

# ESC NARRATIVE:

## EROSION AND SEDIMENT CONTROL NARRATIVE:

### PROJECT DESCRIPTION

THE PROJECT IS LOCATED ALONG U.S. ROUTE 220 FRANKLIN ROAD, LOWE'S PROPERTY, AND SLATE HILL DEVELOPMENT'S PROPERTY LOCATED WITHIN THE CITY OF ROANOKE AND ROANOKE COUNTY. PHASE 1 OF THIS PROJECT INCLUDES APPROXIMATELY 5,400 LINEAR FEET (L.F.) OF WATERLINE THAT CAN BE DESCRIBED IN THREE PORTIONS. THE FIRST PORTION INCLUDES APPROXIMATELY 2,000 L.F. OF WATERLINE ALONG U.S. ROUTE 220 FRANKLIN ROAD BETWEEN OLD ROCKY MOUNT ROAD AND THE SOUTHERN MOST ENTRANCE FOR LOWE'S. THE NEXT PORTION OF THE PROJECT CONTINUES WITH APPROXIMATELY 1,150 L.F. OF WATERLINE ALONG THE SOUTHWEST EDGE OF THE LOWE'S PROPERTY. THE FINAL PORTION INCLUDES APPROXIMATELY 2,250 L.F. OF WATERLINE LOCATED ON SLATE HILL DEVELOPMENT'S PROPERTY AROUND THE LOWE'S PROPERTY AND ONTO THE SITE OF THE SOUTH PEAK DEVELOPMENT. PHASE 1 OF THIS PROJECT ALSO INCLUDES THE INSTALLATION OF TWO PRESSURE REDUCING VALVE VAULTS ON SLATE HILL DEVELOPMENT'S PROPERTY AND IMPROVEMENTS TO THE INTERIOR OF THE EXISTING FRANKLIN ROAD PUMP STATION LOCATED AT THE INTERSECTION OF FRANKLIN ROAD AND OLD ROCKY MOUNT ROAD.

THE WATERLINES CURRENTLY SERVING THE SOUTH PEAK DEVELOPMENT SITE ARE INCAPABLE OF PROVIDING ADEQUATE PRESSURE FOR DOMESTIC SERVICE OR FIRE PROTECTION. WITH THIS IN MIND, THE WESTERN VIRGINIA WATER AUTHORITY (WVWA) HAS CHOSEN TO EXTEND THE SERVICE AREA OF THE SUMMIT TANK TO THE SITE OF THE SOUTH PEAK DEVELOPMENT. THESE IMPROVEMENTS ARE DESIGNED TO PROVIDE DOMESTIC SERVICE AND FIRE PROTECTION TO THE SOUTH PEAK DEVELOPMENT SITE AND MEET THE MINIMUM REQUIREMENTS ESTABLISHED BY THE WVWA.

BY AND LARGE, THE PROPOSED LAND-DISTURBING ACTIVITIES ASSOCIATED WITH THE OVERALL PROJECT WILL SIMPLY CONSIST OF THE EARTHWORK OPERATIONS ASSOCIATED WITH INSTALLING APPROXIMATELY 5,300 L.F. OF WATERLINE WITHIN THE RIGHT-OF-WAY OF EXISTING STREETS OR PROPOSED EASEMENTS. IT IS ANTICIPATED THAT PHASE 1 OF THIS PROJECT WILL DISTURB APPROXIMATELY 33,200 SQUARE FEET.

BECAUSE THE PROJECT IS LOCATED WITHIN AN EXISTING COMMERCIAL AREA, THE AREA OF LAND DISTURBANCE WILL BE KEPT TO A MINIMUM DUE TO THE CLOSE PROXIMITY OF EXISTING BUSINESSES, FENCES, UTILITIES, TREES AND STREETS. THESE OBSTACLES MANDATE THAT THE WORK BE PERFORMED WITHIN A VERY NARROW CORRIDOR, LOCATED EITHER ALONG THE SHOULDER OF THE ROADWAY OR PROPOSED EASEMENT.

WITH THE ALIGNMENT OF THE WATERLINES PLANNED, THE EROSION AND SEDIMENT CONTROL MEASURES NEEDED TO FACILITATE THE CONSTRUCTION OF THIS PROJECT ARE EASILY IDENTIFIED IN THIS REPORT AND ILLUSTRATED ON THE PLANS. THE COMBINED DOCUMENTS DETAIL THE REQUIRED MEASURES PLANNED FOR THE INSTALLATION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL (E&S/C) COMPONENTS.

ONCE THE PROPOSED WATERLINES ARE INSTALLED, THE DISTURBED AREAS WILL BE IMMEDIATELY SEEDED AND RETURNED TO THEIR CURRENT VEGETATIVE STATE. SIMILARLY, EXISTING AREAS COVERED WITH ASPHALT, CONCRETE, AND GRAVEL SURFACES WILL BE RESTORED TO THEIR ORIGINAL CONDITION AS WELL.

### INTENDED SEQUENCE

THE MAJOR CONSTRUCTION COMPONENTS OF THE PROJECT WHICH DISTURB SOILS ARE ANTICIPATED TO OCCUR AS FOLLOWS:

- SOUTH PEAK WATERLINE IMPROVEMENTS – PHASE 1
- GRADE THE SOUTH PEAK DEVELOPMENT TO IT'S FINISHED GRADE (BY OTHERS).
  - INSTALL EROSION CONTROL MEASURES INCLUDING CULVERT INLET PROTECTION, DROP INLET PROTECTION, AND SILT FENCE.
  - CONSTRUCT PROPOSED WATERLINE IMPROVEMENTS.
  - PERFORM ROUGH GRADING.
  - A SOILS TEST SHALL BE PERFORMED BY THE CONTRACTOR TO DETERMINE THE LIME AND FERTILIZER SPECIFICATIONS PRIOR TO SEEDING.
  - PERFORM FINAL GRADING AND PROVIDE PERMANENT STABILIZATION FOR ALL DISTURBED AREAS.
  - REMOVE TEMPORARY E&S MEASURES.

### EXISTING SITE CONDITIONS

THE PROPOSED WATERLINE ALIGNMENT TRANSVERSES WHAT CAN BE BROKEN INTO THREE UNIQUE SITE CONDITIONS. THE FIRST SITE CONDITION IS ALONG FRANKLIN ROAD, WHERE THE PROPOSED ALIGNMENT IS LOCATED WITHIN 20' FROM THE EDGE OF PAVEMENT WITHIN THE VDOT RIGHT-OF-WAY. THE RIGHT-OF-WAY IS GRASS COVERED WITH EXISTING DITCH AND DRAINAGE STRUCTURES TO AID DRAINAGE. SLOPES PARALLEL TO THE ROADWAY ARE RELATIVELY FLAT, WHILE SLOPES PERPENDICULAR TO THE ROADWAY VARY FROM FLAT TO APPROXIMATELY 2:1. THE SECOND SITE CONDITION OCCURS AS THE PROPOSED WATERLINE PASSES ALONG THE SOUTH SIDE ON THE LOWE'S SHOPPING CENTER. THIS PORTION OF THE PROPOSED WATERLINE ALIGNMENT FOLLOWS THE LIMITS OF CLEARING FOR THE EXISTING SHOPPING CENTER. THE ALIGNMENT FOLLOWS THE EDGE OF A WOODLAND AREA WITH SLOPES UP TO 12%. SLOPES PERPENDICULAR TO THE ALIGNMENT ARE EXTREMELY STEEP DOWN TO THE SHOPPING CENTER WITH RETAINING WALLS AROUND A PORTION. EXISTING DRAINAGE STRUCTURES ARE IN PLACE BY THE SHOPPING CENTER TO COLLECT AND CONVEY DRAINAGE. THE THIRD UNIQUE SITE CONDITION PRESENT IS THE AREA CURRENTLY UNDER CONSTRUCTION AS THE SOUTH PEAK DEVELOPMENT. THIS SITE CAN BE CATEGORIZED AS LARGE AREAS OF DISTURBANCE WITH STEEP SLOPES. THIS PORTION OF THE PROPOSED WATERLINE PROJECT WILL DEPEND ON THE DEVELOPMENT'S EROSION AND SEDIMENT CONTROL PLAN.

### ADJACENT AREAS

THE PROPOSED WATERLINE ALIGNMENT IS BOUNDED MOSTLY BY COMMERCIAL DEVELOPMENTS. A SMALL PORTION OF THE PROPOSED WATERLINE IS BOUNDED BY WOODLAND SEPARATING THE COMMERCIAL PROPERTIES FROM RESIDENTIAL PROPERTIES. THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES WILL MINIMIZE THE POTENTIAL EFFECTS TO ADJACENT PROPERTIES.

### OFFSITE AREAS

THE LOCATION OF ALL OFF-SITE FILL OR BORROW AREAS ASSOCIATED WITH THE CONSTRUCTION PROJECT WILL BE PROVIDED TO ROANOKE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT. AN EROSION CONTROL PLAN OR MEASURES MAY BE REQUIRED FOR THIS AREA.

AT THIS TIME, DUE TO THE NATURE OF THE PROJECT (UTILITY LINE INSTALLATION), IT IS NOT ANTICIPATED THAT OFFSITE AREAS WILL BE DISTURBED DURING CONSTRUCTION. IF IT IS LATER DETERMINED, DURING CONSTRUCTION, THAT ANY OFFSITE AREAS ARE TO BE DISTURBED, THE AREAS SHALL HAVE APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES DESIGNED AND INSTALLED, TO PREVENT SILT-LADEN RUNOFF FROM BEING TRANSPORTED FROM THE SITES.

THE OWNER AND/OR THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING AN APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR ANY EARTHWORK PERFORMED OUTSIDE OF THOSE AREAS IDENTIFIED ON THE APPROVED UTILITY PLAN. THE PLAN SHALL INCLUDE ANY MEASURES REQUIRED TO MEET THE APPLICABLE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS MINIMUM STANDARDS RELATING TO EARTHWORK OPERATIONS.

STABILIZATION SHALL BE ACHIEVED WITH TEMPORARY AND PERMANENT SEEDING, RESPECTIVELY. TEMPORARY SEEDING SHALL BE DONE ACCORDING TO STANDARD AND SPECIFICATION 3.31, TEMPORARY SEEDING, OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. PERMANENT SEEDING SHALL BE DONE ACCORDING TO STANDARD AND SPECIFICATION 3.32, PERMANENT SEEDING, OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. ALL SEEDING MIXTURES WILL BE IN ACCORDANCE WITH VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

### SOILS

THE FOLLOWING INFORMATION IS BASED ON THE SOILS MAP FOUND IN THE SOIL SURVEY OF THE CITY OF ROANOKE AND ROANOKE COUNTY, VIRGINIA. THE FOLLOWING SOILS ARE A REPRESENTATIVE SAMPLE OF THE MOST COMMON SOILS FOUND THROUGHOUT THE PROJECT.

CHISWELL-LITZ COMPLEX, 25 TO 50 PERCENT SLOPES  
CHISWELL-LITZ-URBAN LAND COMPLEX, 2 TO 15 PERCENT SLOPES  
EDGEMONT CHANNERY SANDY LOAM, 7 TO 15 PERCENT SLOPES  
EDGEMONT CHANNERY SANDY LOAM, 35 TO 60 PERCENT SLOPES  
UDORTHERTS-URBAN LAND COMPLEX

## EROSION AND SEDIMENT CONTROL NARRATIVE (CONT.):

### CRITICAL AREAS

THE CRITICAL AREAS ASSOCIATED WITH THIS PROJECT WILL CENTER ON EXISTING STORM DRAINAGE STRUCTURES, RECEIVING CHANNELS AND PAVED SURFACES (ROADWAYS & DRIVEWAYS). THE CONTRACTOR SHALL MAINTAIN CULVERT INLET PROTECTION, STORM DRAIN INLET PROTECTION AND ANY OTHER TEMPORARY EROSION CONTROL MEASURES NEEDED TO CONTROL EROSION, AND PROTECT STORM DRAINAGE STRUCTURES AND DOWNSTREAM RECEIVING CHANNELS FROM SILT-LADEN RUNOFF AND SCOUR/EROSION UNTIL ALL SURFACES WITHIN THE PROJECT SITE ARE PERMANENTLY STABILIZED. DUE TO THE CLOSE PROXIMITY OF PAVED SURFACES TO THE PROJECT, THE CONTRACTOR SHALL ROUTINELY INSPECT AND CLEAN NEARBY PAVED SURFACES OF SOIL AND OTHER DEBRIS DEPOSITED AS A RESULT OF THIS CONSTRUCTION PROJECT.

### EROSION AND SEDIMENT CONTROL MEASURES

THE CONSTRUCTION-PHASE EROSION AND SEDIMENT CONTROL SHALL BE DESIGNED TO RETAIN SEDIMENT ON SITE TO THE MAXIMUM EXTENT PRACTICABLE. ALL CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS' SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. IF PERIODIC INSPECTIONS OR OTHER INFORMATION INDICATES A CONTROL HAS BEEN USED INAPPROPRIATELY OR INCORRECTLY, THE PERMITTEE MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G. FUGITIVE SEDIMENT IN STREET COULD BE WASHED INTO STORM SEWERS BY THE NEXT RAIN AND/OR POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORM WATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORM WATER DISCHARGES (E.G., SCREENING OUTFALLS, PICKED UP DAILY).

THE FOLLOWING MEASURES WILL BE USED TO CONTROL EROSION AND SEDIMENT-LADEN RUNOFF ON THIS PROJECT. SEE THE EROSION & SEDIMENT CONTROL PLAN FOR LOCATIONS OF SPECIFIC EROSION CONTROL MEASURES. OTHER MEASURES MAY APPLY BASED ON THE SEQUENCE OF CONSTRUCTION. THESE MEASURES ARE MORE FULLY DESCRIBED IN THE PROJECT SPECIFICATIONS.

- CONSTRUCTION ENTRANCE: WILL BE USED TO REDUCE MUD TRACKING ONTO PUBLIC ROADS. (VESCH STANDARD AND SPEC. 3.02)
- SILT FENCE: WILL BE USED TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS AND TO PREVENT SEDIMENT FROM LEAVING THE SITE. (VESCH STANDARD AND SPEC. 3.05)
- STORM DRAIN INLET PROTECTION: WILL BE USED TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA. (VESCH STANDARD AND SPEC. 3.07)
- CULVERT INLET PROTECTION: STORM SEWER INLETS WILL NEED TO BE PROTECTED TO PREVENT SEDIMENT-LADEN RUNOFF FROM CLOGGING THE SEWER PIPE DURING CONSTRUCTION. INLET PROTECTION SHOULD BE USED ON EACH INLET UNTIL UPLAND AREAS ARE STABILIZED.(VESCH STANDARD AND SPEC. 3.08)
- OUTLET PROTECTION: WILL BE USED TO PREVENT SCOUR AT STORMWATER OUTLETS, TO PROTECT THE OUTLET STRUCTURE, AND TO MINIMIZE THE POTENTIAL FOR DOWNSTREAM EROSION BY REDUCING THE VELOCITY AND ENERGY OF CONCENTRATED STORMWATER FLOWS. (VESCH STANDARD AND SPEC. 3.18)
- RIPRAP: WILL BE USED TO PROTECT SOIL FROM THE EROSIIVE FORCES OF CONCENTRATED RUNOFF AND TO STABILIZE SLOPES. (VESCH STANDARD AND SPEC. 3.19)
- TOP SOILING: WILL PROVIDE A SUITABLE GROWTH MEDIUM FOR FINAL SITE STABILIZATION WITH VEGETATION. (VESCH STANDARD AND SPEC. 3.30)
- TEMPORARY SEEDING: WILL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 30 DAYS. (VESCH STANDARD AND SPEC. 3.31)
- PERMANENT SEEDING: WILL BE USED TO ESTABLISH VEGETATIVE COVER AND TO REDUCE SILT RUNOFF FOR ANY AREAS NOT PAVED OR ROOFED. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR. (VESCH STANDARD AND SPEC. 3.32)
- MULCHING: WILL BE APPLIED TO SEEDED AREAS TO REDUCE EROSION FROM RAINDROP IMPACT AND REDUCING OVERLAND FLOW. (VESCH STANDARD AND SPEC. 3.35)

### STORMWATER MANAGEMENT

SINCE THERE IS NO PERMANENT ABOVE GROUND DEVELOPMENT WITH THIS PROJECT, THERE IS NO INCREASE IN THE AMOUNT OF IMPERVIOUS AREA, AND THEREFORE, NO INCREASE IN THE AMOUNT OF PEAK RUNOFF. DRAINAGE FROM THIS PROJECT WILL CONTINUE TO BE COLLECTED AND CONVEYED BY EXISTING DRAINAGE STRUCTURES. RUNOFF WILL BE CONTROLLED DURING CONSTRUCTION USING THE METHODS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN AND DESCRIBED IN THIS NARRATIVE.

### MAINTENANCE

ALL EROSION AND SEDIMENT CONTROL STRUCTURES AND SYSTEMS SHALL BE MAINTAINED, INSPECTED, AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED AT LEAST EVERY 14 DAYS AND AFTER EACH RAIN EVENT OVER 0.5 INCHES OF PRECIPITATION. THE FOLLOWING ITEMS SHALL BE CHECKED IN PARTICULAR:

- THE SEEDED AREAS SHALL BE CHECKED EVERY 2 DAYS TO ENSURE THAT A GOOD STAND OF GRASS IS MAINTAINED. GRASSSED AREAS SHOULD BE LIMED, FERTILIZED AND RESEDED AS NEEDED.
- SILT FENCE SHALL BE CHECKED FOR UNDERMINING OR DETERIORATION (OF THE FABRIC) AND CLEANED WHEN SEDIMENT LEVELS HAVE REACHED HALF OF THE SILT FENCE HEIGHT.
- INLET AND OUTLET PROTECTION AREAS AROUND CULVERTS, TEMPORARY SLOPE DRAINS, AND DROP INLETS SHALL BE CHECKED FOR BUILDUP OF SEDIMENT. IF SIGNIFICANT CLOGGING IS FOUND (THE CAPACITY OF THE STRUCTURE HAS BEEN REDUCED BY HALF), THEY WILL EITHER BE CLEANED OUT OR REPLACED.

SPECIFIC REQUIREMENTS RELATED TO INSPECTION AND MAINTENANCE OF EACH EROSION CONTROL MEASURES ARE DISCUSSED IN THE VESCH STANDARDS AND SPECIFICATIONS INCLUDED IN THE APPENDICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES TO THE SATISFACTION OF LOCAL REVIEW AUTHORITIES, AS WELL AS THE INSTALLATION OF ADDITIONAL MEASURES AS NEEDED TO ENSURE THAT SEDIMENT-LADEN RUNOFF DOES NOT LEAVE THE SITE.

### STABILIZATION PRACTICES

NO SPECIFIC SCHEDULE OTHER THAN THOSE GUIDELINES GIVEN IN THE ABOVE DESCRIPTIONS OF THE VEGETATIVE PRACTICES WILL BE USED FOR TEMPORARY AND PERMANENT SEEDING MEASURES. RIPRAP FOR AREAS REQUIRING OUTLET PROTECTION SHALL BE PLACED WITHIN TWO DAYS AFTER THE OUTLET STRUCTURES ARE FUNCTIONAL.

CONTRACTOR SHALL PROVIDE A LOG OF ALL MAJOR GRADING ACTIVITIES, ANY CESSATION, TEMPORARY OR PERMANENT, OF CONSTRUCTION ACTIVITY, AND WHEN STABILIZATION MEASURES ARE IMPLEMENTED. THIS RECORD SHALL BE KEPT THROUGHOUT THE DURATION OF THE PROJECT. THE PERMITTEE SHALL ENSURE THAT THESE RECORDS ARE UPDATED, MAINTAINED, AND BECOME A PERMANENT PART OF THIS OVERALL PLAN.

CONSTRUCTION SHALL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE. STABILIZATION MEASURES SHALL BE IMPLEMENTED ON DISTURBED AREAS AS SOON AS PRACTICABLE. EMBANKMENT WALLS, UPON REACHING FINAL GRADE, MUST BE IMMEDIATELY SEEDED AND FERTILIZED TO ENSURE PROPER STABILIZATION. PERMANENT SEEDING SHALL BE INSTALLED WITHIN 7 DAYS OF REACHING FINAL GRADE. DENUDED AREAS THAT ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR MORE THAN 30 DAYS SHALL BE TEMPORARILY SEEDED. AREAS THAT ARE NOT TO BE DISTURBED MUST BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.

AFTER THE CONSTRUCTION IS COMPLETED, THE SITE SHALL BE PERMANENTLY STABILIZED WITH PERMANENT SEEDING IN ACCORDANCE WITH VESCH STANDARD AND SPECIFICATION 3.32.

DISCLAIMER:  
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## EROSION AND SEDIMENT CONTROL NARRATIVE (CONT.):

### PERMANENT STABILIZATION

ALL AREAS DISTURBED BY CONSTRUCTION AND NOT COVERED BY IMPERVIOUS SURFACES SHALL BE STABILIZED WITHIN SEVEN DAYS AFTER REACHING FINISHED GRADE. STABILIZATION SHALL BE ACHIEVED WITH PERMANENT SEEDING. SEEDING SHALL BE DONE ACCORDING TO STANDARD AND SPECIFICATION 3.32, PERMANENT SEEDING, OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER, AND LIME WILL BE APPLIED PRIOR TO MULCHING. ANY SLOPE PERSISTING IN ERODING SHALL BE REPAIRED, RESEDED, AND SHALL HAVE EROSION CONTROL MATS INSTALLED.

IN ADDITION, ANY DISTURBED AREA THAT IS TO REMAIN DORMANT FOR MORE THAN 30 DAYS PRIOR TO ESTABLISHING FINAL GRADE MUST BE TEMPORARILY STABILIZED. STABILIZATION WILL BE ACCOMPLISHED ACCORDING TO STANDARD AND SPECIFICATION 3.31, TEMPORARY SEEDING, OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS MINIMUM STANDARD #1 STATES THAT 'PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN 7 DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.'

### ADDITIONAL DISCUSSION OF MINIMUM STANDARD 19

MINIMUM STANDARD 19 (MS-19) STATES THAT 'PROPERTIES AND WATERWAYS DOWNSTREAM OF THE SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO THE INCREASE IN VOLUME, VELOCITY AND FLOW RATES.' WITH ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES IN PLACE, MS-19 SHOULD BE ADDRESSED SINCE THE TRENCH WORK TO BE PERFORMED TO FACILITATE THE INSTALLATION OF THE PROPOSED WATERLINE WILL NOT CHANGE THE AMOUNT OF IMPERVIOUS AREA ON THE PROJECT SITE. IN OTHER WORDS, NO INCREASES IN STORM WATER RUNOFF VOLUMES ARE ANTICIPATED AS A RESULT OF A NEW WATERLINE BEING INSTALLED.

### INSPECTION

DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN PERMANENTLY STABILIZED, AREAS USED FOR STORAGE OF MATERIALS THAT ARE APPLIED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND ANY OTHER AREA WHERE SEDIMENT CAN BE DEPOSITED ON PAVED SURFACES SHALL BE INSPECTED AT LEAST ONCE EVERY 14 CALENDAR DAYS AND WITHIN 48 HOURS FOLLOWING THE END OF A STORM EVENT THAT IS 0.5 INCHES OR GREATER. IN THOSE AREAS THAT HAVE BEEN FINALIZED, TEMPORARILY STABILIZED, OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS, INSPECTIONS SHALL TAKE PLACE AT LEAST ONCE A MONTH.

DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. E&S/C MEASURES SHALL BE CHECKED TO SEE THEY ARE OPERATING CORRECTLY. AT ACCESSIBLE DISCHARGE POINTS, INSPECTION SHALL TAKE PLACE TO ENSURE THESE CONTROL MEASURES ARE EFFECTIVE AT PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED IF DISCHARGE POINTS ARE INACCESSIBLE. DUE TO THE HIGH VOLUME OF TRAFFIC UTILIZING THE LOCAL ROADWAYS, IT IS OF UTMOST IMPORTANCE THAT THE CONTRACTOR CONTINUOUSLY INSPECT AND CLEAN PAVED SURFACES OF EVIDENCE OF OFFSITE SEDIMENT, RESULTING FROM CONSTRUCTION ACTIVITIES.

IF EXISTING CONTROL MEASURES OR BEST MANAGEMENT PRACTICES (BMPs) REQUIRE MODIFICATION OR ADDITIONAL MEASURES, SUCH CHANGES SHALL BE MADE WITHIN 7 CALENDAR DAYS OF THE INSPECTION OR BEFORE THE NEXT ANTICIPATED STORM EVENT, AS IMPLEMENTATION IS PRACTICABLE.

INCLUDE INSPECTION REPORTS OF ALL STORMWATER AND EROSION & SEDIMENT CONTROL MEASURES ALONG WITH ANY REQUIRED ACTIONS AS A RESULT OF INSPECTIONS, WITH THE STORMWATER POLLUTION PREVENTION PLAN. THESE REPORTS SHALL INCLUDE THE NAME AND QUALIFICATIONS OF THE INSPECTOR, DATES OF INSPECTION, MAJOR OBSERVATIONS AND ACTIONS TAKEN IN RESPONSE TO INSPECTIONS. MAJOR OBSERVATIONS INCLUDE: THE LOCATION OF DISCHARGE OF SEDIMENT OR POLLUTANT FROM THE SITE, LOCATIONS OF BMPs THAT NEED TO BE MAINTAINED, LOCATIONS OF BMPs THAT FAILED TO OPERATE OR PROVED INADEQUATE, AND LOCATIONS WHERE ADDITIONAL BMPs ARE NEEDED THAT DIDN'T EXIST AT THE TIME OF INSPECTION. THESE REPORTS SHALL INCLUDE INCIDENTS OF NONCOMPLIANCE. IF THE REPORT DOES NOT INCLUDE ANY NONCOMPLIANCE INCIDENTS, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN AND PERMIT.

### OTHER CONTROLS

- MATERIALS, GARBAGE, DEBRIS  
  
NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, GARBAGE, AND DEBRIS SHALL BE DISCHARGED TO SURFACE WATERS OF THE STATE. THE PERMITTEE SHALL ENSURE THAT THESE ITEMS ARE NOT LEFT IN A LOCATION WHERE THEY COULD BE TRANSPORTED BY STORMWATER RUNOFF OFF THE SITE.
- COMPLIANCE WITH STATE & LOCAL WASTE, SANITARY, AND/OR SEPTIC REGULATIONS  
  
NO TEMPORARY AND/OR PERMANENT ON SITE SEWER FACILITIES ARE PLANNED FOR THE SITE DURING CONSTRUCTION.
- EXPECTED CONSTRUCTION AND WASTE MATERIALS  
  
CONSTRUCTION AND WASTE MATERIALS THAT COULD POTENTIALLY BE STORED ON SITE INCLUDE: TOPSOIL, FILL DIRT, EXCAVATED MATERIAL, PIPING, FERTILIZER FOR SEEDING OPERATIONS, STONE TO BE UTILIZED DURING THE INSTALLATION OF PIPELINES OR PLACED ON GRAVEL AREAS, STONE FOR RIPRAP, FUEL AND SILT FENCE MATERIAL.  
  
ANY STOCKPILES OF TOPSOIL, EXCAVATED MATERIAL OR FILL DIRT THAT ARE TO BE RELOCATED LATER SHALL BE SURROUNDED ON THE DOWN SLOPE SIDE BY SILT FENCE. FERTILIZER MUST BE KEPT IN WATERTIGHT CONTAINERS, PREFERABLY IN PORTABLE STORAGE UNITS AND NOT EXPOSED TO THE WEATHER, WHILE STORED ON SITE. CARE MUST ALSO BE TAKEN TO MINIMIZE SPILLAGE OF FERTILIZER, IF MIXING OPERATIONS ARE REQUIRED TO PREPARE THE FERTILIZER FOR APPLICATION.  
  
IF OVERNIGHT STORAGE OF FUEL IS REQUIRED, THE FUEL STORAGE CONTAINER MUST BE EQUIPPED WITH A FUELING MECHANISM DISABLE DEVICE. TO MINIMIZE THE AFFECT OF ANY POTENTIAL SPILLS, CONSTRUCT BERMS AROUND ALL ON-SITE FUELING FACILITIES AND MAINTAIN ALL ON-SITE FUELING OPERATIONS AS FAR AWAY FROM SURROUNDING WETLANDS, SURFACE WATERS AND DRAINAGE FACILITIES AS IS PRACTICAL. DAILY INSPECTIONS OF THE FUEL STORAGE CONTAINER MUST BE IMPLEMENTED TO DETECT THE PRESENCE OF LEAKS. THE FUELING OPERATOR SHALL HAVE A SAFE FILL, SHUTDOWN, AND TRANSFER PROCEDURE IN PLACE TO MINIMIZE SPILLAGE DURING FUELING ACTIVITIES. THE OPERATOR MUST MAINTAIN A FULLY EQUIPPED SPILL KIT ON SITE AT ALL TIMES WITH THE STORED FUEL. THE KIT MUST AT LEAST INCLUDE ABSORBENT MATS OR MATERIAL TO CLEANUP ANY SPILLED FUEL. FOR ANY FUEL SPILL ON SITE EQUAL TO OR EXCEEDING 25 GALLONS, IMMEDIATELY CREATE AN APPROPRIATELY SIZED TEMPORARY BERM AROUND THE AREA OF SPILLAGE TO MINIMIZE SURFACE MOVEMENT OF THE FUEL. CONTACT LOCAL HAZMAT AUTHORITIES, THE ENGINEER, AND THE REGIONAL DEQ OFFICE IN ROANOKE AS QUICKLY AS POSSIBLE TO REPORT THE SPILL AND SEEK FURTHER ASSISTANCE WITH SPILL CLEANUP.

CONSTRUCTION MATERIALS WHICH COULD BE CARRIED OFFSITE BY STORMWATER (PLASTICS, PAPER, TIMBER, ROOFING MATERIALS, ETC) SHALL BE PICKED UP DAILY AND PLACED IN APPROPRIATE WASTE DISPOSAL CONTAINERS.

### APPROVED STATE/LOCAL PLANS

THE STORMWATER POLLUTION PREVENTION PLAN IS CONSISTENT WITH AND INTEGRATED WITH THE EROSION AND SEDIMENT CONTROL NARRATIVE PREPARED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A VSPM PERMIT FOR THIS PROJECT.

### NON STORM WATER DISCHARGES

NO NON-STORMWATER DISCHARGES OTHER THAN THOSE PERMITTED BY THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) GENERAL PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES ARE ANTICIPATED DURING THIS PROJECT.

### STOCKPILE AREAS

STOCKPILE AREAS ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL DETERMINE STOCKPILE LOCATIONS AS NECESSARY FOR CONSTRUCTION SEQUENCING. OFFSITE STOCKPILE AREAS SHALL BE COORDINATED WITH THE COUNTY AND PROPERTY OWNERS AT THE CONTRACTOR'S EXPENSE.

### CERTIFICATION

ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED IN THE IMPLEMENTATION OF STORMWATER AND EROSION & SEDIMENT CONTROL MEASURES MUST AGREE WITH AND SIGN THE APPLICABLE CERTIFICATION STATEMENT.



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QA / QC : JKD

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5

COMMENTS  
1ST REVIEW  
  
RECORD

DATE  
06 JUL 12  
  
04 SEP 13

## SOUTH PEAK DEVELOPMENT PHASE I WATER SYSTEM IMPROVEMENTS

## EROSION & SEDIMENT CONTROL NARRATIVE

DOCUMENT NO.  
**26787 – 006**  
  
1E SHEET  
OF **30**

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