Attachement B

Weimer Property – Spencer Run Debris Jam Removal

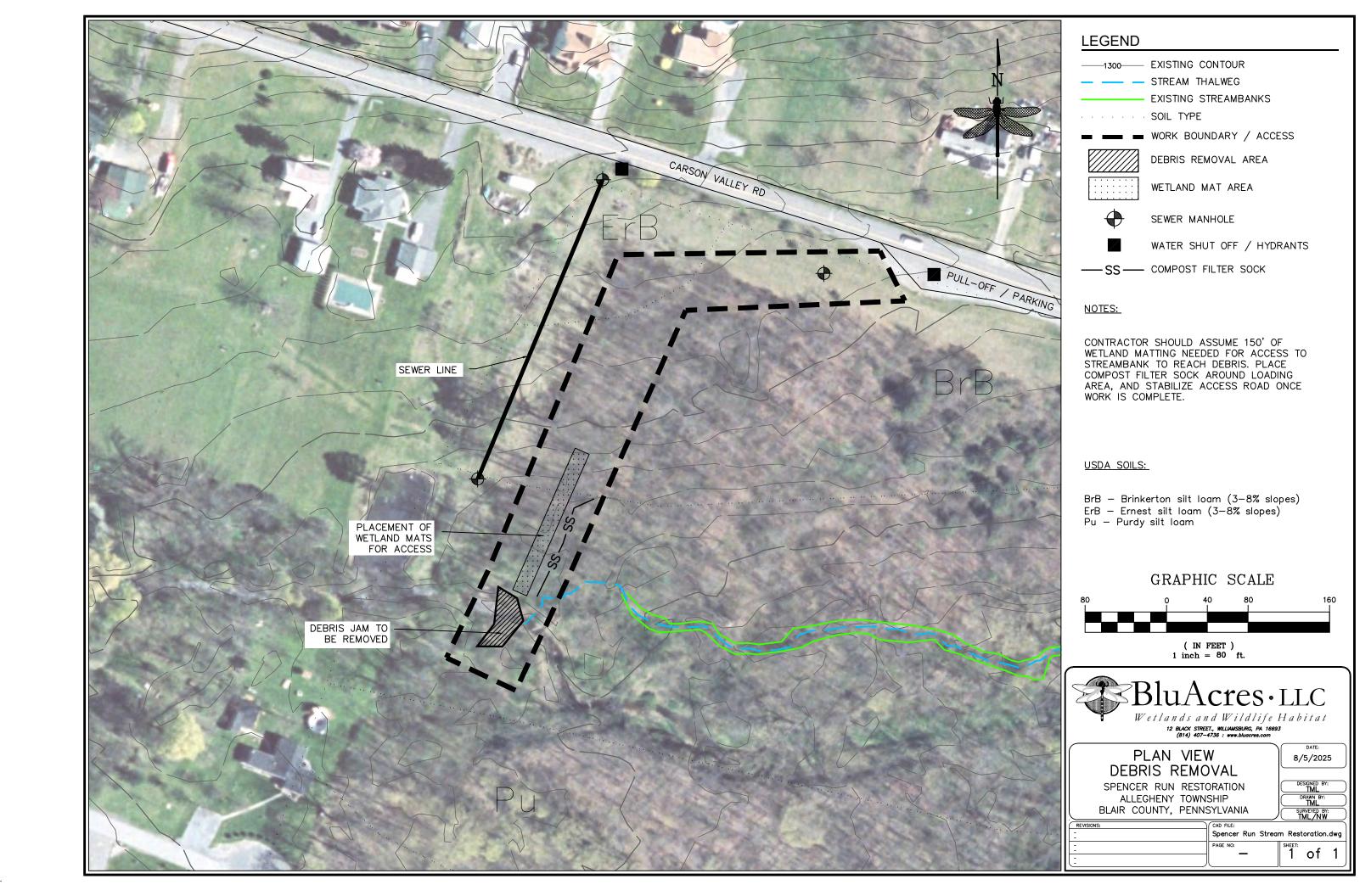
BID SCHEDULE

ITEM	DESCRIPTION	UNIT	AMT	EST. COST PER UNIT	TOTAL ESTIMATED COST
1. Mobilization	Includes all necessary costs associated with mobilizing and demobilizing equipment to and from site. (Mob and Demob will only be considered for payment IF this work is done entirely separate from the streambank restoration project).	LS	1		
2. Place Wetland mats to gain access to stream channel	Includes all necessary costs associated with placing wetland mats and removing them whenever project is complete.	LF	150		
3. Removal of Debris Jam	Includes all labor and equipment necessary to remove the woody material making up debris jam.	LS	1		
5. Cutting of Access Road Through Forested Area	Includes all labor and equipment to create access road through the forested area to reach the stream.	LS	1		
6. Erosion Control and Seeding & Compost Filter Sock	Includes all labor, material and equipment to control erosion onsite as deemed necessary and as specified by the plan view. Including Compost Filter Sock, and stabilizing the access road upon completion of work.	AC	0.5		
		STOTAL=			

Please complete the information on the back of this bid sheet, sign and date.

Contractor's Information needed for contacting the Contracting Representative

Name of Company:
Company's Address:
Phone Number:
E-mail Address:
Fed Tax ID (EIN):
Authorization Signature (Signed in Ink):
Date:



Attachment A

Weimer Property – Spencer Run Streambank Stabilization Project

BID SCHEDULE

ITEM	DESCRIPTION	UNIT	AMT	EST. COST PER UNIT	TOTAL ESTIMATED COST
1. Mobilization	Includes all necessary costs associated with mobilizing and demobilizing equipment to and from site.	LS	1		
2. Modified Mudsill Includes all necessary costs associated with constructing the Mudsill.		LF	236		
3. Single Log Vane Deflector (2 logs per vane)	Includes all labor and equipment necessary to construct the Log Vane structure as specified.	EA	4		
4. Toe Logs + Rock Fill for #2 (58 tons R5)	Includes all labor and material necessary to construct the Toe Logs as shown in the spec. Toe Log #2 will need approx. 14 CY of topsoil to cover rock to create suitable ground to grow vegetation.	LF	236		
5. Gravel Bar Removal	Includes all labor and equipment to remove two gravel bars by excavating the rock material and store to use for constructing the Mudsills or Toe Logs.	Cu Yd	<20		
6. Erosion Control and Seeding	Includes all labor, material and equipment to control erosion onsite as deemed necessary and as specified by the Erosion and Sedimentation Control Plan. Including seeding the streambank and all disturbed areas for the effective control of potential erosion. (Coir-matting = approx. 3,500 sq.ft.)	AC	1		
7. Timbermat Crossings	Includes all labor, equipment, and materials necessary to install and remove appropriate bridgemats for crossing tributaries to gain access to main stream channel.	EA	2		
	SUBTOTAL=				

Please complete the information on the back of this bid sheet, sign and date.

	Contractor's Information needed for contacting the Contracting Representative
Name of	Company:

Company's Address:
Phone Number:
E-mail Address:
Fed Tax ID (EIN):
Authorization Signature (Signed in Ink):
Date:

SPENCER RUN STREAM RESTORATION & FISH HABITAT PROJECT

ALLEGHENY TOWNSHIP
BLAIR COUNTY, PENNSYLVANIA

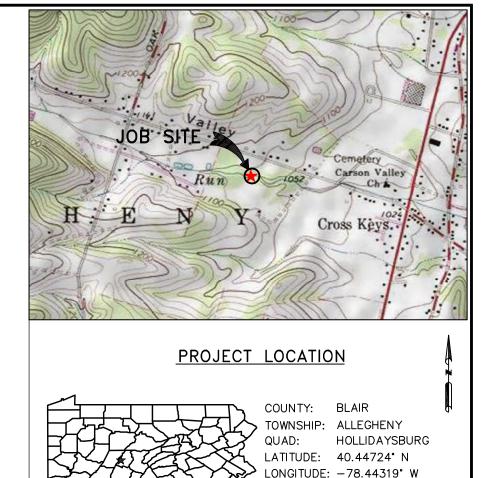
PREPARED BY:



PREPARED FOR:

DAVID WEIMER

297 SPENCER CREEK DRIVE DUNCANSVILLE, PENNSYLVANIA 16635



SHEET INDEX

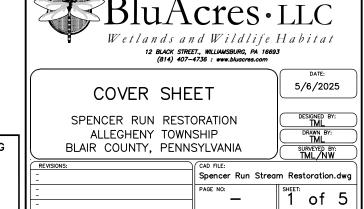
- COVER SHEET
- 2. PLAN VIEW
- 3. CONSTRUCTION DETAIL
- CONSTRUCTION DETAIL
- 5. CONSTRUCTION DETAIL

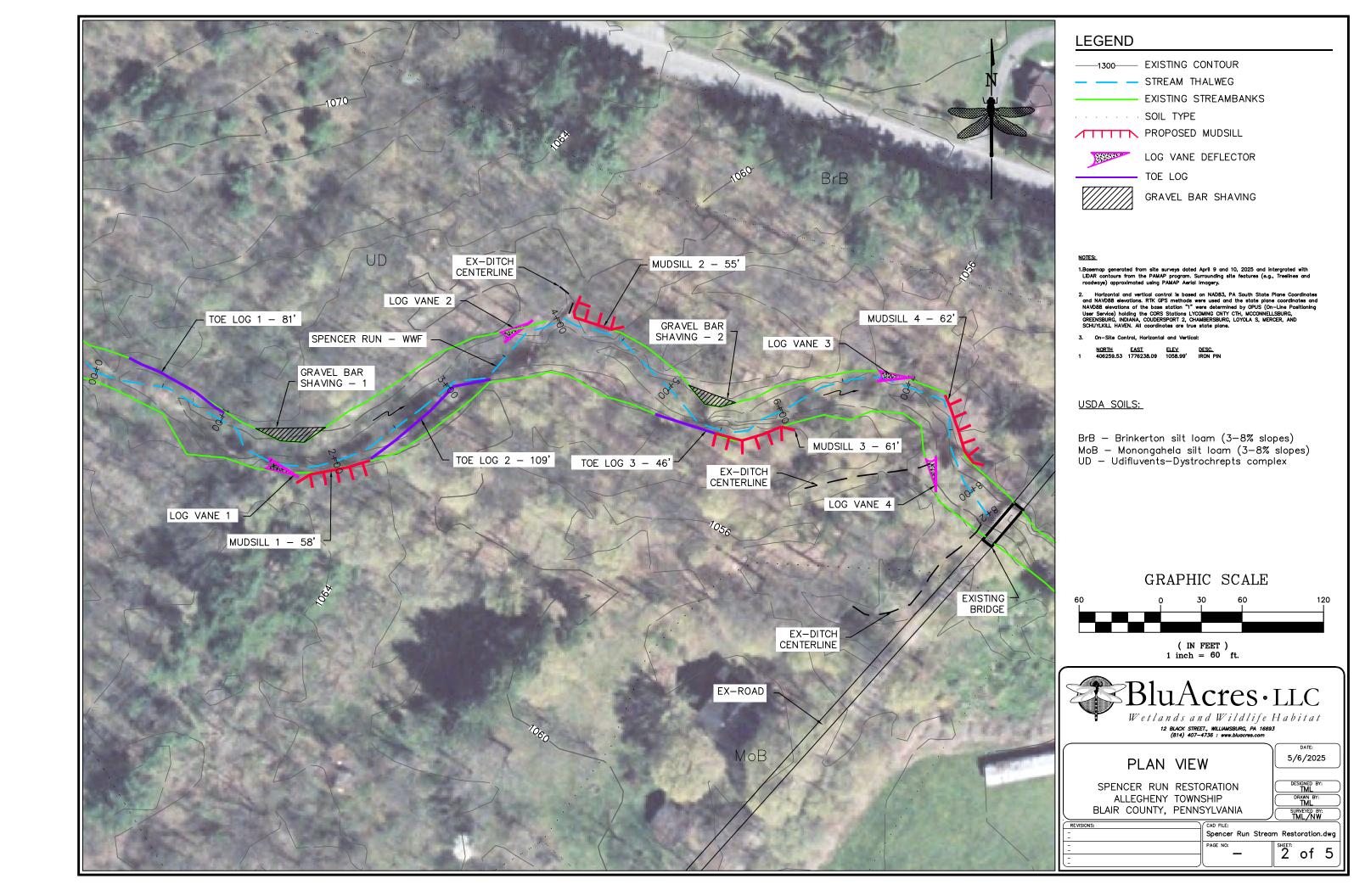
GENERAL NOTES:

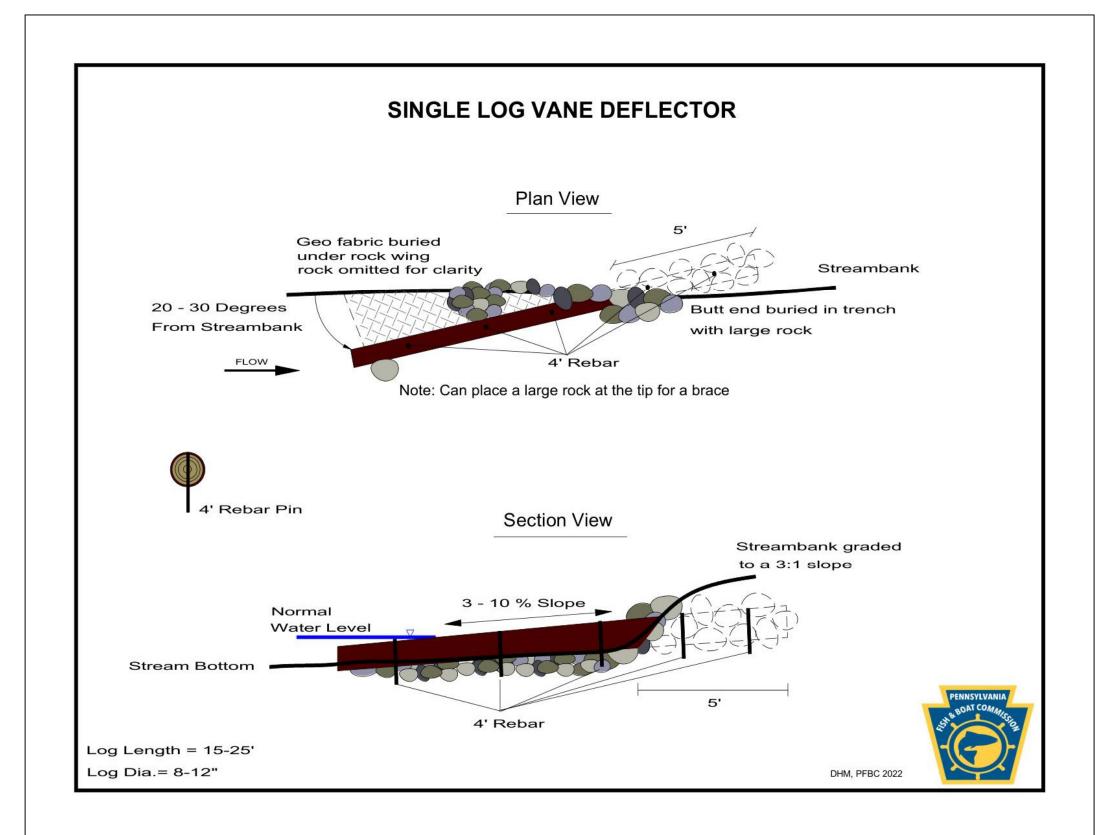
- 1. THIS STREAM RESTORATION PLAN HAS BEEN PREPARED FOR DAVID WEIMER FOR THE PURPOSE OF PROVIDING STREAMBANK STABILIZATION, AND PREVENTING FURTHER EROSION. ADDITIONALLY, THE PROJECT WILL PROVIDE FISH HABITAT THROUGH THE USE OF IN—STREAM STURCTURES APPROVED BY THE PA FISH AND BOAT COMMISSION.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION AND TO COMPLY WITH THE PROVISIONS OF PENNSYLVANIA ACT 187 (1996) BEFORE PERFORMING ANY EXCAVATION WORK.
- 3. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO PRIVATE PROPERTY INCLUDING BUT NOT LIMITED TO FENCES AND PRIVATE ROADS RESULTING FROM ACTIVITIES ASSOCIATED WITH COMPLETING THIS PLAN. REPAIRS FOR ANY SUCH DAMAGES WILL BE MADE AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE PROPERTY OWNER.

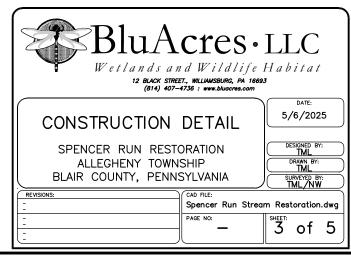


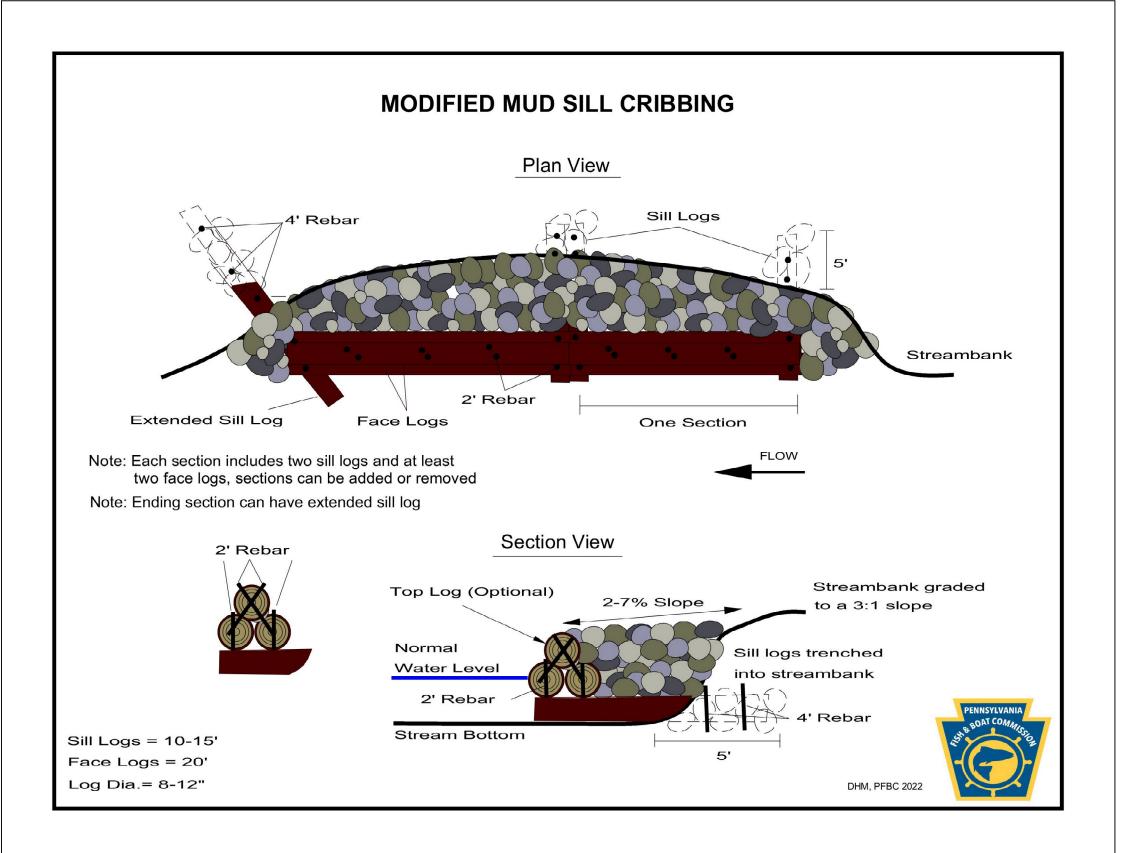
STOP. BEFORE YOU DIG CALL PA ONE CALL DIAL 811 or 1-800-242-1776

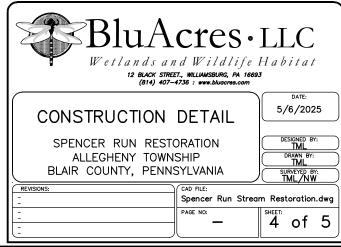


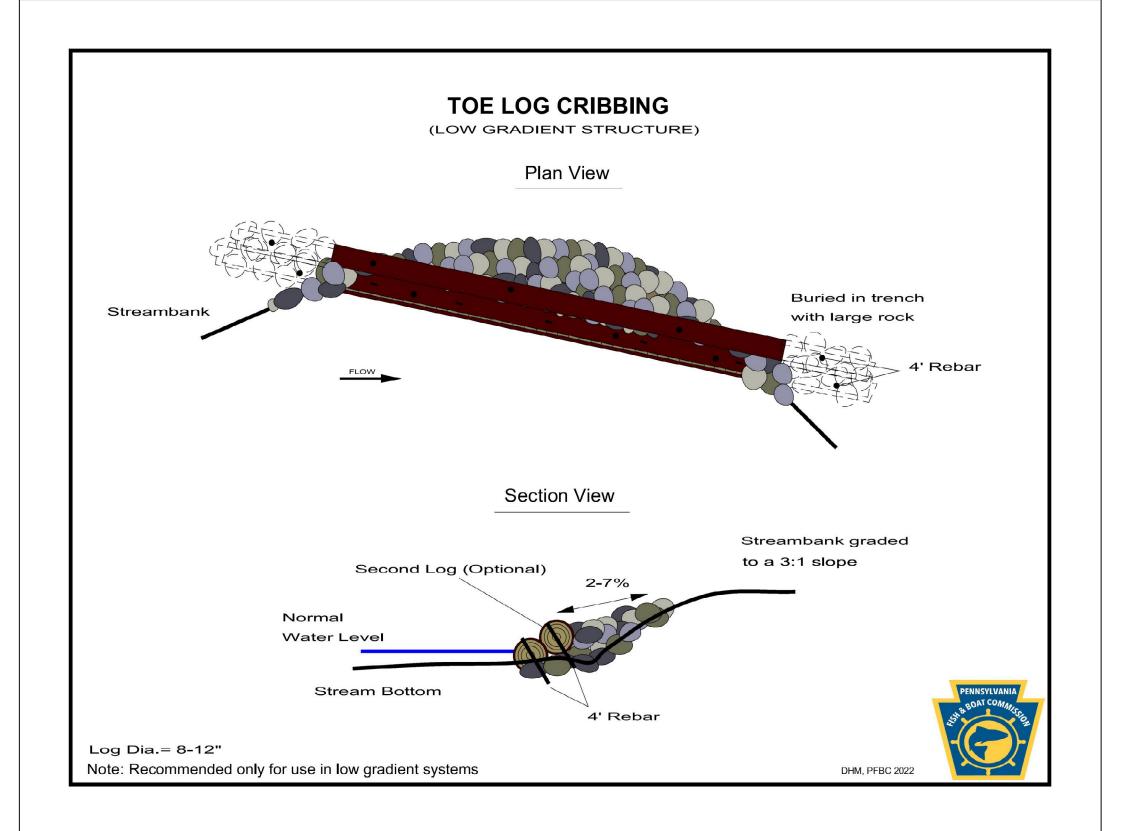


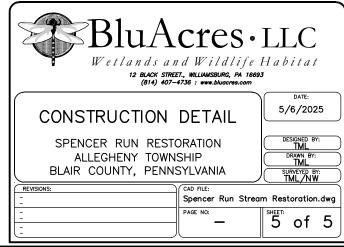


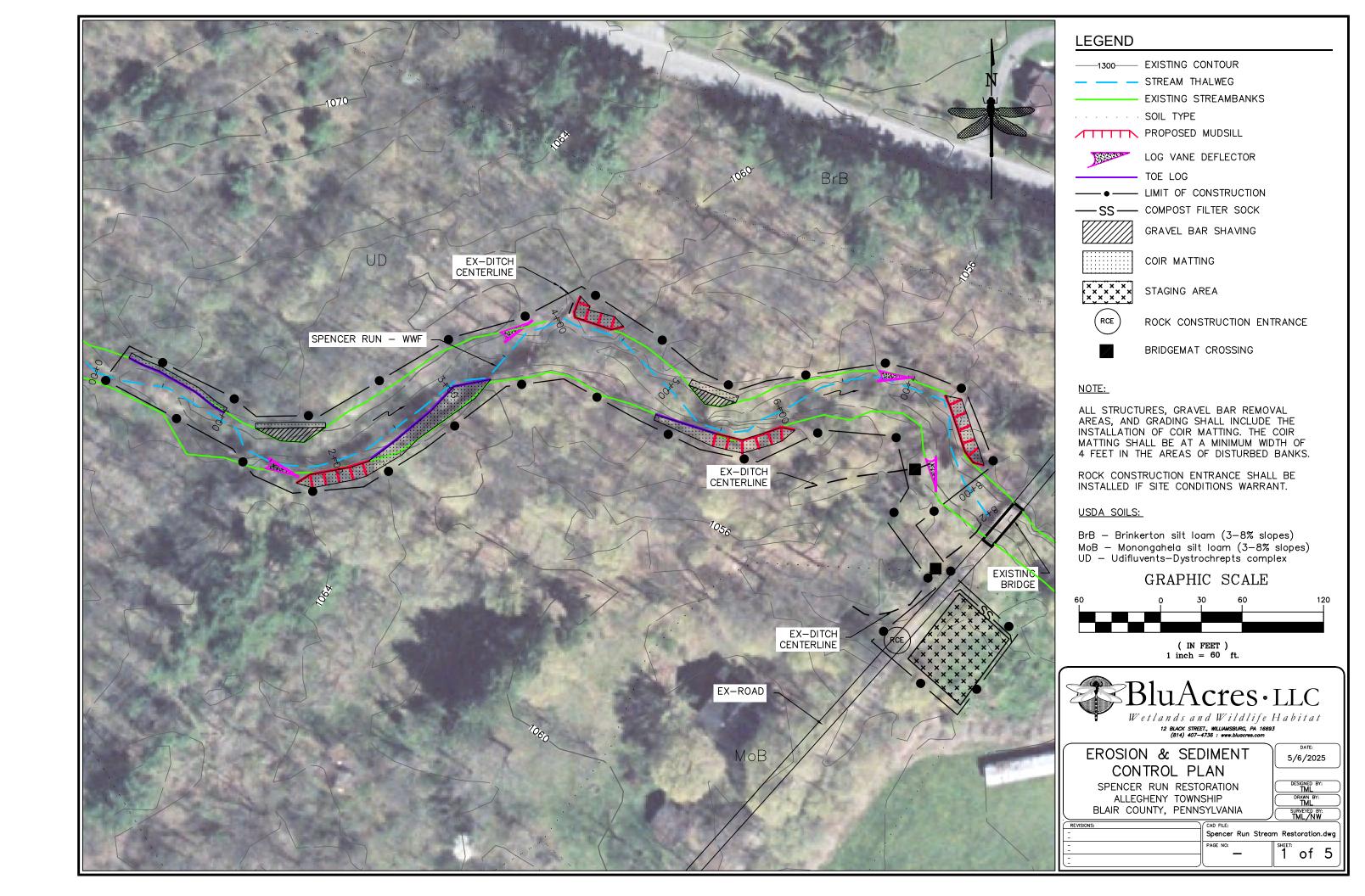


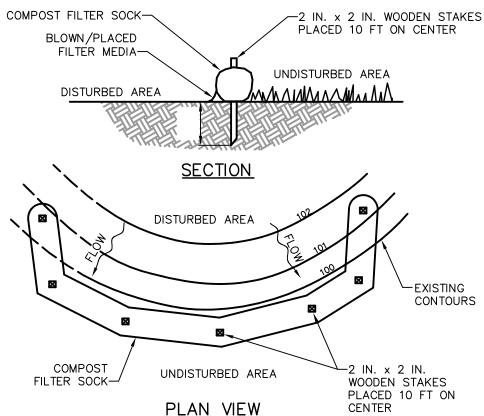












NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN. COMPOST FILTER 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.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

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.

STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK

NOT TO SCALE

TWO-PLY SYSTEMS

	HDPE BIAXIAL NET			
INNER CONTAINMENT	CONTINUOUSLY WOUND			
NETTING	FUSION-WELDED JUNCTURES			
	3/4" X 3/4" MAX. APERTURE SIZE			
INNER CONTAINMENT NETTING	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH) 3/16" MAX. APERTURE SIZE			
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.				

FILTREXX & JMD

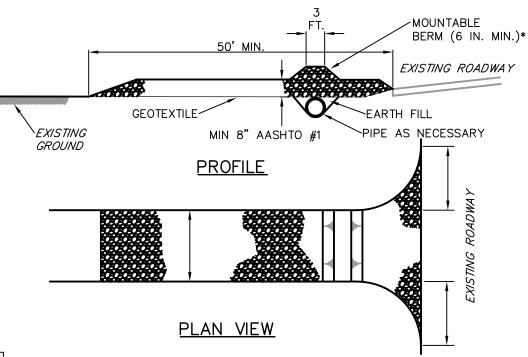
TABLE 4.2 COMPOST STANDARDS

	ORGANIC CONTENT MATTER	25% - 100% (DRY WEIGHT BASIS)		
	ORGANIC PORTION	FIBROUS AND ELONGATED		
	рН	5.5 - 8.5		
MOISTURE CONTENT		30% - 60%		
	PARTICLE SIZE	30%-50% PASS THROUGH 3/8" SIEVE		
	SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) Maximum		

FILTREXX

TABLE 4.1 COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 mil HDPE	5 mil HDPE	5 mil HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO- DEGRADEABLE	PHOTO- DEGRADEABLE	BIO- DEGRADEABLE	PHOTO- DEGRADEABLE	PHOTO- DEGRADEABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	3/8"
TENSILE STRENGTH		26 psi	26 psi	44 psi	202 psi
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	23% AT 1000 hr.	23% AT 1000 hr.		100% AT 1000 hr.	100% AT 1000 hr.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS



* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

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

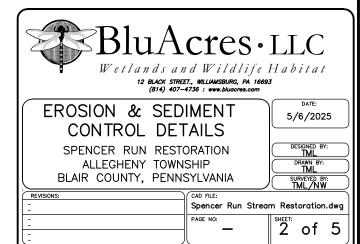
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

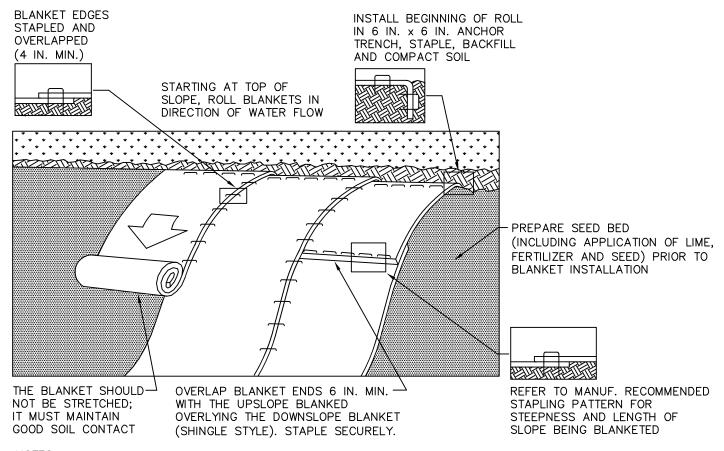
MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED

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 DEPOSITED 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 DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-1 ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE





NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MAINTENANCE:

BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-1 EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE

DESCRIPTION:

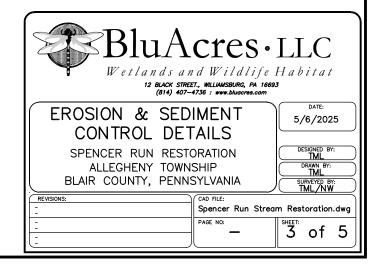
THE BioD-MAT 70 BLANKET IS WOVEN FROM MACHINE TWISTED BRISTLE COIR TWINES, THE BEST QUALITY COIR FIBER. THIS 100% BIODEGRADABLE, STRONG AND DURABLE BLANKET PROVIDE HIGHER EROSION RESISTANCE WHILE SUPPORTING GROWTH AND DEVELOPMENT OF VEGETATION. THESE SEMI-PERMANENT MATS HAVE FUNCTIONAL FIELD LONGEVITY OF 4-6 YEARS. IF THE VEGETATION FAILS TO ESTABLISH, THE OPEN WEAVE IN THE MAT ALLOWS SEEDING OVER THE MAT. BIOD-MAT 70 BLANKETS ARE MANUFACTURED TO CONFORM TO THE FOLLOWING PHYSICAL PROPERTIES

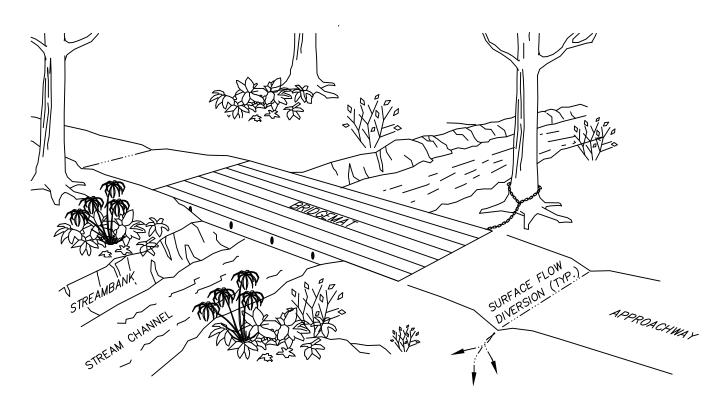
SPECIFICATIONS

PROPERTY	TEST METHOD	BioD-MAT 70
WEIGHT	ASTM D 3776	23 oz/SY (780 g/m²)
WIDE WIDTH TENSILE STRENGTH WET MACHINE DIRECTION CROSS DIRECTION	ASTM D 4595	1488 lbs/ft (21.7 kN/m) 1032 lbs/ft (15.1 kN/m)
WIDE WIDTH TENSILE STRENGTH DRY MACHINE DIRECTION CROSS DIRECTION	ASTM D 4595	1740 lbs/ft (25.4 kN/m) 1176 lbs/ft (17.2 kN/m)
ELONGATION AT FAILURE WET MACHINE DIRECTION CROSS DIRECTION	ASTM D 4595	38% 25%
OPEN AREA	CALCULATED	48%
THICKNESS	ASTM D 1777	0.35 inch (9 mm)
RECOMMENDED SHEAR STRESS		4.54 lbs./sq.ft. (215N/sq.m.)
RECOMMENDED FLOW		12 fps (3.7m/s)
RECOMMEND SLOPE		1:1
MINIMUM TWINE COUNT PER FOOT MD x CD		27 x 18

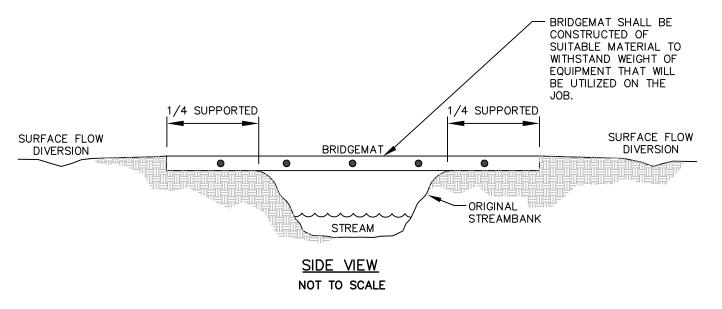
BioD-MAT 70 IS AVAILABLE IN THE FOLLOWING ROLL SIZES:

 $3.28 \text{ft} \times 83 \text{ft} (30 \text{SY}) = 1 \text{m} \times 25 \text{m} (25 \text{sq. m})$ $6.5 \text{ft} \times 166 \text{ft} (120 \text{SY}) = 2 \text{m} \times 50 \text{m} (100 \text{sq. m})$ $9.8 \text{ft} \times 166 \text{ft} (180 \text{SY}) = 3 \text{m} \times 50 \text{m} (150 \text{sq. m})$ $13.1 \text{ft} \times 83 \text{ft} (120 \text{SY}) = 4 \text{m} \times 25 \text{m} (100 \text{sq. m})$

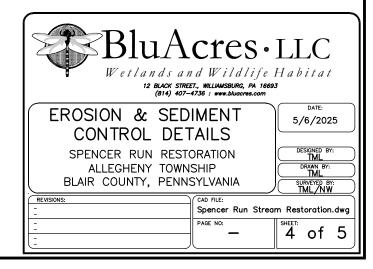




PERSPECTIVE VIEW NOT TO SCALE



TEMPORARY STREAM CROSSING WITH BRIDGEMAT



STANDARD EROSION AND SEDIMENTATION CONTROL NOTES:

- 1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
- 2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
- 3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- 4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS
- 5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL.
- 6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMP'S SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
- 7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS.
- 8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
- 9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL COSERVATION DISTRICT.
- 10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS.
- 11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL
- 13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
- 14. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMNT BMP's SHALL BE MAINTAINED PROPERLY.
 MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMP's AFTER EACH RUNOFF EVENT
 AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR,
 REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY.
- 15. A LOG SHOWING DATES THAT E&S BMP's WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE SAME TIME OF INSPECTION.
- 16. 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.
- 17. ALL SEDIMENT REMOVED FROM BMP's SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
- 18. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- 19. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS.
- 20. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- 21. FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS.
- 22. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- $23.\ \mbox{FROZEN}$ 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.
- 25. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE.
- 26. 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 PERMANENT STABILIZATION SPECIFICATIONS.
- 27. 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.
- 28. E&S BMP's SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS THAT TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

INTENT OF CONSERVATION PROGRAM:

THE INTENT OF THIS PROGRAM IS TO PREVENT ACCELERATED EROSION OF THE EXPOSED SITE SOILS DURING THE CONSTRUCTION AND PERMANENT LIFE PERIODS OF THE PROJECT. THE PROGRAM REQUIRES RETENTION OF SEDIMENTS ON THE CONSTRUCTION SITE TO MINIMIZE THE IMPACT OF EARTH DISTURBANCE ON EXISTING STREAMS AND ADJACENT PROPERTY OWNERS. THESE OBJECTIVES WILL BE ACHIEVED BY MINIMIZING THE EXPOSURE TIME OF POTENTIALLY EROSIVE SOILS TO RUNOFF AND INSTALLATION OF THE TEMPORARY AND PERMANENT CONSERVATION PRACTICES IN PROPER SEQUENCE WITH CONSTRUCTION. THE INTENT OF THIS PROGRAM SHOULD BE UNDERSTOOD AND IMPLEMENTED THROUGHOUT THE ENTIRE DEVELOPMENT. THE VARIOUS CONSTRUCTION TRADES SHOULD BE APPRISED OF THIS PROGRAM AND DIRECTED TO PREVENT UNDUE DISTURBANCE OF PREPARED AND PROTECTED SURFACES.

SURFACE STABILIZATION CRITERIA:

ALL DENUDED SOIL SURFACES, INCLUDING SOIL STOCKPILES, ARE SUBJECT TO EROSION AND SHALL BE STABILIZED IMMEDIATELY EITHER AS TEMPORARILY OR PERMANENT COVER IN ACCORDANCE WITH SPECIFICATIONS BELOW. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MAY BE SEEDED WITH A QUICK GROWING TEMPORARY SEEDING MIXTURE AND MULCHED AT A RATE OF 2-3 BALES/1000 SF OR 3 TONS/ACRE. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE SEEDED WITH A PERMANENT SEED MIXTURE AND MULCHED AT A RATE OF 2-3 BALES/1000 SF OR 3 TONS/ACRE. DURING NON-GERMINATION PERIODS, MULCH SHALL BE APPLIED AT A RATE OF 2-3 BALES/1000 SF OR 3 TONS/ACRE. GERMINATION PERIODS SHALL BE FROM APRIL 1ST TO JUNE 15TH AND AUGUST 15TH TO OCTOBER 15TH. AT THE BEGINNING OF THE NEXT GERMINATION PERIOD, MULCHED AREAS SHALL BE LIMED, FERTILIZED AND SEEDED, WITH EITHER A TEMPORARY OR PERMANENT SEED MIXTURE, AND REMULCHED AT A RATE OF 2-3 BALES/1000 SF OR 3 TONS/ACRE. ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

TEMPORARY COVER ON DISTURBED AREAS:

DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE YEAR MAY BE SEEDED AND MULCHED WITH A TEMPORARY COVER. PREPARATION OF THE SURFACE, FERTILIZATION AND SEEDING WITH EITHER ANNUAL OR WINTER RYE GRASS SHALL BE DONE IN COMPLIANCE WITH PENNSYLVANIA DEP AND THE COUNTY CONSERVATION DISTRICT (CCD) STANDARD FOR "TEMPORARY COVER FOR CRITICAL AREAS." GROUND LIMESTONE SHALL BE APPLIED AT THE RATE OF 190 LBS/1,000 SF. FERTILIZER FOR TEMPORARY STABILIZATION SHALL BE APPLIED AT A RATE OF 50-50-50 PER ACRE. THE FERTILIZER AND LIMESTONE SHALL BE WORKED INTO THE SOIL TO A DEPTH OF FOUR (4) INCHES PRIOR TO SEEDING. ANNUAL RYEGRASSES SHALL BE APPLIED AT A RATE OF 1.5 LB/1,000 SF AND WINTER RYE AT A RATE OF 3.5 LBS/1,000 SF AND MULCHED WITH HAY OR STRAW AT A RATE OF 2-3 BALES/1000 SF OR 3 TONS/ACRE AND NON ASPHALTIC EMULSION, IN ACCORDANCE WITH THE CCD STANDARD FOR "MULCHING."

B. PERMANENT COVER ON DISTURBED AREAS:

ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED WITH A PERMANENT COVER. AREAS SHOULD BE SEEDED WITH A PERMANENT SEED MIXTURE AS DEFINED ABOVE. GROUND LIMESTONE SHALL BE APPLIED AT THE RATE OF 190 LBS/1000 SF OR 4 TO 6 TONS/ACRE. THE FERTILIZER AND LIMESTONE SHALL BE WORKED INTO THE SOIL TO A DEPTH OF FOUR (4) INCHES PRIOR TO SEEDING. FERTILIZER 10-20-20 FOR PERMANENT STABILIZATION MINIMUM IS 930 LBS/ACRE PER PENN STATE AGRONOMY GUIDE.

PREPARATION OF THE SEEDBED, FERTILIZATION AND MAINTENANCE SHALL BE DONE IN ACCORDANCE WITH APPLICABLE MCCD STANDARDS AND THE ADVICE OF THE PENNSYLVANIA STATE UNIVERSITY AGRICULTURAL EXTENSION SERVICE. NEW SEEDINGS ON FLAT AND MILD SLOPE AREAS SHALL BE MULCHED WITH STRAW AT 2 TO 3 BALES/1000 SF OR 3 TONS/ACRE. NEW SEEDINGS ON SLOPES AND WITHIN MODERATE DRAINAGE CHANNELS, SHALL BE SIMILARLY MULCHED WITH STRAW, AND RUNOFF DIVERTED FROM THE SEED BEDS UNTIL VEGETATION IS ESTABLISHED.

C. MAINTENANCE OF TEMPORARY SEDIMENTATION CONTROL STRUCTURES:
MAINTENANCE OF ALL TEMPORARY SEDIMENTATION CONTROL STRUCTURES SHALL BE IN ACCORDANCE WITH THESE
PLANS. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY.
MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH STORM EVENT
AND ON A WEEKLY BASIS, ALL WEEKLY INSPECTION REPORTS TO BE KEPT ON SITE. ALL MAINTENANCE WORK
MUST BE PERFORMED IMMEDIATELY.

SEQUENCE OF CONSTRUCTION:

- 1) ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY OF THE FOLLOWING STAGES ARE INITIATED. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO ONLY THOSE AREAS DESCRIBED IN EACH STAGE.
- 2) AT LEAST 3 DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PLACE A PA 1 CALL TO HAVE ALL UTILITIES MARKED OUT PRIOR TO CONSTRUCTION.
- 3) AT THE END OF EACH WORK DAY, ALL DISTURBED AREAS MUST BE STABILIZED WITH SEEDING/MULCH AND EROSION CONTROL MULCH BLANKETS FOR SLOPES STEEPER THAN 3H: 1V. AREAS AT FINAL GRADE MUST BE INSPECTED AT THE END OF EACH WORK DAY THROUGHOUT CONSTRUCTION. ANY EROSION MUST BE CORRECTED IMMEDIATELY.
- 4) INSTALL TEMPORARY SEDIMENT CONTROL MEASURES AT LOCATIONS SHOWN ON THE PLAN VIEW, AND AS NECESSARY FOR COMPLIANCE WITH CHAPTER 102.
- 5) STAGE EARTHWORK ACTIVITY TO MINIMIZE EROSION, COMPLETE UPSTREAM CONSTRUCTION AND EXCAVATION WORK PRIOR TO DOWNSTREAM WORK.
- 6) ALL WORK SHALL BE DONE DURING LOW FLOW CONDITIONS, AVOIDING PERIODS DURING OR IMMEDIATELY FOLLOWING HEAVY PRECIPITATION.
- 7) EQUIPMENT WORK WILL BE DONE FROM THE STREAMBANK, WHERE POSSIBLE.
- 8) INSTALL UPSTREAM TOE LOG AND REMOVE GRAVEL BAR DOWNSTREAM.
- 9) INSTALL LOG VANE, MUDSILL AND TOE LOG SEQUENCE AS SHOWN ON THE PLANS.
- 10) INSTALL LOG VANE 2 AND MUDSILL 2, AND REMOVE DOWNSTREAM GRAVEL BAR. INSTALL TOE LOG 3 AND MUDSILL 3 SEQUENCE. INSTALL FINAL 2 LOG VANES AND MUDSILL.
- 1) THE ONLY WORK TO TAKE PLACE IN THE WET CONDITION IS THE PLACEMENT OF THE STREAM STRUCTURES.
- 12) SEED AND STABILIZE THE WORK AREA.

EROSION AND SEDIMENT CONTROL NOTES

- 1) ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSISTENT WITH CHAPTER 102 AND PADEP'S EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (MOST RECENT VERSION).
- 2) THESE PLANS REFLECT THE MINIMUM E&S REQUIREMENTS BASED ON ANTICIPATED AND PROPOSED ACTIVITIES. OWNER/APPLICANT OR HIS/HER DULY-AUTHORIZED REPRESENTATIVE IS RESPONSIBLE FOR IMPLEMENTATION OF THE E&S CONTROL MEASURES CONTAINED IN THIS PLAN AND ANY OTHER PROCEDURES THAT MAY BE NECESSARY FOR COMPLIANCE WITH THE PREVAILING REGULATIONS.
- 3) GROUND DISTURBANCE ACTIVITIES SHALL BE MINIMIZED TO THE EXTENT PRACTICAL AND ALL AREAS SHALL BE STABILIZED PROMPTLY.
- 4) ALL E&S MEASURES SHALL BE INSPECTED WEEKLY, AT A MINIMUM, AND FOLLOWING ALL STORM EVENTS. DEFECTIVE, DAMAGED OR OTHERWISE INSUFFICIENT E&S MEASURES SHALL BE REPLACED WITHOUT DELAY. WEEKLY INSPECTION REPORTS SHALL BE KEPT ON SITE.
- 5) ALL TEMPORARY AND PERMANENT SOIL STABILIZATION TO BE CONDUCTED IN ACCORDANCE WITH PA DEP AND THE COUNTY CONSERVATION DISTRICT (CCD) STANDARDS.
- 6) TEMPORARY SEEDING OF ANY DISTURBED AREAS OR STOCKPILES (EXCEPT PROPERLY COVERED OR MANAGED STOCKPILES) SHALL BE CONDUCTED WITHIN 4 DAYS OF DISTURBANCE. TEMPORARY SEEDING TO CONSIST OF 40 LBS/AC ANNUAL RYEGRASS, 1 TON/AC LIME, 1,000 LBS/AC 5-5-5 FERTILIZER AND 3 TONS/AC HAY OR STRAW MULCH.
- 7) PERMANENT SEEDING SHALL BE CONDUCTED WITHIN 4 DAYS OF DISTURBANCE FOR THOSE AREAS AT FINAL GRADE.
- 8) ALL AREAS TO BE INSPECTED AND MAINTAINED UNTIL STABILIZED. E&S CONTROL MEASURES TO BE REMOVED WHEN 70 % UNIFORM VEGETATIVE COVERAGE IS ESTABLISHED.
- 9) THIS E&S PLAN IS TO BE KEPT ON—SITE AT ALL TIMES, PER GOVERNING REGULATIONS.

10) NO CHANGES TO THIS E&S CONTROL PLAN SHALL BE PERMITTED

UNLESS AUTHORIZED AND APPROVED BY THE COUNTY CONSERVATION DISTRICT.

TEMPORARY MEASURES - COMPOST FILTER SOCK AND ROCK CONSTRUCTION

ENTRANCE ARE NECESSARY AND SHALL BE INSTALLED ACCORDING TO THE E&S CONSTRUCTION DETAILS AND SHALL BE PROPERLY MAINTAINED DURING THE LIFE OF THE PROJECT.

PERMANENT MEASURES - ALL AREAS THAT ARE DISTURBED WITHIN THE LIMIT OF DISTURBANCE SHALL BE PERMANENTLY VEGETATED ACCORDING TO THE E&S CONSTRUCTION DETAILS AND PERMANENT SEEDING SPECIFICATIONS.

PERMANENT SEED MIXTURE

ALL AREAS DISTURBED DURING CONSTRUCTION AND AT FINAL GRADE SHALL BE SEEDED WITHIN FOUR DAYS OF DISTURBANCE ACCORDING TO THE FOLLOWING SPECIFICATION AND RATE:

ERNMX-104 OR APPROVED EQUIVALENT (1-800-873-3321)

50% ANNUAL RYEGRASS (Lolium multiflorum)

50% PERENNIAL RYEGRASS (Lolium perenne)

AT A RATE OF 50 LBS / ACRE.

