

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ABANDONED MINE LAND RECLAMATION PROJECT

B & D COAL COMPANY

MINING PERMIT NO. 3072SM2

VENANGO TOWNSHIP

BUTLER COUNTY

CONTRACT NO. BF 462-101.1

DRAWING INDEX

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EDWARD G. RENDELL

GOVERNOR

KATHLEEN A. MCGINTY

SECRETARY OF ENVIRONMENTAL PROTECTION

C:\Randy\Drawings\Drawinggreenerlogo\rallogo.gif

PARTIAL FUNDING FOR THIS PROJECT PROVIDED BY THE ENVIRONMENTAL
STEWARDSHIP AND WATERSHED PROTECTION ACT.

Prepared By

DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ABANDONED MINE RECLAMATION
400 Market Street, Harrisburg, PA

R. G. DESAI, P.E., PROJECT COORDINATOR
DEPARTMENT OF ENVIRONMENTAL PROTECTION

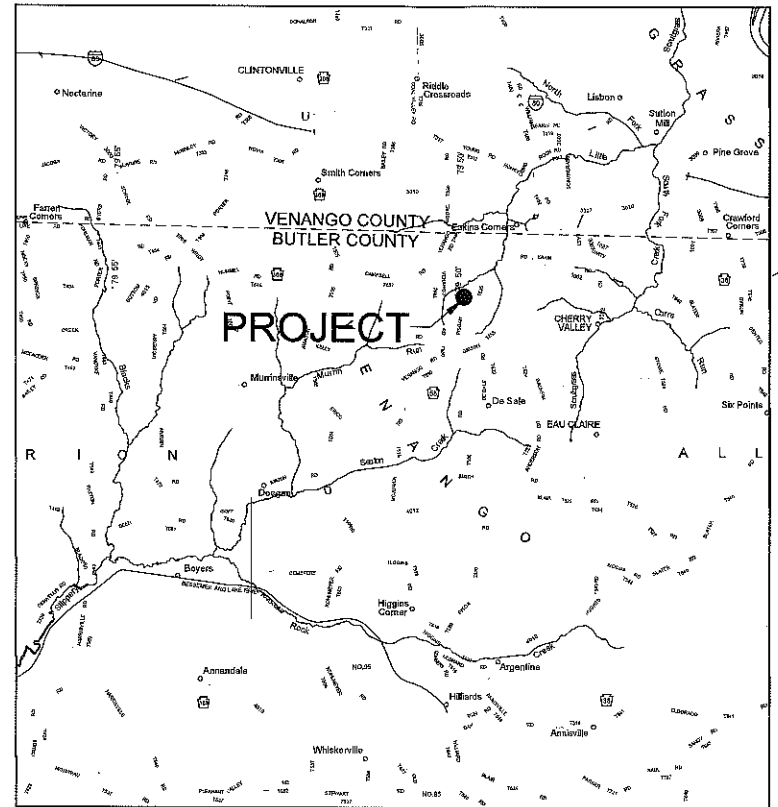
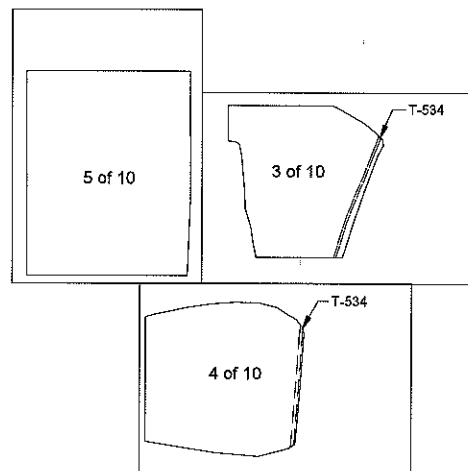
DATE

PROPERTY OWNERS

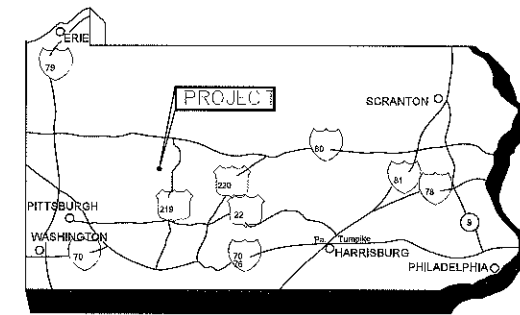
Vincent J. and Mary M. Cordan
P. O. Box F
Eau Claire, PA 16030

John A. and Barbara Jaracz
431 Pinkerton Road
Wexford, PA 15090

PLAN LAYOUT



VICINITY MAP
SCALE: 1" = APPROXIMATELY 1 MILE



LOCATION MAP
No Scale

NOTE: The Contractor shall comply with Act 287 of the General Assembly, which defines the procedures for notification to Public Utilities prior to excavation, drilling, or demolition work using power equipment or explosives.

UTILITY LISTINGS

COMPANY	TYPE OF FACILITY	ADDRESS	PHONE
Sprint	Underground Line	3875 E. State St. #A Hermitage, PA 16148	(724)-981-7727
Verizon	Underground Line	303 S. Center St. Grove City, PA 16127	(724)-458-0030
Columbia Gas	Underground Line	315 Shadyrest Rd. Ellwood City, PA 16117	(724)-758-5507
Pennsylvania One Call	SERIAL NUMBER: 0290886		1-800-242-1776

C:\Drawings\onecall1.jpg	C:\Drawings\b4udig2.jpg
	Serial No. 0290886

LEGEND

- — — — — LIMIT OF CONTRACTOR'S WORKING AREA (C.W.A.), SELECTIVE GRADING (WHERE APPLICABLE), GRADING (WHERE APPLICABLE), AND SEEDING (WHERE APPLICABLE)
- — — — — LIMIT OF GRADING AND SEEDING (WHERE APPLICABLE)
- 1220 — — — — — EXISTING CONTOURS
- P — — — — — APPROXIMATE PROPERTY LINE
- 2+00 — — — — — 3+00 — — — — — CONSTRUCTION BASELINE
- - - - - ACCESS ROAD
- + + + + + FENCELINE
- → → → → ROCK-LINED DITCH
- (STAB) STABILIZATION POND
- (LUP) LIMESTONE UPFLOW POND
- (SP) SEDIMENT POND
- (WET) WETLAND
- (DW) DRINKING WATER POND (CATTLE)

GENERAL NOTES

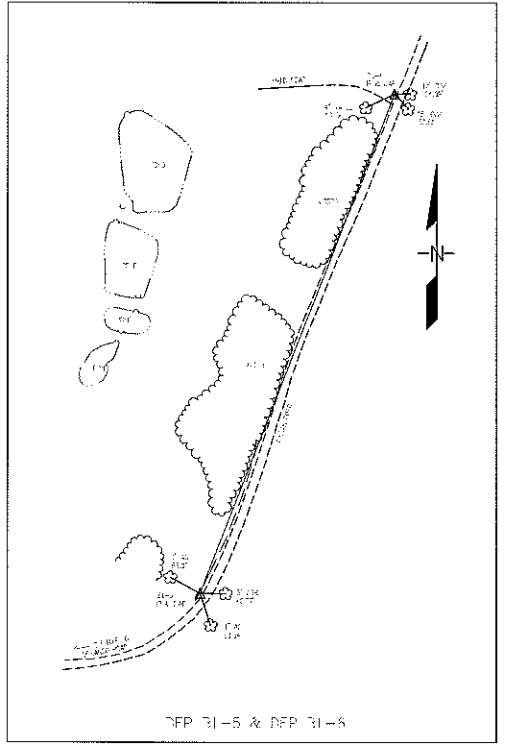
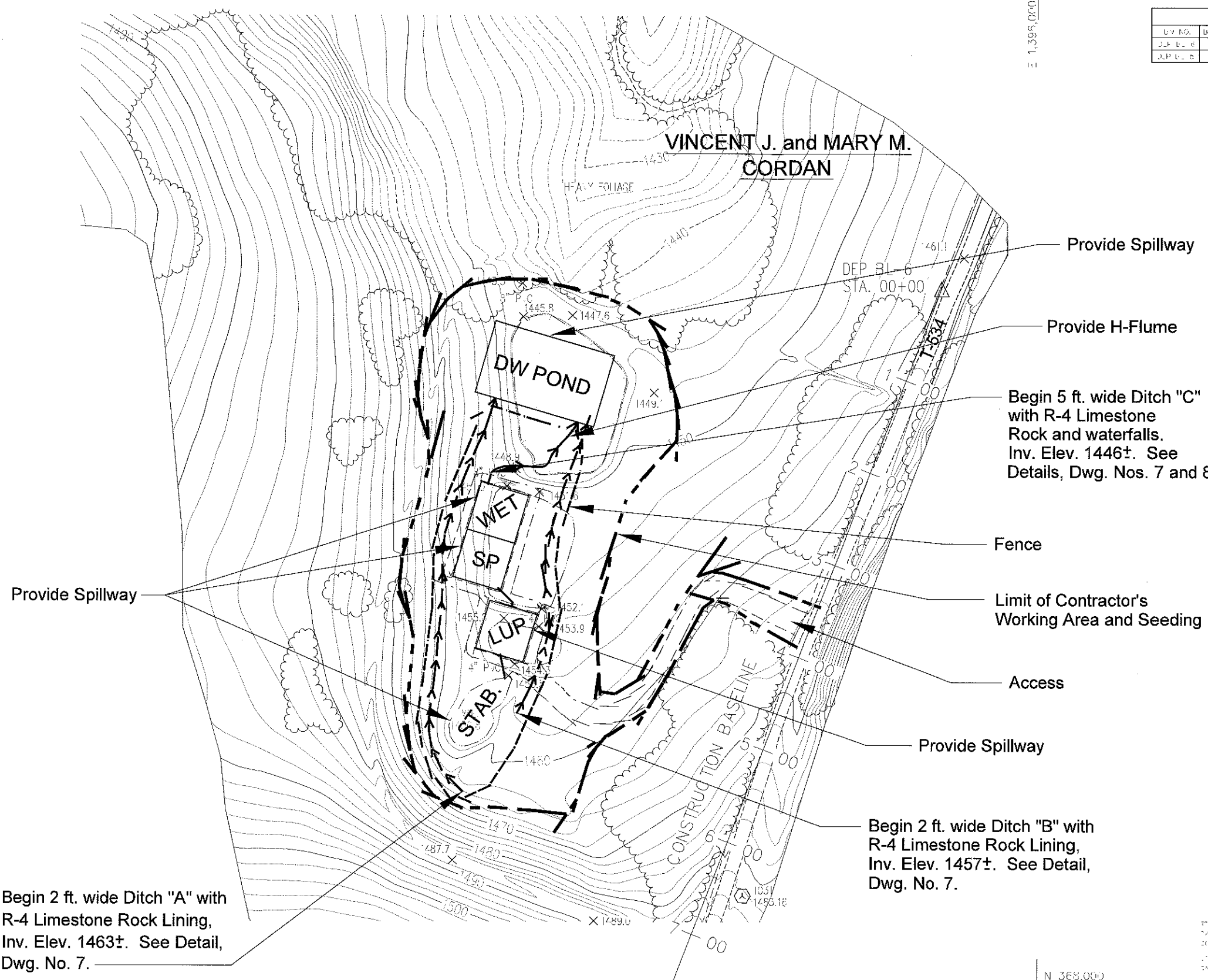
- 1) Elevations of the features are to be taken from the Bench Marks shown on the drawing.
- 2) Limits of Grading and Seeding as shown on the plan are approximate. Minor deviations may be permitted subject to the approval of the Department's Representative.
- 3) All areas outside of the seeding limits that are disturbed by the Contractor must be restored to as good as or better than the existing conditions.
- 4) All areas where 2 ft. contours are not shown shall be graded at a uniform slope between 10 ft. contour intervals.
- 5) Minor adjustments in grade may be made by the Department's Representative to suit field conditions.
- 6) The Contractor shall dewater all impoundments existing, within the grading limits, at the time of construction of the project.
- 7) The property lines as shown on the drawing are approximate.
- 8) Locations of the utilities shown on the Drawings are based on the information provided by the utility companies. The accuracy of this information is not guaranteed. The Contractor shall contact the utility companies listed on this drawing prior to any construction activity.

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT ENGINEER			
RECOMMENDED			
PROJECT COORDINATOR			
APPROVED			
CHIEF - DIVISION OF ACID MINE DRAINAGE ABATEMENT			
COMMONWEALTH OF PENNSYLVANIA			
DEPARTMENT OF ENVIRONMENTAL PROTECTION			
CONTRACT NO. BF 462-101.1			
ABANDONED MINE LAND RECLAMATION PROJECT			
B & D COAL COMPANY			
MINING PERMIT NO. 3072SM2			
VENANGO TOWNSHIP		BUTLER COUNTY	
LOCATION AND VICINITY MAPS			
DRAWN BY	GRJ	DATE	DRAWING NO.
CHECKED BY	GRJ	SCALE	As shown
ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY CONTRACTOR AT THE SITE.			2 of 10

N 369,000
E 1,395,000

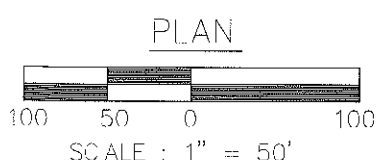
BY NO.	BASLINE S.A.	ELEVATION	DESCRIPTION	N. COORDINATE	E. COORDINATE
J.P. E. 8	CB+00.00	1469.74	IRON PIN AND CAP	29871.67	295932.67
J.P. E. 8	CB+17.6	1505.19	IRON PIN AND CAP	297911.5	295595.21

VINCENT J. and MARY M. CORDAN



POND SIZES
 LUP 50' x 50' (TOP)
 SP 50' x 50' (TOP)
 WET 50' x 50' (TOP)
 DW POND 75' x 125' (TOP)

DEP BL-5
 STA. 08+47.48



N 368,000
E 1,395,000

ID	DATE	REVISION	APPROVED

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 CONTRACT NO. BF 462-101.1
 ABANDONED MINE LAND RECLAMATION PROJECT
 B & D COAL COMPANY
 MINING PERMIT NO. 3072SM2
 VENANGO TOWNSHIP BUTLER COUNTY

PLAN - SITE "A"

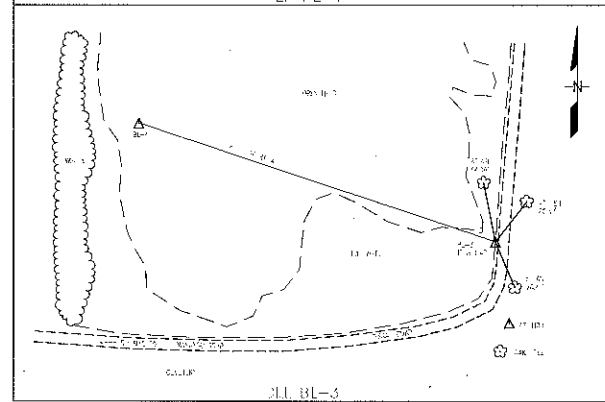
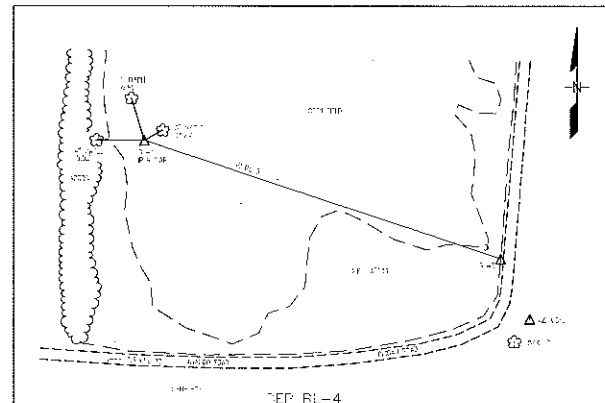
GRJ	3 of 10
1"=50'	

PROBATIONARY ENGINEER
 FOR THE COMMONWEALTH OF PENNSYLVANIA
 LICENSE NO. 1490-43025
 I, THE ABOVE SIGNED ENGINEER,
 HEREBY CERTIFY THAT I AM A
 LICENSED PROFESSIONAL ENGINEER
 IN THE STATE OF PENNSYLVANIA
 AND THAT I AM THE DESIGNER OF
 THE ABOVE PROJECT AND I AM NOT PROVIDING
 THESE SERVICES TO ANY OTHER PARTY
 WITHOUT THE WRITTEN CONSENT OF
 THE COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF ABANDONED MINE LAND RECLAMATION
 AND RESTORATION
 DATE: 08/11/11
 ENGINEER: GRJ

B.M. NO.	R/S/INF STA.	ELEVATION	DESCRIPTION	N. COORDINATE	E. COORDINATE
DEP BL-4	00+00.00	1495.82	IRON PIN AND CAP	366523.88	1394678.10
DEP BL-3	05+94.19	1531.21	IRON PIN AND CAP	366527.68	1394682.25



E 1,395,500
N 367,500



NO.	DATE	REVISION	BY

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CONTRACT NO. BF 462-101.1

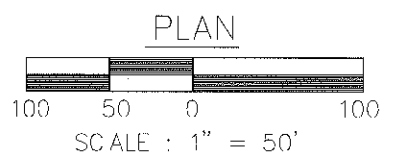
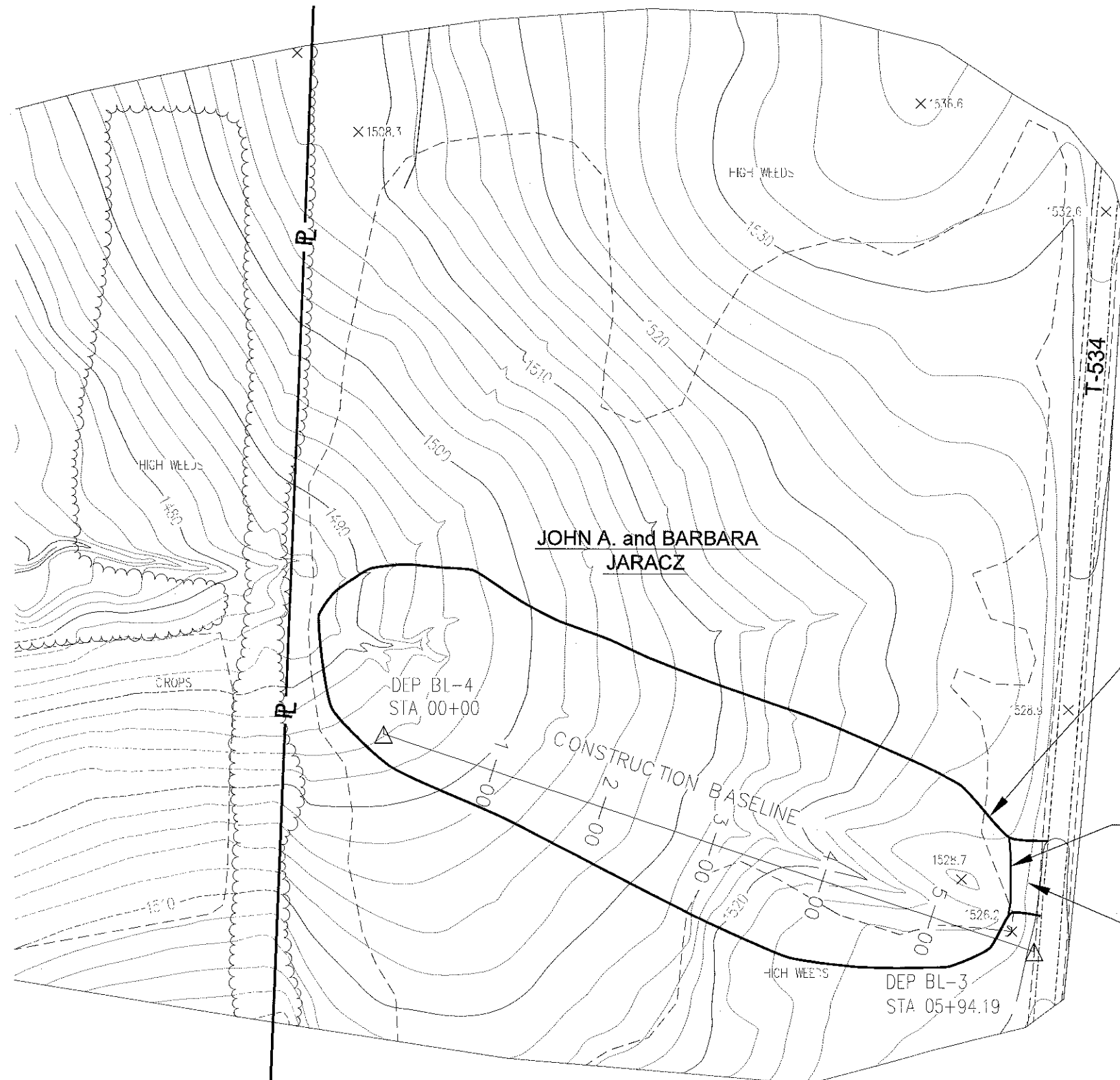
ABANDONED MINE LAND RECLAMATION PROJECT
B & D COAL COMPANY
MINING PERMIT NO. 3072SM2

VENANGO TOWNSHIP BUTLER COUNTY

PLAN - SITE "B"

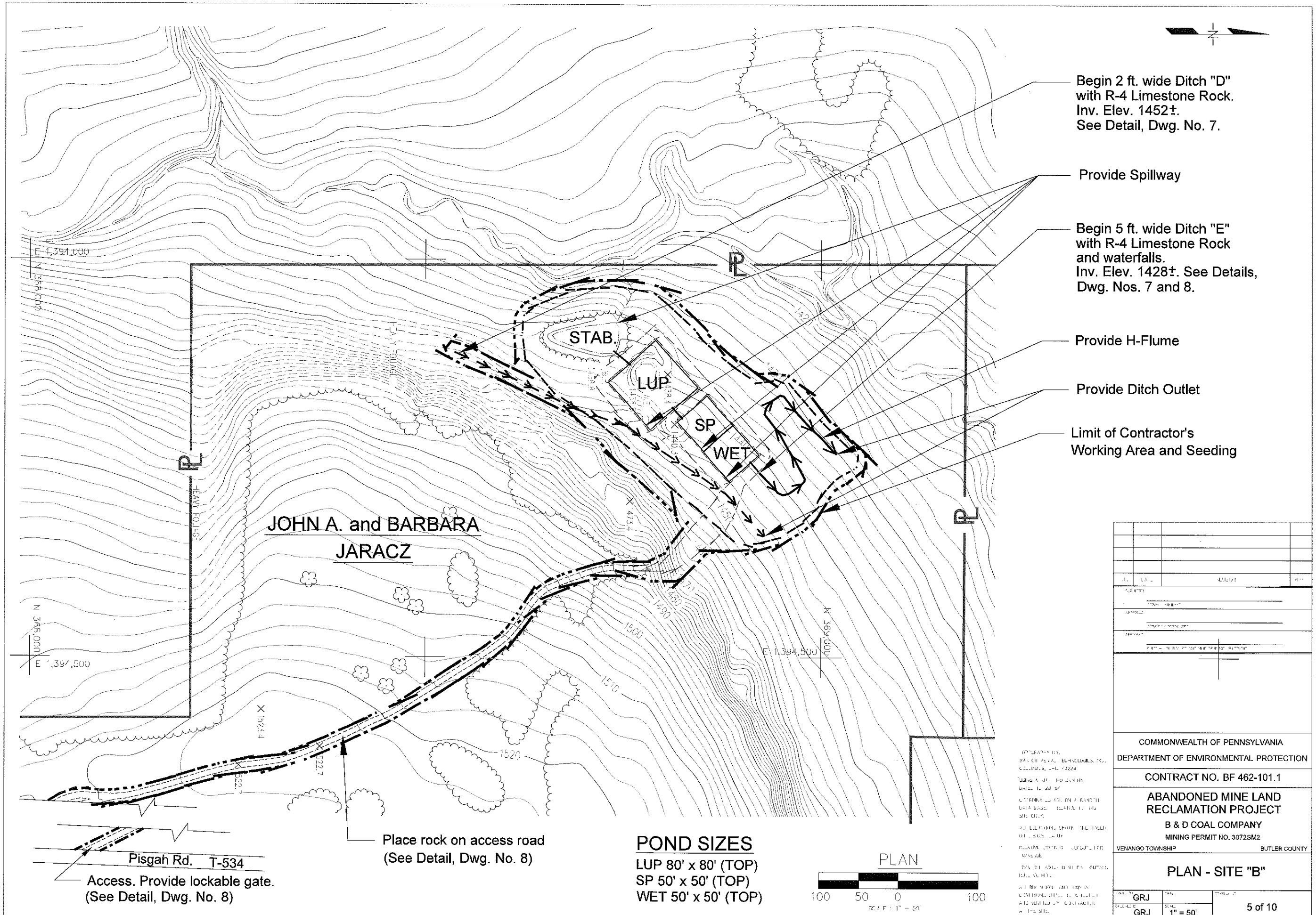
1" = 50'

4 of 10



N 366,500
E 1,395,500

THIS PLAN AND ALL INFORMATION HEREON ARE THE PROPERTY OF THE ENGINEER AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.



Begin 2 ft. wide Ditch "D" with R-4 Limestone Rock. Inv. Elev. 1452±. See Detail, Dwg. No. 7.

Provide Spillway

Begin 5 ft. wide Ditch "E" with R-4 Limestone Rock and waterfalls. Inv. Elev. 1428±. See Details, Dwg. Nos. 7 and 8.

Provide H-Flume

Provide Ditch Outlet

Limit of Contractor's Working Area and Seeding

JOHN A. and BARBARA JARACZ

STAB

LUP

SP

WET

Pisgah Rd. T-534
Access. Provide lockable gate. (See Detail, Dwg. No. 8)

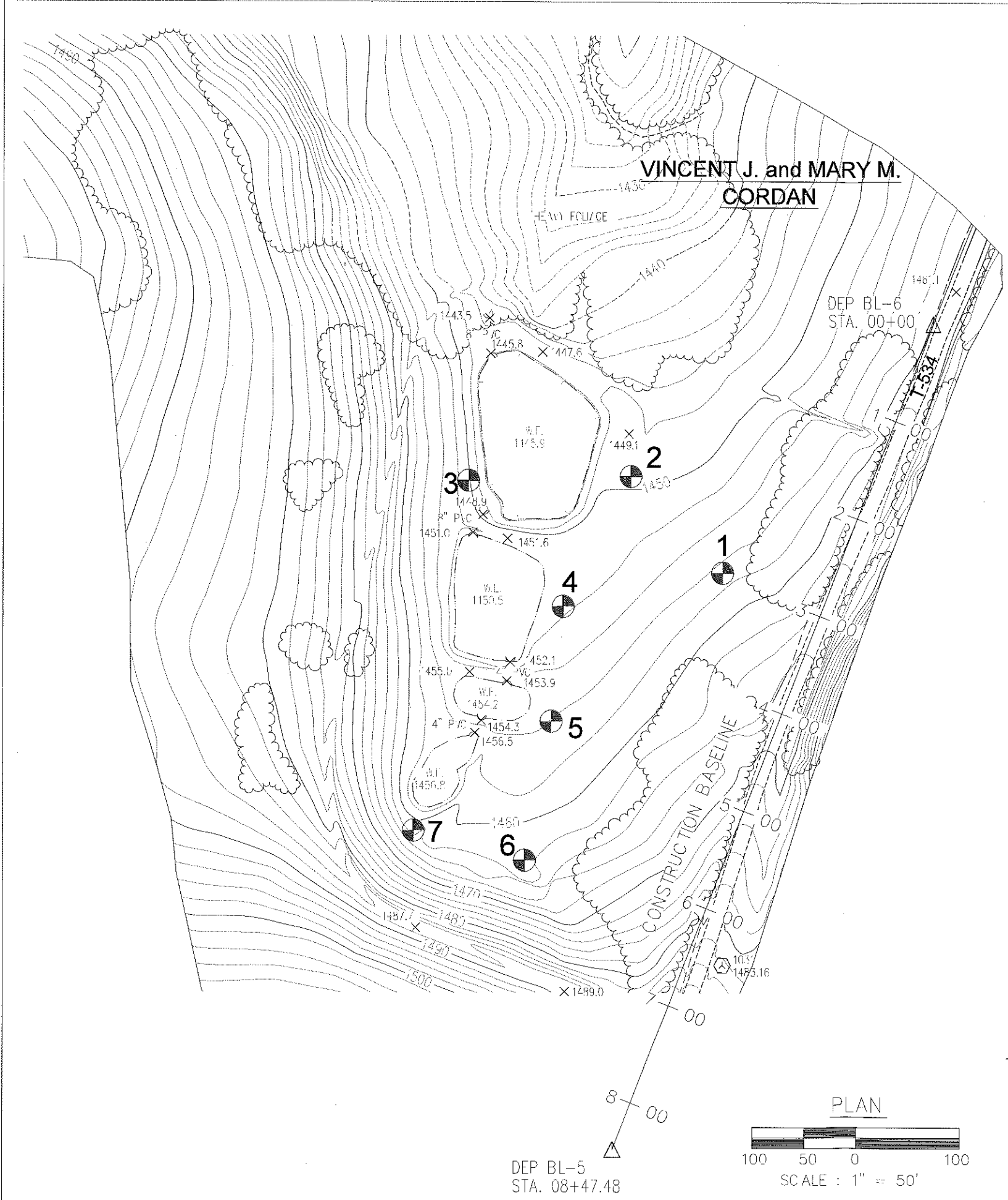
Place rock on access road (See Detail, Dwg. No. 8)

POND SIZES
LUP 80' x 80' (TOP)
SP 50' x 50' (TOP)
WET 50' x 50' (TOP)



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION	
CONTRACT NO. BF 462-101.1	
ABANDONED MINE LAND RECLAMATION PROJECT B & D COAL COMPANY MINING PERMIT NO. 3072SM2	
VENANGO TOWNSHIP	BUTLER COUNTY
PLAN - SITE "B"	
DATE: GRJ	SCALE: 1" = 50'
5 of 10	

OPERATION BY:
BACH OF PENN. ENVIRONMENTAL PROTECTION, INC.
COLUMBIA, PA. 17228
DRAWING NO. 10-0000
DATE: 10-28-97
CONTRACT NO. BF 462-101.1
SITE NO. 3072SM2
ALL DIMENSIONS SHOWN ARE BASED ON THE DATUM OF 1985. USE THE REVISIONS TO THE DRAWING FOR THE LATEST INFORMATION.
BY: BACH OF PENN. ENVIRONMENTAL PROTECTION, INC.
DATE: 10-28-97
ALL DIMENSIONS SHOWN ARE BASED ON THE DATUM OF 1985. USE THE REVISIONS TO THE DRAWING FOR THE LATEST INFORMATION.

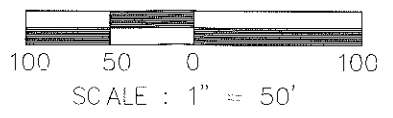


E 1,396,000 N 369,000

E 1,395,000 N 368,000

VINCENT J. and MARY M.
CORDAN

PLAN

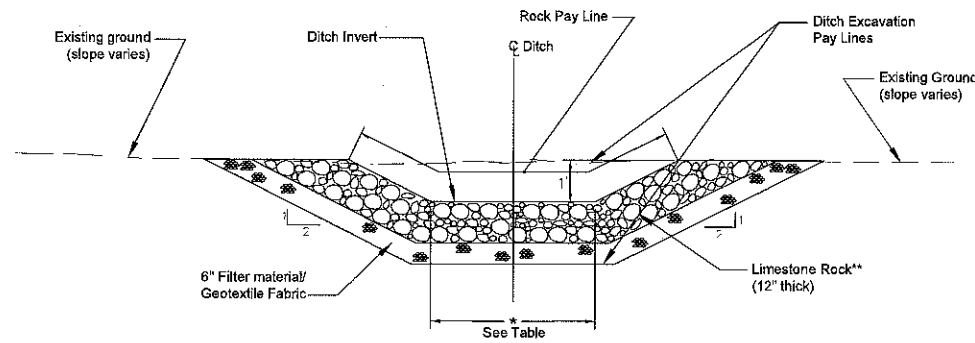


HOIF NO.	DEPTH	CLASS	PLASTICITY INDEX
1	0'-12'	ML	1.9
	12'-19.2'	CL	7.9
2	0'-12'	SM	3.3
	12'-16'	SC-SM	4.7
3	0'-2'	SH	4.5
	2'-10'	SH	5.2
	10'-20'	SH	5.3
4	0'-6.0'	CL ML	4.7
	6.0'-6.0'	SH	1.2
	6.0'-20.0'	CL ML	4.5
5	0'-0'	ML	1.1
	0'-6.0'	SH	11.7
	6.0'-20.0'	CL ML	4.5
6	UNIFIED CLASSIF. & SPEC. GRAV. 0'-4.4'	CL-ML	6.9
7	12'-20'	SH	6.7
	12'-16.0'	SH	6.7
	16.0'-20.0'	CL ML	4.7



TOPOGRAPHY BY
BARTON MALCOLM TECHNOLOGIES, INC.
COLLEGE PARK, MARYLAND 20740
DATE: 08/10/04
HORIZONTAL CONTROL IS BASED ON
NAD 83 DATA
ALL ELEVATIONS SHOWN ARE BASED ON
MEAN SEA LEVEL
PLEASE CONSULT THE CONTRACT
FOR THE SITE

NO.	DATE	DESCRIPTION	APPROVED
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION CONTRACT NO. BF 462-101.1 ABANDONED MINE LAND RECLAMATION PROJECT B & D COAL COMPANY MINING PERMIT NO. 3072SM2 VENANGO TOWNSHIP BUTLER COUNTY PLAN - SOILS INFORMATION SITE "A"			
SCALE:	1" = 50'	PAGE NO. 6 of 10	

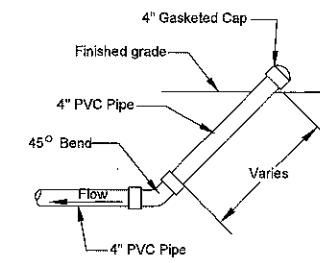


DITCH WITH LIMESTONE ROCK LINING

No Scale

INFORMATION FOR DITCHES

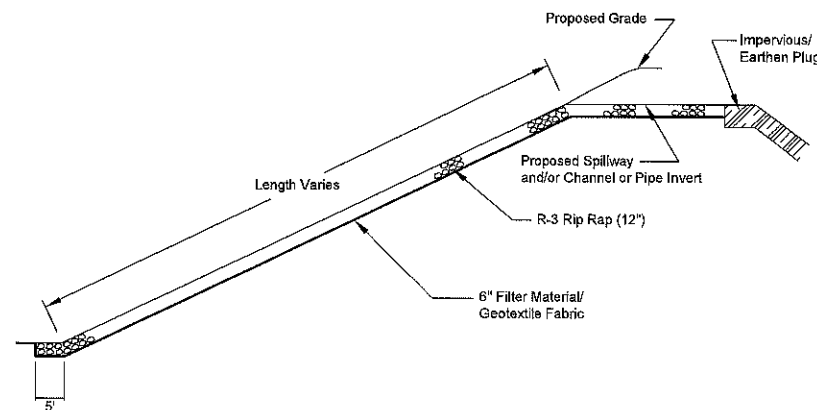
DITCH	SITE	*BOTTOM WIDTH	**LINING
A,B	A	2'	R-4
C	A	5'	R-4
D	B	2'	R-4
E	B	5'	R-4



NOTE: Cleanouts (26) shall be located as directed by the Department's Representative.

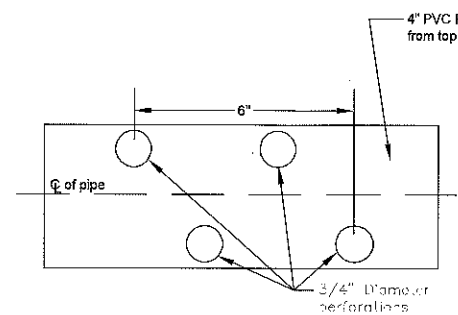
PIPE CLEANOUT DETAIL (Typ.)

No Scale

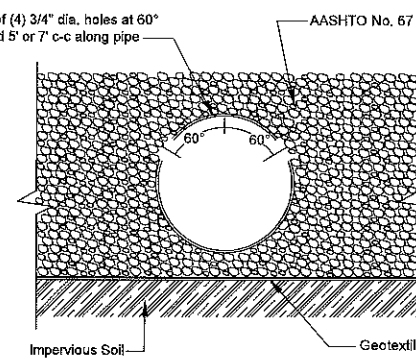


SPILLWAY ROCK DISCHARGE DETAIL

No Scale



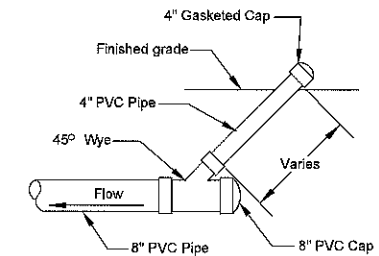
PLAN VIEW



TYPICAL SECTION

LIMESTONE UPFLOW POND PIPE PERFORATIONS DETAIL

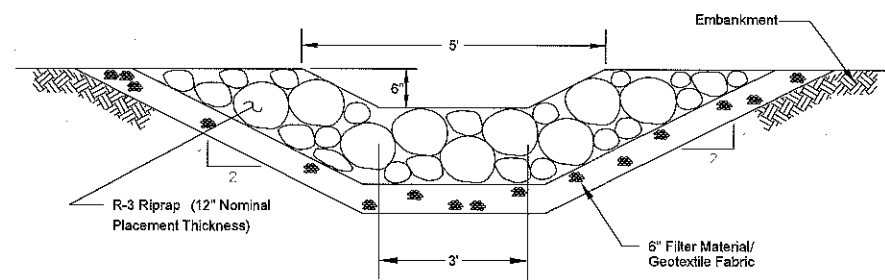
No Scale



NOTE: Cleanouts (4) shall be located as directed by the Department's Representative.

PIPE CLEANOUT DETAIL (Typ.)

No Scale

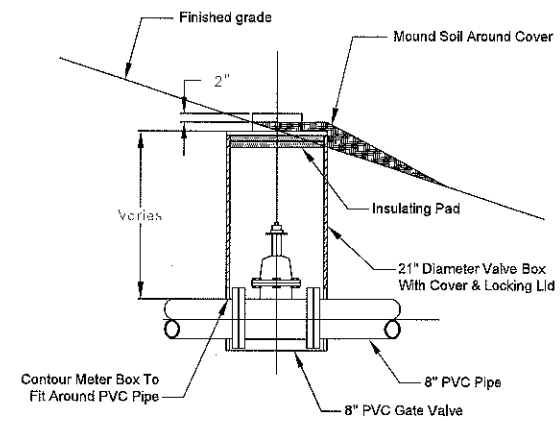


RIPRAP DETAIL FOR SPILLWAY

No Scale

INFORMATION FOR SPILLWAY CONSTRUCTION

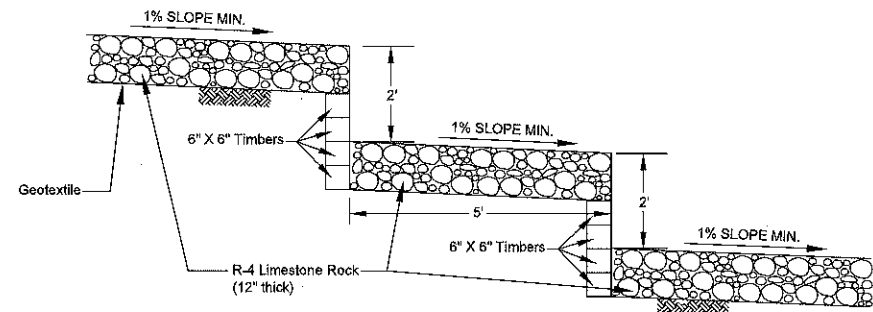
POND	BEGINNING SITE "A"	INVERT SITE "B"
STABILIZATION POND	1458	1440.5
LIMESTONE UPFLOW POND	1457.5	1439.5
WETLAND	1449 (if possible)	1431 (if possible)
DRINKING WATER POND	1439.5	



8" PVC GATE VALVE AND VALVE BOX

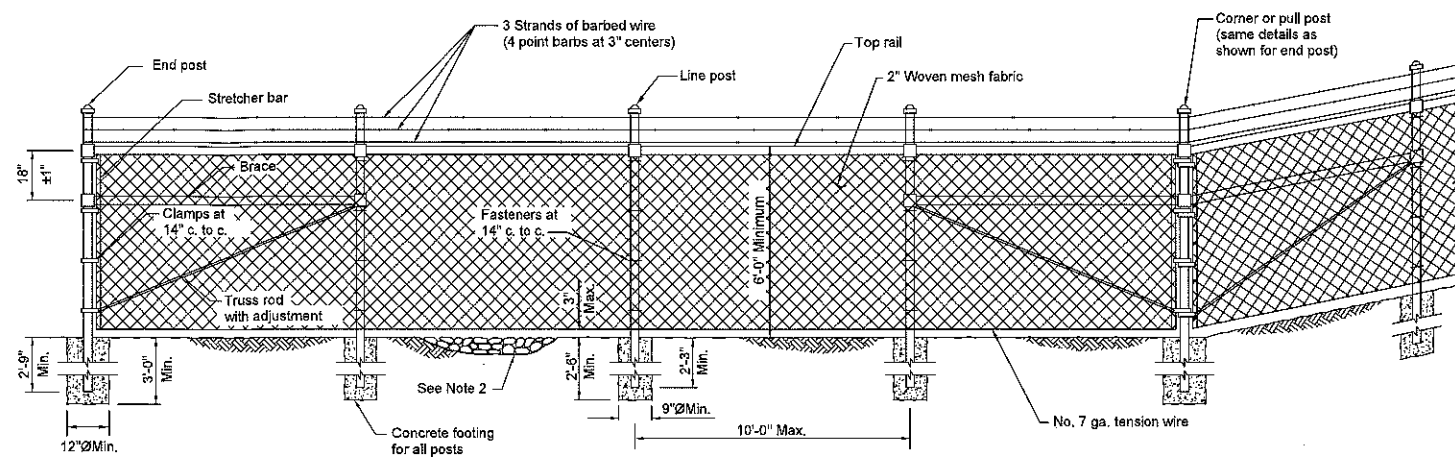
No Scale

NO.	DATE	REVISION	APP.
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION CONTRACT NO. BF 462-101.1 ABANDONED MINE LAND RECLAMATION PROJECT B & D COAL COMPANY MINING PERMIT NO. 3072SM2 VENANGO TOWNSHIP BUTLER COUNTY			
DETAILS			
STATE	GRJ	DATE	SCALE
No scale			7 of 10



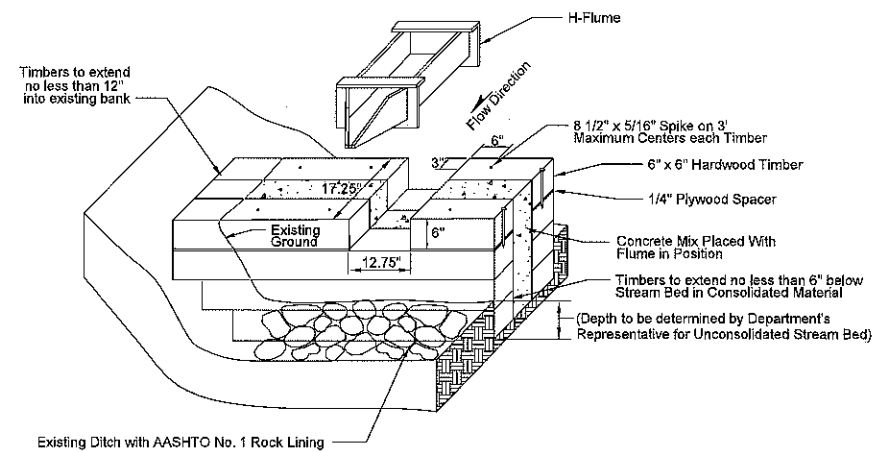
DITCHES "C" AND "E" WATERFALL PROFILE

No Scale



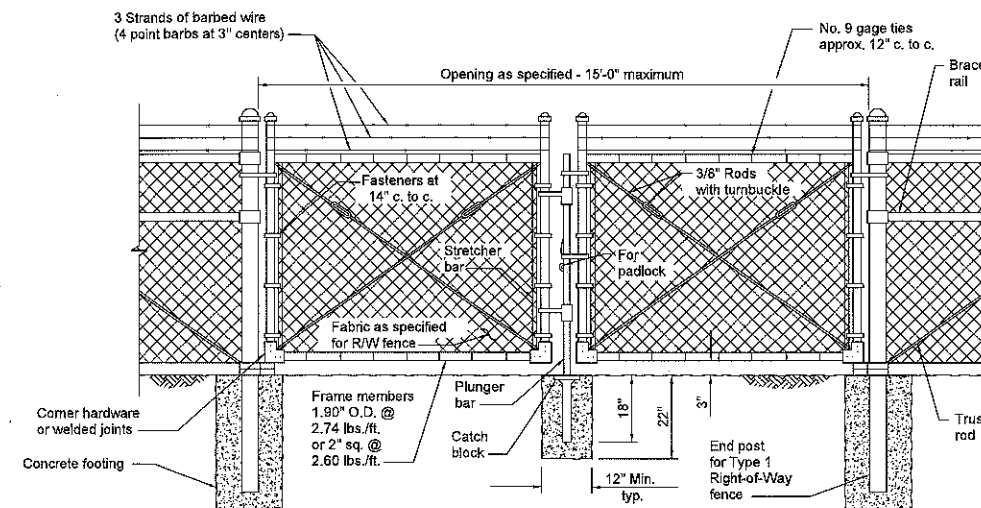
PADOT TYPE 1 RIGHT-OF-WAY FENCE WITH BARBED WIRE

No Scale



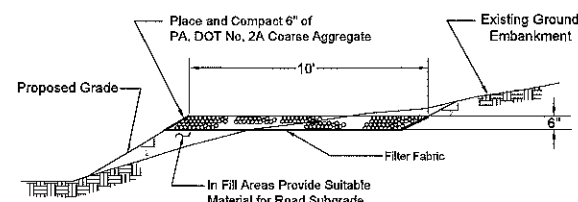
H-FLUME (ISOMETRIC VIEW)

No Scale



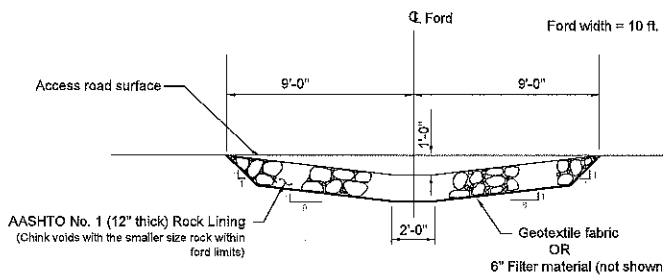
VEHICULAR GATE WITH BARBED WIRE FOR PADOT TYPE 1 RIGHT-OF-WAY FENCE (GATE TO SWING 180°)

No Scale



ACCESS ROAD (typ.)

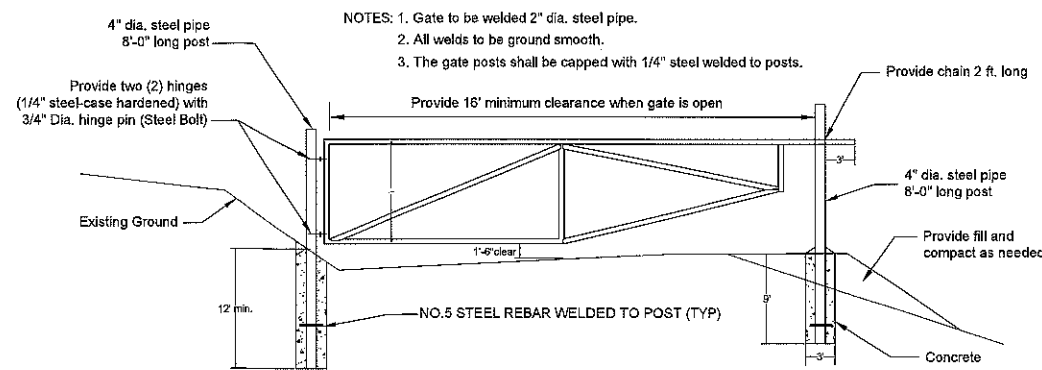
No Scale



Note: Warp slopes from 1 on 2 in ditch to 1 on 8 in ford.

DITCH FORD CROSSING

No Scale

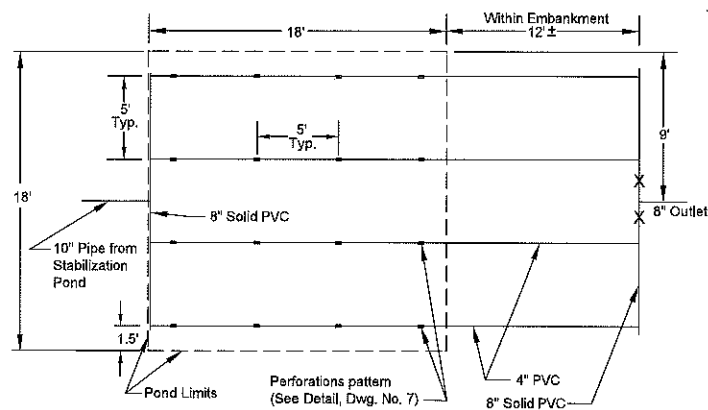


NOTES: 1. Gate to be welded 2 inch dia. steel pipe.
2. All welds to be ground smooth.
3. The gate posts shall be capped with 1/4 inch steel welded to posts.

GATE DETAIL AT ACCESS TO SITE "B"

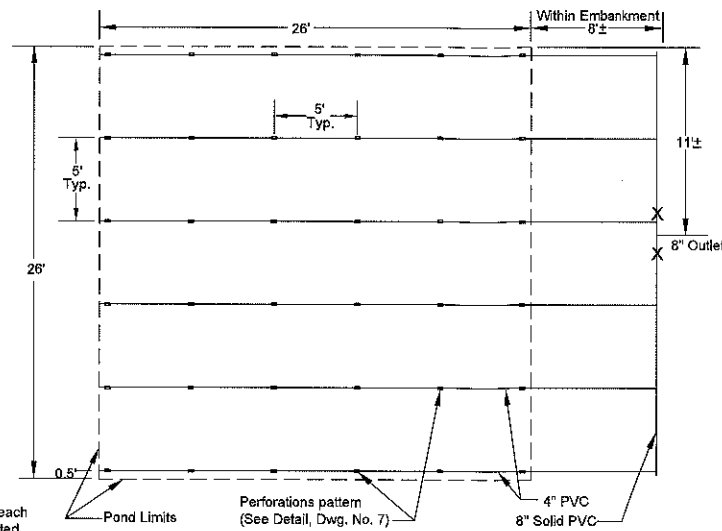
No Scale

DATE	REVISION	APPR
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION		
CONTRACT NO. BF 462-101.1		
ABANDONED MINE LAND RECLAMATION PROJECT B & D COAL COMPANY MINING PERMIT NO. 3072SM2		
VENANGO TOWNSHIP		BUTLER COUNTY
DETAILS		
DESIGNED BY GRJ	CHECKED BY GRJ	SCALE No scale
		8 of 10

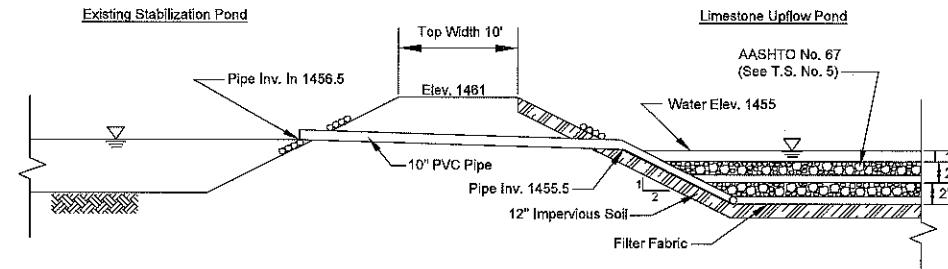


**LIMESTONE UPFLOW POND
PIPE LAYOUT-LOWER LEVEL**
No Scale

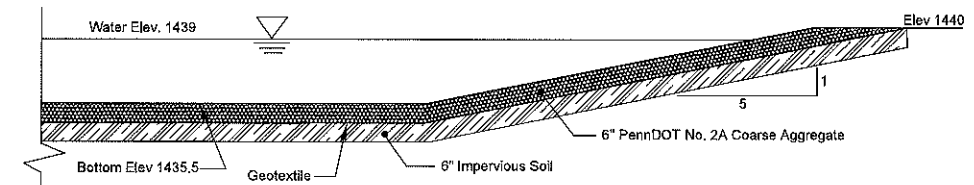
NOTES: 1. Provide cleanout for each 4" and 8" diameter pipe, as directed by the Department's Representative.
2. 4" diameter pipes shall be perforated with a set of (4) 3/4" perforations every 5' of length, as shown on the Details and as directed by the Department's Representative.



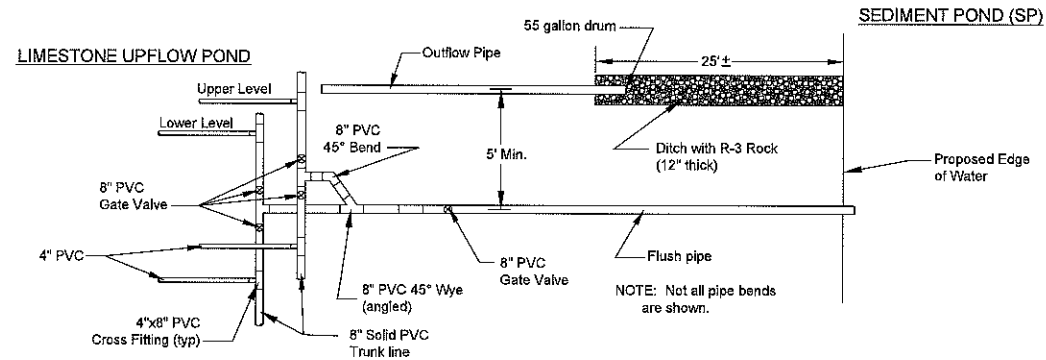
**LIMESTONE UPFLOW POND
PIPE LAYOUT-UPPER LEVEL**
No Scale



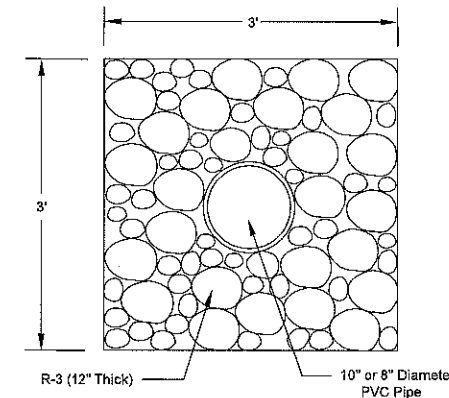
STABILIZATION POND TO LIMESTONE UPFLOW POND PROFILE
No Scale



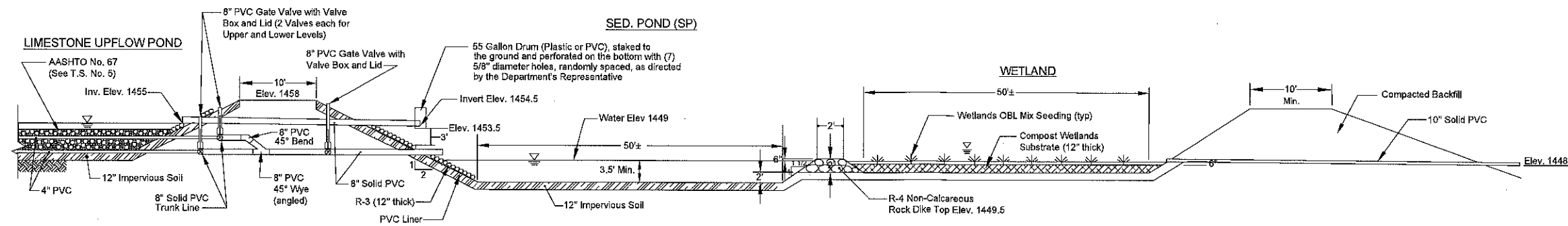
DRINKING WATER POND TYPICAL EMBANKMENT SECTION
No Scale



LIMESTONE UPFLOW POND TO SEDIMENT POND FLOW PLAN
No Scale

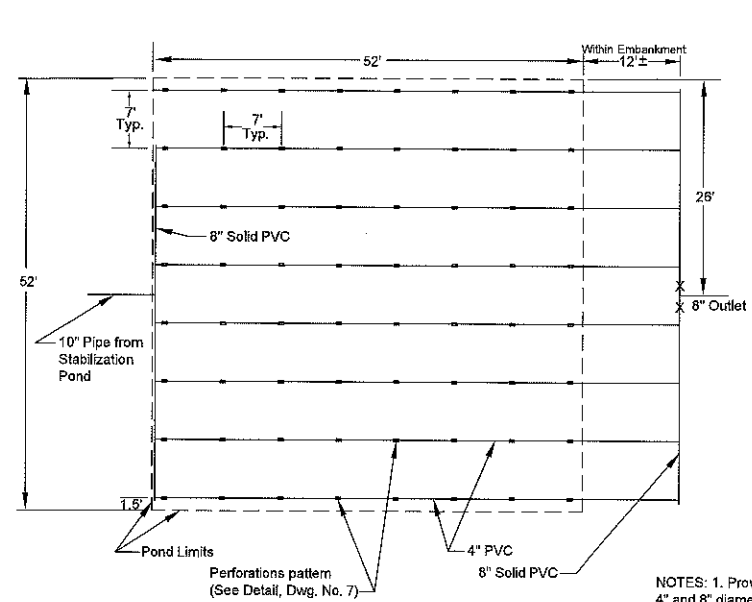


**STABILIZATION POND OUTLET/
LIMESTONE UPFLOW POND OUTLET**
No Scale

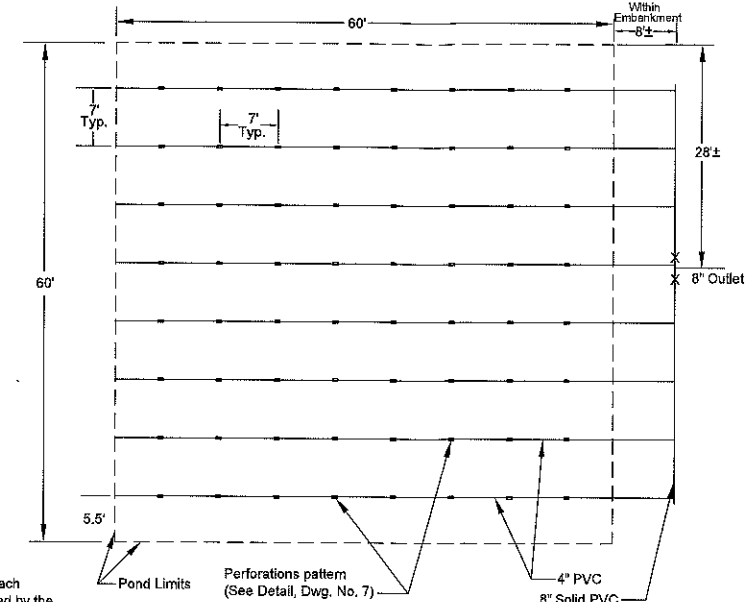


LIMESTONE UPFLOW POND TO SEDIMENT POND TO COMPOST WETLAND FLOW CROSS SECTION
No Scale

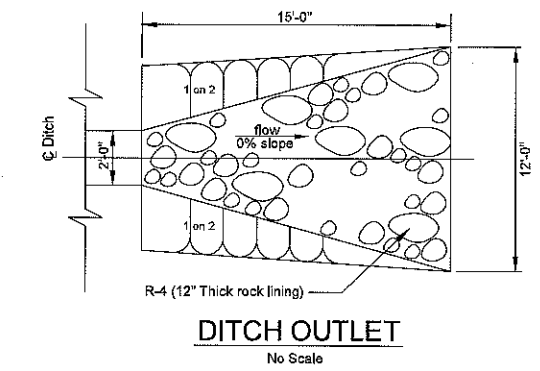
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION	
CONTRACT NO. BF 462-101.1	
ABANDONED MINE LAND RECLAMATION PROJECT B & D COAL COMPANY MINING PERMIT NO. 3072SM2	
VENANGO TOWNSHIP	BUTLER COUNTY
DETAILS - SITE "A"	
DATE: GRJ	NO. 9 of 10
DATE: GRJ	NO. 9 of 10



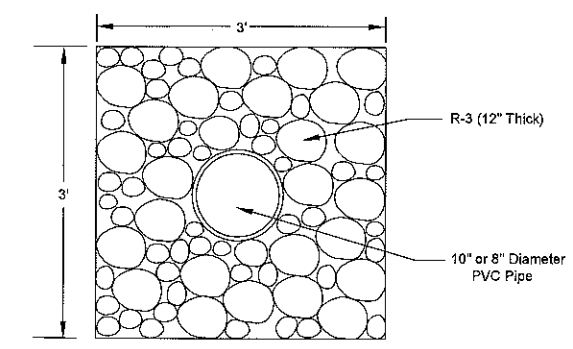
**LIMESTONE UPFLOW POND
PIPE LAYOUT-LOWER LEVEL**
No Scale



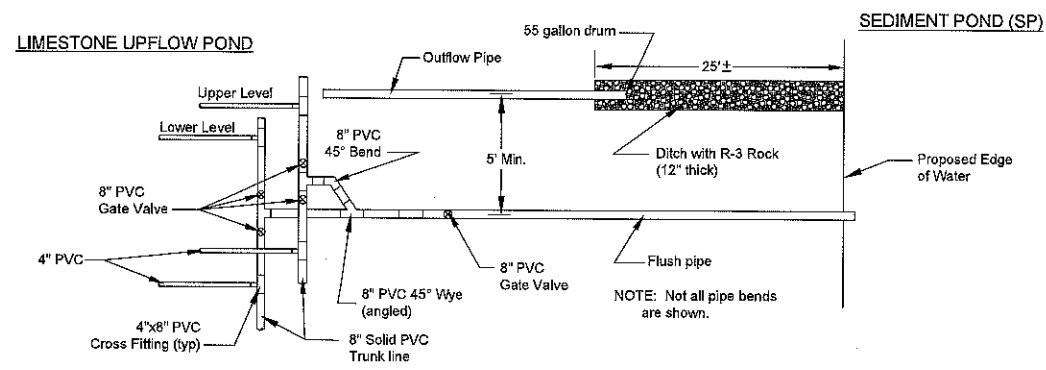
**LIMESTONE UPFLOW POND
PIPE LAYOUT-UPPER LEVEL**
No Scale



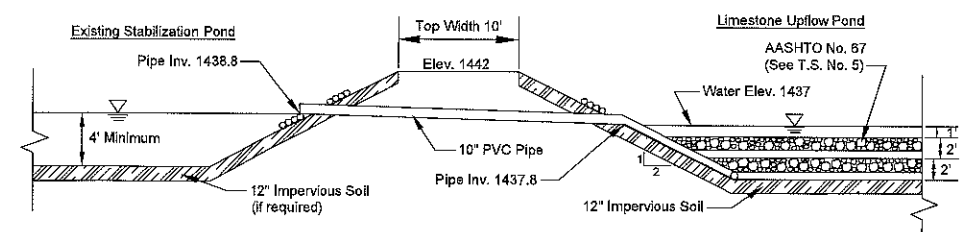
DITCH OUTLET
No Scale



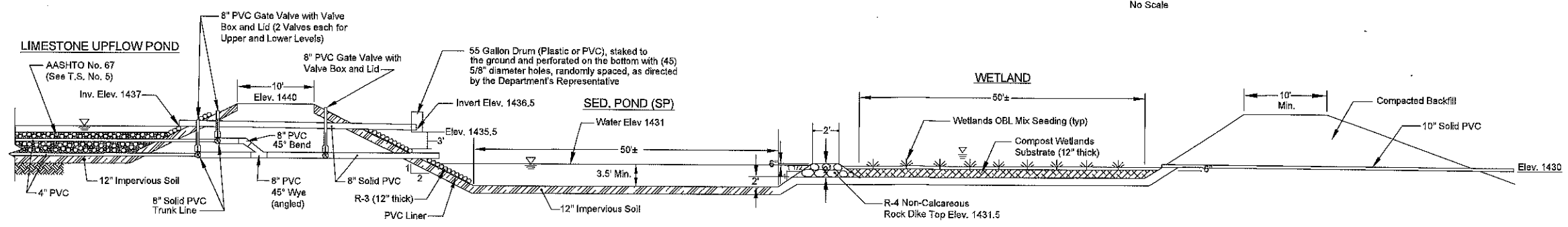
**STABILIZATION POND OUTLET/
LIMESTONE UPFLOW POND OUTLET**
No Scale



LIMESTONE UPFLOW POND TO SEDIMENT POND FLOW PLAN
No Scale



STABILIZATION POND TO LIMESTONE UPFLOW POND PROFILE
No Scale



LIMESTONE UPFLOW POND TO SEDIMENT POND TO COMPOST WETLAND FLOW CROSS SECTION
No Scale

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION	
CONTRACT NO. BF 462-101.1	
ABANDONED MINE LAND RECLAMATION PROJECT B & D COAL COMPANY MINING PERMIT NO. 3072SM2	
VENANGO TOWNSHIP	BUTLER COUNTY
DETAILS - SITE "B"	
DATE: GRJ	NO. 10 of 10
SCALE: GRJ	No scale