

FOR THE
SILVER CREEK DISCHARGE
LOCATED IN

ACT 187 UNDERGROUND UTILITY PROTECTION ACT

RETTEW ASSOCIATES, INC. HEREBY STATES THAT, PURSUANT TO THE PROVISIONS OF ACT NO. 287 OF 1974, AS AMENDED BY ACT 187 OF 1996, OF THE PENNSYLVANIA LEGISLATURE, IT HAS PERFORMED THE FOLLOWING IN PREPARING THESE DRAWINGS REQUIRING EXCAVATION OR DEMOLITION WORK AT SITES WITHIN THE POLITICAL SUBDIVISION(S) SHOWN ON THE DRAWINGS:

1. PURSUANT TO SECTION 4, CLAUSE (2) OF SAID ACT, RETTEW ASSOCIATES, INC. REQUESTED FROM EACH USER'S OFFICE DESIGNATED AS THE CALL LIST PROVIDER BY THE ONE CALL SYSTEM NOTIFICATION, THE INFORMATION PRESCRIBED BY SECTION 2, CLAUSE (4) OF SAID ACT, NOT LESS THAN (10) MORE THAN (90) WORKING DAYS BEFORE FINAL DESIGN IS TO BE COMPLETED.
2. PURSUANT TO SECTION 4, CLAUSE (5) OF SAID ACT, RETTEW ASSOCIATES, INC. HAS MET THEIR OBLIGATIONS OF CLAUSE (2) BY CALLING THE ONE CALL SYSTEM SERVING THE LOCATION WHERE EXCAVATION IS TO BE PERFORMED.
3. PURSUANT TO SECTION 4, CLAUSE (3) OF SAID ACT, RETTEW ASSOCIATES, INC. HAS SHOWN UPON THESE DRAWINGS "THE POSITION AND LOCATION OF EACH USER'S OFFICE DESIGNATED AS THE CALL LIST PROVIDER AS REQUIRED BY SECTION 2, CLAUSE (2) OF SAID ACT, MADE AS REQUIRED BY CLAUSE (2), THE SERIAL NUMBER PROVIDED BY THE ONE CALL SYSTEM, THE TOLL-FREE ONE CALL SYSTEM PHONE NUMBER, AND THE NAME OF THE USER, THE USER'S DESIGNATED OFFICE LOCATION AND PHONE NUMBER AS SHOWN ON THE LIST REFERRED TO IN SECTION 4, CLAUSE (5) OF SAID ACT."

AND RETTEW ASSOCIATES, INC DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE THAT THE INFORMATION RECEIVED PURSUANT TO SAID REQUEST AND AS REFLECTED ON THESE DRAWINGS IS CORRECT OR ACCURATE, BUT RETTEW ASSOCIATES, INC. IS REFLECTING SAID INFORMATION ON THESE DRAWINGS ONLY DUE TO THE REQUIREMENTS OF THE SAID ACT NO. 187 OF DECEMBER 19, 1996.

ONE CALL SYSTEM SERIAL NO. NOTIFICATION BY RETTEW ASSOCIATES, INC.
DATE: 08/04/2009

ONE CALL SYSTEM SERIAL NUMBER: 20092162476

PA1
SYSTEM, INC.
1-800-242-1776

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES
(3) WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND (10) WORKING
DAYS IN DESIGN STAGE - STOP CALL

UTILITIES RESPONDED:

BLYTHE TOWNSHIP MUNICIPAL AUTHORITY
375 VALLEY STREET
NEW PHILADELPHIA, PA 17959-1218
CONTACT: MICHAEL E BURDA

SCHUYLKILL VALLEY SEWER AUTHORITY
PO BOX 314
MARY D, PA 17952-0314
CONTACT: RON GREENE
E-MAIL: suzanneapanavage@verizon.net

BLYTHE TOWNSHIP
NEW PHILADELPHIA RD
KASKA, PA 17959
CONTACT: GREG KURRILLA

VERIZON PENNSYLVANIA INC
201 STANWIX ST 4TH FLOOR
PITTSBURGH, PA 15222
CONTACT: OFFICE PERSONNEL

PPL ELECTRIC UTILITIES CORPORATION
4810 LYCOMING MALL DR
MONTROUSEVILLE, PA 17754
CONTACT: PAM SEITZER
E-MAIL: pdseitzer@pplweb.com

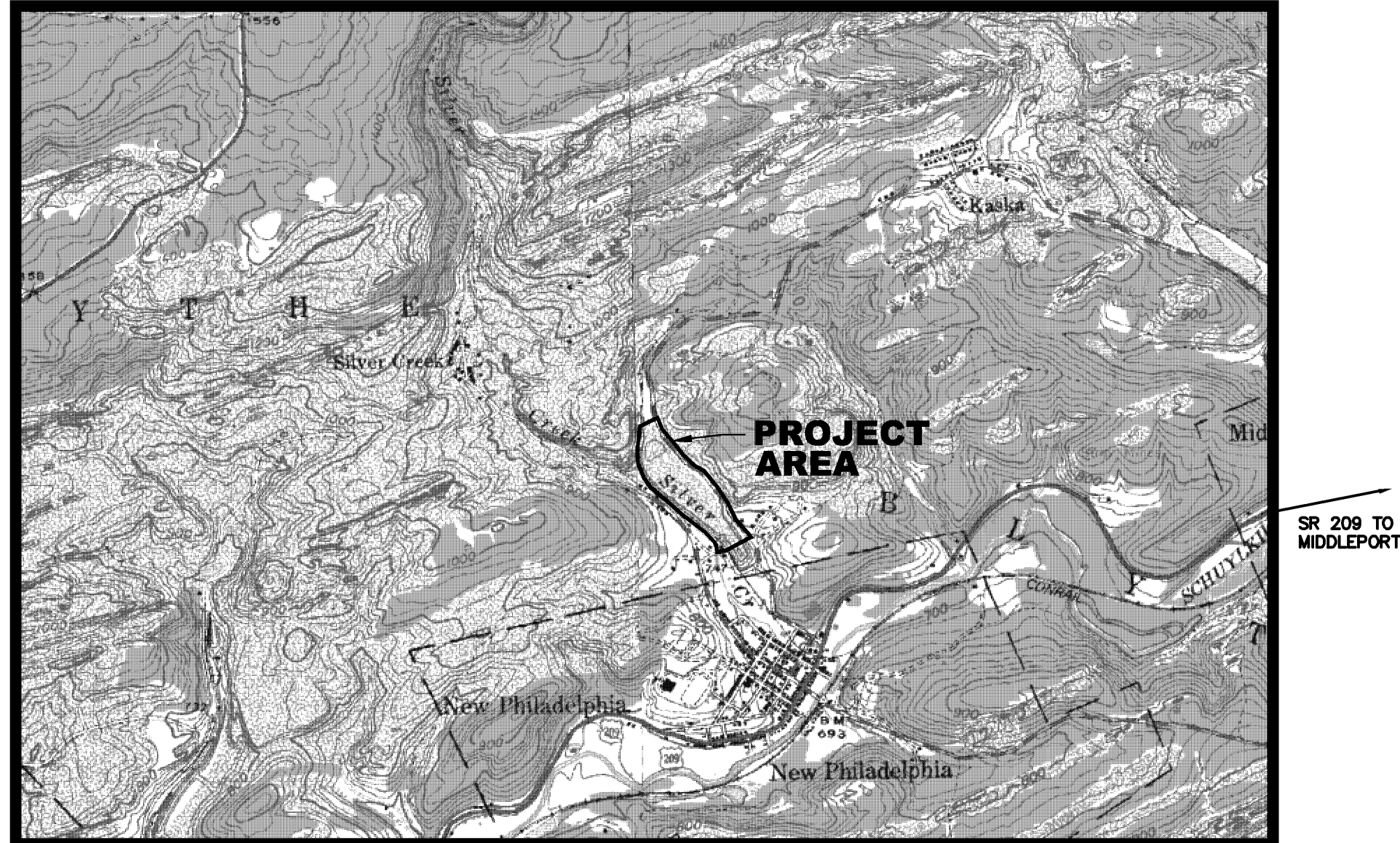
VERIZON PENNSYLVANIA INC
901 TATNALL STREET 2ND FLOOR
WILMINGTON, DE 19801
CONTACT: OFFICE PERSONNEL

SCHUYLKILL COUNTY MUNICIPAL AUTHORITY
221 SOUTH CENTRE STREET
PO BOX 960
POTTSVILLE, PA 17901
CONTACT: DAVID J HOLLEY
E-MAIL: dholley.scma@comcast.net

VERIZON PENNSYLVANIA INC
901 TATNALL STREET 2ND FLOOR
WILMINGTON, DE 19801
CONTACT: OFFICE PERSONNEL

SHEET INDEX

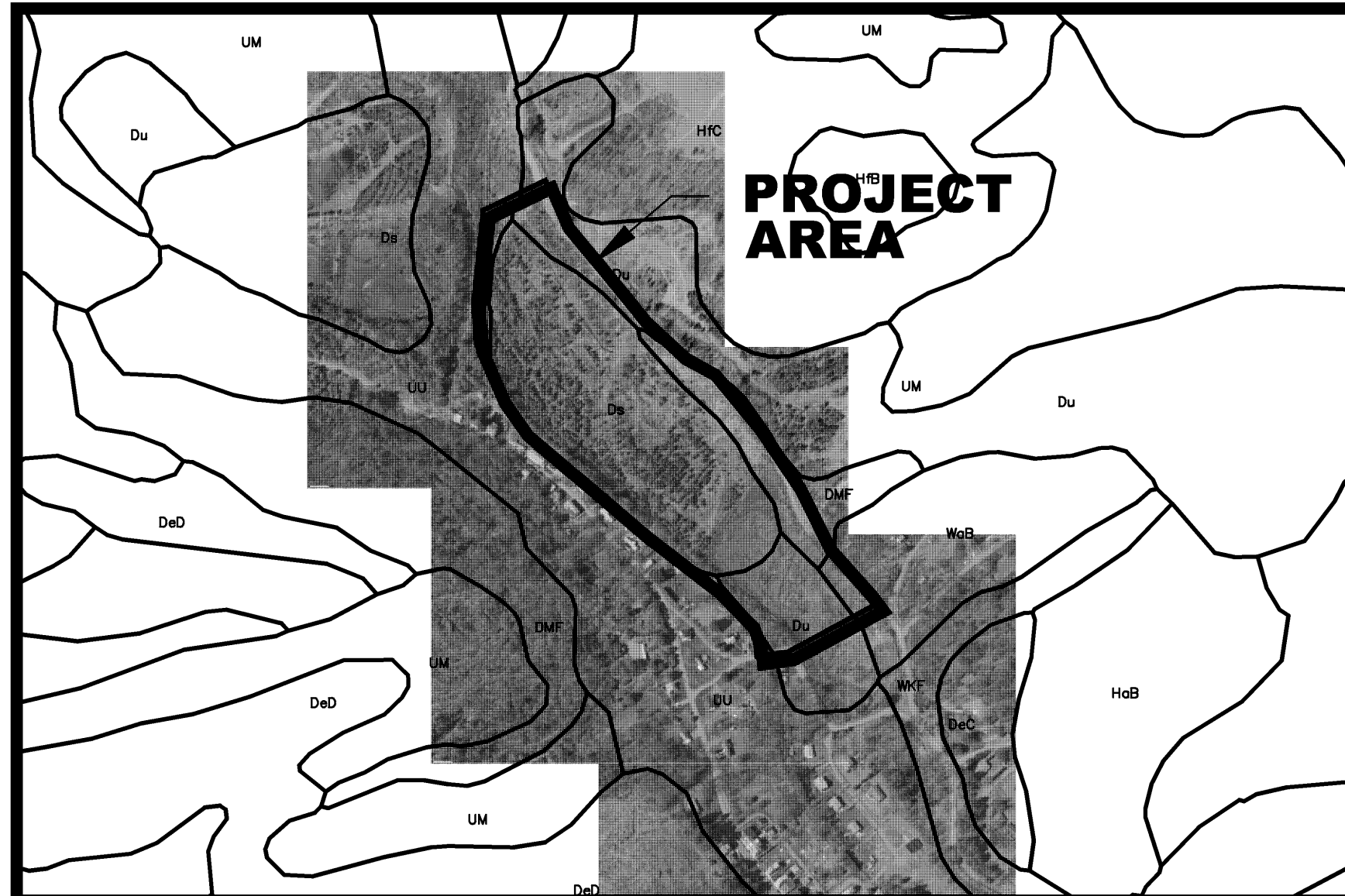
SHT. 1	COVER
SHT. 2	EXISTING PLAN
SHT. 3	EXISTING PLAN
SHT. 4	PROPOSED PLAN
SHT. 5	PROPOSED PLAN
SHT. 6	E & S PLAN
SHT. 7	E & S PLAN
SHT. 8	DETAILS
SHT. 9	DETAILS
SHT. 10	DETAILS
SHT. 11	DETAILS
SHT. 12	DETAILS



SHENANDOAH, DELANO, POTTSVILLE & ORWIGSBURG, PA USGS QUADS

LOCATION MAP


APPROXIMATE SCALE: 1"=2000'



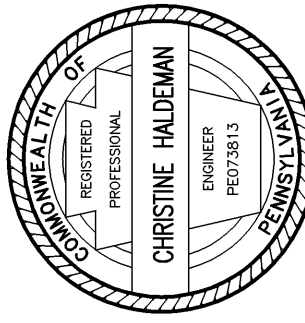
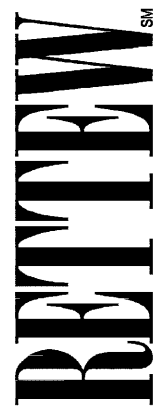
SOILS MAP
APPROXIMATE SCALE: 1"=600'

GENERAL NOTES

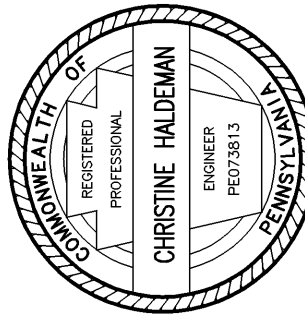
1. BENCHMARK - PK SET IN CONCRETE MANHOLE COSE SECTION, LOCATED NEARST 2ND STREET, 1/4 MILE WEST OF PISHOON POOL. 512960.38 NORTHING - 241970.33 EASTING ELEVATION 798.09
2. ALL EXISTING UTILITIES HAVE BEEN SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION.
3. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL ABOVE GROUND AND BELOW GROUND UTILITIES AND STRUCTURES AND WILL BE RESPONSIBLE FOR THE PROTECTION OF THESE UTILITIES AND STRUCTURES AT ALL TIMES.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE AND ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY AND COMPLETELY AT HIS EXPENSE.
5. THE PLAN LOCATIONS AND DIMENSIONS SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PLAN CHANGES, SHOULD THEY BE REQUIRED, ARE SUBJECT TO MUNICIPAL AND COUNTY ORDINANCES.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A COPY OF ALL PERMITS RELATED TO THE CONSTRUCTION SHOWN ON THESE PLANS ON THE JOB SITE AT ALL TIMES.
7. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE PROJECT SITE PRIOR TO THE START OF CONSTRUCTION.
8. CONTRACTOR SHALL NOTIFY ALL UTILITIES REQUIRED PER ACT 187 FOR VERIFICATION AND LOCATION OF UTILITIES PRIOR TO CONSTRUCTION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL JOB SITE SAFETY, ALL TRAFFIC CONTROL, TRENCH BARRICADING, COVERING, SHEETING AND SIGNS.
10. ALL BERMS AND IMPOUNDMENTS SHALL BE CONSTRUCTED IN 6" LIFTS AND COMPACTED TO 95% PROCTOR DENSITY.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ACCESS TO THE SITE WITH THE LANDOWNERS.
12. THE LIMESTONE AGGREGATE SHALL CONTAIN NOT LESS THAN NINETY PERCENT (90%) CALCIUM CARBONATE CONTENT, NOT MORE THAN FIVE PERCENT (5%) MAGNESIUM OXIDE (MgO), AND NOT MORE THAN FIVE PERCENT (5%) IRON OXIDE(Fe_2O_3). A SAMPLE OF THE LIMESTONE MUST BE TESTED BY A THIRD PARTY LABORATORY AND THE RESULTS MUST BE SUBMITTED FOR REVIEW PRIOR TO PLACEMENT OF ANY LIMESTONE.
13. ALL LIMESTONE AND NON-CALCAREOUS AGGREGATE UTILIZED ON SITE SHALL MEET SPECIFICATIONS FOR AGRICULTURE PER PENNDOT PRACTICES 408/2003. CERTIFICATION WILL BE REQUIRED FOR QUALITY AND CLASSIFICATION OF ALL AGGREGATE UTILIZED.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL FOR ALL UNUTILIZED MATERIAL ON THE SITE.
15. ALL CLAY MATERIAL SHALL BE COMPACTED TO ELIMINATE SEEPAGE.
16. MATERIAL FOR CONSTRUCTION OF BERMS SHALL BE CLEAN FILL, FREE OF ORGANIC MATERIAL AND STONES IN EXCESS OF 6" IN DIAMETER.
17. TRACKED EQUIPMENT SHALL BE ALLOWED ONITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR ANY DAMAGE CAUSED BY SUCH EQUIPMENT.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING RETNEW ASSOCIATES, INC., 2001 W. SCHUYLER AVE., SUITE 100, PISHOON, TEXAS 75678 (10) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

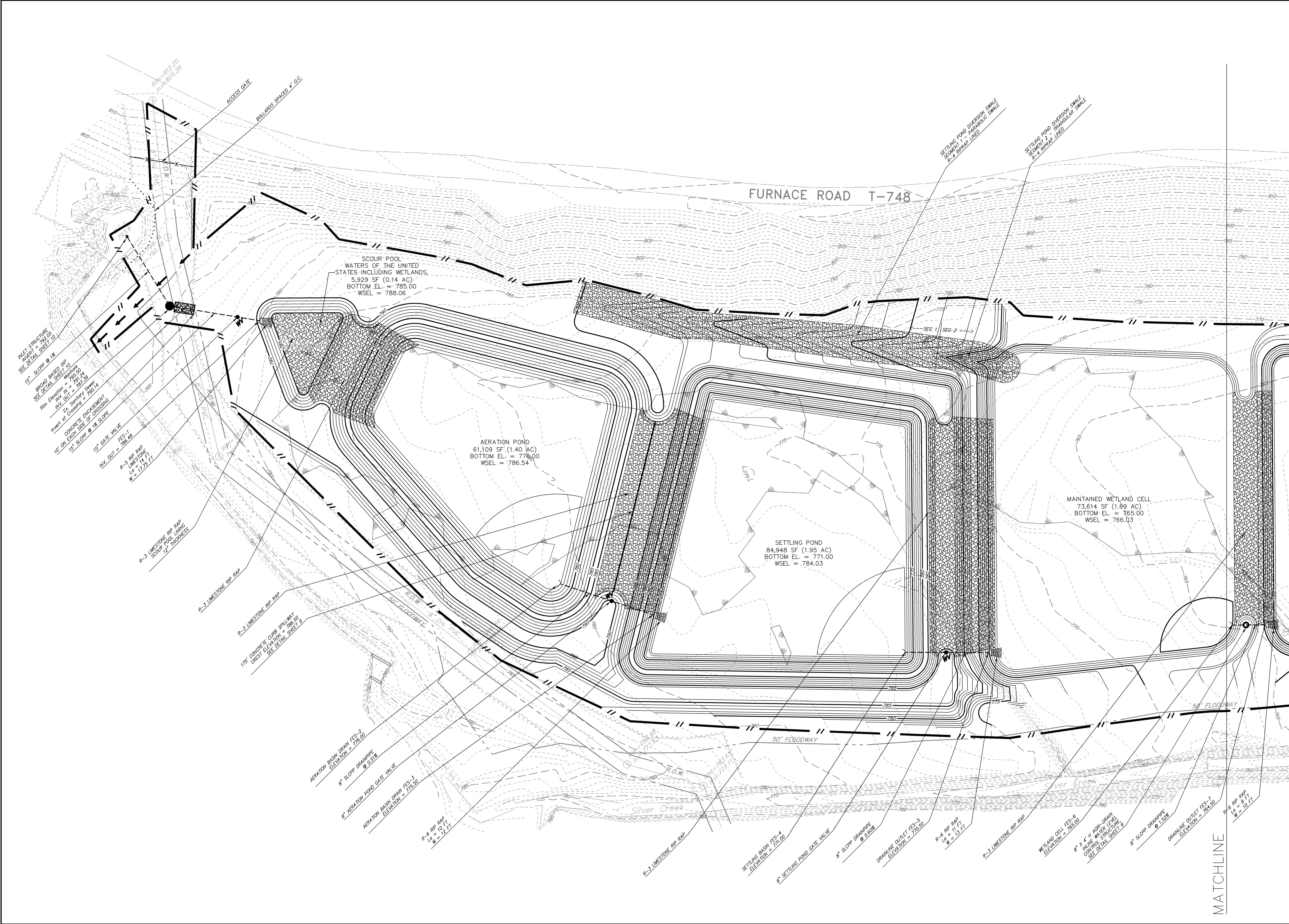
<p>ABANDONED MINE DRAINAGE REMEDIATION PROJECT</p> <p>FOR THE</p> <p>SILVER CREEK DISCHARGE</p> <p>COVER SHEET</p> <p>BLYTE TOWNSHIP</p> <p>SCHUYLKILL COUNTY, PA</p>		<p>RETEW ASSOCIATES, INC.</p> <p>RETEW Associates, Inc. 500 Main Street, Suite # 220 Schuylkill County, PA 17972 Phone (570) 385-2270 • Fax (570) 385-2217 Email: retew@retew.com Website: www.retw.com</p> <p>Engineers • Planners • Scientists • Landscape Architects Environmental Consultants</p>		<p>CLIENT</p> <p>SCHUYLKILL HEADWATERS ASSOCIATION, INC.</p> <p>P.O. BOX 1385 POTTSVILLE, PA 17901 PHONE: 570-385-2122</p> <p>SCALE</p> <p>AS NOTED</p>		<p>MANAGER: CLAYTON E. BUBECK, P.E.</p> <p>DESIGN BY: RTM</p> <p>CHKD BY: CEB</p> <p>SUPV. CHIEF: R. ORNER</p> <p>DRAWN BY: JCS</p> <p>FELDBROOK NO. JAMA OULETTE</p> <p>CHKD BY: CLM</p>		<p>XREFS:</p> <p>08-04234-000-TB1 08-03883-000-25RICHIE 08-04234-001-05 BORE</p>		<p>FOR RETIEW ASSOCIATES BY:</p> <p></p> <p>CHRISTINE HUDMAN PROFESSIONAL ENGINEER STATE OF PENNSYLVANIA NO. 003491 EXPIRATION DATE 12/31/2011</p>		<p>DRAWING REFERENCE: N: 08-04234-001 CAD VEE (08-04234-001-01 Cover.dwg)</p>		<p>NO. DATE</p> <p>1 10/7/09</p> <p>REVISION</p> <p>REVISED PER SD COMMENTS DATED 9/7/09</p>	
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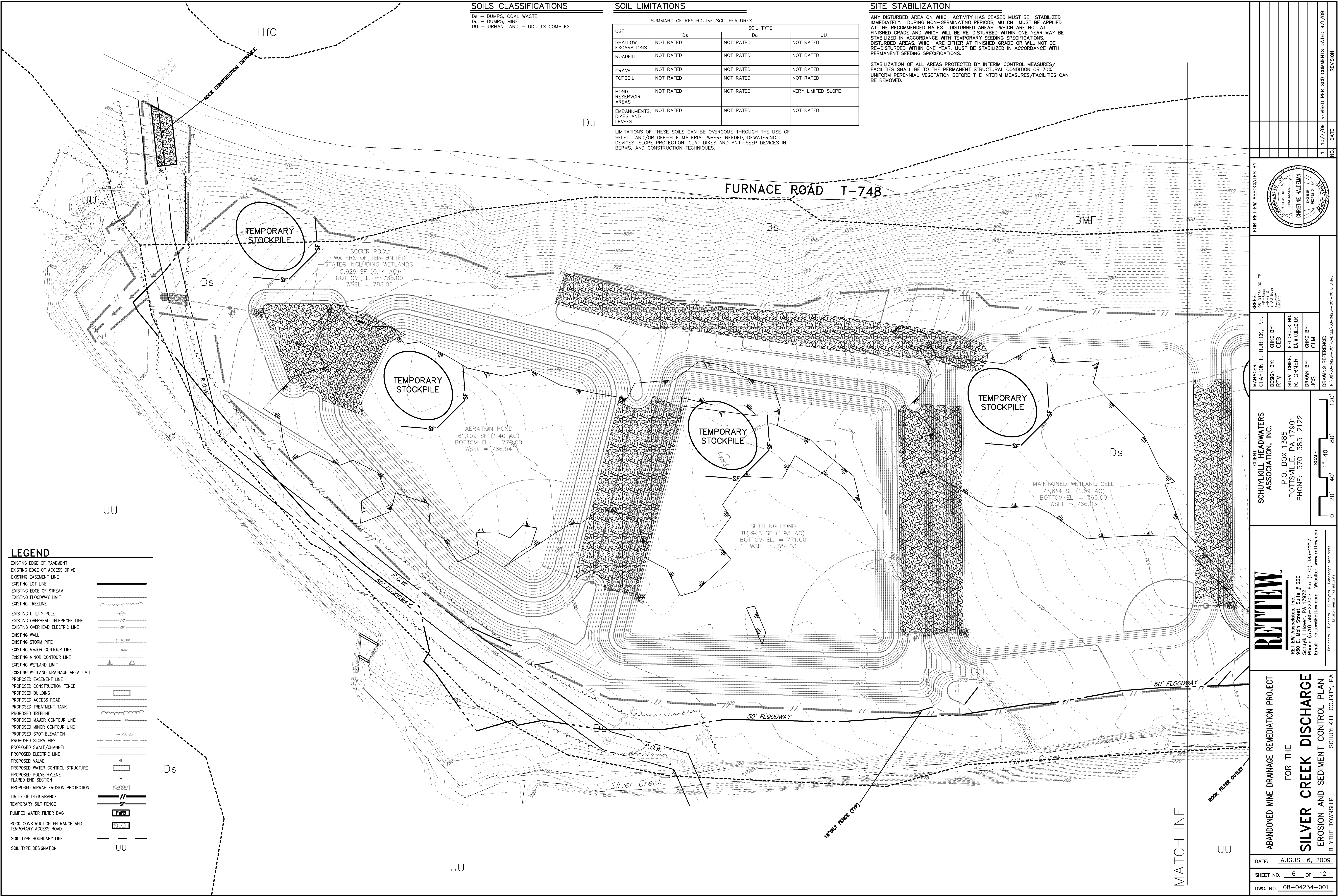
DATE: AUGUST 6, 2009		DWG. NO. 08-04234-001	
SHEET NO. 2 OF 12		NO. DATE	
1 10/7/09 REVISED PER SDC COMMENTS DATED 9/1/09		REVISION	
ABANDONED MINE DRAINAGE REMEDIATION PROJECT FOR THE SILVER CREEK DISCHARGE EXISTING SITE PLAN BLYTHE TOWNSHIP SCHUYLKILL COUNTY, PA		FOR RETIEW ASSOCIATES BY:  VIEWS: 08-04234-001-001 08-04234-001-002	
CLIENT SCHUYLKILL HEADWATERS ASSOCIATION, INC. P.O. BOX 1385 POTTSVILLE, PA 17901 PHONE: 570-385-2122		MANAGER: CLAYTON E. BUBECK, P.E. DESIGN BY: RTM SURV. CHIEF: R. ORNER DRAWN BY: JCS CHECKED BY: CEB FIELDBOOK NO. DATA COLLECTOR CHECKED BY: CLM	
 RETIEW Associates, Inc. 950 E. Main Street, Suite # 220 Schuylkill Haven, PA 17972 Phone (570) 385-2270 • Fax (570) 385-2217 Email: retiew@retiew.com Website: www.retiew.com Engineers • Planners • Surveyors • Landscape Architects Environmental Consultants		DRAWING REFERENCE: N:\US\08-04234-001\04234-001-002 Existing.dwg	



DATE: AUGUST 6, 2009		DWG. NO. 08-04234-001	
SHEET NO. 3 OF 12		FOR RETTEW ASSOCIATES BY:	
ABANDONED MINE DRAINAGE REMEDIATION PROJECT FOR THE SILVER CREEK DISCHARGE EXISTING SITE PLAN BLYTHE TOWNSHIP SCHUYLKILL COUNTY, PA		<div><p>FOR RETTEW ASSOCIATES BY:</p></div>	
RETTW ^{INC.} RETTW Associates, Inc. 950 E. Main Street, Suite # 220 Schuylkill Haven, PA 17972 Phone (570) 385-2270 • Fax (570) 385-2217 Email: rettew@rettew.com Website: www.rettew.com Engineers • Planners • Surveyors • Landscape Architects Environmental Consultants		CLIENT SCHUYLKILL HEADWATERS ASSOCIATION, INC. P.O. BOX 1385 POTTSVILLE, PA 17901 PHONE: 570-385-2122	
MANAGER: CLAYTON E. BUBECK, P.E. DESIGN BY: RTM SURV. CHIEF: R. ORNER DRAWN BY: JCS		VREFS: 08-04234-001-001.dwg 08-04234-001-002.dwg 08-04234-001-003.dwg	
CHD BY: CEB FELDBOOK NO. DATA COLLECTOR CHD BY: CLM		DRAWING REFERENCE: N:\US\08-04234-001\0401.dwg	
SCALE 0 20' 40' 80' 120' 1"=40'		NO. DATE	
		1 10/7/09 REVISED PER SCD COMMENTS DATED 9/1/09	
		REVISION	



DATE: AUGUST 6, 2009	
SHEET NO. 4 OF 12	
DWG. NO. 08-04234-001	
ABANDONED MINE DRAINAGE REMEDIATION PROJECT FOR THE SILVER CREEK DISCHARGE PROPOSED SITE PLAN BLYTHE TOWNSHIP SCHUYLKILL COUNTY, PA	
RETTEW RETTEW Associates, Inc. 950 E. Main Street, Suite # 220 Schuylkill Haven, PA 17972 Phone (570) 385-2270 • Fax (570) 385-2217 Email: rettew@rettew.com Website: www.rettew.com Engineers • Planners • Surveyors • Landscape Architects Environmental Consultants	
CLIENT SCHUYLKILL HEADWATERS ASSOCIATION, INC. P.O. BOX 1385 POTTSVILLE, PA 17901 PHONE: 570-385-2122	
FOR RETTEW ASSOCIATES BY: MANAGER: CLAYTON E. BUBECK, P.E. DESIGN BY: RTM SURV. CHIEF: FELDBOOK NO. R. ORNER DRAWN BY: JCS CHECKED BY: CEB DATA COLLECTOR: R. ORNER CHECKED BY: CLM VIEWS: 08-04234-001-001-Base 08-04234-001-002-Base 08-04234-001-003-Base DRAWING REFERENCE: N:\US\08-04234-001\CAD\08-04234-001-04_Proposed.dwg	
PROFESSIONAL SEAL REGISTERED PROFESSIONAL CHRISTINE HALDEMAN EX-009 PD07813	
NO. DATE REVISION 1 10/7/09 REVISED PER SDC COMMENTS DATED 9/1/09	



SOILS CLASSIFICATIONS
Ds - DUMPS, COAL WASTE
Du - DUMPS, MINE
UU - URBAN LAND - UDULTS COMPLEX

USE	SUMMARY OF RESTRICTIVE SOIL FEATURES		
	Ds	Du	UU
SHALLOW EXCAVATIONS	NOT RATED	NOT RATED	NOT RATED
ROADFILL	NOT RATED	NOT RATED	NOT RATED
GRAVEL	NOT RATED	NOT RATED	NOT RATED
TOPSOIL	NOT RATED	NOT RATED	NOT RATED
POND RESERVOIR AREAS	NOT RATED	NOT RATED	VERY LIMITED SLOPE
EMBANKMENTS, DIKES AND LEVEES	NOT RATED	NOT RATED	NOT RATED

LIMITATIONS OF THESE SOILS CAN BE OVERCOME THROUGH THE USE OF SELECT AND/OR OFF-SITE MATERIAL WHERE NEEDED, DEWATERING DEVICES, SLOPE PROTECTION, CLAY DIKES AND ANTI-SEEP DEVICES IN BERMS, AND CONSTRUCTION TECHNIQUES.

SITE STABILIZATION
ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED MUST BE STABILIZED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN ONE YEAR MAY BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING SPECIFICATIONS. DISTURBED AREAS, WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE RE-DISTURBED WITHIN ONE YEAR, MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS.
STABILIZATION OF ALL AREAS PROTECTED BY INTERIM CONTROL MEASURES/FACILITIES SHALL BE TO THE PERMANENT STRUCTURAL CONDITION OR FOR UNIFORM PERENNIAL VEGETATION BEFORE THE INTERIM MEASURES/FACILITIES CAN BE REMOVED.

LEGEND

- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF ACCESS DRIVE
- EXISTING EASEMENT LINE
- EXISTING LOT LINE
- EXISTING EDGE OF STREAM
- EXISTING FLOODWAY LIMIT
- EXISTING TREELINE
- EXISTING UTILITY POLE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING WALL
- EXISTING STORM PIPE
- EXISTING MAJOR CONTOUR LINE
- EXISTING MINOR CONTOUR LINE
- EXISTING WETLAND LIMIT
- EXISTING WETLAND DRAINAGE AREA LIMIT
- PROPOSED EASEMENT LINE
- PROPOSED CONSTRUCTION FENCE
- PROPOSED BUILDING
- PROPOSED ACCESS ROAD
- PROPOSED TREATMENT TANK
- PROPOSED TREELINE
- PROPOSED MAJOR CONTOUR LINE
- PROPOSED MINOR CONTOUR LINE
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE
- PROPOSED SWALE/CHANNEL
- PROPOSED ELECTRIC LINE
- PROPOSED VALVE
- PROPOSED WATER CONTROL STRUCTURE
- PROPOSED POLYETHYLENE FLARED END SECTION
- PROPOSED RIPRAP EROSION PROTECTION
- LIMITS OF DISTURBANCE
- TEMPORARY SILT FENCE
- PUMPED WATER FILTER BAG
- ROCK CONSTRUCTION ENTRANCE AND TEMPORARY ACCESS ROAD
- SOIL TYPE BOUNDARY LINE
- SOIL TYPE DESIGNATION

FOR RETNEW ASSOCIATES BY:

MANAGER: CLAYTON E. BUBECK, P.E.

DESIGN BY: RTM

SURV. CHIEF: R. ORNER

DRAWN BY: JCS

CLIENT: SCHUYLKILL HEADWATERS ASSOCIATION, INC.

P.O. BOX 1385
POTTSVILLE, PA 17901
PHONE: 570-385-2122

RETNEW Associates, Inc.
950 E. Main Street, Suite # 220
Schuylkill Haven, PA 17972
Phone (570) 385-2270 • Fax (570) 385-2217
Email: retnew@retnew.com Website: www.retnew.com

Engineers • Planners • Surveyors • Landscape Architects
Environmental Consultants

ABANDONED MINE DRAINAGE REMEDIATION PROJECT

FOR THE

SILVER CREEK DISCHARGE

EROSION AND SEDIMENT CONTROL PLAN

BLYTE TOWNSHIP
SCHUYLKILL COUNTY, PA

DATE: AUGUST 6, 2009

SHEET NO. 6 OF 12

DWG. NO. 08-04234-001

REVISION

DATE

NO.

1 10/7/09 REVISED PER SCD COMMENTS DATED 9/1/09

VRFFS:

08-04234-001 TB
2-P-005
2-P-006
2-P-007
2-P-008
Legend

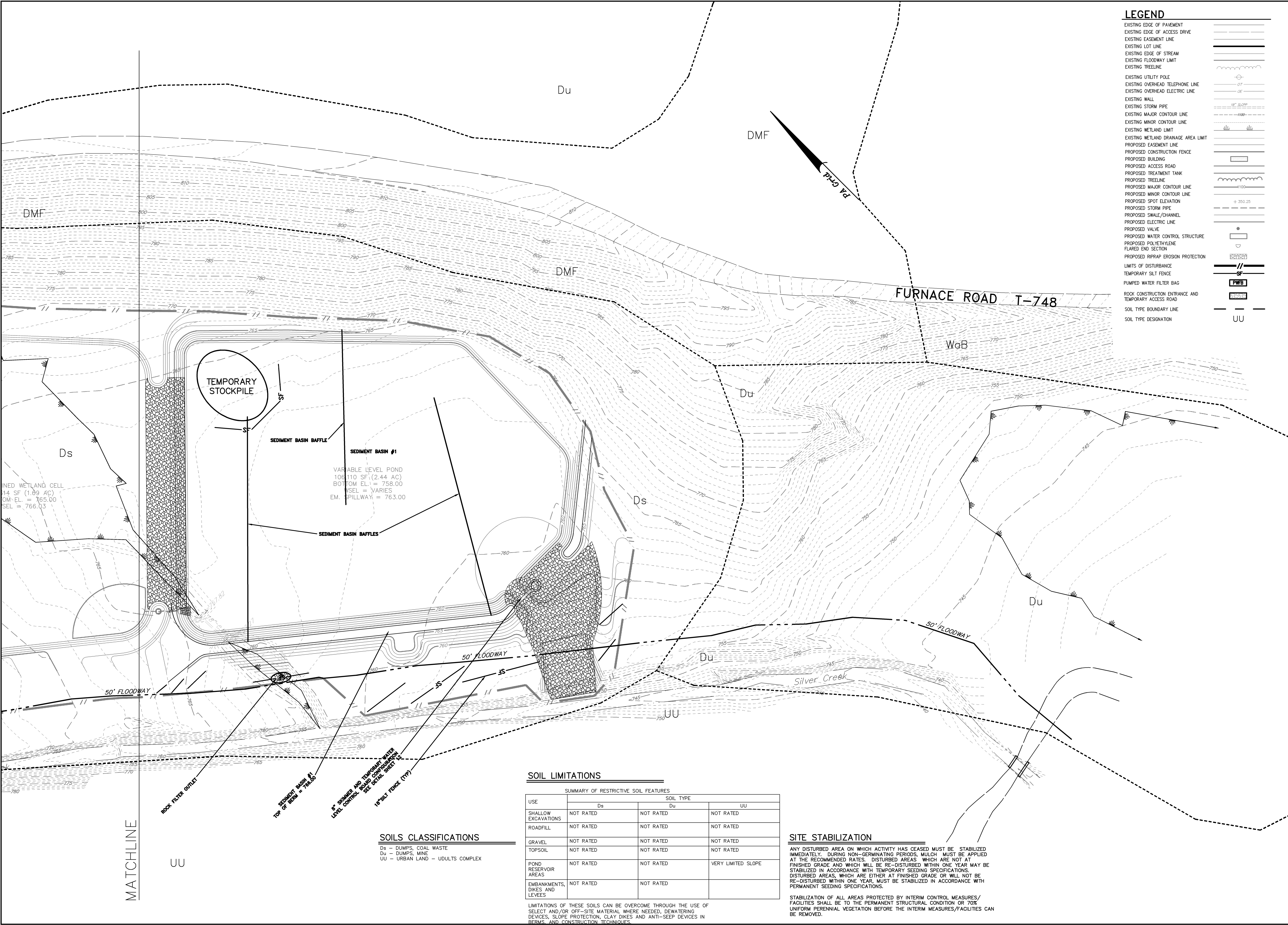
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SCALE

1"=40'

0 20' 40' 120'



LEGEND

- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF ACCESS DRIVE
- EXISTING EASEMENT LINE
- EXISTING LOT LINE
- EXISTING EDGE OF STREAM
- EXISTING FLOODWAY LIMIT
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FOR RETTEW ASSOCIATES BY:

REVISION

DATE

1 10/7/09 REVISED PER SDC COMMENTS DATED 9/1/09

MANAGER: CLAYTON E. BUBECK, P.E.

DESIGN BY: CEB

SURV. CHIEF: R. ORNER

DRAWN BY: JCS

CHD BY: CEB

FELDBOOK NO. DATA COLLECTOR

CHD BY: CLM

DRAWING REFERENCE: N:\US\08-04234-001\08-04234-001-06.dwg

CLIENT: SCHUYLKILL HEADWATERS ASSOCIATION, INC.

P.O. BOX 1385
POTTSVILLE, PA 17901
PHONE: 570-385-2122

RETTEW

RETTEW Associates, Inc.
950 E. Main Street, Suite # 220
Schuylkill Haven, PA 17972
Phone (570) 385-2270 • Fax (570) 385-2217
Email: rettew@rettew.com Website: www.rettew.com

Engineers • Planners • Surveyors • Landscape Architects
Environmental Consultants

ABANDONED MINE DRAINAGE REMEDIATION PROJECT

FOR THE

SILVER CREEK DISCHARGE

EROSION AND SEDIMENT CONTROL PLAN

BLYTE TOWNSHIP SCHUYLKILL COUNTY, PA

DATE: AUGUST 6, 2009

SHEET NO. 7 OF 12

DWG. NO. 08-04234-001

SOIL LIMITATIONS

USE	SUMMARY OF RESTRICTIVE SOIL FEATURES		
	SOIL TYPE		
	Ds	Du	UU
SHALLOW EXCAVATIONS	NOT RATED	NOT RATED	NOT RATED
ROADFILL	NOT RATED	NOT RATED	NOT RATED
GRAVEL	NOT RATED	NOT RATED	NOT RATED
TOPSOIL	NOT RATED	NOT RATED	NOT RATED
POND RESERVOIR AREAS	NOT RATED	NOT RATED	VERY LIMITED SLOPE
EMBANKMENTS, DIKES AND LEVEES	NOT RATED	NOT RATED	

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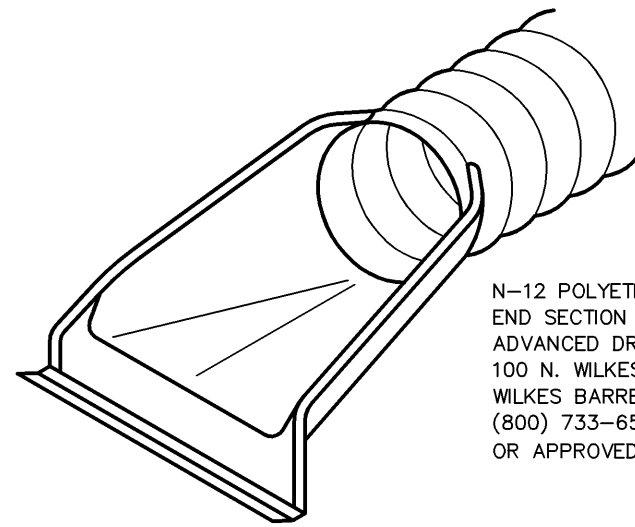
SITE STABILIZATION

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STABILIZATION OF ALL AREAS PROTECTED BY INTERIM CONTROL MEASURES/FACILITIES SHALL BE TO THE PERMANENT STRUCTURAL CONDITION OR 70% UNIFORM PERENNIAL VEGETATION BEFORE THE INTERIM MEASURES/FACILITIES CAN BE REMOVED.

SOILS CLASSIFICATIONS

Ds - DUMPS, COAL WASTE
Du - DUMPS, MINE
UU - URBAN LAND - UDULTS COMPLEX

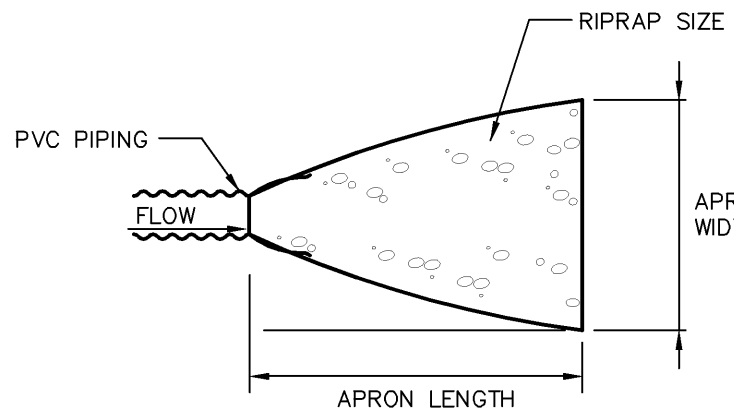


N-12 POLYETHYLENE FLARED
END SECTION PER: ADS
ADVANCED DRAINAGE SYSTEMS, INC.
100 N. WILKES BARRE BLVD.
WILKES BARRE, PA 18702
(800) 733-6564
OR APPROVED EQUIVALENT

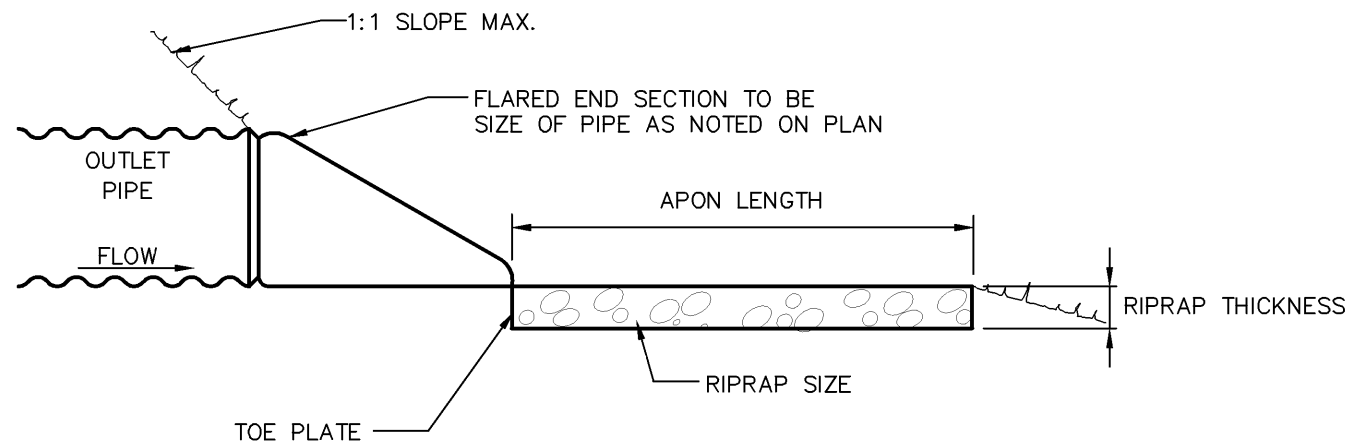
ISOMETRIC

POLYETHYLENE FLARED END SECTION

NOT TO SCALE
SP/050035



PLAN



CROSS-SECTION

OUTLET	PIPE DIA.	TAILWATER CONDITION	MAX FLOW	MAX VELOCITY	APRON LENGTH	APRON WIDTH	RIPRAP SIZE	RIPRAP THICKNESS
FES-1	15"	MIN	12.00	9.80	14'	17'-9"	R-5	27"
FES-3	8"	MIN	5.28	15.13*	10'	12'	R-6	30"
FES-5	8"	MIN	6.34	18.16*	11'	13'	R-6	30"
FES-7	8"	MIN	4.36	12.48	8'	10'	R-6	30"

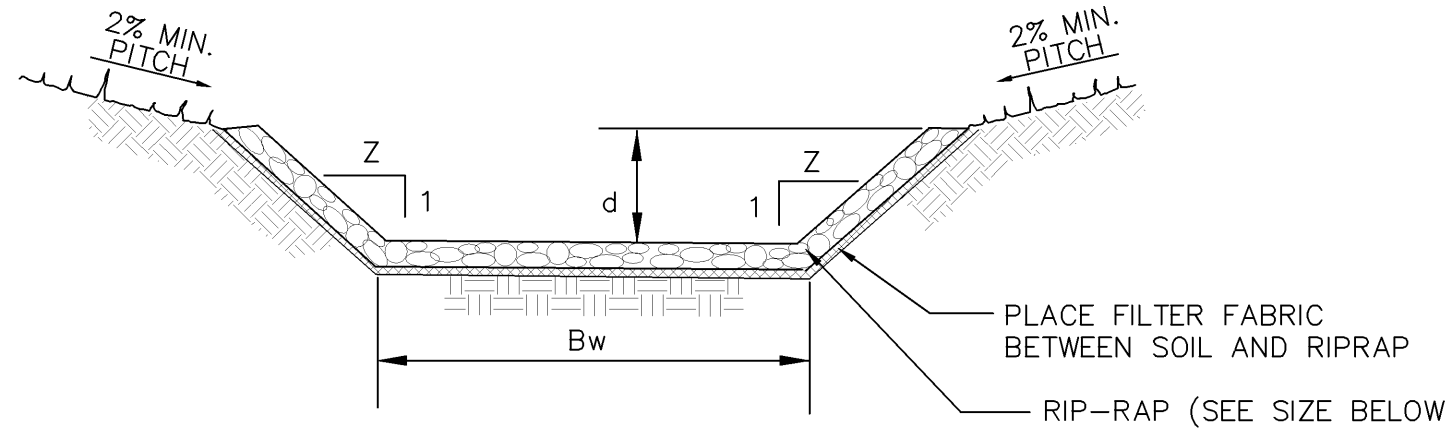
NOTES:

- MERGE END SECTION INTO RIPRAPPED SPILLWAYS WHERE REQUIRED.
- SHOULD REQUIRED SPILLWAY RIPRAP SIZE EXCEED REQUIRED OUTLET PROTECTION RIPRAP USE THE REQUIRED SPILLWAY RIPRAP.

* SEE CALCULATION DOCUMENTS FOR EXPLANATION OF MAXIMUM VELOCITY EXCEEDANCE.

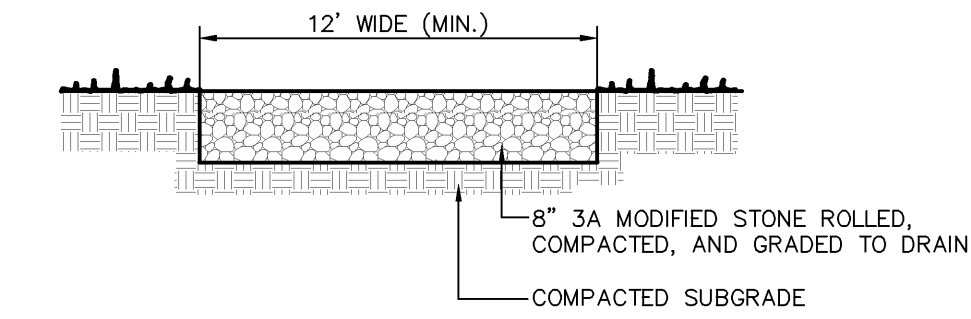
FLARED END SECTION
OUTLET PROTECTION

NOT TO SCALE



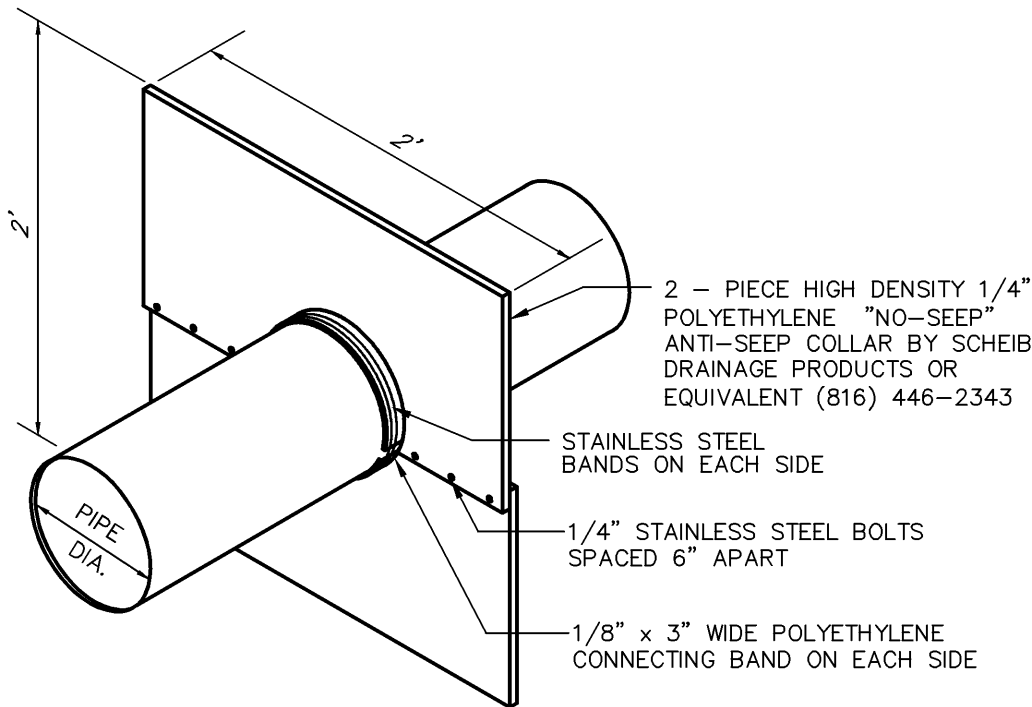
RIP-RAP CHANNEL DETAIL

NOT TO SCALE
SW/050013



STONE ROADWAY SECTION

NOT TO SCALE
PA/P018



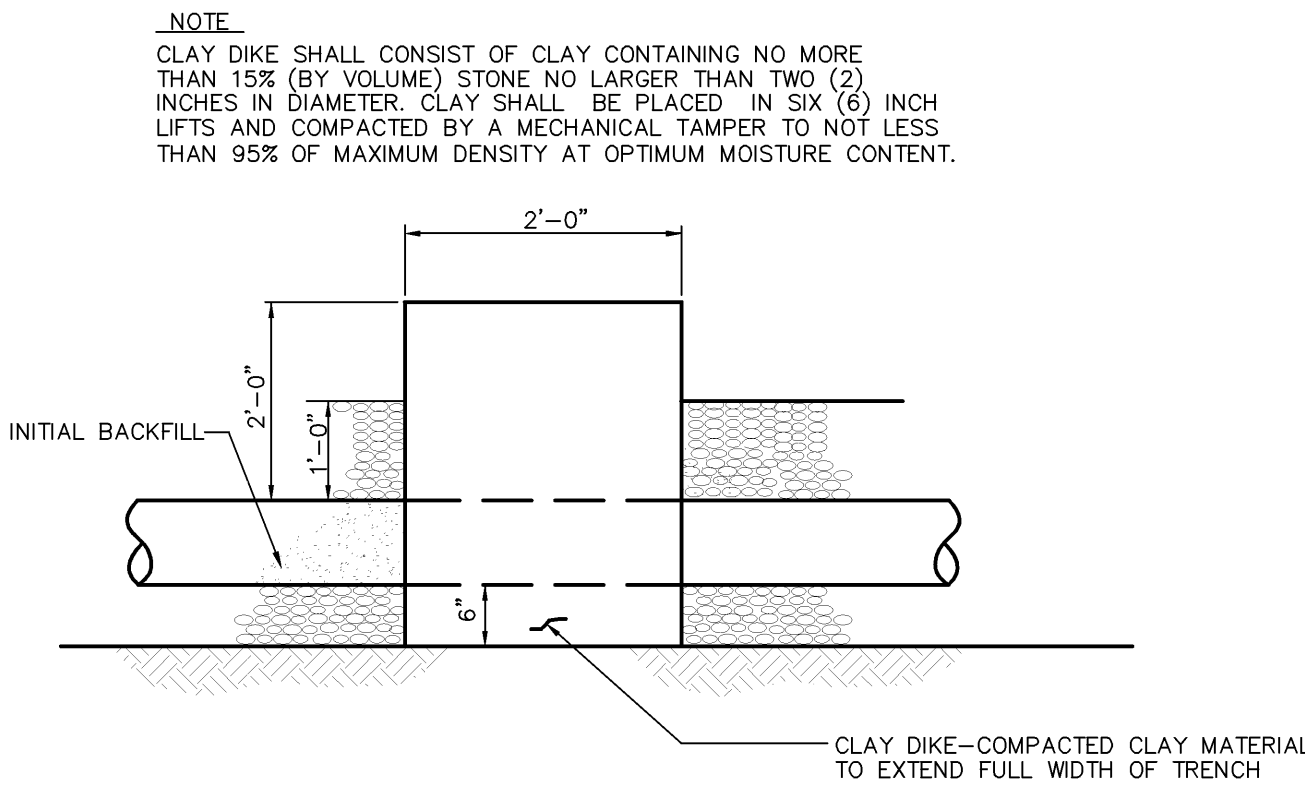
OUTLET	NUMBER OF COLLARS REQUIRED	DISTANCE FROM UPSTREAM END OF PIPE TO 1ST COLLAR	DISTANCE BETWEEN COLLARS
AERATION POND DRAINPIPE	4	12'	20'
SETTLING POND DRAINPIPE	4	8'	21'
WETLAND CELL DRAINPIPE	1	8'	N/A
VARIABLE LEVEL POND DRAINPIPE	2	8'	21'

NOTES:

- SEE BASIN EMBANKMENT DETAIL FOR LOCATION WITHIN BERM.
- APPLY MASTIC TO CONNECTING BANDS AND SET IN PLACE. BOLT HALVES TOGETHER & INSTALL METAL BANDS ON SPLIT HALVES OF COLLAR. TIGHTEN BOLTS AND BANDS. APPLY MASTIC AS NEEDED TO INSURE GOOD SEAL. BACKFILL AND HAND TAMP.

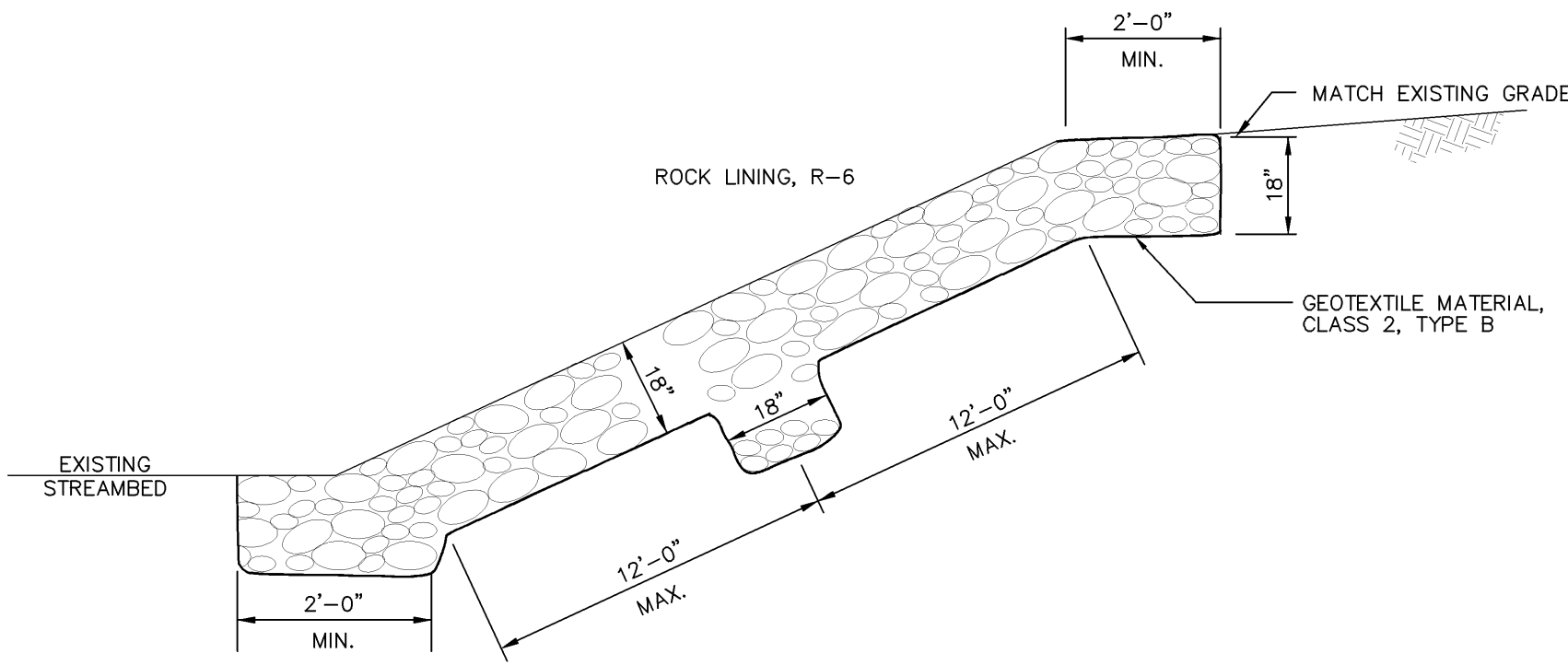
ANTI-SEEP COLLAR-POLYETHYLENE

NOT TO SCALE
SP/050054



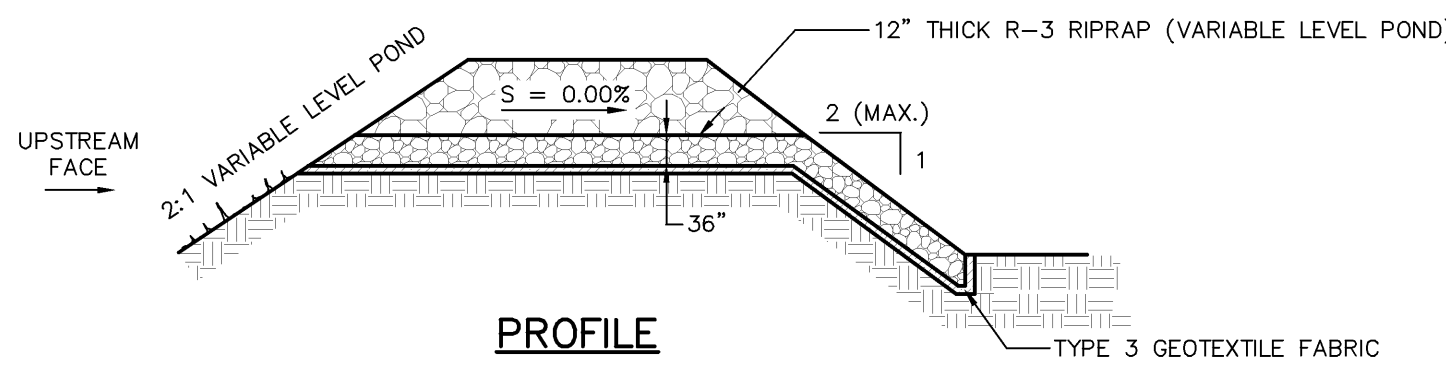
CLAY DIKE DETAIL

NOT TO SCALE

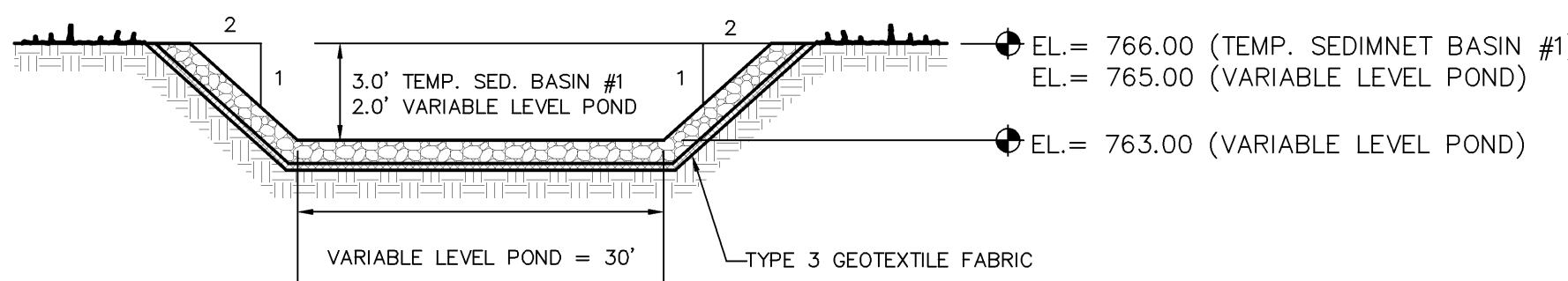


RIPRAP STREAMBANK STABILIZATION

NOT TO SCALE
SP/05017



PROFILE

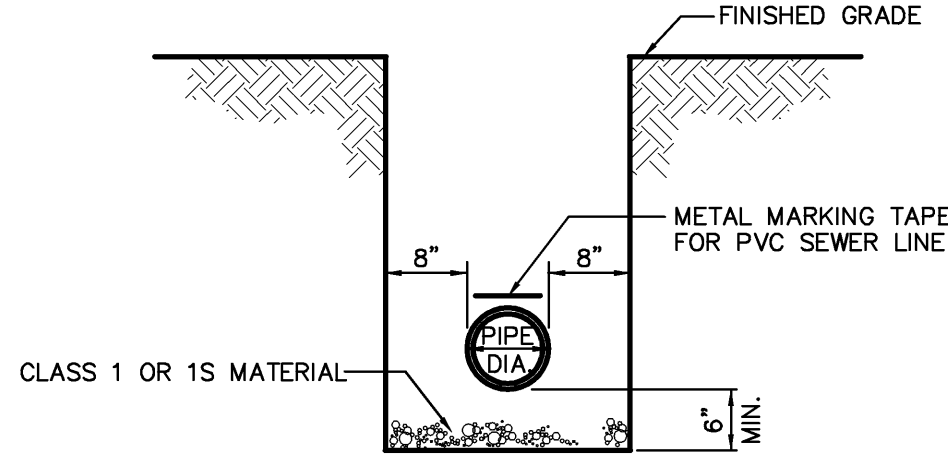


SECTION

EMERGENCY SPILLWAY

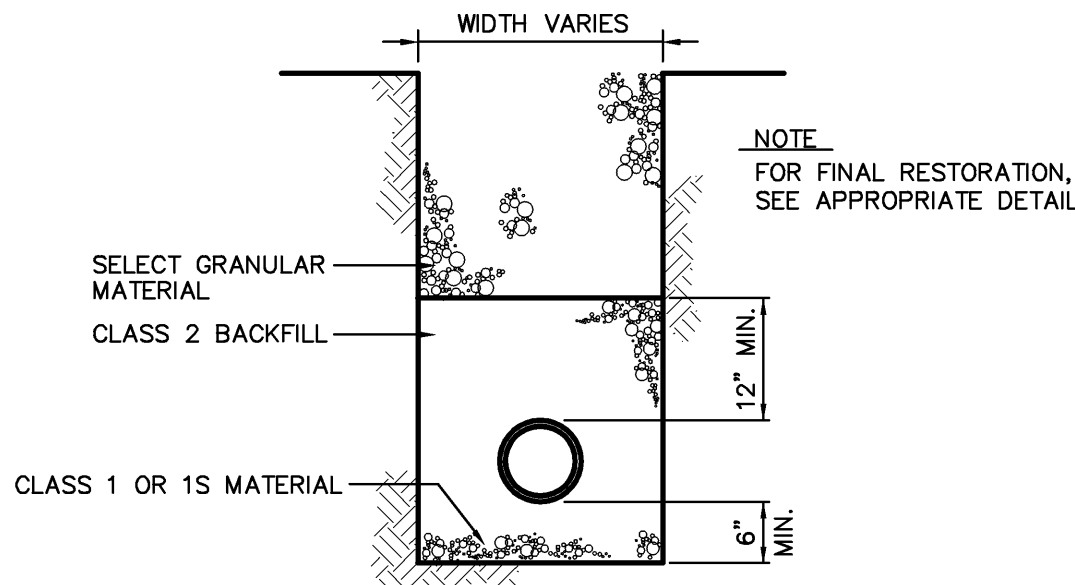
NOT TO SCALE
SP/05026

OUTLET	APRON LENGTH	APRON WIDTH	RIPRAP SIZE	RIPRAP THICKNESS
VARIABLE LEVEL POND	R-3 LIMESTONE	RIP-RAP	12"	



TYPICAL TRENCH DETAIL

NO SCALE

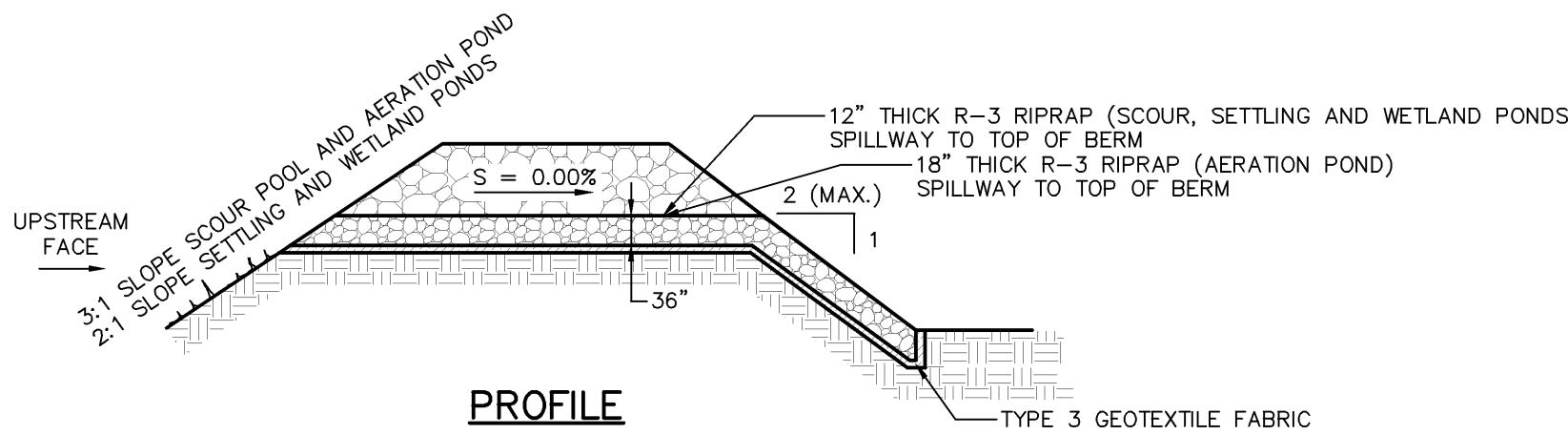


TYPICAL BACKFILL
(NON-PAVED AREAS)

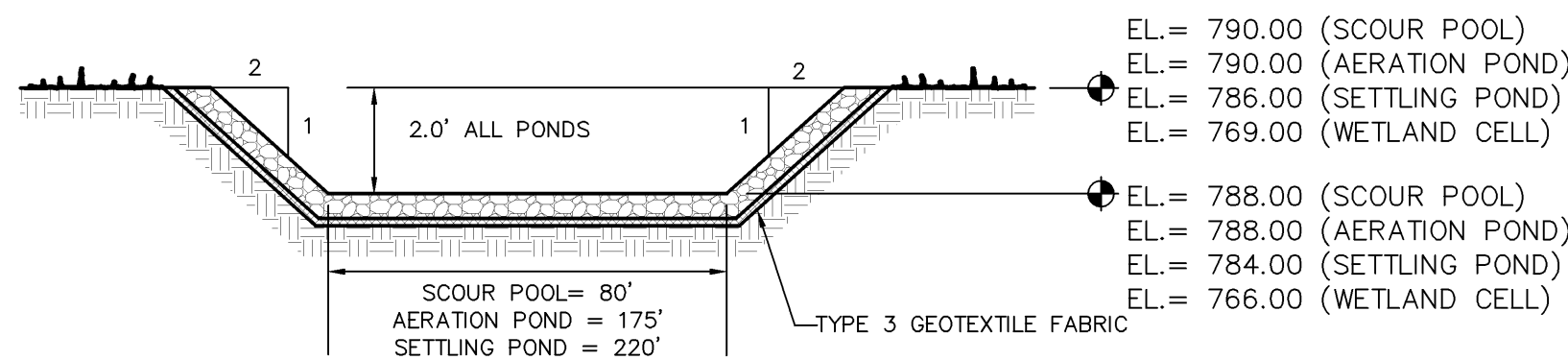
NO SCALE

CLASSIFICATION OF MATERIALS:

- CLASS 1 - THIS MATERIAL SHALL CONSIST OF 2A COARSE AGGREGATE OR 2 RC STONE FREE OF SLAG, EXCEPT IN WET OR UNSTABLE AREAS WHERE THE BEDDING MAY BE NO. 8 OR NO. 57 COARSE AGGREGATE. ALL MATERIALS SHALL CONFORM TO PennDOT PUBLICATION 408, SECTION 703.3.
- CLASS 1S - THIS MATERIAL SHALL CONSIST OF NO. 8 COARSE AGGREGATE FREE OF SLAG, EXCEPT IN WET OR UNSTABLE AREAS WHERE THE BEDDING MAY BE NO. 8 OR NO. 57 COARSE AGGREGATE. ALL MATERIALS SHALL CONFORM TO PennDOT PUBLICATION 408, SECTION 703.3.
- CLASS 2 - THIS MATERIAL SHALL CONSIST OF EXCAVATED MATERIAL FREE FROM CINDERS, ASHES, REFUSE, VEGETABLE OR ORGANIC MATERIAL, BOULDERS, ROCKS NO LARGER THAN FOUR (4) INCHES IN DIMENSION, STONE OR OTHER MATERIAL WHICH IN THE OPINION OF THE ENGINEER IS UNSUITABLE.



PROFILE



SECTION

BROAD CRESTED SPILLWAY

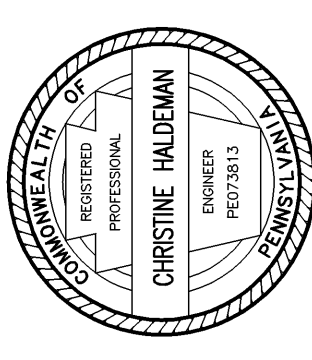
NOT TO SCALE
SP/050026

OUTLET	APRON LENGTH	APRON WIDTH	RIPRAP SIZE	RIPRAP THICKNESS
SCOUR POOL	R-3 LIMESTONE	RIP-RAP	12"	
AERATION POND (1)	R-3 LIMESTONE	RIP-RAP	12"	
SETTLING POND	R-3 LIMESTONE	RIP-RAP	12"	
MAINTAINED WETLAND CELL	R-3 LIMESTONE	RIP-RAP	12"	

NOTES:

- SEE SHEET 9 FOR AERATION POND SPILLWAY DETAIL.

FOR RETTEW ASSOCIATES BY:



REFERENCES:
04-03883-000-1B
04-03883-000-2B
08-04234-000-1B
08-04234-000-2B

MANAGER: CLAYTON E. BUBACK, P.E.
DESIGN BY: CHD BY: RTM
SURV. CHIEF: FELBOOK NO. R. ORNER
DRAWN BY: JCS
CHECK BY: CLM

CLIENT: SCHUYLKILL HEADWATERS ASSOCIATION, INC.
P.O. BOX 1385
POTTSVILLE, PA 17901
PHONE: 570-385-2122

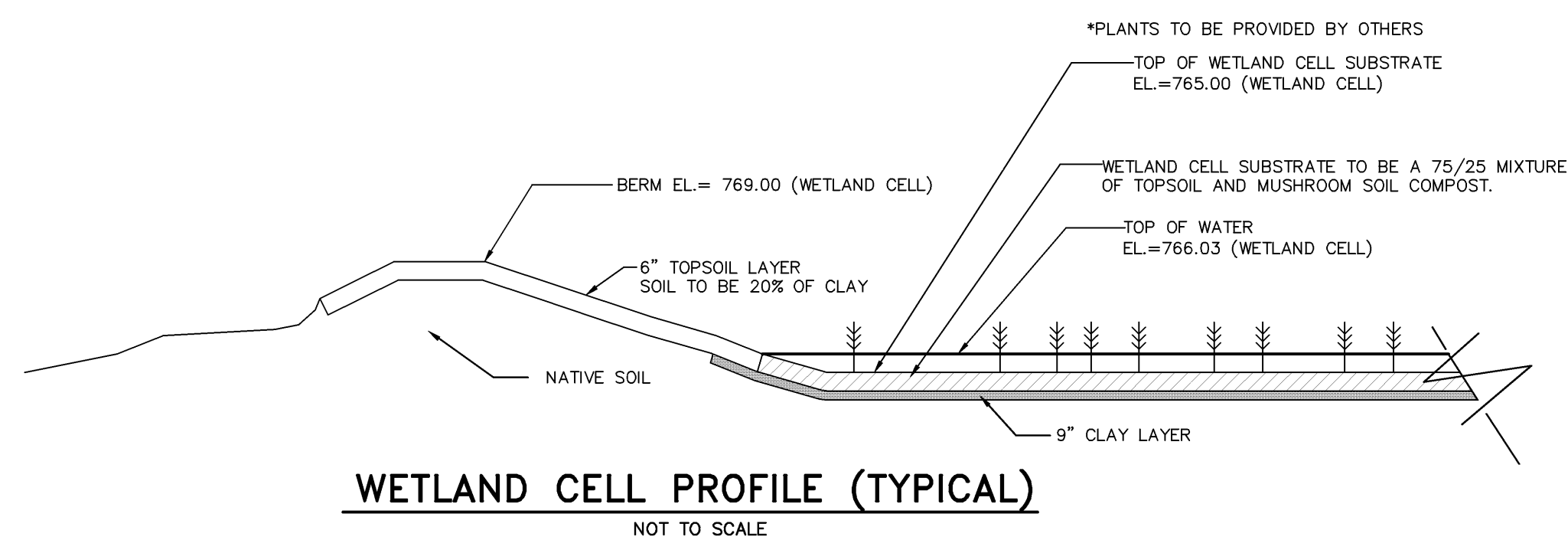
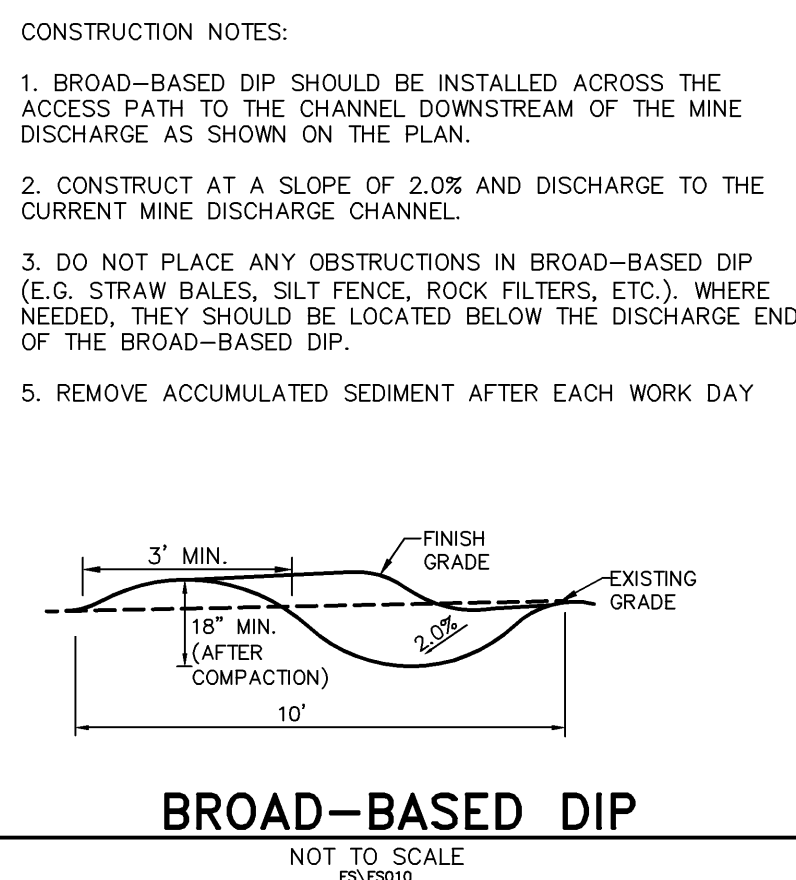
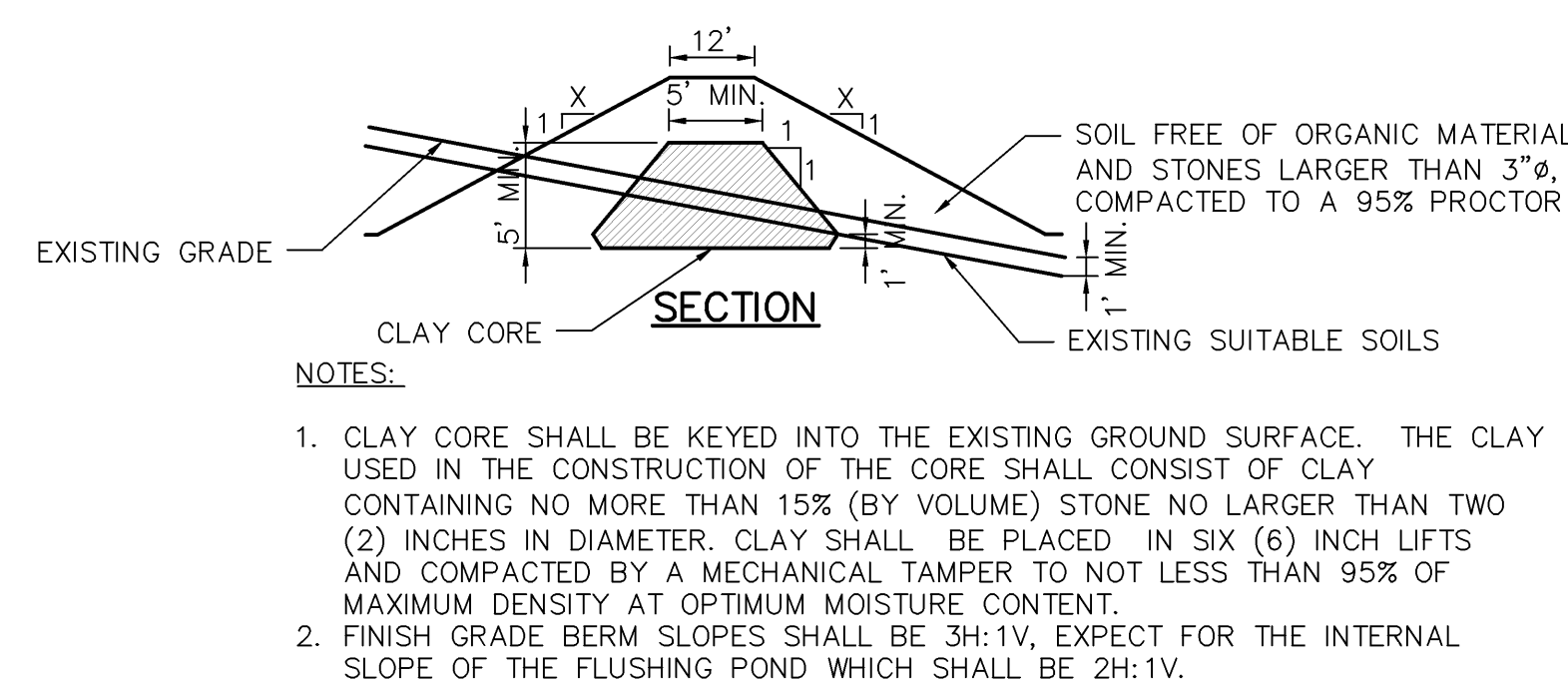
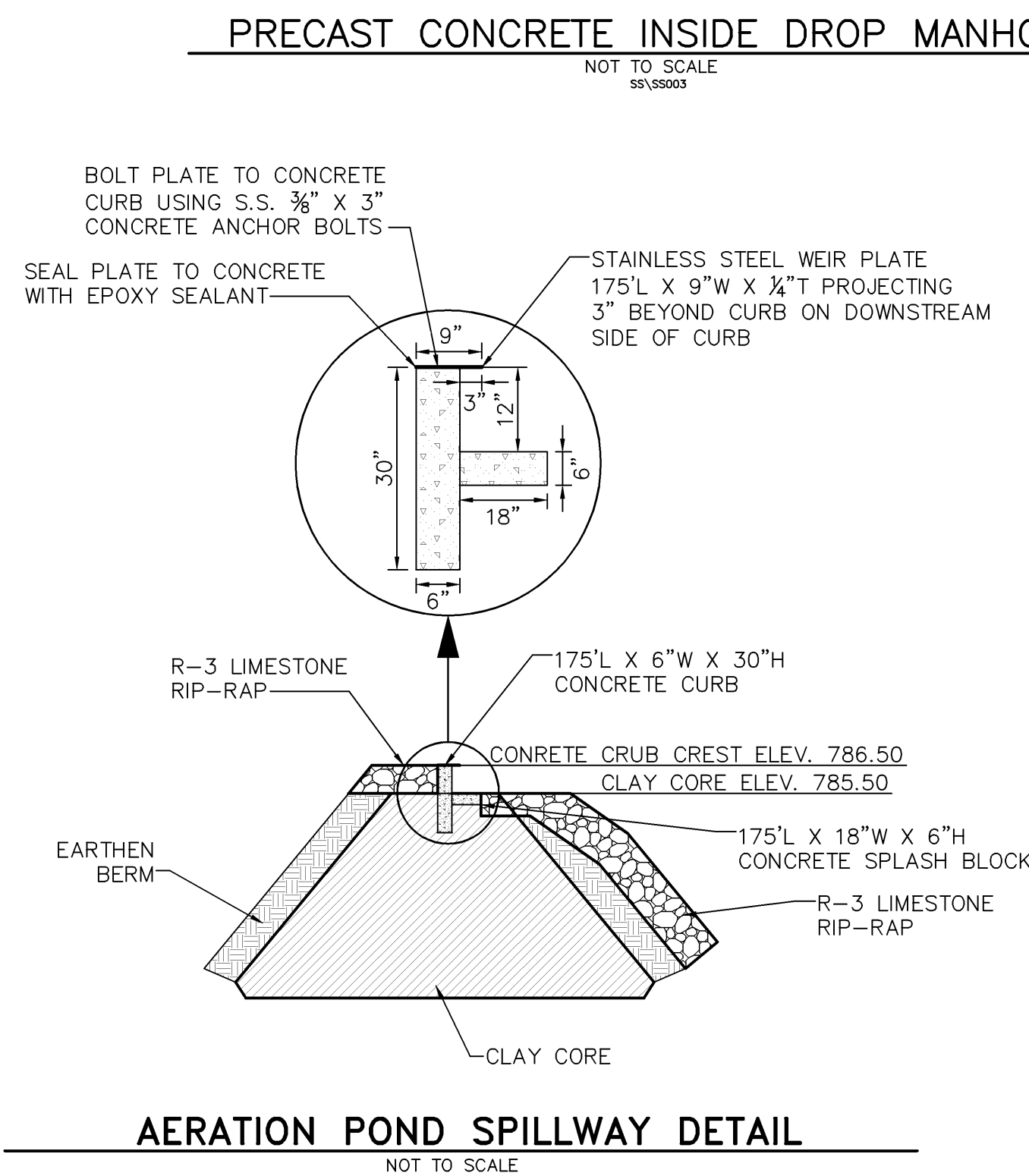
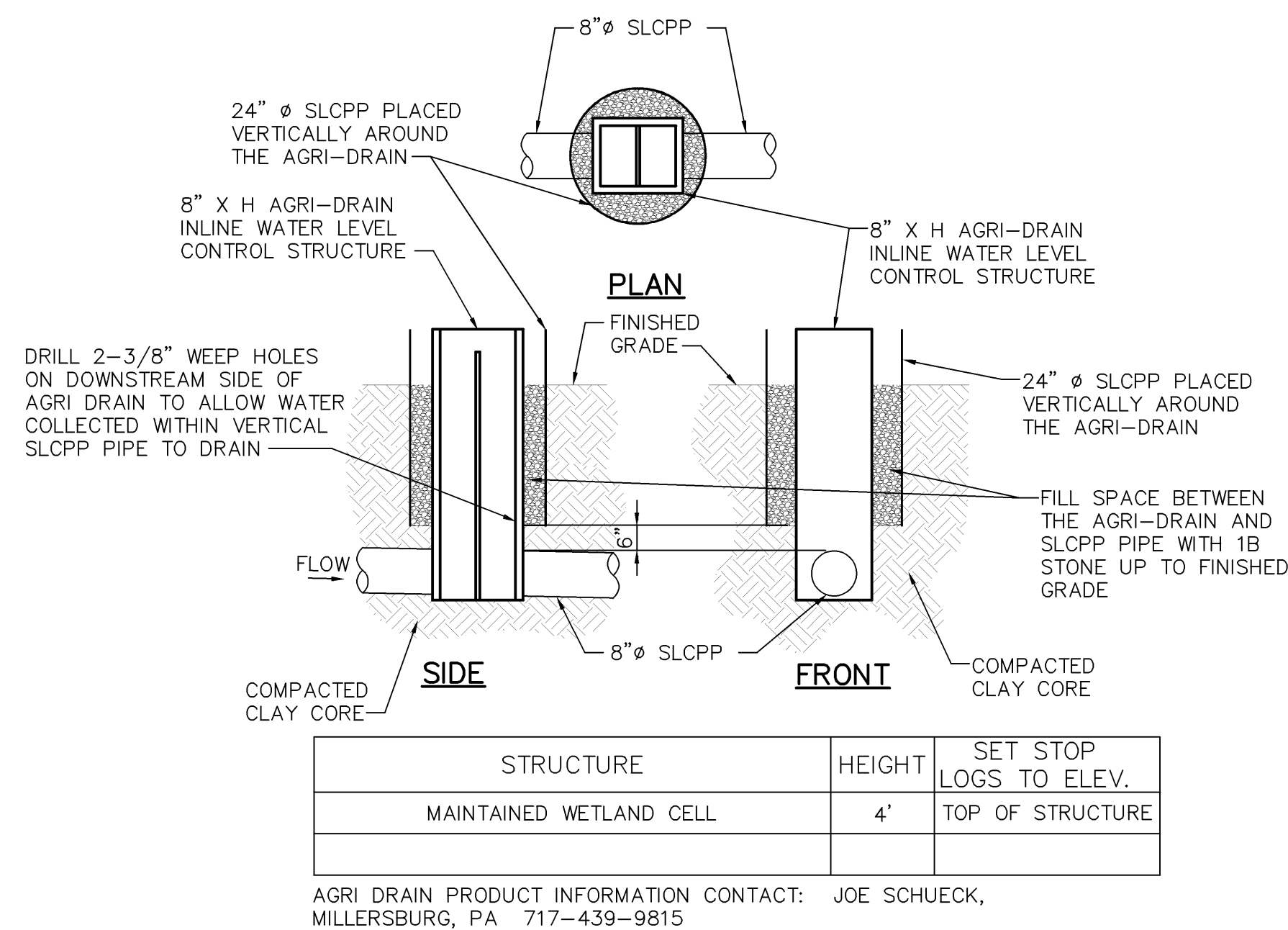
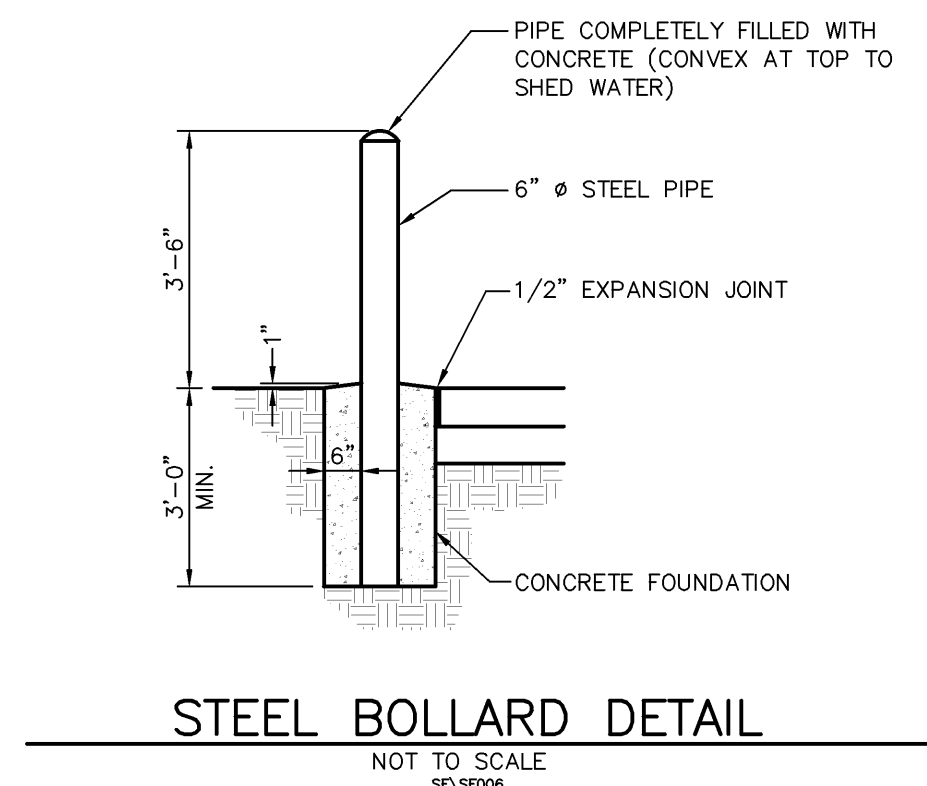
RETTEW
RETTEW Associates, Inc.
950 E. Main Street, Suite # 220
Schuylkill Haven, PA 17972
Phone (570) 385-2270 • Fax (570) 385-2217
Email: rettew@rettew.com Website: www.rettew.com

ABANDONED MINE DRAINAGE REMEDIATION PROJECT
FOR THE
SILVER CREEK DISCHARGE
DETAILS SHEET
BLT/HE TOWNSHIP
SCHUYLKILL COUNTY, PA

DATE: AUGUST 6, 2009

SHEET NO. 8 OF 12

DWG. NO. 08-04234-001



<p>REVIEWSM</p> <p>REVIEW Associates, Inc. 10001 Shadybrook, Suite # 220 Schuylkill Co., PA 17972 Phone (570) 385-2270 • Fax (570) 385-2217 Email: retelnet@review.com Website: www.review.com</p> <p>Engineers • Planners • Scientists • Landscape Architects Environmental Consultants</p>		<p>ABANDONED MINE DRAINAGE REMEDIATION PROJECT</p> <p>FOR THE</p> <p>SILVER CREEK DISCHARGE</p> <p>DETAILS SHEET</p> <p>BLYTE TOWNSHIP SCHUYLKILL COUNTY, PA</p>	
<p>DATE: <u>AUGUST 6, 2009</u></p>		<p>SHEET NO. <u>9</u> OF <u>12</u></p>	
<p>DWS. NO. <u>08-04234-001</u></p>		<p>SCALE: <u>NO SCALE</u></p>	
<p>CLIENT</p> <p>SCHUYLKILL HEADWATERS ASSOCIATION, INC.</p> <p>P.O. BOX 1385 POTTSVILLE, PA 17901 PHONE: 570-385-2122</p>		<p>MANAGER: CLAYTON E. BUBECK, P.E. DESIGN BY: CHKO BY: CEB RTM</p> <p>SURV. CHIEF: FLEUBOOK NO. R. ORNER DATA COLLECTOR</p> <p>DRAWN BY: CLM JCS</p>	
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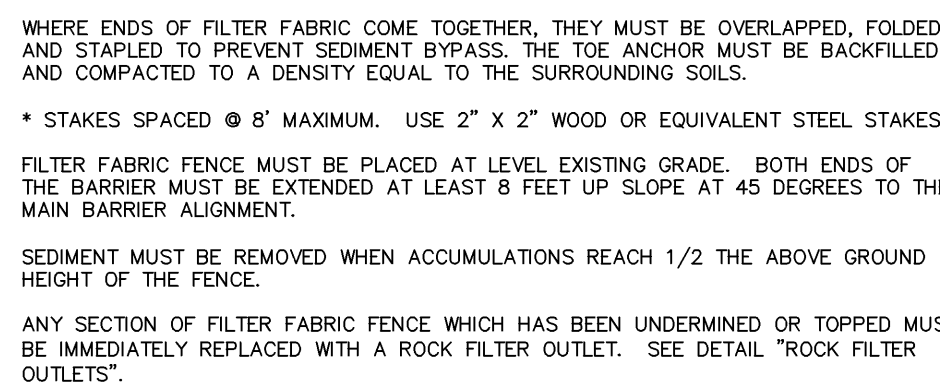
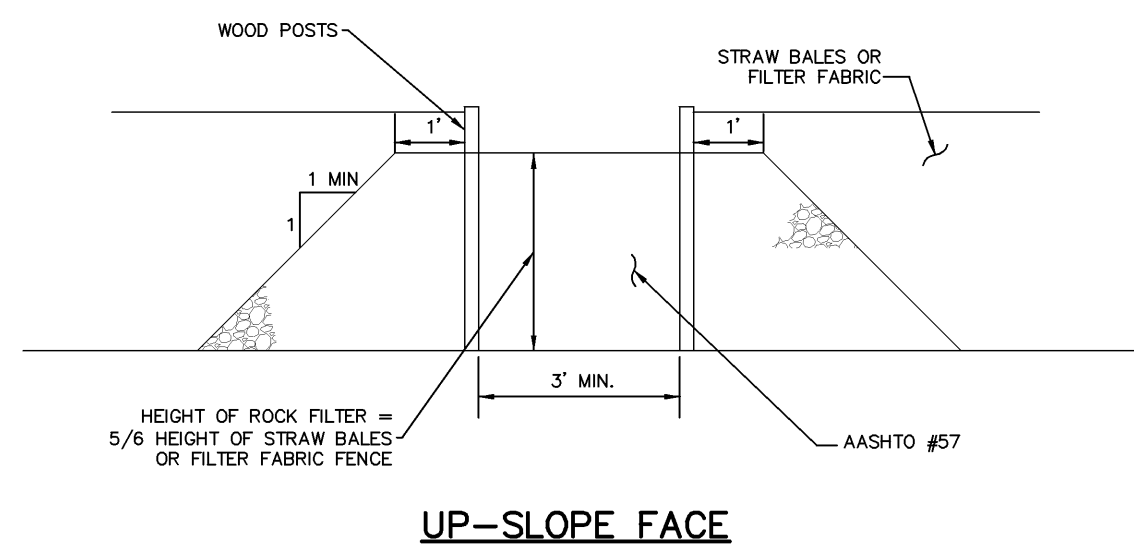
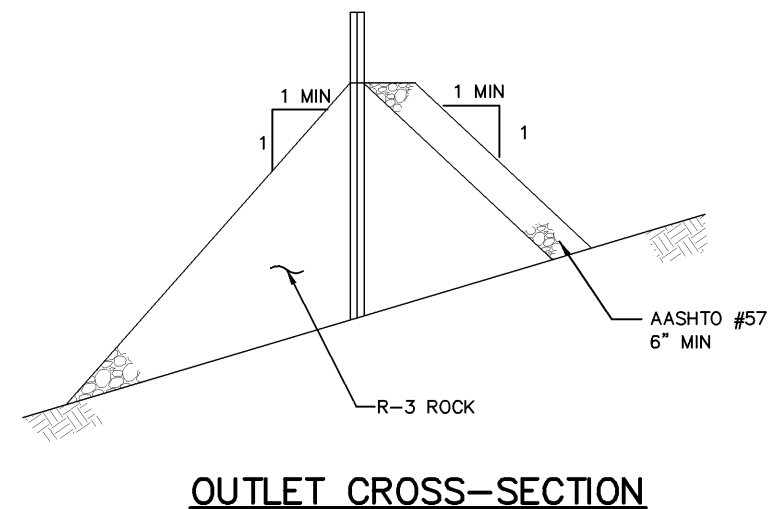
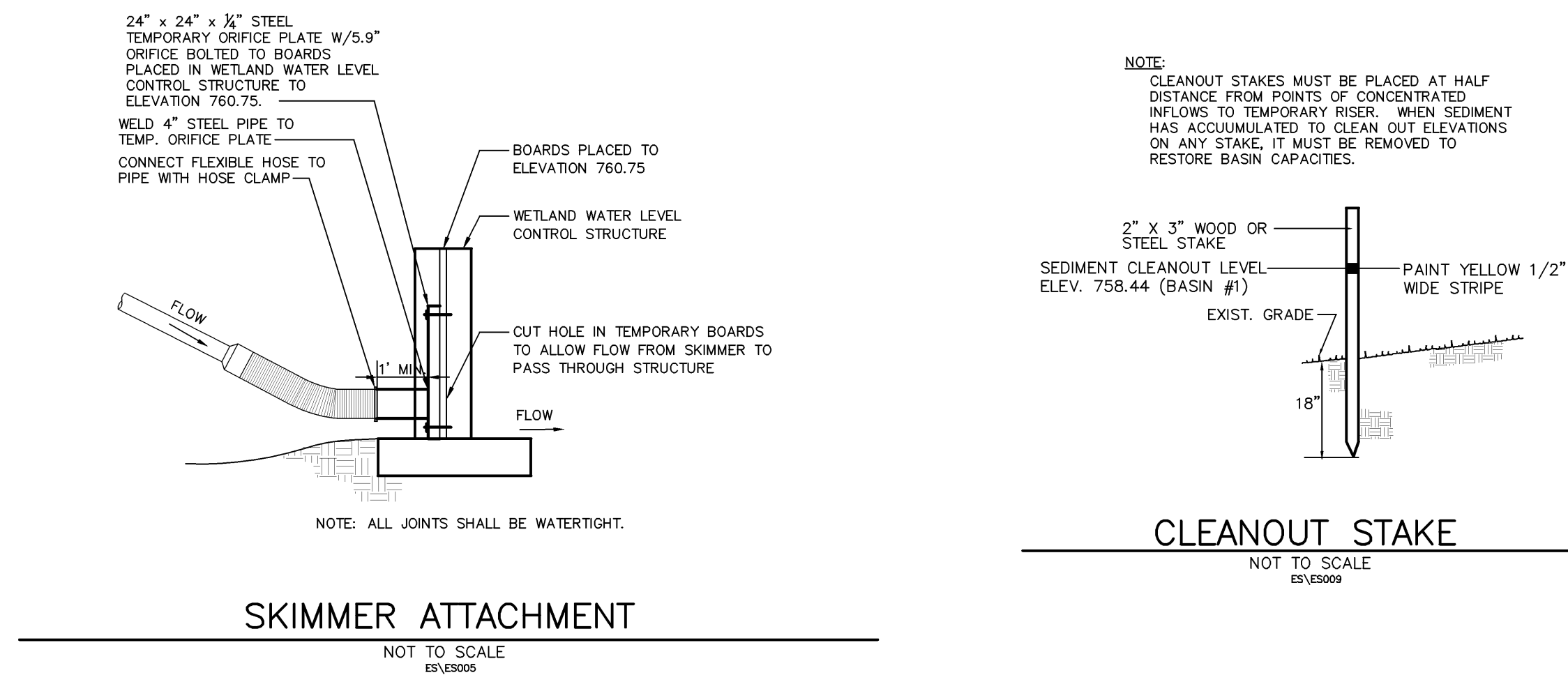


AMD INTAKE STRUCTURE

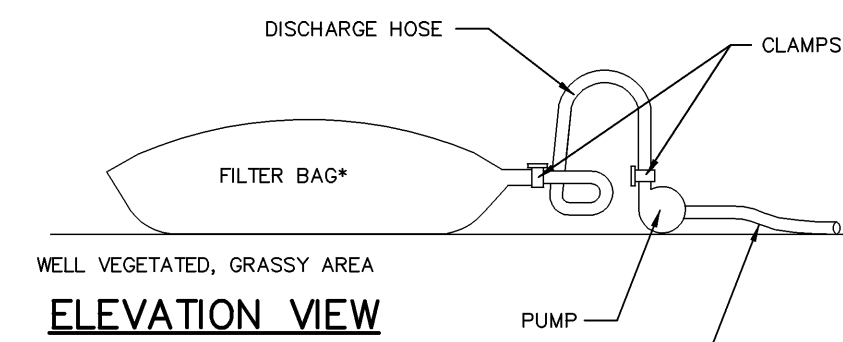
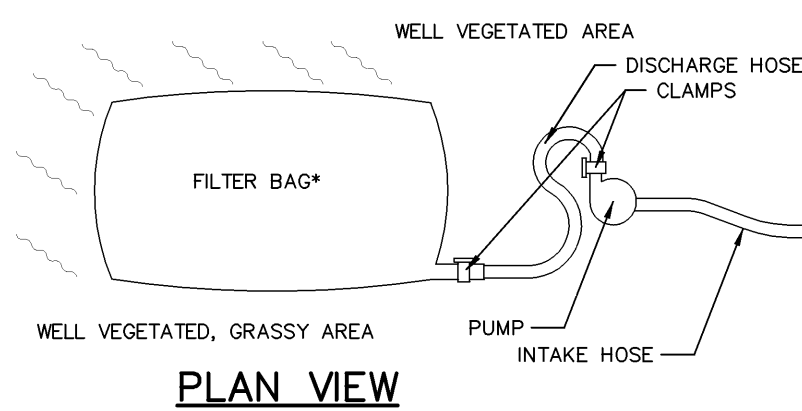
DWG. NO. 08-04234-001

STANDARD SEDIMENT AND EROSION CONTROL PLAN NOTES

CONTRACTORS INVOLVED IN THOSE ACTIVITIES. THE LANDOWNER, ALL L CONSERVATION DISTRICT TO AN ON-SITE MEETING. ALSO, AT LEAST VITIES SHALL NOTIFY THE PA ONE CALL SYSTEM AT 1-800-242-1776																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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ROCK FILTER OUTLETS SHALL ONLY BE USED AS A REPLACEMENT FOR A SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET. STONE SHALL BE REMOVED AND REPLACED WHEN CLOGGED WITH SEDIMENT.



CONSTRUCTION NOTES:

1. FILTER BAGS MAY BE USED TO FILTER WATER PUMPED FROM DISTURBED AREAS PRIOR TO DISCHARGING TO WATERS OF THE COMMONWEALTH. THEY MAY ALSO BE USED TO FILTER WATER PUMPED FROM THE SEDIMENT STORAGE AREAS OF SEDIMENT BASINS.

2. THE PUMPING RATE SHOULD BE DETERMINED BY THE CONTRACTOR BASED UPON ACTUAL AMOUNT OF GROUNDWATER ENCOUNTERED DURING CONSTRUCTION. PUMPING RATES WILL VARY DEPENDING ON THE SIZE OF THE FILTER BAG, AND THE TYPE AND AMOUNT OF SEDIMENT DISCHARGED TO THE BAG.

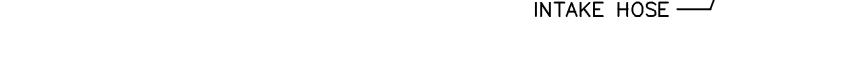
3. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.

4. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.

5. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE UNTIL STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT PRACTICABLE, PROTECTIVE MATS SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.

6. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURLY CLAMPED.

7. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP EXHAUSTS SHOULD BE PROTECTED AND SCREENED.



ROCK CONSTRUCTION ENTRANCE

PUMPED WATER FILTER BAG