDS TO SETTLE OUT.

RIPRAP-STD. 3.19.....A PERMANENT EROSION-RESISTANT GROUND COVER OF LARGE, LOOSE, ANGULAR STONE INSTALLED WHEREVER SOIL CONDITIONS, WATER TURBULENCE AND VELOCITY, EXPECTED VEGETATIVE COVER, ETC. ARE SUCH THAT SOIL MAY ERODE UNDER DESIGN FLOW CONDITIONS.

VEGETATIVE –
TOPSOILING-STD. 3.30.....METHODS OF PRESERVING AND USING THE SURFACE LAYER OF UNDISTURBED SOIL, OFTEN ENRICHED IN ORGANIC MATTER, IN ORDER TO OBTAIN A MORE DESIRABLE PLANTING AND GROWTH MEDIUM.

TEMPORARY SEEDING-STD. 3.31.....ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR PERIODS OF 30 DAYS TO 1-YEAR BY SEEDING WITH AN APPROPRIATE RAPIDLY GROWING SEED MIXTURE.

PERMANENT SEEDING-STD. 3.32.....ESTABLISHMENT OF A VEGETATIVE COVER BY PLANTING SEED ON ALL FINAL GRADED AREAS THAT WILL NOT RECEIVE AN IMPERVIOUS COVER OR RECEIVE TOPSOIL MATERIAL TO PROVIDE A STABILIZED SITE AFTER THE PROJECT IS COMPLETE.

MULCHING-3.35.....MULCH SHALL BE APPLIED TO ALL TEMPORARY AND PEMANENT SEEDING OPERATIONS TO PROMOTE THE GROWTH OF VEGETATION AND TO PROTECT THE SOIL SURFACE FROM RAINDROP IMPACTS.

SOIL STABILIZATION BLANKETS & MATTING-3.36.....UPON COMPLETION OF GRADING OPERATIONS FOR THE AREA ALONG THE CUL-DE-SAC EMBANKEMENT, A DEGRADABLE BLANKET SHALL BE INSTALLED ON ALL SLOPES 3:1 OR GREATER TO PROMOTE STABILIZATION DUE TO SEEDING OPERATIONS.

MANAGEMENT STREATEGIES:
A) CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
B) SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING.
C) THE LOCAL PROGRAM ADMINISTRATOR RESERVES THE RIGHT TO ADD TO, DELETE OR OTHERWISE CHANGE THE EROSION CONTROL MEASURES AS DEEMED NECESSARY DUE TO ACTUAL FIELD CONDITIONS BY WRITTEN NOTIFICATION TO THE CONTRACTOR.
D) ALL FILL AND CUT SLOPES SHALL BE SEEDED WITHIN SEVEN (7) DAYS OF ACHIEVING FINAL GRADE.I
E) ONLY AFTER INSPECTION AND APPROVAL FROM THE LOCAL PROGRAM ADMINISTRATOR MAY ITEMS BE REMOVED FOLLOWING THE STABILIZATION OF THE CONTRIBUTING AREAS.

INSPECTIONS:
THE GENERAL CONTRACTOR SHALL INSPECT DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED, AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, AND THE AREA OF CONSTRUCTION VEHICLE ACCESS AT LEAST EVERY FOURTEEN (14) CALENDAR DAYS, AND WITHIN 48 HOURS OF THE END OF A STORM EVENT PRODUCING 1/2" OR GREATER OF PRECIPITATION. WHERE AREAS HAVE BEEN FINALLY OR TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS (SITE IS COVERED WITH SNOW, ICE, OR FROZEN GROUND EXISTS) SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH.
A) INSPECT DISTURBED AREAS AND AREAS OF MATERIALS STORAGE THAT ARE EXPOSED TO PRECIPITATION FOR EVIDENCE OF, OR THE POTENTIAL FOR SEDIMENT ENTERING THE STORM DRAIN SYSTEM. INSPECT E&S CONTROLS IN ACCORDANCE WITH REQUIREMENTS STATED HEREIN, AND INSPECT POINTS OF STORM DRAIN DISCHARGE FOR EXCESSIVE SEDIMENTATION. CORRECT SITE CONTROLS AS REQUIRED TO REDUCE SEDIMENTATION OF STORM DRAINS, CULVERTS, AND RECEIVING CHANNELS.
B) IF CONTROLS OR SEDIMENT PREVENTION AREAS ARE FOUND TO BE IN NEED OF REPAIR OR MODIFICATION, THE GENERAL CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES OR MODIFICATIONS TO EXISTING MEASURES AS REQUIRED. ANY ADDITIONAL MEASURES OR MODIFICATIONS TO EXISTING MEASURES SHALL BE RECORDED AS FIELD REVISIONS TO THESE PLANS. IN THE EVENT THAT ADDITIONAL CONTROLS ARE FOUND TO BE REQUIRED, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THESE CONTROLS BEFORE THE NEXT ANTICIPATED STORM EVENT. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICAL, THEY SHALL BE IMPLEMENTED AS SOON AS PRACTICAL.
C) A REPORT SUMMARIZING THE SCOPE OF INSPECTIONS, NAME OF INSPECTOR, INSPECTOR'S QUALIFICATIONS, DATES OF INSPECTIONS, MAJOR OBSERVATIONS PERTAINING TO THE IMPLEMENTATION OF THESE EROSION CONTROL PLANS, AND ACTIONS TAKEN SHALL BE MADE AND RETAINED AS A PART OF THESE PLANS. MAJOR OBSERVATIONS OF THESE REPORTS SHALL INCLUDE: THE LOCATIONS OF EXCESSIVE SEDIMENTATION FROM THE SITE; LOCATIONS OF CONTROLS IN NEED OF REPAIR; LOCATIONS OF FAILED OR INADEQUATE CONTROLS; AND LOCATIONS WHERE ADDITIONAL CONTROLS ARE NEEDED.

STORMWATER MANAGEMENT:
A PERMANENT STORMWATER MANAGEMENT FACILITY WILL BE CONSTRUCTED AND STABILIZED TO PROTECT DOWNSTREAM RECEIVING CHANNELS.

MINIMUM STANDARDS

THE FOLLOWING STANDARDS ARE TO BE PROVIDED OR ADDRESSED ON EVERY DEVELOPMENT PROJECT EXCEEDING 5000 S.F. IN AREA OF DISTURBANCE THESE STANDARDS ARE CONSIDERED A MINIMUM AND MAY REQUIRE ADDITIONAL MEASURES AS DEEMED NECESSARY BY THE LOCAL APPROVING AUTHORITY OR THE CONSULTING ENGINEER.

No.	CRITERIA, TECHNIQUE OR METHOD	PRACTICES PROVIDED
1	PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE HAS BEEN REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN THIRTY (30) DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE (1) YEAR.	(TS) (PS) (MU) FOR ALL DENUDED AREAS
2	DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.	(TS) (PS) (MU) FOR PROVIDED STOCKPILE
3	A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IN THE OPINION OF THE LOCAL PROGRAM ADMINISTRATOR OR DESIGNATED AGENT, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.	(TS) (PS) (MU) FOR ALL DENUDED AREAS
4	SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.	(SB) (SF) (DD) FOR ALL DRAINAGE DIVIDES
5	STABILIZATION METHODS SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.	(TS) (PS) (MU) FOR ALL EARTHEN STRUCTURES
6	SEDIMENT TRAPS AND BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.	SEE SUPPLEMENTAL CALCULATIONS
7	CUT AND FILL SLOPES SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE (1) YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZATION MEASURES UNTIL THE PROBLEM IS CORRECTED.	(TS) (PS) (MU) FOR ALL ERODING SLOPES
8	CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.	NOT APPLICABLE
9	WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.	SHOULD SEEPS OCCUR IN ANY EXISTING OR NEW CUT OR FILL SLOPE, THE CONTRACTOR SHALL FIRST INSURE THAT THERE ARE NOT AREAS OF PONDED WATER AT THE TOPS OF THE SLOPES, AND THEN SHALL CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT GEOTECHNICAL ENGINEER FOR ON-SITE EVALUATION OF THE AREAS OF SEEPAGE.
10	ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.	(IP) FOR ALL STORM WATER INTAKES
11	BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.	(RR) FOR ALL STORMWATER OUTLETS
12	WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.	IMPROVEMENTS ON THE EXISITNG SPILLWAY AND REGRADING IN THE WETLANDS WILL REQUIRE A NATIONWIDE PERMIT
13	WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX (6) MONTH PERIOD, A TEMPORARY STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL.	IMPROVEMENTS ON THE EXISITNG SPILLWAY AND REGRADING IN THE WETLANDS WILL REQUIRE A NATIONWIDE PERMIT
14	ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET. THE BEDS AND BANKS OF ANY WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.	IMPROVEMENTS ON THE EXISITNG SPILLWAY AND REGRADING IN THE WETLANDS WILL REQUIRE A NATIONWIDE PERMIT
15	THE BEDS AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.	IMPROVEMENTS ON THE EXISITNG SPILLWAY AND REGRADING IN THE WETLANDS WILL REQUIRE A NATIONWIDE PERMIT
16	UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA: 1)NO MORE THAN 500 LINEAR FEET OF ANY TRENCH MAY BE OPENED AT ONE TIME. 2)EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. 3)EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY. 4)MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION. 5)RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS. 6)APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.	NOT APPLICABLE ALL UTILITY PIPING ON-SITE
17	WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.	(CE) FOR ALL POINTS OF INGRESS/EGRESS
18	ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM ADMINISTRATOR. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.	(TS) (PS) (MU) SELF-EXPLANATORY
19	PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE APPLICABLE CRITERIA.	SEE SUPPLEMENTAL CALCULATIONS, PERMANENT SWM FACILITY PROVIDED

APPROVED

COMMONWEALTH OF VIRGINIA
CHRISTOPHER P. BURNS
Lic. No.047338
1/23/14
PROFESSIONAL ENGINEER

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MOUNTAIN VIEW SUBDIVISION
ESC NOTES
ROANOKE COUNTY, VIRGINIA

APPROVED

DRAWN BY: JVJ
DESIGNED BY: JVJ
CHECKED BY: SMH
DATE: 05/09/2006
REVISIONS:
10/09/06 - PER 1ST REVIEW COMMENTS
01/19/07 - PER 2ND REVIEW COMMENTS
01/23/2014

SCALE:
SHEET NO.
C-10
JOB NO.
R0600065.00