

EROSION AND SEDIMENT CONTROL NARRATIVE:

I. PROJECT DESCRIPTION:

THIS PROJECT IS FOR THE CONSTRUCTION OF A 12" WATER MAIN FROM THE TRAILER PARK LOCATED ALONG RUSSELL WAY TO THE OLD 3M FACILITY ALONG GRACE WAY IN MIDDLEWAY WEST VIRGINIA. IN ADDITION, PORTIONS OF GRACE STREET AND EAST STREET WILL BE RESURFACED. THE TOTAL PROJECT AREA IS APPROXIMATELY ±4.08 ACRES. THE TOTAL IMPERVIOUS AREA CREATED BY THE DEVELOPMENT OF THE SITE IS APPROXIMATELY ±0 ACRES. ASSOCIATED GRADING VOLUMES FOR THE PROPOSED SITE IMPROVEMENTS ARE APPROXIMATELY 6,000 C.Y. OF CUT AND 6,000 C.Y. OF FILL (NOT TO BE USED FOR BIDDING PURPOSES).

II. EXISTING SITE CONDITIONS:

THE SITE IS LOCATED IN MIDDLEWAY WEST VIRGINIA WITH WATERLINE INSTALLATION OCURING THROUGH THE TRAILER PARK ALONG RUSSELL WAY WHICH IS ON THE SOUTHERN SIDE OF MIDDLEWAY PIKE (WV 51), THEN ALONG THE SHOULDERPAVED SURFACE OF MIDDLEWAYT PIKE (WV 51), OLD MIDDLEWAY PIKE (C.R. 17), EAST STREET (C.R. 18), AND GRACE STREET (C.R. 18) TO THE OLD 3MKODACK FACILITY LOCATED ALONG THE WEST SIDE OF BRUCETOWN ROAD (C.R. 18). THE SUBJECT PROJECT AREA CONSISTS OF A RESIDENTIAL TRAILER PARK, PAVED ROADWAYS MAINTAINED BY THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, AND A PREVIOUSLY DEVELOPED COMMERCIAL SITE. THE SITE CONSISTS OF MODERATELY STEEP AND FLAT SLOPES RANGING FROM APPROXIMATELY 1%-15%. THE SURFACE RUNOFF DRAINS TO THE SOUTH AT THE RUSSELL WAY TRAILER PARK AND TO THE ROAD SHOULDERS ALONGS MIDDLEWAY PIKE, OLD MIDDLEWAY PIKE, EAST STREET, AND GRACE STREET.

III. ADJACENT AREAS:

THE PROJECT AREA IS BOUNDED BY RESIDENTIAL AND AGRICULTURAL PROPERTIES ON ALL SIDES OF MIDDLEWAY PIKE, OLD MIDDLEWAY PIKE, EAST STREET, AND GRACE STREET. TO THE SOUTH OF THE RUSSELL WAY TRAILER PARK IS TURKEY RUN WHICH IS APPROXIMATELY 300 FEET SOUTH OF THE PROJECT LIMITS. THE PROPERTY TO THE EAST OF THE RUSSELL WAY TRAILER PARK IS AGRICULTURAL LAND. THERE IS LITTLE POTENTIAL FOR OFFSITE EROSION AND SEDIMENT DAMAGE BY THIS PROJECT AS TEMPORARY EROSION AND SEDIMENT CONTROLS WILL BE USED DURING CONSTRUCTION.

IV. CRITICAL AREAS:

CRITICAL AREAS CONSIST OF TURKEY RUN TO THE SOUTH OF THE RUSSELL WAY TRAILER PARK. THERE WILL BE NO IMPACTS TO THIS AREA DURING CONSTRUCTION. THE LIMITS OF THIS PROJECT ARE ENTIRELY LOCATED OUTSIDE OF THE WETLAND/STREAM BUFFER FOR TURKEY RUN. DISTURBED AREAS WILL BE PROTECTED WITH SILT FENCE AND/OR OTHER CONTROL MEASURES.

V. SOILS:

SOIL NAME	MAPPING UNIT	HSG	DEPTH TO WATER TABLE	DEPTH TO BEDROCK
CARBO-ROCK OUTCROP COMPLEX, 3-5% SLOPES	CsC	D	20"-40"	>80"
CARBO-ROCK OUTCROP COMPLEX, 15-25% SLOPES	CsD	D	20"-40"	>80"
FAIRPLAY SILT LOAM, 0-3% SLOPES	Fa	A/D	48"-58"	0"-12"
FUNKTOWN SILT LOAM	Fk	C	>80"	20"-28"
LAPPANS LOAM, 0-3% SLOPES	La	A	>80"	44"-72"
MASSANETTA LOAM, 0-3%	Mn	B	>80"	21"-44"
OAKLET SILT LOAM, 3-8% SLOPES	OaB	C	>80"	>80"
OAKLET SILT LOAM, 8-15% SLOPES	OaC	C	>80"	>80"
OAKLET SILT LOAM, 3-8% SLOPES, VERY ROCKY	OaB	C	>80"	>80"
OAKLET SILT LOAM, 8-15% SLOPES, VERY ROCKY	OaC	C	>80"	>80"
OAKLET SILTY CLAY LOAM, 8-15% SLOPES, VERY ROCKY	OkC	C	>80"	>80"
OAKLET-ROCK OUTCROP COMPLEX, 3-8% SLOPES	OrB	C	>80"	>80"
OAKLET-ROCK OUTCROP COMPLEX, 8-15% SLOPES	OrC	C	>80"	>80"
WATER	W			
WEIKERT-BERKS CHANNERY SILT LOAMS, 15-25% SLOPES	WbD	D	10"-20"	>80"
WHARTON-CLEARBROOK CHANNERY SILT LOAMS, 15-25% SLOPES	WhB	C/D	51"-72"	18"-30"

NOTES:

- SOILS INFORMATION PROVIDED BY THE USDA SOIL SURVEY OF JEFFERSON COUNTY, WEST VIRGINIA.

VI. POTENTIAL EROSION PROBLEM AREAS:

PER THE SOILS DATA SHOWN ABOVE, THE EXISTING SOILS LOCATED ONSITE HAVE A MODERATE-SLIGHT ERODABILITY POTENTIAL.

VII. EROSION AND SEDIMENT CONTROL ELEMENTS:

UNLESS OTHERWISE NOTED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE WEST VIRGINIA EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL AND APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

1. MARK CLEARING LIMITS:

PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES, CLEARLY MARK ALL CLEARING LIMITS, SENSITIVE AREAS AND THEIR BUFFERS, AND TREES THAT ARE TO BE PRESERVED WITHIN THE CONSTRUCTION AREA. PLASTIC, METAL, OR STAKE WIRE FENCE MAY BE USED TO MARK CLEARING LIMITS. SAFETY FENCE SHOULD BE INSTALLED TO PREVENT PUBLIC ACCESS TO POTENTIALLY HAZARDOUS AREAS OF THE SITE AND TO PREVENT ACCESS TO EROSION AND SEDIMENT CONTROL MEASURES.

2. ESTABLISH CONSTRUCTION ACCESS:

ALL CONSTRUCTION VEHICLES ENTERING THE RUSSELL WAY TRAILER PARK SHALL UTILIZE THE WEST GRAVEL ENTRANCE. ALL WORK OUTSIDE OF THE RUSSELL WAY TRAILER PARK IS TO TAKE PLACE WITHIN THE WDOOH RIGHT-OF-WAY.

3. INSTALL SEDIMENT CONTROLS:

THE DUFF LAYER, NATIVE TOPSOIL, AND NATURAL VEGETATION SHALL REMAIN IN AN UNDISTURBED STATE TO THE MAXIMUM EXTENT PRACTICABLE. PRIOR TO LEAVING THE CONSTRUCTION SITE, SURFACE RUNOFF FROM DISTURBED AREAS SHALL PASS THROUGH AN APPROPRIATE SEDIMENT CONTROL MEASURE. BMP'S INTENDED TO TRAP SEDIMENT ON SITE SHALL BE CONSTRUCTED AS ONE OF THE FIRST STEPS IN GRADING. THESE BMP'S SHALL BE FUNCTIONAL PRIOR TO LAND DISTURBING ACTIVITIES TAKING PLACE. EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS SHALL BE SEEDED AND MULCHED AS PER TEMPORARY AND PERMANENT SOIL STABILIZATION MEASURES.

SILT FENCE:

SILT FENCE SHALL BE INSTALLED ALONG THE DOWN-SLOPE SIDES OF DISTURBED AREAS TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT DURING CONSTRUCTION OPERATIONS IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE.

4. STABILIZE SOILS:

THE GENERAL PERMIT REQUIRES THAT:

- STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOUR (4) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED.
- APPLICABLE PRACTICES INCLUDE, BUT ARE NOT LIMITED TO, TEMPORARY AND PERMANENT SEEDING, SODDING, MULCHING, EROSION CONTROL FABRICS AND MATTING, SURFACE ROUGHENING, SURFACE WATER CONTROL, AND DUST CONTROL.
- SELECTED SOIL STABILIZATION MEASURES SHALL BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND ESTIMATED DURATION OF USE.
- ALL SOIL STOCKPILES MUST BE STABILIZED AND PROTECTED WITH SEDIMENT TRAPPING MEASURES.
- LINEAR CONSTRUCTION ACTIVITIES SUCH AS RIGHT-OF-WAY AND EASEMENT CLEARING, ROADWAY DEVELOPMENT, PIPELINES, AND TRENCHING FOR UTILITIES, SHALL BE CONDUCTED TO MEET THE SOIL STABILIZATION TIMEFRAME REQUIREMENTS. CONTRACTORS SHALL INSTALL THE BEDDING MATERIALS, ROADBEDS, STRUCTURES, PIPELINES, OR UTILITIES AND RE-STABILIZE THE DISTURBED SOILS SO THAT THE FOUR (4) DAY REQUIREMENTS ARE MET.

TEMPORARY SEEDING:

TEMPORARY STABILIZATION SHALL BE INITIATED WITHIN FOUR (4) DAYS TO AREAS THAT WILL NOT BE RE-DISTURBED FOR MORE THAN FOURTEEN (14) DAYS. AREAS INCLUDE DENUDED AREAS, SOIL STOCKPILES, DIKES, DAMS, SIDES OF SEDIMENT BASINS, TEMPORARY ROAD BANKS, ETC.

PERMANENT SEEDING:

PERMANENT STABILIZATION SHALL BE INITIATED WITHIN FOUR (4) DAYS OF REACHING FINAL GRADE AND WITHIN FOUR (4) DAYS AFTER CONSTRUCTION HAS BEEN COMPLETED. AREAS INCLUDE DISTURBED AREAS WHERE PERMANENT, LONG-LIVED VEGETATIVE COVER IS NEEDED TO STABILIZE THE SOIL AND ROUGH-GRADED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR SIX MONTHS OR MORE.

MULCHING:

THE APPLICATION OF STRAW, HAY OR OTHER SUITABLE MATERIALS TO THE SOIL SURFACE TO PREVENT EROSION BY PROTECTING THE SOIL SURFACE FROM RAINDROP IMPACT AND REDUCING THE VELOCITY OF OVERLAND FLOW. AREAS THAT HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHOULD BE MULCHED IMMEDIATELY FOLLOWING SEEDING. AREAS THAT CANNOT BE SEEDED BECAUSE OF THE SEASON SHOULD BE MULCHED TO PROVIDE SOME PROTECTION TO THE SOIL SURFACE.

TOPSOILING:

TOPSOILING IS THE SPREADING OF TOPSOIL OF A SUITABLE QUALITY OVER AN AREA TO BE STABILIZED BY ESTABLISHING VEGETATION. IF TOPSOIL IS TO BE STOCKPILED AT SITE, IT SHALL BE IN A LOCATION THAT WILL NOTE ERODE, BLOCK DRAINAGE, OR INTERFERE WITH WORK ON THE SITE. ALL SOIL STOCKPILES SHALL BE STABILIZED BY TEMPORARY SEEDING AND MULCHING AND PROTECTED WITH SEDIMENT TRAPPING MEASURES. TOPSOIL SHALL BE SPREAD AT A LIGHTLY COMPACTED DEPTH OF 2 TO 4 INCHES. 4 INCHES OR GREATER IS RECOMMENDED FOR AREAS WHERE FINE-TEXTURED (CLAYEY) SUBSOIL OR OTHER ROOT LIMITING FACTORS ARE PRESENT.

6. PROTECT STORM DRAIN INLETS:

STORM DRAIN INLETS OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SURFACE WATER RUNOFF DOES NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR TREATED TO REMOVE SEDIMENT. INLET PROTECTION SHALL BE PLACED ON ALL STORM INLETS TO PROTECT AGAINST SEDIMENT-LADEN RUNOFF ENTERING THE SYSTEM AT THE INLETS.

CULVERT INLET PROTECTION:

CULVERT INLET PROTECTION SHALL BE PLACED ON ALL STORM CULVERT INLETS TO PREVENT SEDIMENT FROM ENTERING, ACCUMULATING IN, AND BEING TRANSFERRED BY THE CULVERT AND ASSOCIATED DRAINAGE SYSTEM. CULVERT INLET PROTECTION MAY ALSO PROVIDE EROSION CONTROL AT STORM CULVERT INLETS DURING THE PHASE OF A PROJECT WHERE ELEVATION AND DRAINAGE PATTERNS CHANGE, CHANGING ORIGINAL CONTROL MEASURES TO BE INEFFECTIVE OR IN NEED OF REMOVAL.

7. CONVEY STORMWATER IN A NON-EROSIVE MANNER:

POINTS OF DISCHARGE AND RECEIVING STREAMS SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VOLUME, VELOCITY, AND PEAK FLOW RATE OF SURFACE WATER RUNOFF FROM THE PROJECT SITE. ALL STORMWATER CONVEYANCE CHANNELS SHALL BE STABILIZED FOR EXPECTED FLOWS.

OUTLET PROTECTION:

OUTLET PROTECTION SHALL BE INSTALLED AT ALL CULVERT OUTLETS OF ALL TYPES, PIPE CONDUITS FROM ALL SEDIMENT BASINS, SWM PONDS, AND NEW CHANNELS CONSTRUCTED AS OUTLETS FOR CULVERTS AND CONDUITS. OUTLET PROTECTION SHALL BE PROVIDED IN THE FORM OF A RIP-RAP-LINED APRON CONSTRUCTED AT A ZERO OR MINIMUM SLOPE TO SLOW THE OUTLET VELOCITY AND ADEQUATELY PROTECT SOILS FROM SCOUR BY REDUCING FLOW.

8. CONTROL OTHER POLLUTANTS:

ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS, THAT OCCUR ON SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF SURFACE OR GROUND WATER. WOODY DEBRIS MAY BE CHOPPED AND SPREAD ON SITE. COVER, CONTAINMENT, AND PROTECTION FROM VANDALISM SHALL BE PROVIDED FOR ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCTS, AND NON-HERT WASTES PRESENT ON SITE. ALL MATERIALS USED ON THE SITE SHALL BE PROPERLY STORED, HANDLED, DISPENSED AND DISPOSED OF FOLLOWING ALL APPLICABLE LABEL DIRECTIONS. FLAMMABLE AND COMBUSTIBLE LIQUIDS SHALL BE STORED AND HANDLED ACCORDING TO APPLICABLE REGULATIONS, AND, AT A MINIMUM, ACCORDING TO OSHA STANDARDS 29 CFR 1926.152. ONLY APPROVED CONTAINERS AND PORTABLE TANKS SHALL BE USED FOR STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.

- MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, SOLVENT AND DE-GREASING CLEANING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER ACTIVITIES WHICH MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS TO THE GROUND OR INTO SURFACE WATER RUNOFF MUST BE CONDUCTED USING SPILL PREVENTION MEASURES. SUCH AS DRIP PANS. CONTAMINATED SURFACES SHALL BE CLEANED IMMEDIATELY FOLLOWING ANY DISCHARGE OR SPILL INCIDENT.

- WHEEL WASH OR TIRE BATH WASTEWATER SHALL BE DISCHARGED TO A SEPARATE ON-SITE TREATMENT SYSTEM OR TO THE SANITARY SEWER.

- APPLICATION OF AGRICULTURAL CHEMICALS INCLUDING FERTILIZERS AND PESTICIDES SHALL BE CONDUCTED IN A MANNER AND AT APPLICATION RATES THAT WILL NOT RESULT IN LOSS OF CHEMICAL TO SURFACE WATER RUNOFF. MANUFACTURERS RECOMMENDATIONS FOR APPLICATION RATES AND PROCEDURES SHALL BE FOLLOWED.

- IN THE EVENT OF AN ACCIDENTAL SPILL, IMMEDIATE ACTION SHALL BE TAKEN BY THE CONTRACTOR TO CONTAIN AND REMOVE THE SPILLED MATERIAL. THE SPILL SHALL BE REPORTED TO THE APPROPRIATE AGENCIES IN THE REQUIRED TIME FRAMES, AS REQUIRED UNDER PROVISIONS OF THE CLEAN WATER ACT, ANY SPILL OR DISCHARGE ENTERING WATERS OF THE UNITED STATES SHALL BE PROPERLY REPORTED.

9. CONTROL DEWATERING:

FOUNDATION, VAULT, AND UTILITY TRENCH DEWATERING WATER SHALL BE DISCHARGED INTO A CONTROLLED CONVEYANCE SYSTEM PRIOR TO DISCHARGE TO A SEDIMENT POND. CHANNELS RECEIVING THE DISCHARGED WATER MUST BE STABILIZED. HIGHLY TURBID OR CONTAMINATED WATER FROM CONSTRUCTION EQUIPMENT OPERATIONS, WORK INSIDE A COFFERDAM, SHALL BE HANDLED SEPARATELY FROM SURFACE WATER. IF DEWATERING IS REQUIRED FOR SMALL VOLUMES OF LOCALIZED DEWATERING ON THIS SITE, A PUMP AND DEWATERING FILTER BAG SHALL BE UTILIZED. THE FILTER BAG SHALL DISCHARGE TO A DITCH OR SWALE WITH A WELL ESTABLISHED VEGETATIVE AREA.

10. MAINTAIN BMP'S:

TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMP'S SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. MAINTENANCE AND REPAIR SHALL BE CONDUCTED IN ACCORDANCE WITH THE BMP'S. AT A MINIMUM, ALL SEDIMENT CONTROL BMP'S SHALL BE INSPECTED AT LEAST ONCE EVERY FOUR (4) CALENDAR DAYS AND WITHIN 24 HOURS OF THE OCCURRENCE OF A PRECIPITATION EVENT OF 0.25 INCHES OR GREATER, OR THE OCCURRENCE OF RUNOFF FROM SNOWMELT SUFFICIENT TO CAUSE A DISCHARGE. TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMP'S ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL RESULTING FROM THE REMOVAL OF BMP'S OR VEGETATION SHALL BE PERMANENTLY STABILIZED.

11. MANAGE THE PROJECT:

A SEQUENCE OF CONSTRUCTION HAS BEEN PROVIDED ON THIS SHEET TO DESCRIBE AN OVERALL CONSTRUCTION SEQUENCE AS IT RELATES TO EROSION AND SEDIMENT CONTROL. BMP'S AND CONSTRUCTION OF VARIOUS ELEMENTS OF THE PROJECT. IN GENERAL, THE PROJECT IS TO BEGIN CONSTRUCTION IN JANUARY 2026 AND END APPROXIMATELY IN JANUARY 2027. THE CONTRACTOR IS RESPONSIBLE FOR THE DETAILS OF THE DAY TO DAY OPERATIONS.

- THE PRIMARY PROJECT MANAGER SHALL EVALUATE, WITH INPUT FROM UTILITIES AND OTHER CONTRACTORS, THE SURFACE WATER MANAGEMENT REQUIREMENTS FOR THE ENTIRE PROJECT, INCLUDING THE UTILITIES. WHEN PREPARING THE SEDIMENT CONTROL PLAN, ALL BMP'S SHALL BE INSPECTED, MAINTAINED, AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. WHENEVER INSPECTION AND/OR MONITORING REVEALS THAT THE BMP'S IDENTIFIED IN THE SEDIMENT CONTROL PLAN ARE INADEQUATE, THE SEDIMENT CONTROL PLAN SHALL BE MODIFIED, AS APPROPRIATE, IN A TIMELY MANNER.

- CONTRACTOR SHALL REPORT SPILLAGE OR DISCHARGE OF POLLUTANTS WITHIN 24 HOURS. THE SEDIMENT CONTROL PLAN SHALL BE RETAINED ON SITE. THE SEDIMENT CONTROL PLAN SHALL BE MODIFIED WHENEVER THERE IS A SIGNIFICANT CHANGE IN THE DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE OF ANY BMP. THE WDOEP MUST BE NOTIFIED OF ANY CHANGES TO THE CONSTRUCTION SWPP.

12. STABILIZATION:

THE CONSTRUCTION SITE SHOULD BE STABILIZED AS SOON AS POSSIBLE AFTER COMPLETION. ESTABLISHMENT OF FINAL COVER MUST BE INITIATED WITHIN FOUR (4) DAYS AFTER REACHING FINAL GRADE. A NOTICE OF TERMINATION MUST BE FILED WITH THE WDOEP WHEN THE SITE REACHES FINAL STABILIZATION. FINAL STABILIZATION MEANS THAT ALL SOIL-DISTURBING ACTIVITIES ARE COMPLETED, AND THAT EITHER A PERMANENT VEGETATIVE COVER OF 70% OR GREATER HAS BEEN ESTABLISHED OR THAT THE SURFACE HAS BEEN STABILIZED BY HARD COVER SUCH AS PAVEMENT OR BUILDINGS. (THE 70% REQUIREMENT REFERS TO THE TOTAL VEGETATED AREA AND NOT JUST A PERCENT OF THE SITE).

VIII. EROSION AND SEDIMENT CONTROL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE WEST VIRGINIA EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL AND APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
2. AREAS OF DEVELOPMENT SHALL BE PLANNED IN PHASES AND STAGES IN ORDER TO PREVENT THE TRANSPORT OF SEDIMENT FROM THE DEVELOPMENT SITE DURING CONSTRUCTION AND MINIMIZE EXPOSURE TO DISTURBED GROUND. RE-VEGETATION OF EXPOSED AREAS AND THE MAINTENANCE OF THAT VEGETATION SHALL BE AN INTEGRAL PART OF THE CLEARING ACTIVITIES FOR ANY PHASE.
3. NO DISTURBED AREA IS TO REMAIN DENUDED FOR MORE THAN FOUR (4) DAYS EXCEPT FOR MATERIAL STORAGE AREAS OR FOR THOSE AREAS ON WHICH ACTUAL CONSTRUCTION ACTIVITIES ARE CURRENTLY BEING PERFORMED UNLESS AUTHORIZED BY JEFFERSON COUNTY AND/OR THE EASTERN PANHANDLE CONSERVATION DISTRICT.
4. ALL SOIL STOCKPILES SHALL BE STABILIZED BY TEMPORARY SEEDING AND MULCHING AND PROTECTED WITH PERIMETER SEDIMENT CONTROLS SUCH AS SILT FENCE TO PREVENT CONSTRUCTION WITH STORMWATER RUNOFF. ALL STOCKPILES MUST BE LOCATED OUTSIDE OF ANY VEGETATED BUFFER AREAS AND SHOULD BE LOCATED AS FAR AS PRACTICABLE FROM STORMWATER CONVEYANCE SYSTEMS AND WATER BODIES.
5. ALL SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING SITE GRADING OPERATIONS TO REDUCE RUNOFF VELOCITIES AND EROSION. TEMPORARY AND/OR PERMANENT STABILIZATION MEASURES SHALL BE APPLIED TO ALL SLOPES AS SPECIFIED IN THE SOIL STABILIZATION MEASURES.
6. DURING CONSTRUCTION, PROTECT ALL FILLS SO THAT RUNOFF DOES NOT GO DOWN THE FACE OF THE HILL. UTILIZE BERMS, TEMPORARY SLOPE DRAINS, OR OTHER METHODS TO DIVERT RUNOFF AWAY FROM THE FILL AND INTO A SEDIMENT TRAPPING STRUCTURE. AS MORE FILL IS ADDED, SLOPE THE TOP (OR BERM IT) TO DIRECT WATER AWAY FROM THE SLOPE AND TO A STABLE CONVEYANCE SYSTEM. SEED & MULCH EVERY FOUR (4) DAYS OR 15' OF FILL.
7. NO OFF-SITE SOURCE OF BORROW MATERIALS IS ANTICIPATED FOR THIS PROJECT. IN THE EVENT THAT AN OFF-SITE SOURCE OF BORROW MATERIALS IS USED, AN EROSION AND SEDIMENT CONTROL PLAN SHALL BE PROVIDED FOR THE BORROW PIT AND THE BORROW PIT SHALL MEET ALL APPLICABLE REQUIREMENTS AND PERMITS OF THE WDOEP.
8. DUE TO GRADE CHANGES DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (I.E. SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE OFF-SITE.

IX. SOIL STABILIZATION:

EXCEPT AS NOTED BELOW, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOUR (4) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED OR FOUR (4) DAYS FOR SITES REQUIRED TO USE ENHANCED BMP'S.

- WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 4TH DAY, AS APPLICABLE AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY NATURAL CAUSES, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS CONDITIONS ALLOW.

- WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN ACTIVITIES CEASED, (E.G. THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY HALTED IS LESS THAN 14 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE 4TH DAY AFTER CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED.

- AREAS WHERE SEED HAS FAILED TO GERMINATE ADEQUATELY (UNIFORM PERENNIAL VEGETATIVE COVER OF 70% OR GREATER) WITHIN 30 DAYS AFTER SEEDING AND MULCHING MUST BE RE-SEEDED IMMEDIATELY, OR AS SOON AS WEATHER CONDITIONS ALLOW.

TEMPORARY STABILIZATION:

SEED MIXTURES OF TEMPORARY SEED MIXTURE SHALL DEPEND ON THE TIME OF YEAR DURING APPLICATION. SELECT PLANTS APPROPRIATE TO THE SEASON AND SITE CONDITIONS. REFER TO TABLE 3.10.1 TEMPORARY SEEDINGS OF THE WEST VIRGINIA EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL FOR A LIST OF COVER PLANTS, APPROVED PLANTING DATES, AND APPLICATION RATES.

PERMANENT STABILIZATION:

SEED MIXTURES INCLUDE THE FOLLOWING:

COMMON NAME	APPLICATION RATE	PREFERRED PLANTING DATES
KENTUCKY 31 FESCUE	45 LBS./ACRE	3/1-6/15 & 8/15-9/15
RED FESCUE	20 LBS./ACRE	3/1-6/15 & 8/15-9/15
KENTUCKY BLUEGRASS	25 LBS./ACRE	3/1-6/15 & 8/15-9/15
WHITE DUTCH CLOVER	5 LBS./ACRE	3/1-6/15 & 8/15-9/15
FERTILIZER: DETERMINED BY SOIL TEST		
LIME: 90 LBS./1,000 SQ. FT. PULVERIZED AGRICULTURAL GRADE LIMESTONE		
MULCH: 70-90 LBS./1,000 SQ. FT. STRAW OR HAY MULCH		

ALTERNATIVE SEED MIXTURES MAY BE SUBSTITUTED AS APPROVED BY INTEGRITY FEDERAL SERVICES. SELECT PLANTS APPROPRIATE TO THE SEASON AND SITE CONDITIONS. REFER TO TABLE 3.11.1 PERMANENT SEEDING OF THE WEST VIRGINIA EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL FOR A LIST OF COVER PLANTS APPROVED PLANTING DATES, AND APPLICATION RATES.

X. UNDERGROUND UTILITY LINE INSTALLATION:

1. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
2. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES, CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS. WHERE UTILITY EXCAVATION OCCURS ADJACENT TO / WITHIN PAVED ROADS, EXCAVATED MATERIAL SHALL BE LOADED INTO TRUCKS.
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. ALL TRENCHES SHALL BE SEEDED AND MULCHED WITHIN 4 DAYS AFTER BACKFILLING.
6. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

XI. SEQUENCE OF CONSTRUCTION:

- PHASE I:

PHASE I OPERATIONS SHALL INCLUDE EROSION CONTROL MEASURES NEEDED TO DIVERT MAJOR OFF-SITE CLEAN WATER AND ON-SITE DRAINAGE FLOWS AROUND THE WORK AREAS AND CONTROL EROSION AND SEDIMENTATION ASSOCIATED WITH INITIAL CLEARING AND GRADING OPERATIONS.

1. CONTACT WEST VIRGINIA MISS UTILITY AT 800-245-4848, AT LEAST THREE WORKING DAYS PRIOR TO BEGINNING WORK. LOCATE ALL UTILITIES.
2. CONTACT JEFFERSON COUNTY ENGINEERING AT 304-728-3257 AT LEAST FIVE WORKING DAYS PRIOR TO BEGINNING WORK.
3. WITHIN 72 HOURS OF FILING AN APPLICATION WITH THE WDOEP DIVISION OF WATER AND WASTE MANAGEMENT (DWWM), INSTALL PUBLIC NOTICE SIGN NEAR THE ENTRANCE OF THE PROJECT OR NEAR AN OTHER PART OF THE CONSTRUCTION PROJECT, THAT IS ACCESSIBLE BY THE PUBLIC. THE PUBLIC NOTICE SIGN MUST REMAIN DISPLAYED FOR THE DURATION OF THE PROJECT. (SEE PUBLIC NOTICE SIGN DETAIL, SHEET 15).
4. STAKE/FLAG LIMITS OF CONSTRUCTION, SENSITIVE AREAS, AND TREES THAT ARE TO BE PRESERVED. LIMITS OF CONSTRUCTION MUST REMAIN MARKED THROUGHOUT THE ENTIRE SITE DEVELOPMENT.
5. INSTALL TEMPORARY STABILIZED CONSTRUCTION ENTRANCE AND ESTABLISH A PROTECTED STAGING AND EQUIPMENT PARKING AREA.
6. CLEAR AND GRUB AREAS FOR THE INSTALLATION OF PERIMETER CONTROLS. ONLY THE MINIMUM AREAS NECESSARY TO INSTALL PERIMETER EROSION CONTROL MEASURES SHALL BE CLEARED AND GRUBBED.
7. INSTALL PERIMETER CONTROLS SUCH AS SILT FENCE, STABILIZE ALL EROSION AND SEDIMENT CONTROL MEASURES IMMEDIATELY AFTER INSTALLATION. STABILIZE AREAS BETWEEN PERIMETER SEDIMENT CONTROL MEASURES AND THE LIMITS OF CONSTRUCTION.
8. CLEAR AND GRUB THE REMAINDER OF THE SITE. ALL UNSUITABLE MATERIAL (LOGS, BRUSH, VEGETATIVE MATTER, ETC.) WHICH WILL INTERFERE WITH THE GRADING AND/OR STABILITY OF FILL AREAS SHALL BE REMOVED AND/OR DISPOSED OF PROPERLY. PHASE CLEARING AND GRUBBING TO THE EXTENT POSSIBLE TO MINIMIZE THE AMOUNT OF DISTURBED AREA AT ANY POINT IN TIME.
9. ESTABLISH SOIL STOCKPILES AND PROTECT WITH SILT FENCE. STRIP AND STOCKPILE TOPSOIL TO USE IN THE FINISH GRADING OPERATIONS. STOCKPILES SHALL BE SEEDED AND MULCHED IF THEY ARE TO REMAIN UNDISTURBED FOR 14 DAYS OR LONGER.

- PHASE II:

THE PHASE II EROSION AND SEDIMENT CONTROL MEASURES ARE INTENDED FOR THE FINAL STAGES OF SITE DEVELOPMENT. PHASE I CONTROL MEASURES, WHICH ARE NOT IN CONFLICT WITH FINAL CONSTRUCTION AND PROVIDE EFFECTIVE CONTROL, SHALL REMAIN IN PLACE FOR FINAL DEVELOPMENT. THE CONTRACTOR SHALL FOLLOW THE COUNTY ENGINEERING DEPARTMENT'S DIRECTION IN PROVIDING ADDITIONAL CONTROL MEASURES NEEDED DURING THE DEVELOPMENT PROCESS, TO ENSURE THAT SEDIMENT IS PREVENTED FROM POLLUTING OFF-SITE AREAS, STREAMS AND/OR PROTECTED ON-SITE AREAS. THE FOLLOWING SEQUENCE OF CONSTRUCTION IS SUGGESTED.

1. THROUGHOUT CONSTRUCTION, INITIATE TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY FOLLOWING THE COMPLETION OF THE MOST RECENT LAND DISTURBING ACTIVITY. DISTURBED AREAS SHALL BE SEEDED AND MULCHED IF THEY ARE TO REMAIN UNDISTURBED FOR 14 DAYS OR LONGER. COMPLETION MUST BE WITHIN 7 DAYS.
2. INSTALL WATER LINE
3. INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED THROUGHOUT CONSTRUCTION.
4. FINAL GRADE ALL AREAS OF THE SITE LEAVING SEDIMENT CONTROLS IN PLACE AS NEEDED. SPREAD TOPSOIL OVER AREAS TO BE SEEDED.
5. PERMANENTLY STABILIZE ALL AREAS NOT COVERED BY HARD COVER SUCH AS PAVEMENT OR BUILDINGS.
6. RESURFACE ROAD WHERE DICTATED ON PLANS.
7. OBTAIN JEFFERSON COUNTY ENGINEERING APPROVAL PRIOR TO THE REMOVAL OF ANY EROSION AND SEDIMENT CONTROLS. NO EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED UNTIL ALL UP-SLOPE AREAS THAT DRAIN TO THEM HAVE BEEN STABILIZED.
8. REMOVE REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S. STABILIZE ANY AREAS DISTURBED BY THE REMOVAL OF TEMPORARY BMP'S.
9. CONTRACTOR SHALL CONTACT WDOEP TO FILE A NOTICE OF TERMINATION (NOT) OF THE NPDES PERMIT.

XII. MAINTENANCE PROGRAM:

1. AT A MINIMUM, INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS ARE TO BE CONDUCTED ONCE EVERY FOUR (4) CALENDAR DAYS AND WITHIN 24 HOURS OF THE OCCURRENCE OF A PRECIPITATION EVENT OF 0.25 INCHES OR GREATER, OR THE OCCURRENCE OF RUNOFF FROM SNOWMELT SUFFICIENT TO CAUSE A DISCHARGE, BY THE SITE SUPERINTENDENT OR HIS REPRESENTATIVE. REPAIRS OR MAINTENANCE TO BMP'S SHALL BE PERFORMED WITHIN 24 HOURS, HOWEVER, PERMITTEES MUST IMPLEMENT ALTERNATE BMP'S DURING STORM EVENTS WHILE AWAITING REPAIR OF THE PRIMARY BMP.
2. TO DETERMINE IF A PRECIPITATION EVENT OF 0.25 INCHES OR GREATER HAS OCCURRED, THE APPLICANT MUST EITHER KEEP A PROPERLY MAINTAINED RAIN GAUGE ON THE SITE OR OBTAIN THE PRECIPITATION EVENT INFORMATION FROM A NATIONAL OCEANIC ATMOSPHERIC ADMINISTRATION (NOAA) WEATHER STATION THAT IS REPRESENTATIVE OF THE PROJECT LOCATION.
3. SILT FENCING AND SUPER SILT FENCING SHOULD BE CLEANED AT 50% CAPACITY AND SPREAD ON SITE WHERE PRACTICAL. SEDIMENT REMOVAL SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE AND CAUSE SEDIMENTATION PROBLEMS.
4. EROSION AND SEDIMENT CONTROL STRUCTURES SHALL NOT BE REMOVED UNTIL ALL AREAS ABOVE THEM HAVE BEEN STABILIZED AND SEEDED AREAS ESTABLISHED. NO CONTROL SHALL BE REMOVED WITHOUT APPROVAL FROM JEFFERSON COUNTY ENGINEERING.
5. DEVICES SHOWN ARE TO BE CONSIDERED MINIMUM EROSION AND SEDIMENTATION CONTROLS. ADDITIONAL CONTROLS MAY BE NECESSARY DUE TO CONTRACTOR'S PHASING OR OTHER UNANTICIPATED CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADDITIONAL DEVICES AS NECESSARY IN ORDER TO CONTROL EROSION AND SEDIMENTATION.
6. THE CONTRACTOR IS TO PROVIDE ADEQUATE MEANS OF CLEANING AND REMOVING ALL LAYING DUST AS NECESSARY BY APPLYING EITHER MOISTURE, CALCIUM CHLORIDE, OR OTHER APPROVED MATERIALS ALONG THOSE SECTIONS OF THE PROJECT ADJACENT TO EXISTING DWELLINGS OR PUBLIC ACCESS.
7. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH WORKING DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO STOCKPILE AREAS. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED AS MUCH AS POSSIBLE BY SHOVELING OR SWEEPING.
8. AREAS WHERE SEED HAS FAILED TO GERMINATE ADEQUATELY (UNIFORM PERENNIAL VEGETATIVE COVER OF 70% OR GREATER) WITHIN 30 DAYS AFTER SEEDING AND MULCHING MUST BE RE-SEEDED IMMEDIATELY, OR AS SOON AS WEATHER CONDITIONS ALLOW.
9. FOR THIS PROJECT, THE APPLICANT WILL OBTAIN THE PRECIPITATION EVENT INFORMATION FROM A NOAA WEATHER STATION. THE NEAREST NOAA WEATHER STATION IS AS FOLLOWS:

WEATHER STATION NAME: KEARNEYSVILLE, WEST VIRGINIA

SITE ID: 46-4763

LATITUDE: 39.3568°

LONGITUDE: -77.8633°

ELEVATION: 571.25 FT.

JEFFERSON COUNTY EROSION & SEDIMENT CONTROL NOTES:

1. ANY AREA OF EXPOSED SOIL WHERE NO CONSTRUCTION IS ANTICIPATED FOR A PERIOD OF LONGER THAN THREE WEEKS OR WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR THREE WEEKS SHALL BE TEMPORARILY STABILIZED.
2. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT STABILIZATION SHALL BE COMPLETED WITHIN FOUR (4) CALENDAR DAYS AFTER COMPLETION OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND FOUR (4) CALENDAR DAYS AFTER REACHING FINAL GRADE FOR ALL OTHER DISTURBED OR GRADED AREAS.
 - THESE PROVISIONS DO NOT APPLY TO THOSE AREAS THAT ARE SHOWN ON THE PLAN FOR MATERIAL STORAGE OR FOR THOSE AREAS ON WHICH ACTUAL CONSTRUCTION ACTIVITIES ARE CURRENTLY BEING PERFORMED.
 - THESE TIME REQUIREMENTS MAY BE EXTENDED AS DEEMED NECESSARY BY THE JEFFERSON COUNTY ENGINEER IN THE EVENT THAT ADVERSE CONDITIONS PREVENT COMPLIANCE WITH THE STATED TIME LIMITATIONS FOR THE COMPLETION OF PERMANENT OR TEMPORARY STABILIZATION.
3. STABILIZATION WILL BE CONSIDERED ADEQUATE WHEN THE FOLLOWING CONDITIONS ARE MET:
 - A) WATER COURSES, STREAM BANKS, AND DRAINAGE EASEMENTS SHALL BE 100% STABILIZED AND FREE FROM EROSION AND DEPOSITION.
 - B) SLOPES STEEPER THAN 10% SHALL HAVE AT LEAST 98% STABLE GROUND COVER, AS DETERMINED BY THE JEFFERSON COUNTY ENGINEER.
 - C) ALL OTHER AREAS SHALL HAVE AT LEAST 85% STABLE GROUND COVER, AS DETERMINED BY THE JEFFERSON COUNTY ENGINE