#### LIST OF SHEETS

DESCRIPTION	
COVER SHEET	
SITE PLAN	
DETAILS (FIGURE 1 OF 4)	
DETAILS (FIGURE 2 OF 4)	
DETAILS (FIGURE 3 OF 4)	
DETAILS (FIGURE 4 OF 4)	

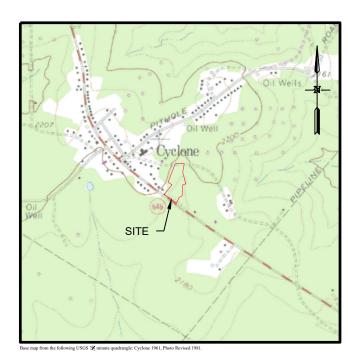
Degolia Corwins Corners 646 Prelitisva Rixford Prelitisva Rixford Rixf

VICINITY MAP

PREPARED FOR:

# Catalyst Energy, Inc.

CATALYST ENERGY, INC. 1112 S. BRADDOCK AVE, SUIT 201 PITTSBURGH, PA 15218 PHONE: 412-325-4350



LOCATION MAP

#### PREPARED BY:



ARM Group Inc.

Engineers and Scientists
www.armgroup.net

### **HEADQUARTERS**:

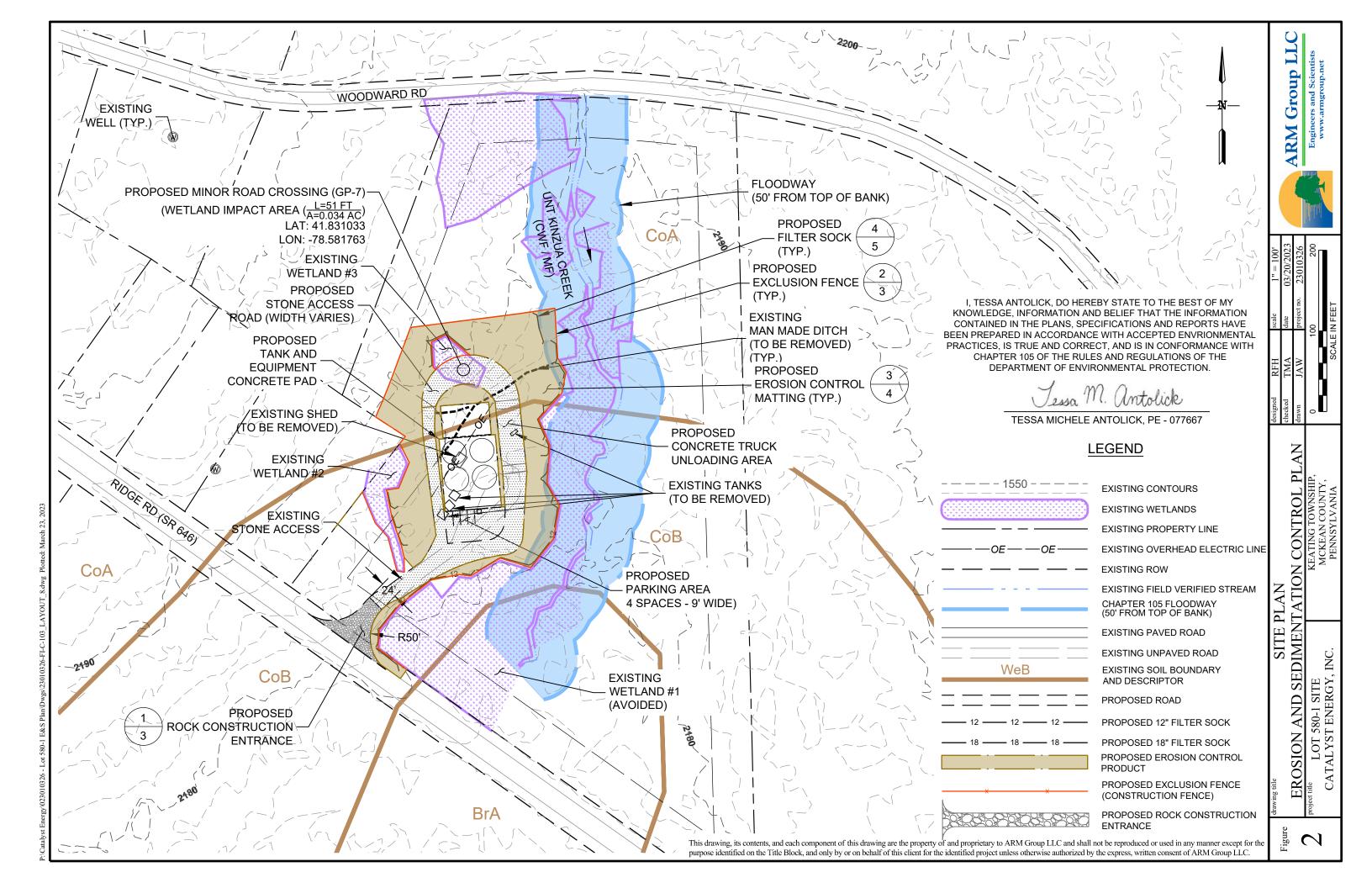
1129 West Governor Road • Hershey, PA 17033-0797 Ph: (717) 533-8600 Fax: (717) 533-8605

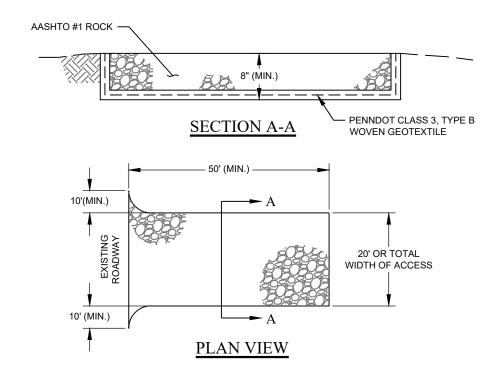
THIS DRAWING SET WAS ORIGINALLY PRODUCED IN COLOR. NON-COLOR REPRODUCTIONS DO NOT SUFFICIENTLY DIFFERENTIATE AMONG FEATURES DEPICTED IN THIS DRAWING SET

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COVER SHEET





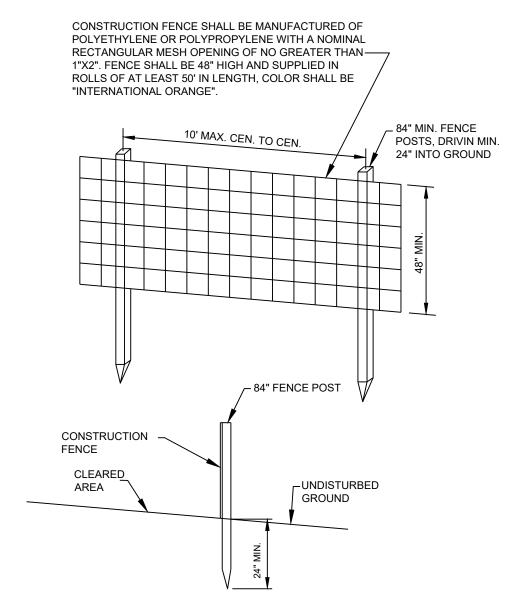
REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITS ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER COURSES IN NOT ACCEPTABLE.

WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.





THE CONTRACTOR SHALL INSTALL THE CONSTRUCTION FENCE IN LOCATIONS AS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS.

FENCE DESIRABLE WOODED AREAS, INDIVIDUAL TREES, AND SHRUBS DESIGNATED FOR PROTECTION, BEFORE BEGINNING OTHER GENERAL PROJECT WORK. WHERE DIRECTED, FENCE OTHER AREAS TO BE PROTECTED. DO NOT STOCKPILE MATERIALS UNDER, OR WITHIN, PROTECTED VEGETATION AREAS. PROHIBIT CONSTRUCTION TRAFFIC WITHIN PROTECTED AREAS. PLACE THE FENCE AT THE DRIPLINE OF TREES OR PLANTS, BUT AVOID CAUSING ROOT DAMAGE WHEN DRIVING POSTS. REPLACE DAMAGED FENCE IN KIND WITHIN 24 HOURS OF DAMAGE, AS DIRECTED. REMOVE TEMPORARY PROTECTION, WHEN DIRECTED.



EROSION

LOT 580-1 SITE CATALYST ENERGY,

1 OF 4)

DETAILS (FIGURE ID SEDIMENTATIC

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THIS SECTION SPECIFIES A HYDRAULICALLY-APPLIED, 100% BIODEGRADABLE, HIGH PERFORMANCE-FLEXIBLE GROWTH MEDIUM (HP-FGM) THAT IS MANUFACTURED IN THE UNITED STATES AND IS COMPOSED OF 100% RECYCLED THERMALLY REFINED (WITHIN A PRESSURE VESSEL) WOOD FIBERS, CRIMPED INTERLOCKING MAN-MADE BIODEGRADABLE FIBERS, MICRO-PORE GRANULES, NATURALLY DERIVED CROSSLINKED BIOPOLYMERS AND WATER ABSORBENTS. THE HP-FGM IS PHYTOSANITIZED, FREE FROM PLASTIC NETTING, REQUIRES NO CURING PERIOD AND UPON APPLICATION FORMS AN INTIMATE BOND WITH THE SOIL SURFACE TO CREATE A CONTINUOUS, POROUS, ABSORBENT AND FLEXIBLE EROSION RESISTANT BLANKET THAT ALLOWS FOR RAPID GERMINATION AND ACCELERATED PLANT GROWTH. ALL COMPONENTS OF THE FGM SHALL BE PRE-PACKAGED BY THE MANUFACTURER TO ASSURE BOTH MATERIAL PERFORMANCE AND COMPLIANCE WITH THE FOLLOWING VALUES. NO CHEMICAL ADDITIVES WITH THE EXCEPTION OF FERTILIZER, LIMING AND BIOSTIMULANT MATERIALS SHOULD BE ADDED TO THIS PRODUCT.

1. THERMALLY PROCESSED (WITHIN A PRESSURE VESSEL) WOOD FIBER - 80% ±3% - HEATED TO A TEMPERATURE GREATER THAN 380 DEGREES FAHRENHEIT (193 DEGREES CELSIUS) FOR 5 MINUTES AT A PRESSURE GREATER THAN 50 PSI (345 KPA) CROSSLINKED BIOPOLYMERS AND WATER ABSORBENTS - 10% ±1% CRIMPED, MAN-MADE BIODEGRADABLE INTERLOCKING FIBERS - 5% ±1% MICRO-PORE GRANULES - 5% ±1%

#### INSTALLATION

STRICTLY COMPLY WITH EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS. USE APPROVED HYDRO-SPRAYING MACHINES WITH FAN-TYPE NOZZLE (50-DEGREE TIP). TO ACHIEVE OPTIMUM SOIL SURFACE COVERAGE, APPLY HP-FGM FROM OPPOSING DIRECTIONS TO SOIL SURFACE. ROUGH SURFACES (ROCKY TERRAIN, CAT TRACKS AND RIPPED SOILS) MAY REQUIRE HIGHER APPLICATION RATES TO ACHIEVE 100% COVER. SLOPE INTERRUPTION DEVICES OR WATER DIVERSION TECHNIQUES ARE RECOMMENDED WHEN SLOPE LENGTHS EXCEED 100 FEET (30 M). MAXIMUM SLOPE LENGTH IS FOR PRODUCT APPLICATIONS ON A 3H:1V SLOPE FOR APPLICATION ON STEEPER SLOPES, SLOPE INTERRUPTION LENGTHS MAY NEED TO BE DECREASED BASED ON ACTUAL SITE CONDITIONS. NOT RECOMMENDED FOR CHANNELS OR AREAS WITH CONCENTRATED WATER FLOW. NO CHEMICAL ADDITIVES WITH THE EXCEPTION OF FERTILIZER, LIMING AND BIOSTIMULANT MATERIALS SHOULD BE ADDED TO THIS PRODUCT: TO ENSURE PROPER APPLICATION RATES, MEASURE AND STAKE AREA. FOR MAXIMUM PERFORMANCE, APPLY HP-FGM IN A TWO-STEP PROCESS AS FOLLOWS:

- 1. STEP ONE: APPLY FERTILIZER WITH SPECIFIED PRESCRIPTIVE AGRONOMIC FORMULATIONS AND 50% OF SEED WITH A SMALL AMOUNT OF HP-FGM FOR VISUAL METERING.
- 2. STEP TWO: MIX BALANCE OF SEED AND APPLY HP-FGM AT A RATE OF 50 LB PER 125 GALLONS (23 KG/475 LITERS) OF WATER OVER FRESHLY SEEDED SURFACES. CONFIRM LOADING RATES WITH EQUIPMENT MANUFACTURER. DO NOT LEAVE SEEDED SURFACES UNPROTECTED, ESPECIALLY IF PRECIPITATION IS IMMINENT.

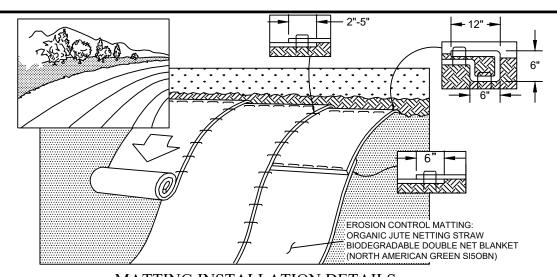


#### **APPLICATION RATES**

THESE APPLICATION RATES ARE FOR STANDARD CONDITIONS. DESIGNERS MAY WISH TO REDUCE RATES TO ENCOURAGE FASTER VEGETATION ESTABLISHMENT OR MAY NEED TO INCREASE APPLICATION RATES ON ROUGH SURFACES, CONSULT APPLICATION AND LOADING CHARTS TO DETERMINE NUMBER OF BAGS TO BE ADDED FOR DESIRED ARES AND APPLICATION RATE.

SLOPE GRADIENT / CONDITION	ENGLISH	SI
≤ 4H TO 1V	2,500 LB/AC	2,800 KG/HA
$>$ 4H TO 1V AND $\leq$ 3H TO 1V	3,000 LB/AC	3,400 KG/HA
> 3H TO 1V AND < 2H TO 1V	3,500 LB/AC	3,900 KG/HA
-> 2H TO 1V AND ≤ 1H TO 1V	4,000 LB/AC	4,500 KG/HA
> 1H TO 1V	4,500 LB/AC	5,100 KG/HA
BELOW ECB OR TRM	1,500 LB/AC	1,700 KG/HA
AS INFILL FOR TRM	3,500 LB/AC	3,900 KG/HA

FLEXTERRA HP-FGM EROSION CONTROL PRODUCT



# MATTING INSTALLATION DETAILS 0.7 STAPLES PER SQ. YD.

# NOTES:

# STAPLE PATTERN FOR 16' WIDE ROLLS

- 1. MATTING SHALL BE PLACED ON SLOPES 3H:1V OR STEEPER.
- 2. MATTING SHALL BE PLACED ALONG STREAM EMBANKMENTS AND SLOPES.
- 3. PREPARE SOIL BEFORE INSTALLING INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
- 4. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE MATTING IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF MATTING EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE MATTING WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF MATTING BACK OVER SEED AND COMPACTED SOIL. SECURE MATTING OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE MATTING
- 5. ROLL MATTING DOWN THE SLOPE. MATTING MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE ABOVE STAPLE PATTERN.
- 6. THE EDGES OF PARALLEL ROLLS MUST BE STAPLED WITH APPROXIMATELY 2" 5" OVERLAP. CONSECUTIVE ROLLS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE - WITH UPSLOPE MAT OVERLYING DOWNSLOPE MAT) WITH AN APPROXIMATE 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE WIDTH, NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE MATTING.
- 7. AS AN ALTERNATIVE TO ECM. A FLEXIBLE GROWTH MEDIUM (FGM) SHALL BE USED UNLESS SPECIFIED BY THE OWNER OR ENGINEER.



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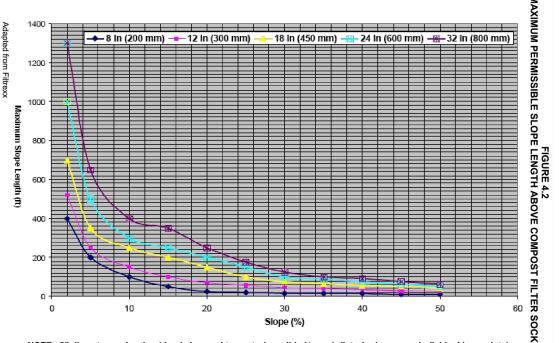
I FLOW DIRECTION			
COMPOST STANDARDS			
ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)		
ORGANIC PORTION	FIBROUS AND ELONGATED		
PH	5.5 - 8.5		
MOISTURE CONTENT	30% - 60%		
PARTICLE SIZE	30% - 50% PASS THROUGH 3/8" SIEVE		

5.0 DS/M (MMHOS/CM) MAXIMUM

SOLUBLE SALT CONCENTRATION

#### NOTES:

- FILTER SOCKS SHALL BE PLACED PARALLEL TO CONTOURS WITH BOTH ENDS OF THE SOCK EXTENDED UPSLOPE AT A 45 DEGREE ANGLE TO THE REST OF THE SOCK FOR A MINIMUM OF 8 FEET TO PREVENT END-AROUNDS. STAKES SHOULD BE PLACED THROUGH THE CENTER OF THE SOCK AT INTERVALS RECOMMENDED BY THE MANUFACTURER. WHERE SOCKS ARE PLACED ON PAVED SURFACES, CONCRETE BLOCKS SHOULD BE USED IMMEDIATELY DOWNSLOPE OF THE SOCKS TO HELP HOLD THE SOCK IN PLACE.
- PROPER SITE PREPARATION IS ESSENTIAL TO ENSURE COMPLETE CONTACT OF THE FILTER SOCK WITH THE SOIL.
- FILTER SOCKS SHALL BE FILLED WITH WELL-DECOMPOSED ORGANIC MATERIAL (TYPICALLY COMPOSTED WOOD MULCH) IN ACCORDANCE WITH THE COMPOST STANDARDS LISTED ABOVE.
- REMOVE ALL ROCKS, CLODS, VEGETATION, OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED FILTER SOCK WILL HAVE DIRECT CONTACT
- THE ENDS OF ADJACENT FILTER SOCK SHOULD BE TIGHTLY ABUTTED SO THAT NO OPENING EXISTS FOR WATER OR SEDIMENT TO PASS THROUGH. ALTERNATELY, FILTER SOCK MAY BE OVERLAPPED 6" MINIMUM TO PREVENT SEDIMENT PASSING THROUGH THE FIELD JOINT.
- WOODEN STAKES SHOULD BE USED TO SECURE THE FILTER SOCK TO THE SOIL AS ILLUSTRATED. WOODEN STAKES SHOULD BE PLACED 6" FROM THE FILTER SOCK END.
- CARE SHALL BE TAKEN DURING INSTALLATION SO AS TO AVOID DAMAGE OCCURRING TO THE FILTER SOCK AS A RESULT OF THE INSTALLATION PROCESS. SHOULD THE FILTER SOCK BE DAMAGED DURING INSTALLATION, A WOODEN STAKE SHALL BE PLACED ON EITHER SIDE OF THE DAMAGED AREA TERMINATING THE LOG SEGMENT
- FIELD MONITORING SHALL BE PERIODICALLY PERFORMED BY THE ENGINEER TO VERIFY THAT THE PLACEMENT DOES NOT DAMAGE THE FILTER SOCK. ANY FILTER SOCK DAMAGED DURING PLACEMENT SHALL BE REPLACED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE
- THE ANTICIPATED FUNCTIONAL LIFE OF A BIODEGRADABLE FILTER SOCK SHOULD BE 6 MONTHS; FOR PHOTODEGRADABLE SOCKS 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. PROJECTS WITH DISTURBANCES ANTICIPATED TO LAST LONGER THAN THE FUNCTIONAL LIFE OF A SOCK SHOULD PLAN TO REPLACE THE SOCKS PERIODICALLY OR USE
- 10. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
- 12. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
- WHERE THE LIMIT OF CLEARING / CONSTRUCTION AND FILTER SOCK ARE ADJACENT, PLACE THE SOCK ON THE EDGE OF LIMIT OF CLEARING / CONSTRUCTION



NOTE: 8" diameter socks should only be used to control small (≤ ¼ acre) disturbed areas on individual house lots).



ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REQULATIONS AT 25 PA. CODE \$280.1 ET ESCQ., 271.1 ET SEQ., AND \$287.1 ET SEQ. NO BUILDING MATERIAL OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURNED, DUMPED, OR DISCHARGED AT THE SITE

SURFACE-WATER RUNOFF FROM THE STOCKPILE AREAS SHALL TRAVEL AS SHEET FLOW. FILTER SOCK THAT WILL RECEIVE THE RUNOFF FROM THE STOCKPILE AREAS SHALL BE MONITORED PERIODICALLY TO VERIFY THAT DISCHARGES TO THE RECEIVING WATER

THE PERMIT COVERS THE "MOVING, DEPOSITING, STOCKPILING, OR STORING OF SOIL, ROCK, OR EARTH MATERIALS". IF THE SITE WILL NEED TO HAVE FILL IMPORTED FROM AN OFF SITE LOCATION, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND THE DETERMINATION OF CLEAN FILL WILL RESIDE WITH THE OPERATOR. IF THE SITE WILL HAVE EXCESS FILL THAT WILL NEED TO BE EXPORTED TO AN OFF SITE LOCATION, THE RESPONSIBILITY OF CLEAN FILL DETERMINATION AND ENVIRONMENTAL DUE DILIGENCE RESTS ON THE APPLICANT.

6.1. CLEAN FILL: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL. USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE A RECOGNIZABLE AS SUCH. THE TERM DOSE NOT INCLUDE MATERIALS PALCED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHOR (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)

6.1.1. FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENTS MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON PA CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT WHICHEVER IS A PULICIABLE.

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERT THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILE.

6.2. ENVIRONMENTAL DUE DILIGENCE: ACCEPTABLE INVESTIGATIVE TECHNIQUES INCLUDE, BUT ARE NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SOREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS WISLA INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCES. IF THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF A REGULATED SUBSTANCE. IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENTS POLICY "MANAGEMENT OF FILL".

FOR STRIP MINED AREAS, SOIL TESTING WILL BE DONE AT THE START OF EARTH DISTURBANCE ACTIVITIES TO DETERMINE THE FORMATION ACIDITY. IF IT IS FOUND THAT THE TOTAL SULFUR CONTENT EXCEEDS 0.5%, A LIME OSAGE WILL BE APPLIED AT A RATE ACCORDING TO DEP PUBLICATION 5600-FS-DEP4284. THE REQUIRED LIMING RATE WILL ALSO BE APPLIED WHEN THE STRE IS RECLAIMED.

#### STANDARD E&S PLAN NOTES

AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE EAS PLAN PREPARER, THE POSM PLAN PREPARER, AND THE UCRNSED PROFESSIONAL RESPONSIBLE FOR OWERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN

AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THE SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.

AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL

CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE EAS BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE OF THE PROJECT UNTIL THE EAS BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE OF THE PROJECT UNTIL THE EAS BMPS SPECIFIED BY THE BMP SEQUENCE.

AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.

TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWNINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 21-11/10 FE ALTER.

MMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPER SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE REGIONA

ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 280.1 ET. SEC., 271.1 AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURNED, DUMPED, OR BIOCHARGED AT THE SITE.

ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.

ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.

VEHICLES AND FOLIDMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM THE PROJECT SITE ONTO STATE OR MUNICIPAL ROADS

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING GLEAN OUT, REPAIR, REPLACEMENT, REGARDING, RESECIONS, GEMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE EAS BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE BY OWNER AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.

ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.

AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM OF 5 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MUM OF 2 INCHES OF TOPSOIL

ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE, OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR DEPLOYABLE OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR DEPLOYABLE OBJ

FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.

24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SUBSURFACE DRAINS OR OTHER APPROVED METHOD.

ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT. THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS

DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.

PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.

E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE DEPARTMENT.

AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST ZONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE ARDIN DEVEGETATION OF DISTURBED AREAS, SUCH REMOVAL CONVENSIONS ARE TO BE DOING ONLY DURING ERGIMINATION SEASON.

FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, ANDIOR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 802 OF THE PENNSYLVANA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT
THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE EAS BMPS.

#### CONSTRUCTION SEQUENCE

ALL EARTH DISTURBANCE ACTIVITIES WILL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. DEVIATION FROM THE ESCP MUST BE APPROVED IN WRITING FROM THE ENGINEER

AN ON-SITE PRE-CONSTRUCTION MEETING SHALL TAKE PLACE BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES (INCLUDING CLEARING AND GRUBBING), AND THE OWNER AND/OR OPERATOR WILL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES.

2. AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, NOTIFY ALL APPROPRIATE MUNICIPAL OFFICIALS, PADEP, AND THE PENNSYLVANIA FISH AND BOAT COMMISSION (IF REQUIRED BY PERMIT), OF THE INTENT TO BEGIN CONSTRUCTION.

AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM, INC. AT 1-800-242-1776 TO LOCATE EXISTING UNDERGROUND UTILITIES.

4. MARK THE PROJECT LIMITS OF DISTURBANCE.

1. INSTALL ORANGE EXCLUSION FENCING AROUND ADJACENT STREAMS, WETLANDS, AND OTHER SENSITIVE AREAS FOR PROTECTION.

2. INSTALL THE ROCK CONSTRUCTION ENTRANCE WITH WASH RACK, AND THE DOWN GRADIENT FILTER SOCKS AS SHOWN ON THE DRAWINGS NEAR THE ENTRANCE

3. FOR ALL CLEARING AND GRUBBING, LOGS ARE TO BE EITHER HAULED OFF-SITE OR GIVEN TO THE LANDOWNER UPON THEIR REQUEST (AND AT THE DIRECTION OF THE OWNER OR THEIR REPRESENTATIVE). STUMPS, LIMBS, SHRUBS, BRUSH ANDIOR SMALL LOGS SHALL BE GROUND, CHIPPED, WINDROWNED, ACHOR THE LIMIT OF DISTRIBUTION FOR INSTALLATION OF PERIMETER COMPOST FILTER SOCK (CFS).

4. CLEAR AND GRUB WITHIN DISTURBANCE LIMITS AND AS NEEDED TO INSTALL COMPOST FILTER SOCK DOWNSTREAM OF DISTURBED AREAS PRIOR TO COMMENCING TOPSOIL STRIPPING ACTIVITIES IN THOSE AREAS. TOPSOIL SHOULD NOT BE STRIPPED IN AN AREA UNTIL ALL DOWNGRADIENT CFS IS INSTALLED. STRIP TOPSOIL AND STOCKPILE AS CLEANING PROGRESSES.

5. CONSTRUCT THE ACCESS ROAD, TANK PAD, UNLOADING VEHICLE BAYS AND ASSOCIATED SITE FEATURES.

UPON REACHING FINISHED GRADES, SEED AND MULCH AS SPECIFIED ON THE DRAWINGS AND APPLY EROSION CONTROL PRODUCT AS SHOWN ON THE PLANS AND ANYWHERE
GRADE IS EQUAL TO OR GREATER THAN 3:1 AND ALL DISTURBED AREAS TO BE REVEGETATED WITHIN 50 FEET OF SURFACE WATERS.

SITE STABILIZATION

TEMPORARY STABILIZATION- UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY WHERE A CESSATION OF EARTH DISTURBANCE ACTIVITIES WILL EXCEED A DAYS, THE SITE WILL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PEDIDING FUTURE EARTH DISTURBANCE ACTIVITIES.

PERMANENT STABILIZATION- UPON FINAL COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE WILL IMMEDIATELY HAVE TOPSOIL RESTORED, REPLACED, OR AMENDED, SEEDED, MULCHED, OR OTHERWISE PERMANENTLY STABILIZED AND PROTECTED FROM ACCELERATED EROSION AND

STABILIZE WITH EROSION CONTROL MATTING ON STEEP SLOPES WHERE SPECIFIED ON THE DRAWINGS AND DETAILS, AND PROVIDE REVEGETATION OF PERMANENT, NATIVE
AREAS AS SPECIFIED IN THE DRAWINGS AND LISTED IN SECTION 3.2. NOTE: ALL NON-GRAVEL AREAS WILL BE RECLAIMED TO MEADOW CONDITIONS, OR BETTER, AND WILL BE
SEEDED AND MILLCHED TO HELP STABILIZE THE DISTURBED AREAS.

2. CLEAN UP SITE TO SATISFACTION OF OWNER OR THEIR REPRESENTATIVE.

3. REMOVE TEMPORARY EROSION MEASURES WHEN PERMANENT STABILIZATION IS ACHIEVED. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION.

NOTES:

ALL DISTURBED AREAS WILL BE STABILIZED IMMEDIATELY WITH ROCK AND/OR SEEDING AND MULCHING.

ONLY CLEAN, NON-POLLUTING MATERIALS WILL BE USED AS FILL. MINIMUM STONE SIZE SHOULD BE R-4, AS RATED BY THE NATIONAL STONE ASSOCIATION

ALL EARTHMOVING ACTIVITIES MUST INCORPORATE MEASURES TO MINIMIZE ACCELERATED EROSION. THE ESCP MUST BE AT THE SITE OF ACTIVITY AT ALL TIMES AND AVAILABLE FOR INSPECTION BY A REPRESENTATIVE OF PADEP.

#### PERMANENT CONTROLS

AN EROSION CONTROL PRODUCT WILL BE INSTALLED ON ALL DISTURBED SLOPES STEEPER OR EQUAL TO 3:1, ALL AREAS OF CONCENTRATED FLOWS, AND DISTURBED AREAS

UPON FINAL COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE SHALL IMMEDIATELY HAVE TOPSOIL RESTORED, REPLACED, OR AMENDED, SEEDED, MULCHED, OR OTHERWISE PERMANENTLY STABILIZED AND PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION

E&S BMPS SHALL BE IMPLEMENTED AND MAINTAINED UNTIL THE PERMANENT STABILIZATION IS COMPLETED. ONCE PERMANENT STABILIZATION HAS BEEN ESTABLISHED, THE
TEMPORARY E&S BMPS SHALL BE REMOVED. ANY AREAS DISTURBED IN THE ACT OF REMOVING TEMPORARY E&S BMPS SHALL BE PERMANENTLY STABILIZED UPON
COMPLETION OF THE TEMPORARY E&S BMP REMOVAL ACTIVITY.

3. FOR AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY TO BE CONSIDERED PERMANENTLY STABILIZED, THE DISTURBANCE AREAS SHALL BE COVERED WITH ONE OF THE FOLLOWING:

3.2. AN ACCEPTABLE BMP WHICH PERMANENTLY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION.

4. PERMANENT SEEDING AND MULCHING WILL BE INCORPORATED INTO THE OPERATIONS DURING THE APPROVED PLANTING SEASON OF MARCH 15 TO JUNE 1 OR AUGUST 1 TO OCTOBER 15. SEEDING MAY BE COMPLETED OUTSIDE OF THESE SEASONS AT THE CONTRACTORS DISCRETION, AND WITH APPROVAL OF THE OWNER, BUT CARRIES A HIGHER RISK OF RECOURING RESEEDING BY THE CONTRACTOR. SEED APPLICATION WILL BE WITH CYCLONE SEEDER, DRILL, OR CULTI-PACKER SEEDER. MULCH WILL BE SPREAD AND ANCHORED MECHANICALLY OR UNIFORMLY BY HAND.

ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE STABILIZED BY APPLYING A SEED MIXTURE TO ESTABLISH AN EROSION-RESISTANT STAND OF VEGETA
THE LEAST AMOUNT OF TIME.

5.1. ALL SEEDS, AS SPECIFIED, SHALL CONFORM TO THE PENNSYLVANIA SEED ACT OF 1965, AS AMENDED, AND REGULATIONS OF THE PENNSYLVANIA DEPARTMENT OF AGRICULTURE, BUREAU OF PLANT INDUSTRY.

5.2. ALL SEEDS SHALL BE FURNISHED TO THE PROJECT SITE IN MIX PREPARED BY THE SEED PROCESSOR. THE MIX SHALL HAVE A CERTIFICATION TAG WHICH SHALL BE PRESENTED TO THE OWNER'S REPRESENTATIVE. THE MIXTURE SHALL BE AS FOLLOWS:

5.2.1. RIPARIAN BUFFER MIX SHALL BE USED WITHIN 100' OF STREAMS AND 50' OF WETLANDS. NATIVE UPLAND MIX SHALL BE USED IN ALL OTHER AREAS. SEE PLANT MIX SCHEDULE ON THIS SHEET.

5.3. BEFORE SEEDING, APPLY THE FOLLOWING SOIL AMENDMENTS WITH TOPSOIL AND WORK INTO A FOUR-INCH TO SIX-INCH (4-6") SOIL DEPTH:

5.3.1. APPLY 6 TONS OF AGRICULTURAL-GRADE LIMESTONE PER ACRE

5.3.2. APPLY NPK 10-20-20 FERTILIZER BY BROADCASTING AT A RATE OF 1.000 LBS/ACRE.

5.4. THE PREPARED AREAS SHALL THEN BE SEEDED WITH THE SPECIFIED SEED BY MEANS OF A MECHANICAL HOPPER TYPE SEEDER AT THE RATE OF 30 LBS/ACRE OR AS

5.5. THE SEED SHALL BE SOWN EVENLY IN TWO DIRECTIONS, WITH 1/2 OF THE SEED BEING SOWN IN A DIRECTION AT RIGHT ANGLES TO THE OTHER HALF. SEEDING SHALL BE

5.6. AFTER SOWING THE SEED, THE AREA SHALL BE LIGHTLY RAKED TO COVER SEED TO AN AVERAGE DEPTH OF ONE-FOURTH INCH (1/4") AND ROLLED WITH A 200-POUND ROLLER. THE COMPLETED AREAS SHALL PRESENT A SMOOTH AND FINISHED APPEARANCE. THE SEEDING AND COMPACTING OF THE LARGE AREAS MAY BE ACCOMPLISHED BY USE OF A "GUIL SEEDER" OR OTHER MECHANICAL SEEDER.

6. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE NATIONAL RESOURCE CONSERVATION SERVICE (NRCS) SOIL CONSERVATION SERVICE (SCS) STANDARD RECOMMENDATIONS AND THE PA DEP SOIL EROSION AND SEDIMENTATION POLLUTION CONTROL PROGRAM MANUAL PRESENTED HEREIN SHALL BE SUPPLEMENTED OR MODIFIED BY CONTRACTOR DURING THE WORK BASED ON ACTUAL SEQUENCE, TIMING, AND METHODS OF CON AS NECESSARY TO COMPLY WITH PA DEP EROSION AND SEDIMENT CONTROL REQUIREMENTS.

#### TEMPORARY CONTROLS

AN EROSION CONTROL PRODUCT WILL BE INSTALLED ON ALL DISTURBED SLOPES STEEPER OR EQUAL TO 3:1, ALL AREAS OF CONCENTRATED FLOWS, AND DISTURBED AREAS WITHIN FIFTY (80) FEET OF WATERS OF THE COMMONWEALTH.

1. UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE ACTIVITY OF ANY STAGE OR PHASE OF AN ACTIVITY WHERE A CESSATION OF EARTH DISTUR WILL EXCEED 4 DAYS, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENT. FUTURE EARTH DISTURBANCE ACTIVITIES.

2. FOR AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY TO BE CONSIDERED TEMPORARILY STABILIZED, THE DISTURBED AREAS SHALL BE COVERED WITH ONE OF THE FOLLOWING:

2.1. A MINIMUM UNIFORM COVERAGE OF MULCH AND SEED, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION

2.2. AN ACCEPTABLE BMP WHICH TEMPORARILY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION

3. BEFORE SEEDING, APPLY THE FOLLOWING SOIL AMENDMENTS WITH TOPSOIL AND WORK INTO A FOUR-INCH TO SIX-INCH (4-6") SOIL DEPTH.

3.1. APPLY 1 TON OF AGRICULTURAL-GRADE LIMESTONE PER ACRE.

4. THOROUGHLY LOOSEN THE AREAS TO BE SEEDED BY AN APPROVED METHOD UNTIL THE TILLAGE IS ACCEPTED. IRREGULARITIES IN THE SURFACE, RESULTING FROM TILLAGE OR FROM OTHER OPERATIONS, SHALL BE SMOOTHED BEFORE SEEDING OPERATIONS BEGIN TO PREVENT THE FORMATION OF WATER-COLLECTING POCKETS.

5. ALL SEEDS SHALL BE FURNISHED TO THE PROJECT SITE IN MIX PREPARED BY THE SEED PROCESSOR. THE MIX SHALL HAVE A CERTIFICATION TAG WHICH SHALL BE PRESENTED TO THE OWNER'S REPRESENTATIVE. THE MIXTURE SHALL BE AS FOLLOWS:

5.1. TEMPORARY MIXTURE: THIS MIX SHALL BE USED ON ALL AREAS TO BE SEEDED AFTER DISTURBANCE, BUT PRIOR TO IMPLEMENTATION OF PERMANENT CONTROL MEASURES.

6. THE PREPARED AREAS SHALL THEN BE SEEDED WITH THE SPECIFIED SEED BY MEANS OF A MECHANICAL HOPPER TYPE SEEDER AT THE RATE OF 50 LBS/ACRE.

7. THE SEED SHALL BE SOWN EVENLY IN TWO DIRECTIONS, WITH ONE-HALF (1/2) OF THE SEED BEING SOWN IN A DIRECTION AT RIGHT ANGLES TO THE OTHER HALF. SEEDING SHALL BE DONE ON A DAY WHEN THERE IS NO WIND.

8. AFTER SOWING THE SEED, THE AREA SHALL BE LIGHTLY RAKED TO COVER SEED TO AN AVERAGE DEPTH OF ONE-FOURTH INCH (1/4") AND ROLLED WITH A 200-POUND ROLLER THE COMPLETED AREAS SHALL PRESENT A SMOOTH AND FINISHED APPEARANCE. THE SEEDING AND COMPACTING OF THE LARGE AREAS MAY BE ACCOMPLISHED BY USE OF A "GILL SEEDER" OR OTHER MECHANICAL SEEDER.

#### MAINTENANCE PROGRAM

EROSION AND SEDIMENT CONTROL MEASURES WILL BE MAINTAINED ACCORDING TO THE APPLICABLE CONSERVATION DISTRICT REQUIREMENTS AND STANDARD BEST MANAGEMENT PRACTICES. IN GENERAL, MAINTENANCE WILL INCLUDE INSPECTIONS ON A WEEKLY BASIS AND AFTER EACH STORMWATER EVENT, AND PERIODIC REMOVAL OF ANY SEDIMENT ACCUMULATED. COMPLETE DETAILS REGARDING MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES ARE PRESENTED ON THE ATTACHED FIGURES

THE FOLLOWING MAINTENANCE PROGRAM WILL BE FOLLOWED UNTIL THE SITE IS COMPLETELY STABILIZED AFTER CONSTRUCTION. DURING CONSTRUCTION, THE CONTRACTOR

1. ALL TEMPORARY E&S CONTROL MEASURES WILL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. ALL DEFECTIVE EROSION CONTROL MEASURES WILL BE

a. FILTER SOCKS: SPLIT, TORN, UNRAVELING OR SLUMPING FILTER SOCKS WILL BE REPAIRED OR REPLACED. SEDIMENT WILL BE REMOVED WHEN ACCUMULATIONS REACH ½

b. EROSION CONTROL PRODUCT: EROSION CONTROL PRODUCT DAMAGED BEFORE SUFFICIENT STABILIZATION OF UP-GRADIENT VEGETATION WILL BE IMMEDIATELY

c. ROCK CONSTRUCTION ENTRANCE: CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY.

d. MULCH: CHECK MULCHED AREAS FOR DAMAGE UNTIL DESIRED PURPOSE OF MULCHING IS ACHIEVED. DAMAGED PORTIONS OF MULCH OR TIE-DOWN MATERIAL SHALL BE

a. PERMANENT SEEDING: SEEDING WILL BE APPLIED IN THE LOCATIONS AND RATES SPECIFIED ON THE FIGURES. SEEDED AREAS WILL BE INSPECTED ONCE STABILIZED INSPECTIONS WILL CONTINUE UNTIL 70% VEGETATIVE COVER IS ACHIEVED AND THE SITE IS CONSIDERED TO BE PERMANENTLY STABILIZED. VEGETATION COVER AND SIGNS OF EROSION WILL ALSO BE CHECKED AND RE-SEEDED AND FERTILIZED, AS NECESSARY.

TION OF THE GROWTH OF DESIRED SPECIES AND WEED COMPETITION IS ESSENTIAL TO MAKING MAINTENANCE DECISIONS. ADHERE TO SUPPLIER'S NOF DIRECTIONS FOR FACH SEFD MIX

MAINTENANCE FOR BOTH THE TEMPORARY AND PERMANENT E&S CONTROL BMPS WILL INCLUDE PROPER REMOVAL AND DISPOSAL OF MATERIALS IN THE PROJECT AREA ACCUMULATED SEDIMENT WILL BE SPREAD WITHIN THE EASEMENT AREAS AND PREPARED FOR PERMANENT EROSION CONTROL MEASURES. NO SEDIMENT WILL BE PLACED

CONSTRUCTION WASTES, SUCH AS BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC., SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED CONSTRUCTION WAS LES, SUCH AS BUILLINIS MALEMALS, CONCRETE WASH WALLEN, SANTIARY WAS LES, ETC., SHALL BE REMOVED FROM THE SITE AND RECYCLED ON DISPOSEL OF IN ACCORDANCE WITH THE PADEP'S SOLID WASTE MANAGEMENT REGULATION AT 25 PA. CODE 260.1 ET SEC., 27.1, A DID 267.1 ET SEC. NO BUILLINIS MATERIALS ON BUILLINIS MATERIALS SHOULD BE RECYCLED WHERE FEASIBLE AND IS PREFERRED VERSUS DISPOSAL. WASTE MATERIALS COULD ADVERSELY IMPACT THE WATER QUALITY OF THE STREAMS, LAKES, PONDS, AND WETLANDS.

# MULCHING

CLEAN OAT OR WHEAT STRAW SHALL BE FREE FROM MATURE SEED-BEARING STALKS OR ROOTS OF PROHIBITED OR NOXIOUS WEEDS AS DEFINED BY THE PENNSYLVANIA SEED ACT OF 1947. APPLY AT A RATE OF THREE (3) TONS PER ACRE (ONE-HUNDRED TWENTY-FIVE (125) POUNDS PER ONE-HUNDRED (100) SQUARE YARDS). PRECAUTIONS SHALL BE TAKEN TO STABILIZE THE MULCH UNTIL. THE VEGETATIVE COVER IS ESTABLISHED. MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION TO PREVENT WINDBLOWN TRANSPORT.

MULCH SHALL BE PLACED OVER DISTURBED AREAS WITHIN FORTY-EIGHT (48) HOURS AFTER RAKING AND SEEDING OR PLANTING HAS BEEN PERFORMED. SALT HAY OR SALINE MARSH GRASSES ARE NOT ACCEPTABLE. THE MATERIAL SHALL BE APPLIED AT AN AVERAGE MINIMUM DEPTH OF TWO INCHES (2") LOOSE MEASUREMENT. CARE TAKEN WHEN PLACING THE MULCH SO AS NOT TO DISTURB THE SEEDED SURFACES. THE MULCH SHALL BE SECURED BY THE FOLLOWING METHOD, OR OTHER METHOD PRESENTED BY THE CONTRACTOR AND ACCEPTABLE TO THE OWNERS REPRESENTATIVE:

DURING THE LIFE OF THE CONTRACT, PROPERLY CARE FOR ALL AREAS AND MULCHES, PERFORMING SUCH MULCHING AS NECESSARY TO PROVIDE PROTECTION FOR ESTARI ISHED GROWTH ON THE TREATED AREAS

## PLANT MIX SCHEDULE

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PLANTING ZONE	QUANTITY	SEED MIX	COMMENT	
NATIVE UPLAND	15 BULK POUNDS PER ACRE	NATIVE BIOMASS MIX FOR STRIP MINES & GAS PRODUCTION SITES ERNMX-110	SEE COMMENTS 1 AND 2	
COVER CROP	30 BULK POUNDS PER ACRE	ANNUAL OATS (JAN 1 TO JULY 31) OR ANNUAL RYE (AUG 1 TO DEC 31)	SEE COMMENT 4	
RIPARIAN BUFFER	20 BULK POUNDS PER ACRE	RIPARIAN BUFFER MIX ERNMX-178,	SEE COMMENTS 1 AND 3	

#### NOTES:

REFER TO NATIVE SEEDING SCHEDULE FOR A LIST OF SPECIES CONTAINED WITHIN THE MIX.

UPLAND NATIVE MIX (NATIVE BIOMASS MIX FOR STRIP MINES AND GAS PRODUCTION SITES) ERMIX-110 BY ERNST CONSERVATION SEEDS, 9006 MERCER PIKE, MEADVILLE, PA 1633S, 1-800-873-3321.

RIPARIAN BUFFER MIX ERNMX-178 BY ERNST CONSERVATION SEEDS, 9006 MERCER PIKE, MEADVILLE, PA 16335, 1-800-873-3321.

COVER CROP SEEDING SHALL BE PROVIDED WHEN SEEDING WITH ERNMX-110 OR ERNMX-178.

# NATIVE SEEDING SCHEDULE

COMMON NAME	SCIENTIFIC NAME	
·		
BIG BLUESTEM	ANDROPOGON GERARDII	
COASTAL PANICGRASS	PANICUM AMARUM	
SWITCHGRASS	PANICUM VIRGATUM	
VIRGINIA WILDRYE	ELYMUS VIRGINICUS	
PARTRIDGE PEA	CHAMAECRISTA FASCICULATA	
SHOWY TICKTREFOIL	DESMODIUM CANADENSE	
RIPARIAN BUFFER MIX		
COMMON NAME	SCIENTIFIC NAME	
PANICUM CLANDESTINUM, TIOGA	DEERTONGUE, TIOGA	
ELYMUS VIRGINICUS, PA ECOTYPE	VIRGINIA WILDRYE, PA ECOTYPE	
ANDROPOGON GERARDII, 'NIAGARA'	BIG BLUESTEM, 'NIAGARA'	
SORGHASTRUM NUTANS, 'TOMAHAWK'	INDIANGRASS, 'TOMAHAWK'	
PANICUM VIRGATUM, 'SHELTER'	SWITCHGRASS, 'SHELTER'	
CHAMAECRISTA FASCICULATA, PA ECOTYPE	PARTRIDGE PEA, PA ECOTYPE	
VERBENA HASTATA, PA ECOTYPE	BLUE VERVAIN, PA ECOTYPE	
JUNCUS EFFUSUS	SOFT RUSH	
RUDBECKIA HIRTA, COASTAL PLAIN NC ECOTYPE	BLACKEYED SUSAN, COASTAL PLAIN NC ECOTYPE	
ASCLEPIAS INCARNATA, PA ECOTYPE	SWAMP MILKWEED, PA ECOTYPE	
ASTER UMBELLATUS, PA ECOTYPE	FLAT TOPPED WHITE ASTER, PA ECOTYPE	
ASTER LATERIFLORUS	CALICO ASTER	
EUPATORIUM PERFOLIATUM, PA ECOTYPE	BONESET, PA ECOTYPE	
HELENIUM AUTUMNALE, PA ECOTYPE	COMMON SNEEZEEWEED, PA ECOTYPE	
MONARDA FISTULOSA, FORT INDIANTOWN GAP-PA ECOTYPE	WILD BERGAMONT, FORT INDIANTOWN GAP-PA ECOTYPE	
VERNONIA NOVEBORACENSIS, PA ECOTYPE	NEW YORK LRONWEED, PA ECOTYPE	
SOLIDAGO PATULA. PA ECOTYPE	ROUGHLEAF GOLDENROD, PA ECOTYPE	
LOBELIA SIPHILITICA. PA ECOTYPE	GREAT BLUE LOBELIA, PA ECOTYPE	

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