

**LITTLE TOBY CREEK WATERSHED
KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT
FOX TOWNSHIP
ELK COUNTY, PA**

**Sponsored By
ELK COUNTY COMMISSIONERS
ELK COUNTY CONSERVATION DISTRICT
HEADWATERS RESOURCE CONSERVATION
& DEVELOPMENT COUNCIL**

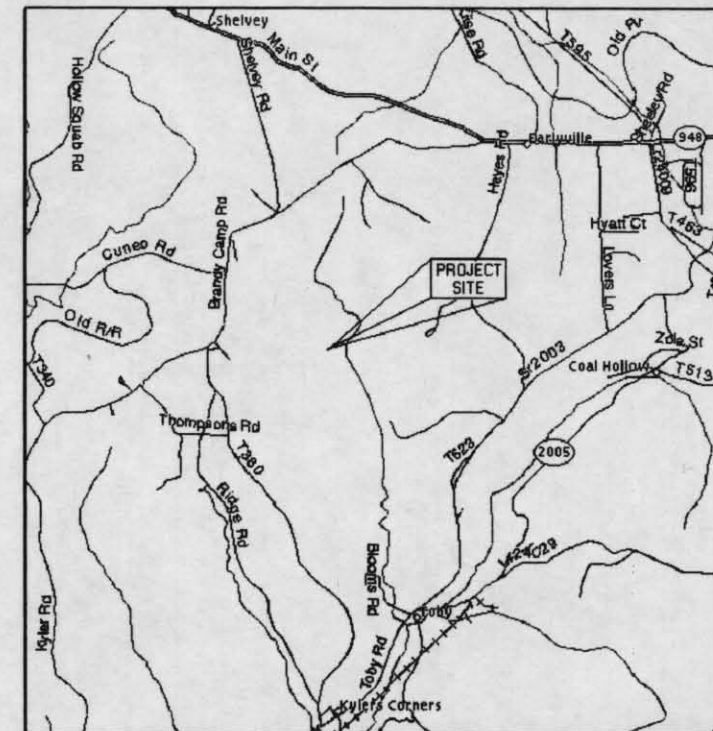
**Prepared By
UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
2001**

In my professional opinion, I certify that the practices have been installed as per the attached drawings and specifications, based on the information provided to me and/or observations I have made.

Gary L. Miller
Signature of Engineer

10/5/04
Date

AS-BUILT
Contractor: **MANNO CONSTRUCTION INC.**
Contract No.: **50-2037-1-872**
Date: **August 30, 2001**
CDTR: **Gary L. Miller**
GI: **Larry M. Mohney**
Completion Date: **August 30, 2004**
Contract Amount: **\$1,776,462.83**



"NOT TO SCALE"

Fox Township, Elk County



PROJECT LOCATION

AS-BUILT

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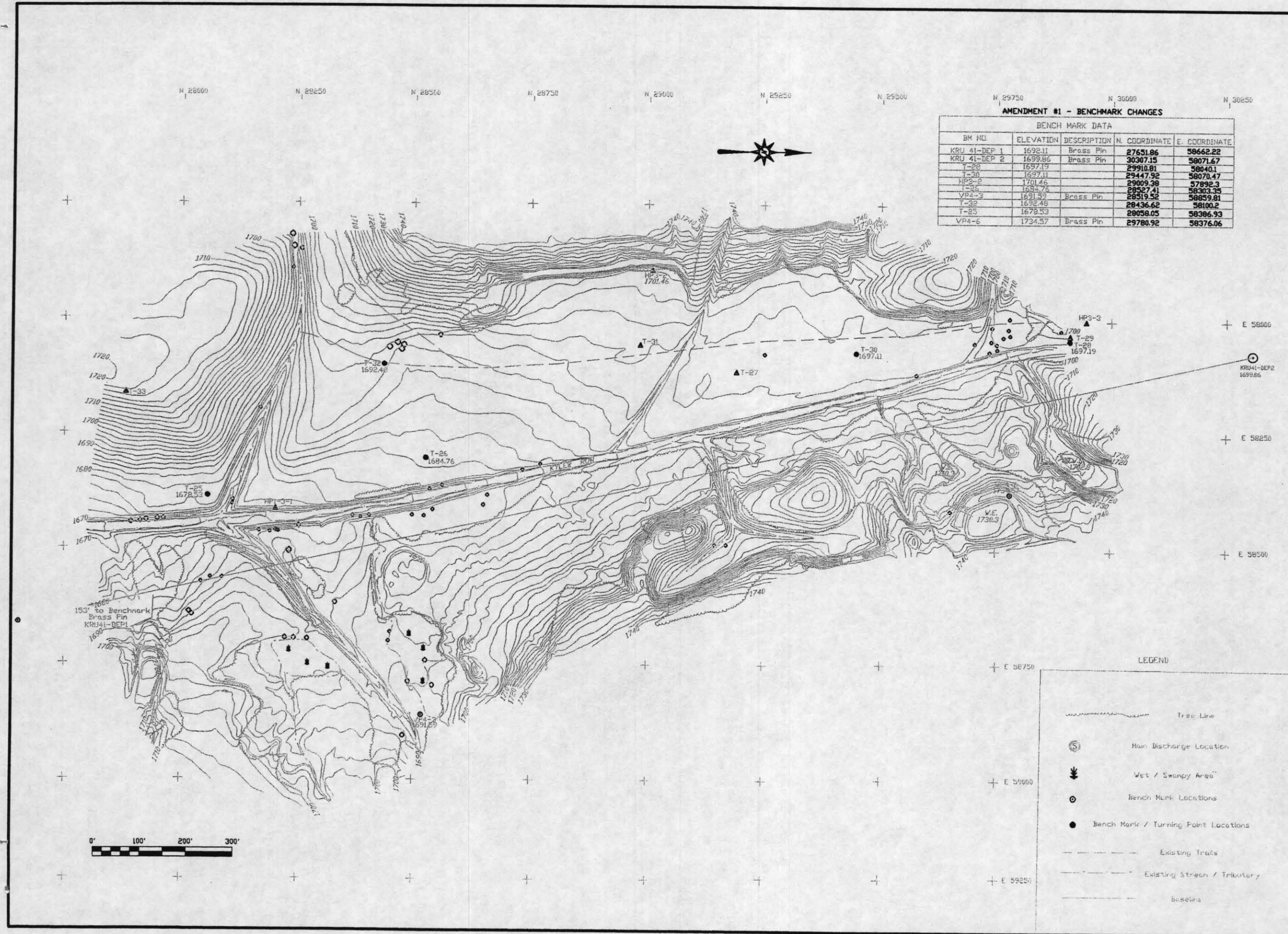
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Date	8/00	12/00	4/01	9/01

Designed	GLM	_____	_____	_____
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Reviewed	RED	_____	_____	_____
Checked	ADW	_____	_____	_____

USDA NRCS
Natural Resources Conservation Service

**LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT
ELK COUNTY, PENNSYLVANIA
COVER SHEET**

Drawing No.	COVER
Sheet	1 of 24



AMENDMENT #1 - BENCHMARK CHANGES

BENCH MARK DATA				
BM NO.	ELEVATION	DESCRIPTION	N. COORDINATE	E. COORDINATE
KRU 41-DEP 1	1692.11	Brass Pin	27651.96	58662.22
KRU 41-DEP 2	1699.86	Brass Pin	30307.15	59071.67
T-28	1697.19		29910.81	58040.1
T-30	1697.11		29447.92	58070.47
HP3-2	1701.46		29009.38	57892.3
T-35	1684.76		28527.41	58303.35
VP4-3	1691.53	Brass Pin	28519.52	58859.81
T-32	1692.46		28436.62	58100.2
T-25	1678.53		28058.05	58386.93
VP4-6	1734.57	Brass Pin	29780.92	58376.06

- LEGEND**
- Tree Line
 - Main Discharge Location
 - Wet / Swampy Area
 - Bench Mark Locations
 - Bench Mark / Turning Point Locations
 - Existing Trails
 - Existing Stream / Tributary
 - Baselines

USDA NRCS
Natural Resources Conservation Service

**LITTLE TOBY CREEK, TYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT
ELK COUNTY, PENNSYLVANIA
CONTOUR MAP (Original Contours)**

Drawing No. _____
Contour Map

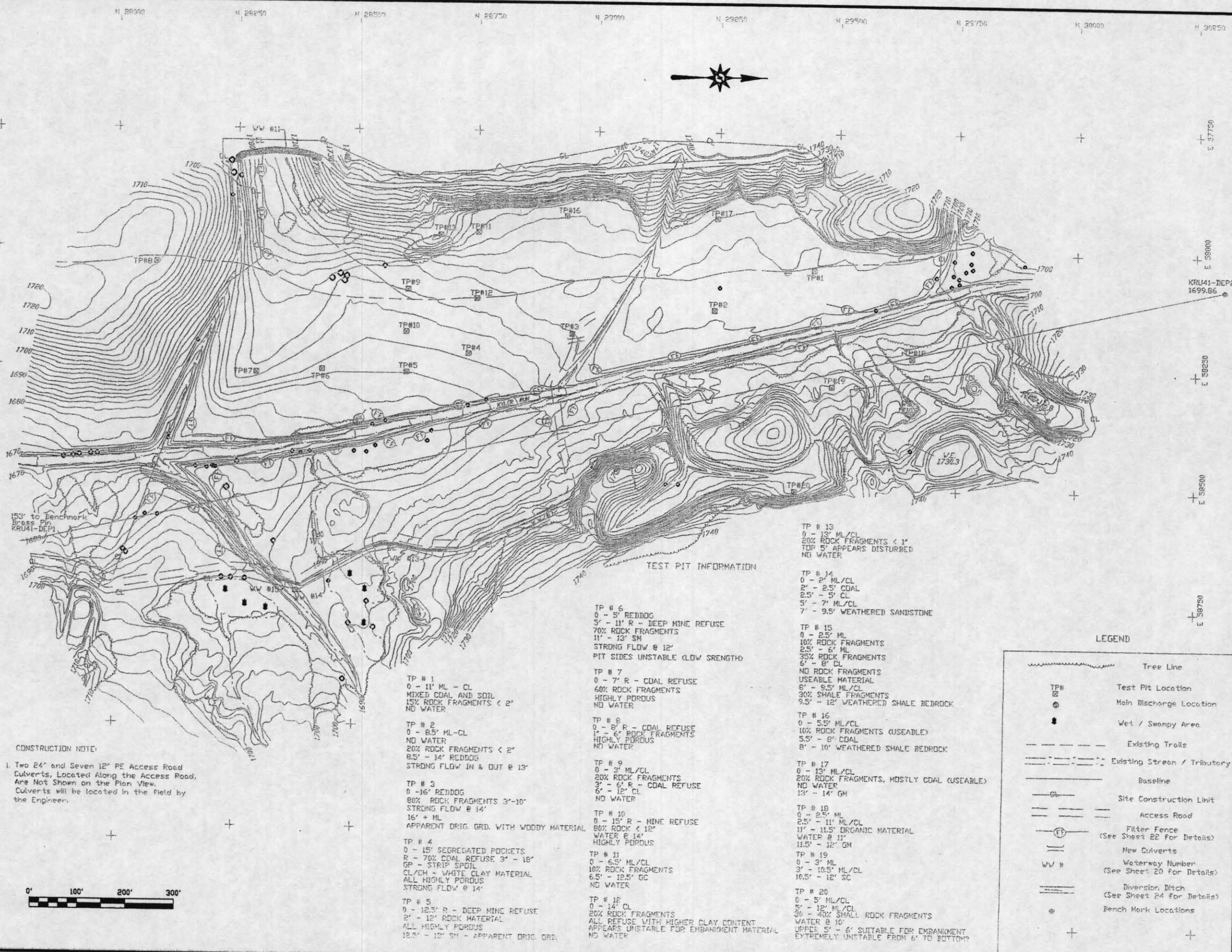
Sheet 2 of 24

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Title _____

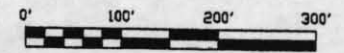
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Title 12/00
Date 4/01
Title 3/01

Designed CLM
Drawn RGP
Reviewed RGP
Checked ADP

AS BUILT



CONSTRUCTION NOTE:
1. Two 24" and Seven 12" PE Access Road
Culverts, Located Along the Access Road,
Are Not Shown on the Plan View.
Culverts will be located in the field by
the Engineer.



TP # 6
0 - 5' REDDUG
5' - 11' R - DEEP MINE REFUSE
70% ROCK FRAGMENTS
11' - 13' SM
STRONG FLOW @ 12'
PIT SIDES UNSTABLE (LOW STRENGTH)

TP # 7
0 - 7' R - COAL REFUSE
60% ROCK FRAGMENTS
HIGHLY POROUS
NO WATER

TP # 8
0 - 8' R - COAL REFUSE
1' - 6' ROCK FRAGMENTS
HIGHLY POROUS
NO WATER

TP # 9
0 - 3' ML/CL
20% ROCK FRAGMENTS
3' - 6' R - COAL REFUSE
6' - 12' CL
NO WATER

TP # 10
0 - 15' R - MINE REFUSE
80% ROCK < 12"
WATER @ 14'
HIGHLY POROUS

TP # 11
0 - 6.5' ML/CL
10% ROCK FRAGMENTS
6.5' - 12.5' GC
NO WATER

TP # 12
0 - 14' CL
20% ROCK FRAGMENTS
ALL REFUSE WITH HIGHER CLAY CONTENT
APPEARS UNSTABLE FOR EMBANKMENT MATERIAL
NO WATER

TP # 13
0 - 13' ML/CL
20% ROCK FRAGMENTS < 1"
TOP 5' APPEARS DISTURBED
NO WATER

TP # 14
0 - 2' ML/CL
2' - 2.5' COAL
2.5' - 5' CL
5' - 7' ML/CL
7' - 9.5' WEATHERED SANDSTONE

TP # 15
0 - 2.5' ML
10% ROCK FRAGMENTS
2.5' - 6' ML
35% ROCK FRAGMENTS
6' - 8' CL
NO ROCK FRAGMENTS
USEABLE MATERIAL
8' - 9.5' ML/CL
30% SHALE FRAGMENTS
9.5' - 12' WEATHERED SHALE BEDROCK

TP # 16
0 - 5.5' ML/CL
10% ROCK FRAGMENTS (USEABLE)
5.5' - 8' COAL
8' - 10' WEATHERED SHALE BEDROCK

TP # 17
0 - 13' ML/CL
20% ROCK FRAGMENTS, MOSTLY COAL (USEABLE)
NO WATER
13' - 14' GM

TP # 18
0 - 2.5' ML
2.5' - 11' ML/CL
11' - 11.5' ORGANIC MATERIAL
WATER @ 11'
11.5' - 12' GM

TP # 19
0 - 3' ML
3' - 10.5' ML/CL
10.5' - 12' SC

TP # 20
0 - 5' ML/CL
5' - 12' ML/CL
WATER @ 10'
UPPER 5' - 6' SUITABLE FOR EMBANKMENT
EXTREMELY UNSTABLE FROM 6' TO BOTTOM?

LEGEND

- Tree Line
- TP# Test Pit Location
- Main Discharge Location
- Wet / Swampy Area
- Existing Trails
- Existing Stream / Tributary
- Baseline
- Site Construction Limit
- Access Road
- Filter Fence (See Sheet 22 for Details)
- New Culverts
- Waterway Number (See Sheet 20 for Details)
- Diversion Ditch (See Sheet 24 for Details)
- Bench Mark Locations

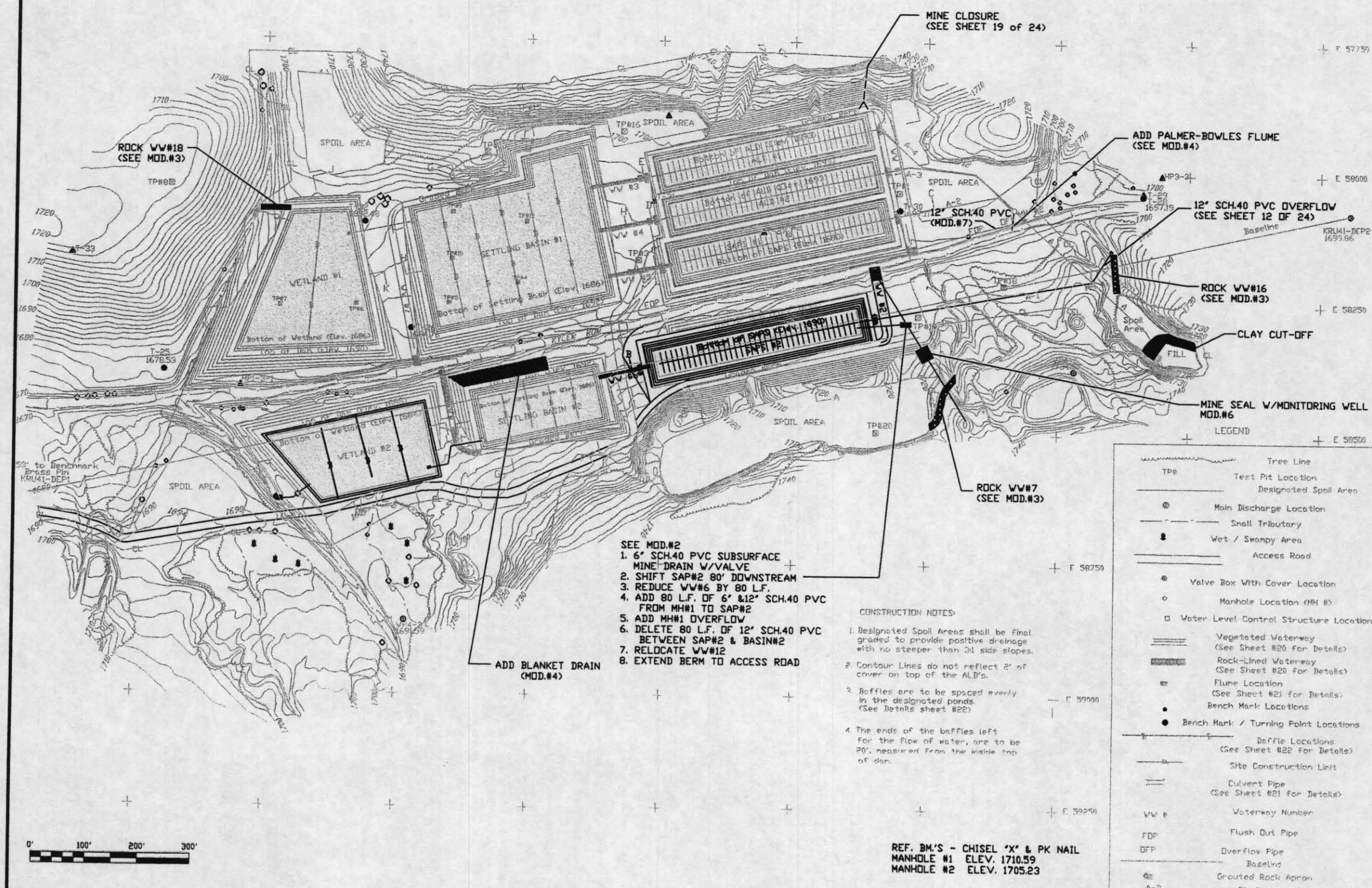
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4/01	CLM	4/01	CLM
9/01	CLM	9/01	CLM

USDA NRCS
Natural Resources Conservation Service

**LITTLE TOBY CREEK, TYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT
ILL. COUNTY, PENNSYLVANIA
B&S PLAN VIEW AND SOILS DATA**

AS BUILTS

PA ACT 187: It is the duty of the contractor to comply with the provisions of Pennsylvania ACT 187 (1996) before performing any excavation work.
SERIAL NO. 0671271 DATE: 3/8/01

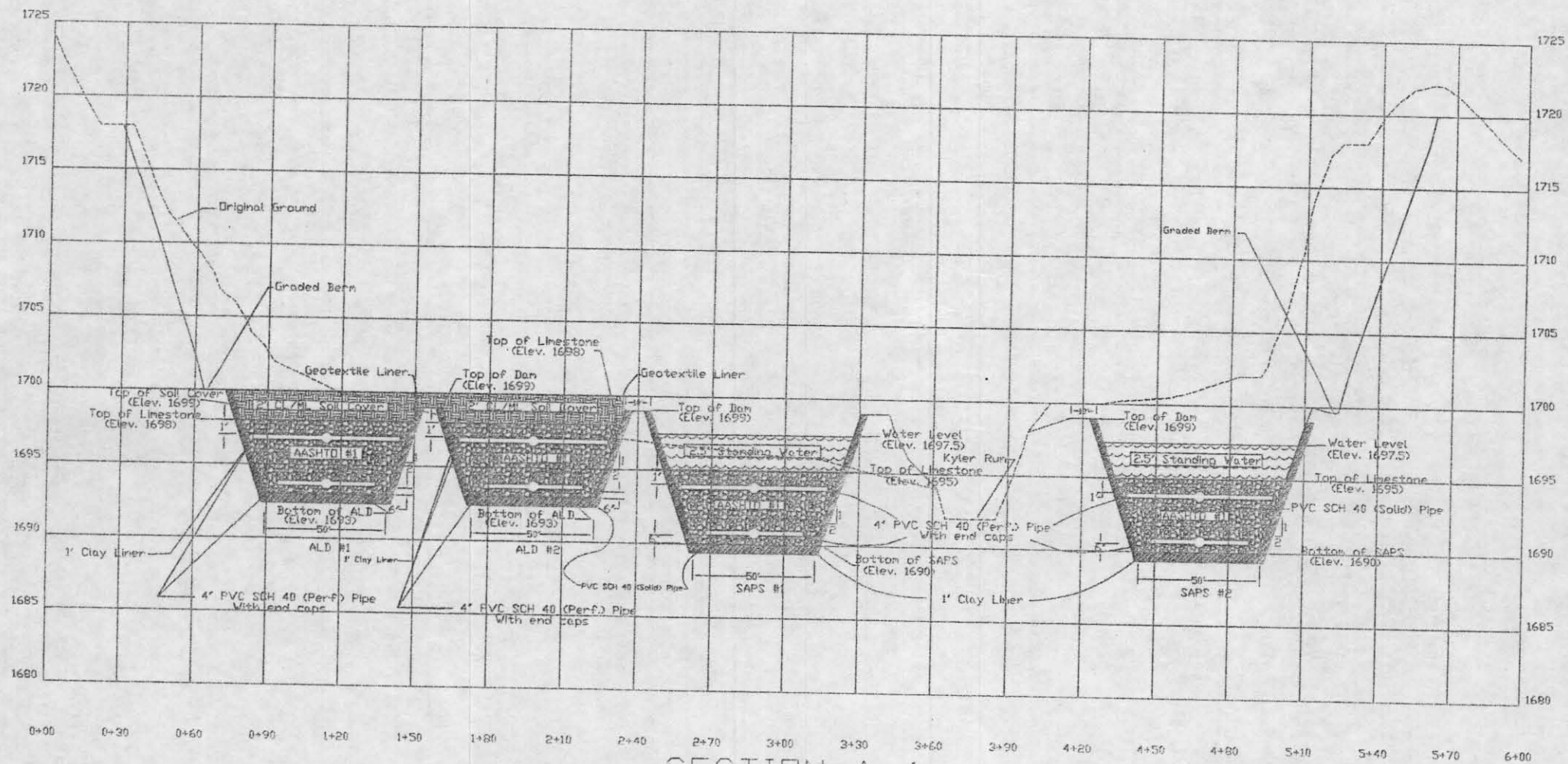


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Drawn By	RGD
Reviewed By	RGD
Checked By	ADW
Date	8/00
Date	12/00
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Designed By	GLM
Drawn By	RGD
Reviewed By	RGD
Checked By	ADW
Date	8/00
Date	12/00
Date	4/01
Date	3/01

USDA NRCS
Natural Resource Conservation Service

**LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT**
ELK COUNTY, PENNSYLVANIA
PLAN VIEW (Final Contours)



**LITTLE TODY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT**
ELK COUNTY, PENNSYLVANIA
CROSS SECTIONS

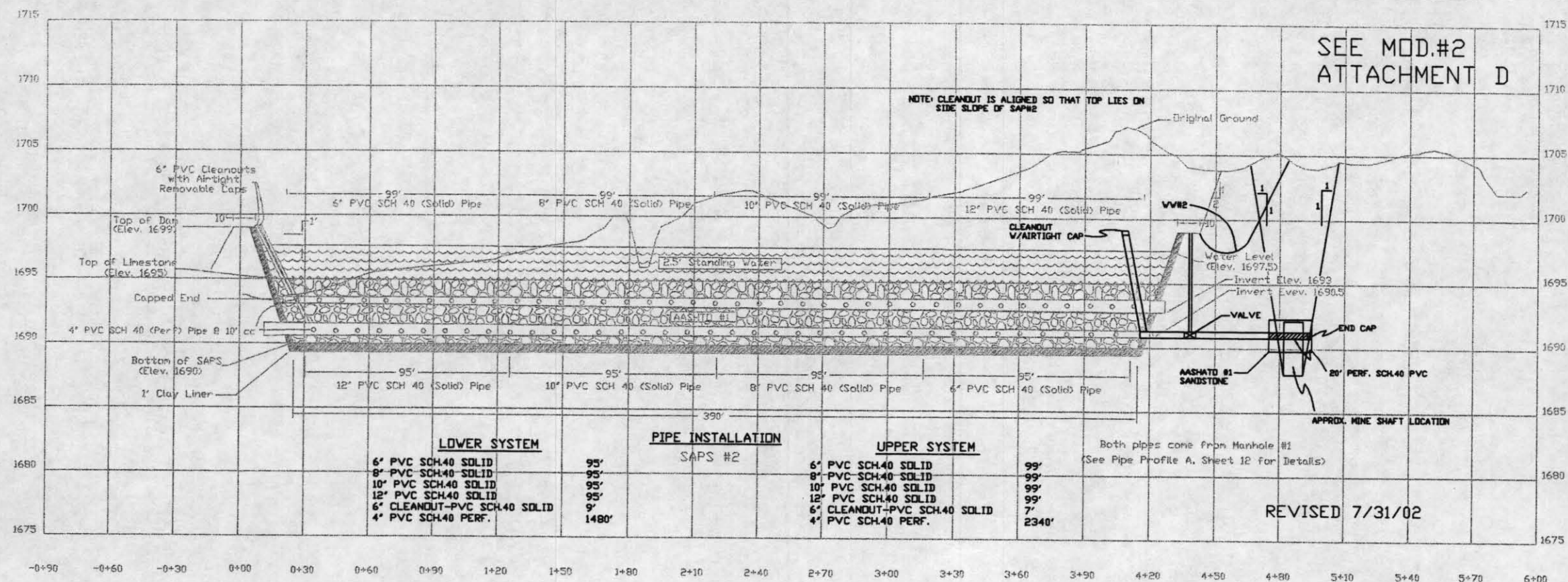
USDA NRCS
Natural Resources Conservation Service

Drawing No. **SECTIONS J**
Sheet **5** of **24**

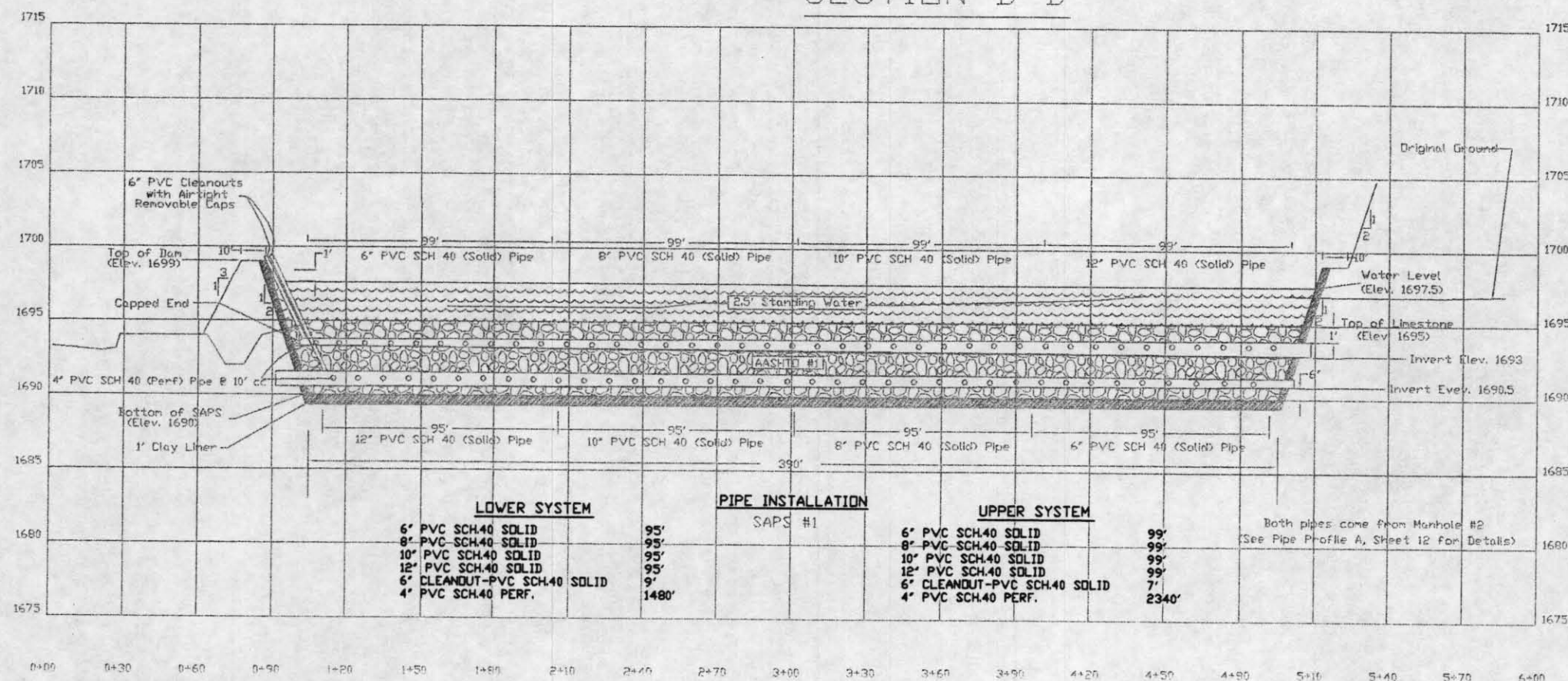
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Reviewed **RCB**
Checked **ADP**

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Title **12/00**
Title **4/01**
Title **3/01**

AS BUILT



SECTION B-B



SECTION C-C

DESIGNED BY: CLM

DRAWN BY: RCD

CHECKED BY: RCD

APPROVED BY: ADY

DATE: 8/00

DATE: 12/00

DATE: 4/01

DATE: 3/01

USDA NRCS

Natural Resources Conservation Service

LITTLE TOBY CREEK, KYLER HOLLOW

ABANDINED MINE DRAINAGE PROJECT

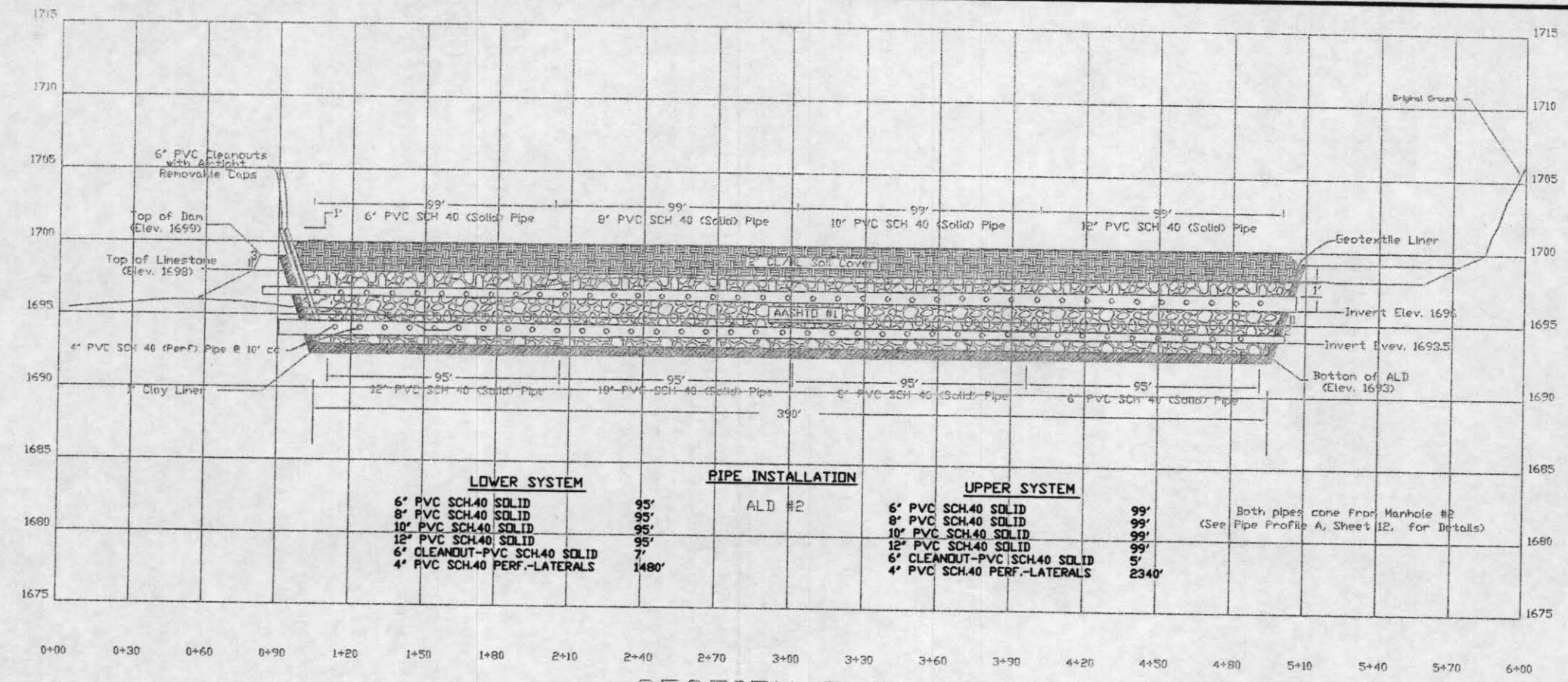
ELK COUNTY, PENNSYLVANIA

CROSS SECTIONS

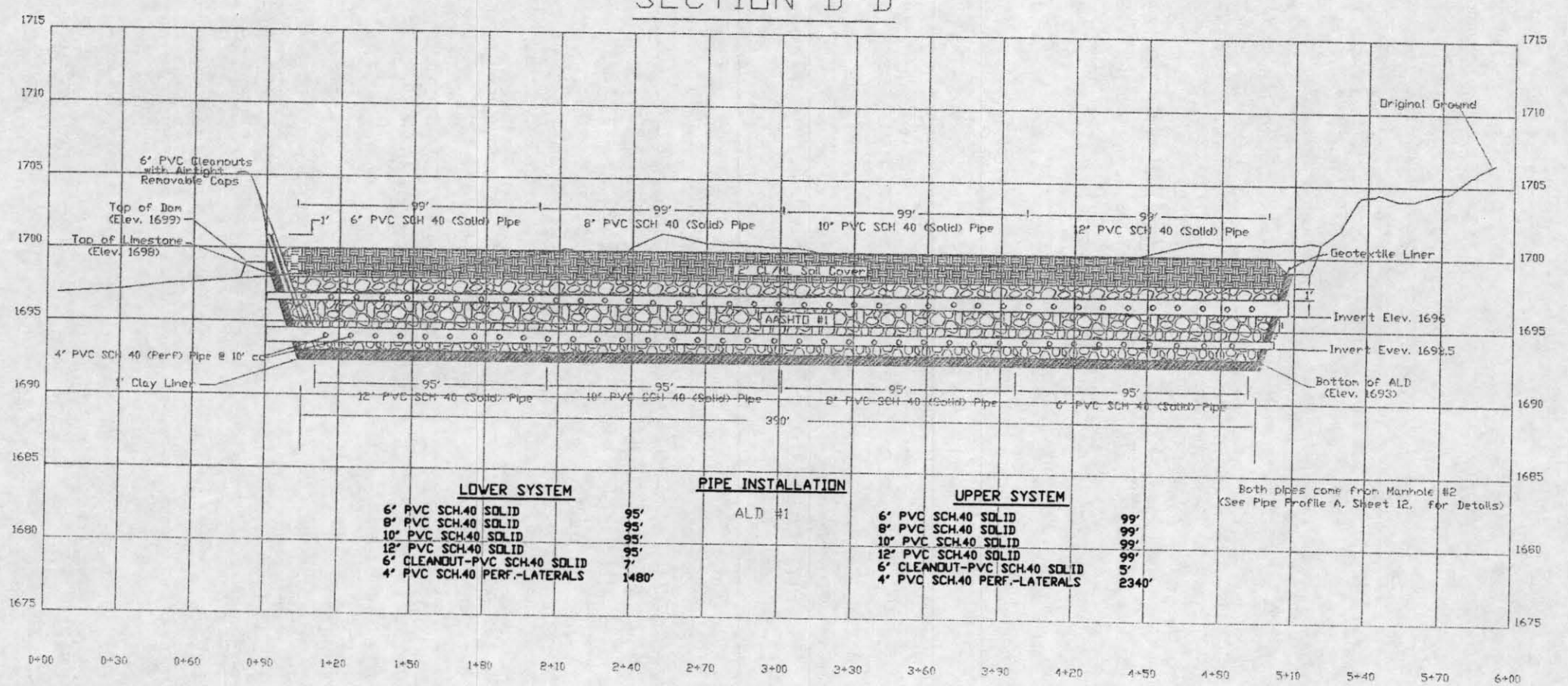
SECTION 2

Sheet 6 of 24

AS BUILT



SECTION D-D



SECTION E-E

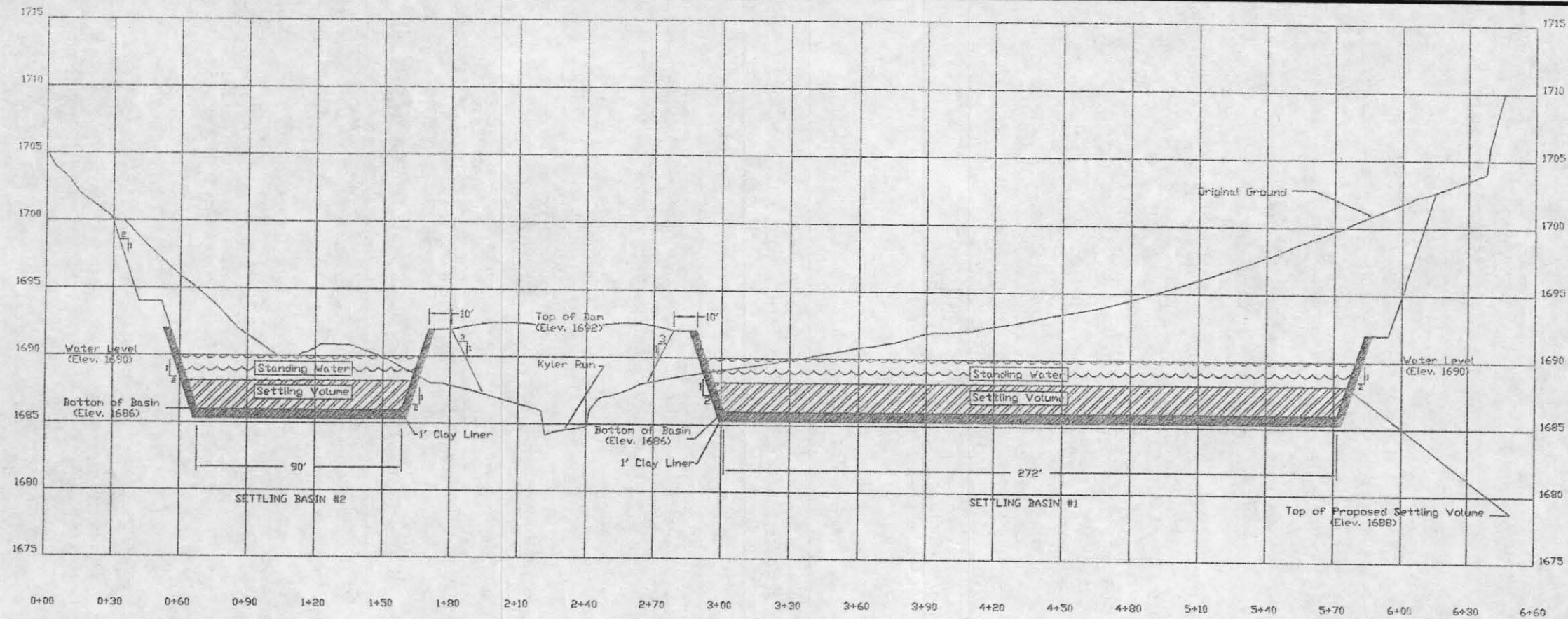
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Approved by	ADY	3/01

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Natural Resources Conservation Service

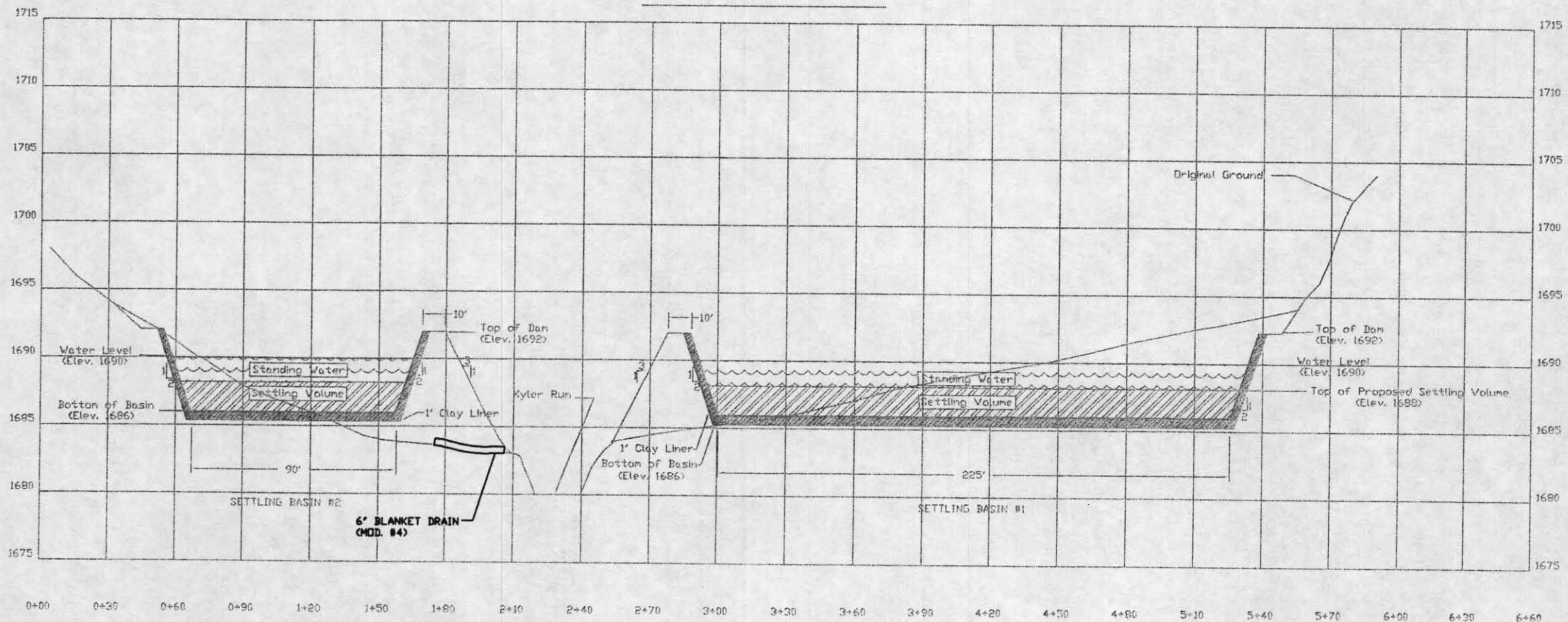
**LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT**
ELK COUNTY, PENNSYLVANIA
CROSS SECTIONS

Sheet No. **SECTIONS 3**
of **24**

AS BUILTS



SECTION F-F



SECTION G-G

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4/01	3/01

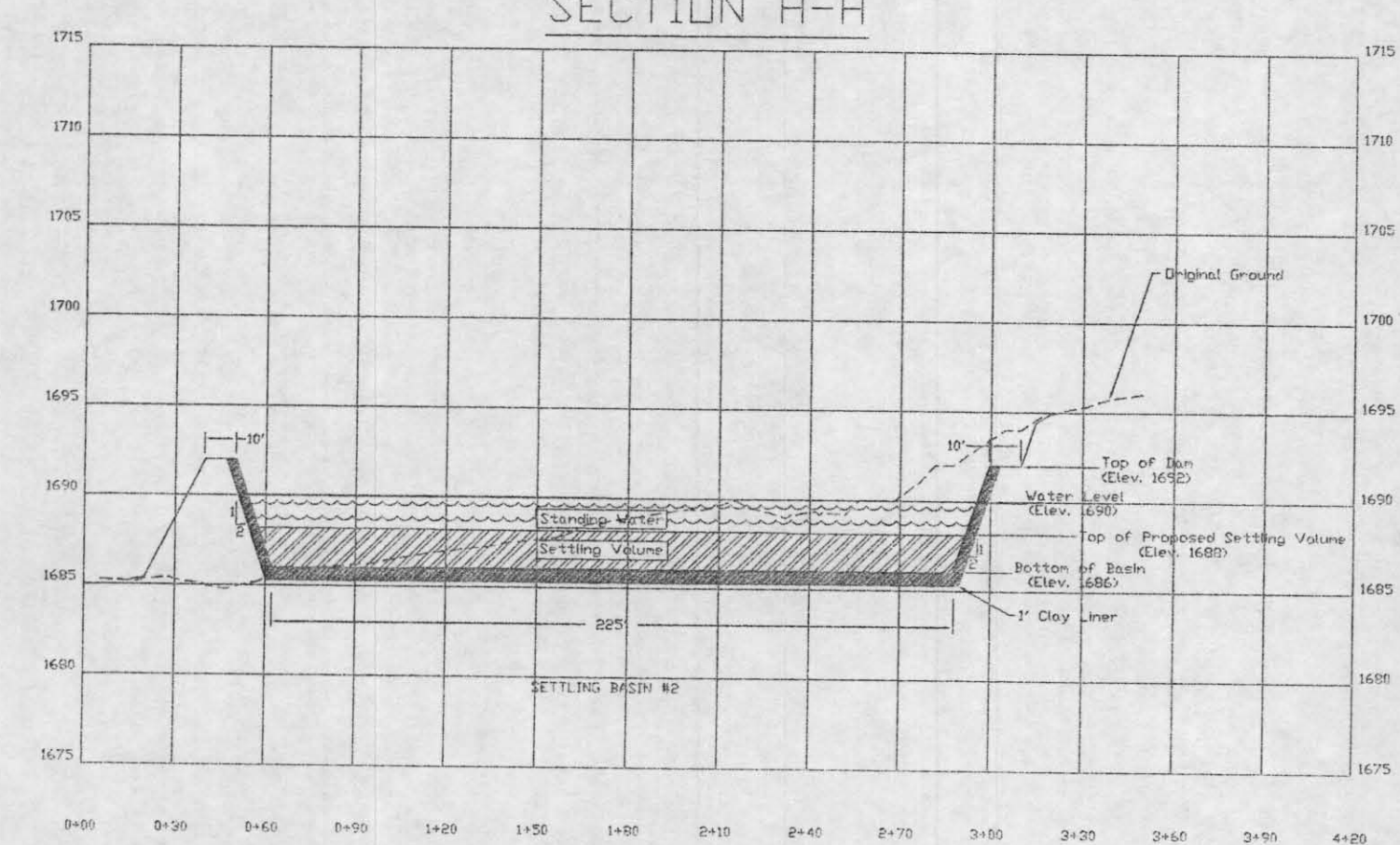
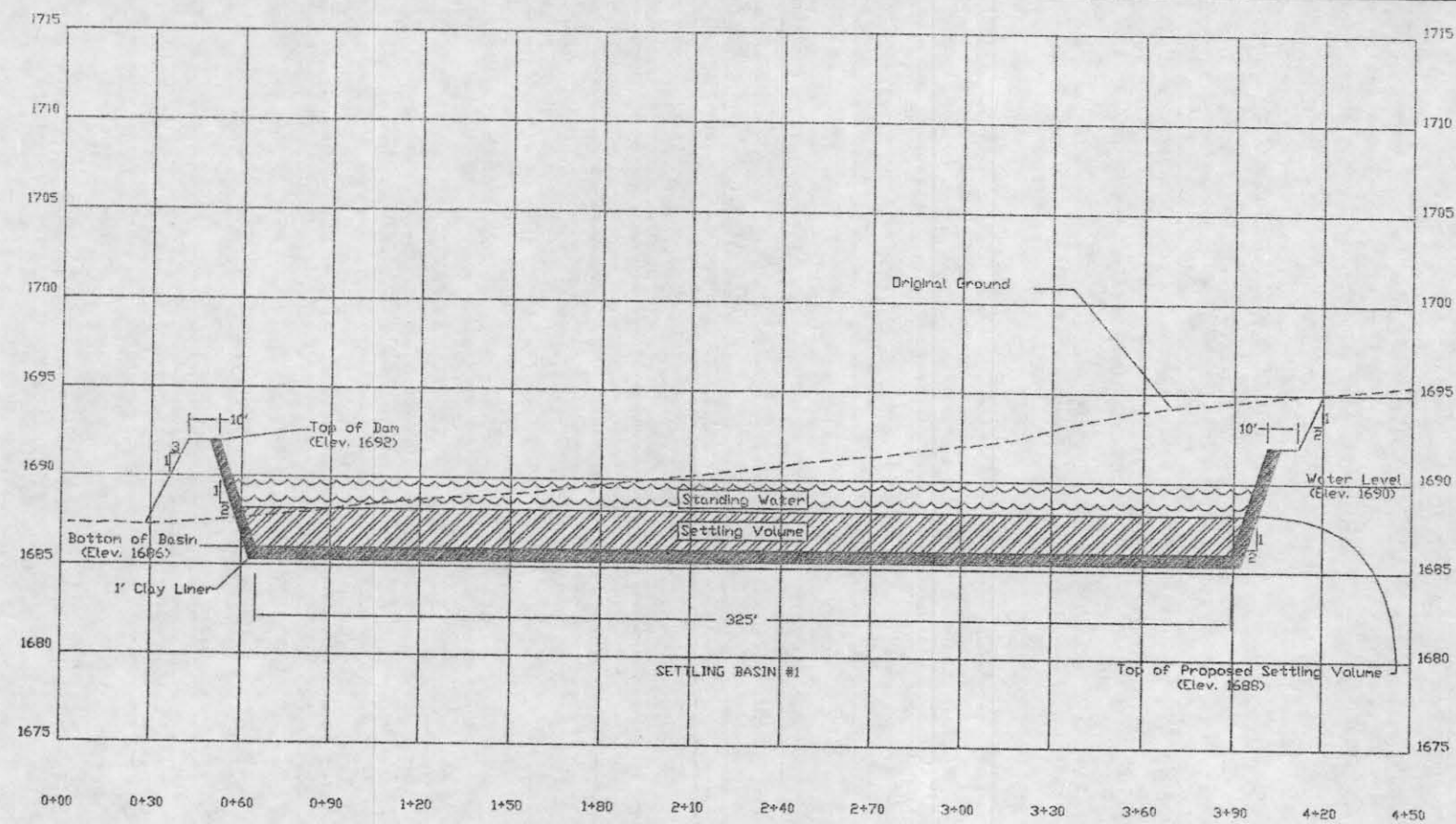
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CLM	RCD	RCD	ADJ



**LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT**
ELK COUNTY, PENNSYLVANIA
CROSS SECTIONS

Drawing No.	SECTION 4
Sheet	8 of 24

AS EULTS



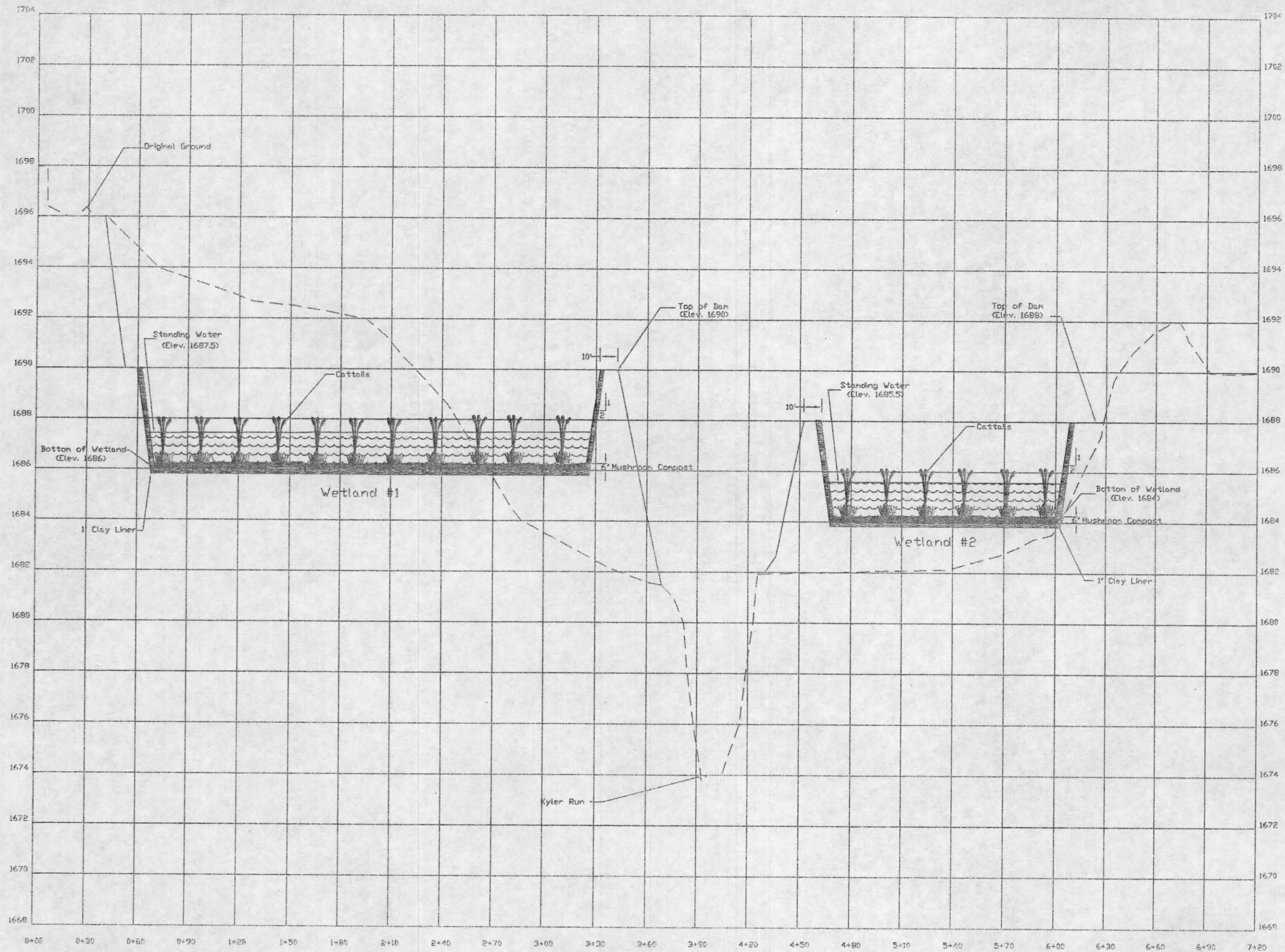
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Checked by				
Approved by				
Date				

USDA NRCS
Natural Resources Conservation Service

LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT
ELK COUNTY, PENNSYLVANIA
CROSS SECTIONS

Drawing No. SECTIONS 5
Sheet 8 of 24

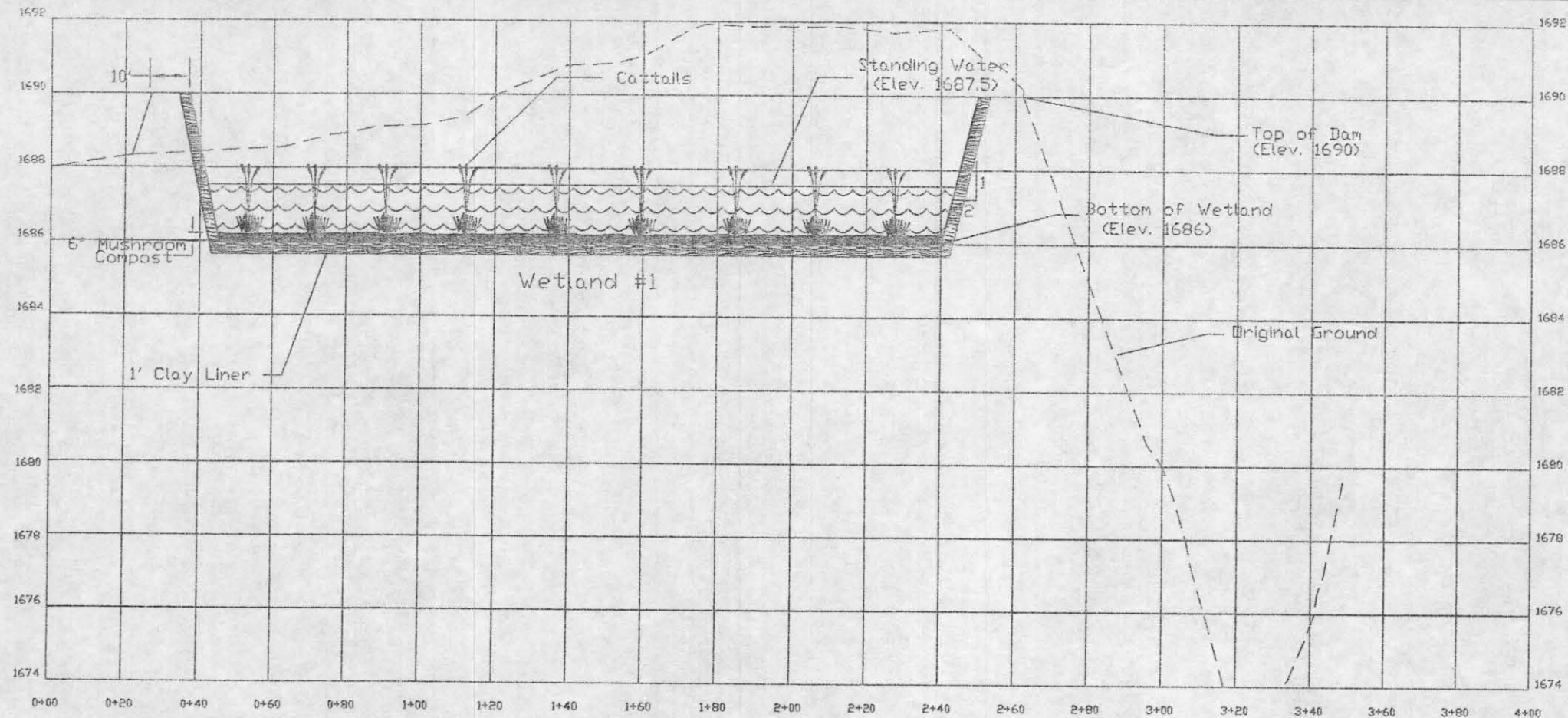
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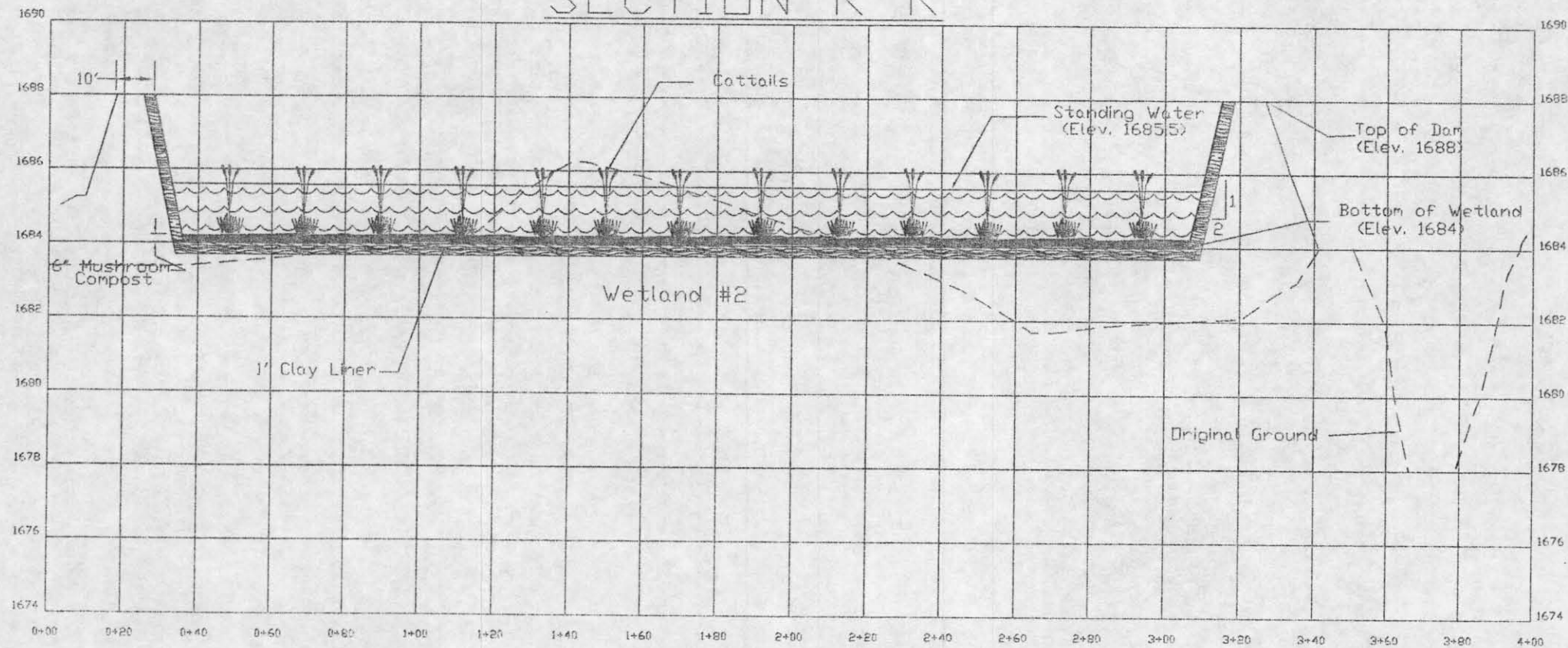
SECTION J-J

USDA NRCS Natural Resources Conservation Service		Drawing No. SECTIONS 6 Sheet 10 of 24
LITTLE TOBY CREEK, KYLER HOLLOW ABANDONED MINE DRAINAGE PROJECT ELK COUNTY, PENNSYLVANIA CROSS SECTIONS		Date: 8/00 Designed: GLM Drawn: RCD Revised: RCD Checked: ADW
Approved by: _____ Title: _____ Date: _____		Date: 8/00 Title: _____ Date: 12/00 Title: _____ Date: 4/01 Title: _____ Date: 3/01 Title: _____

AS BUILT



SECTION K-K



SECTION L-L

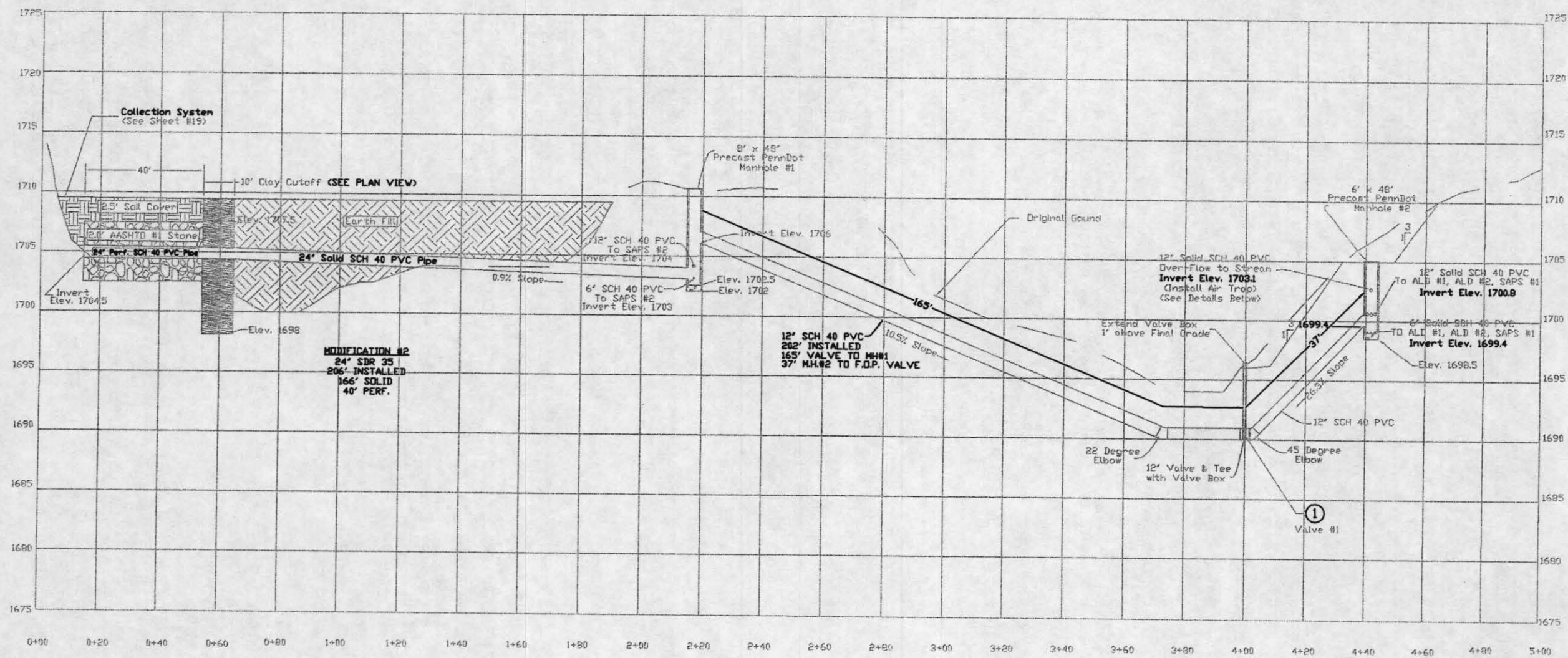
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Date	_____

USDA NRCS
Natural Resources Conservation Service

**LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT**
ELK COUNTY, PENNSYLVANIA
CROSS SECTIONS

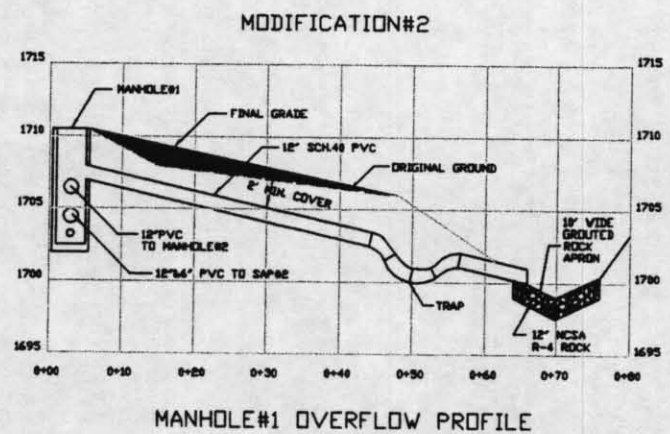
Drawing No. **SECTIONS 2**
Sheet **11** of **24**

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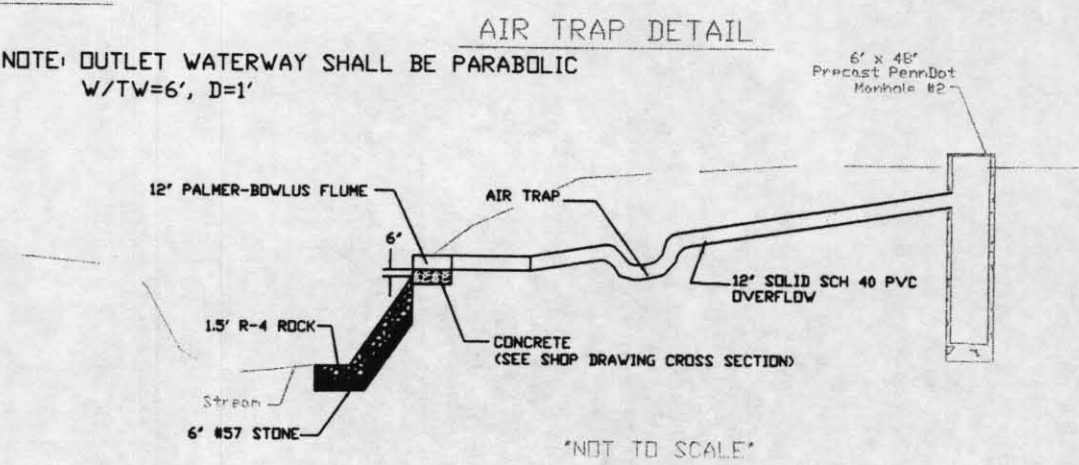


PROFILE A

SEE MOD.#4



NOTE: OUTLET WATERWAY SHALL BE PARABOLIC
W/TW=6', D=1'



- CONSTRUCTION NOTES:
1. Exact Location and Length of pipe is shown on Plan View (Sheet #4).
 2. Maintain 3' Cover over pipe at all times.

USDA NRCS
Natural Resources Conservation Service

**LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT**
ELK COUNTY, PENNSYLVANIA

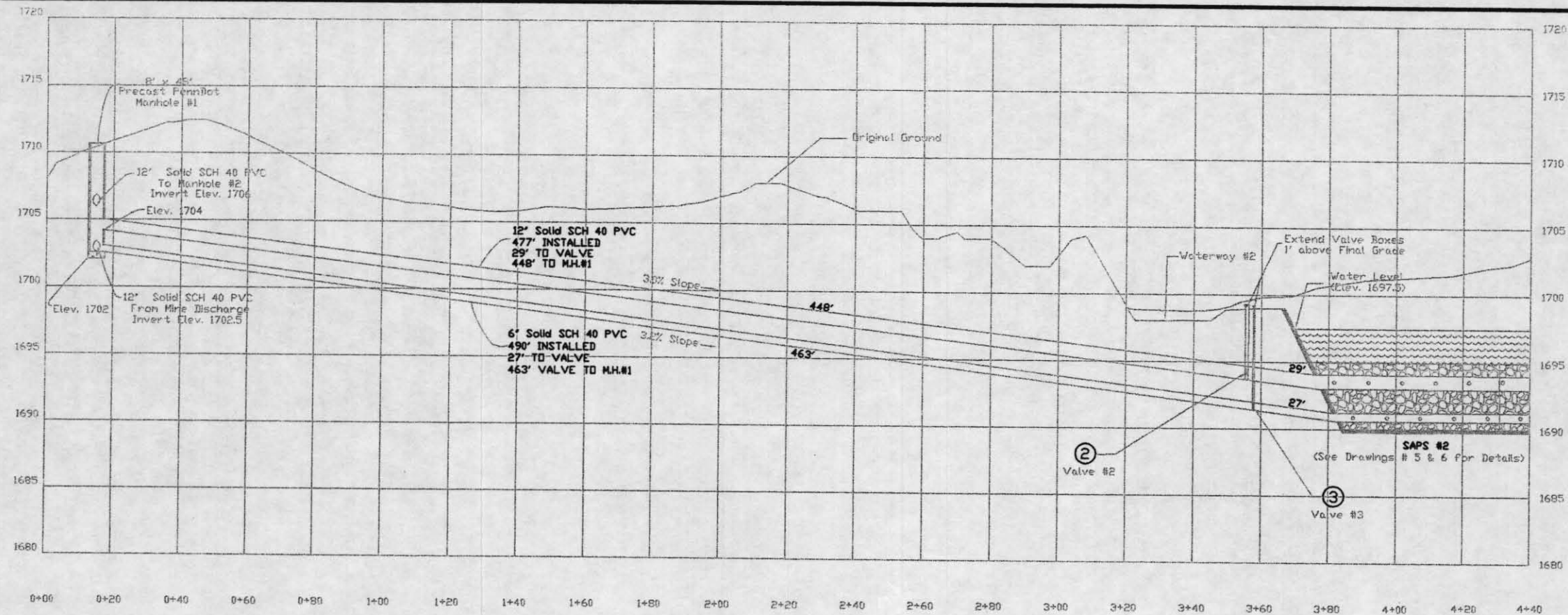
PIPE PROFILE A

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Checked by				
Approved by				

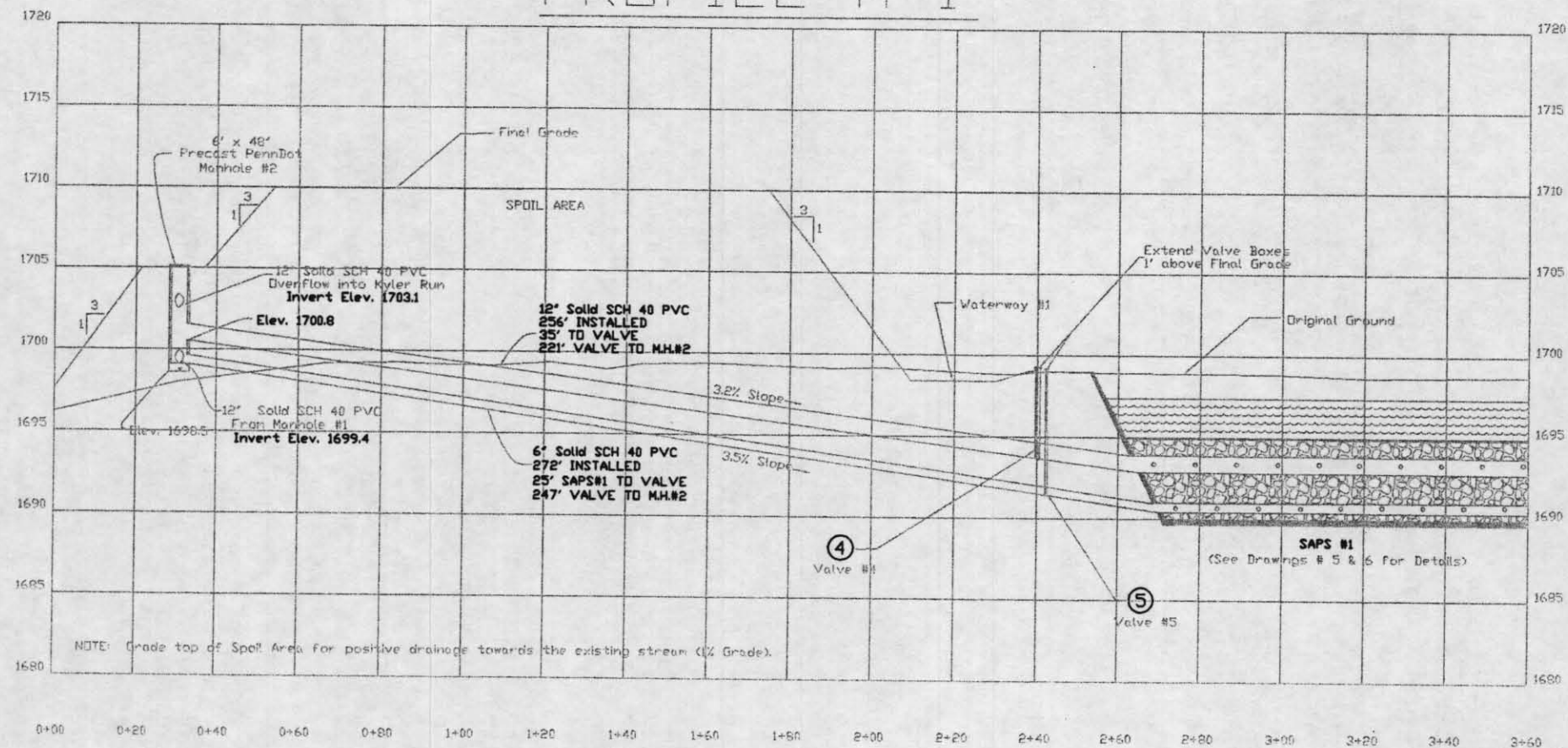
Drawing No. **PROFILES 1**

Sheet **12** of **24**

AS BUILT



PROFILE A-1



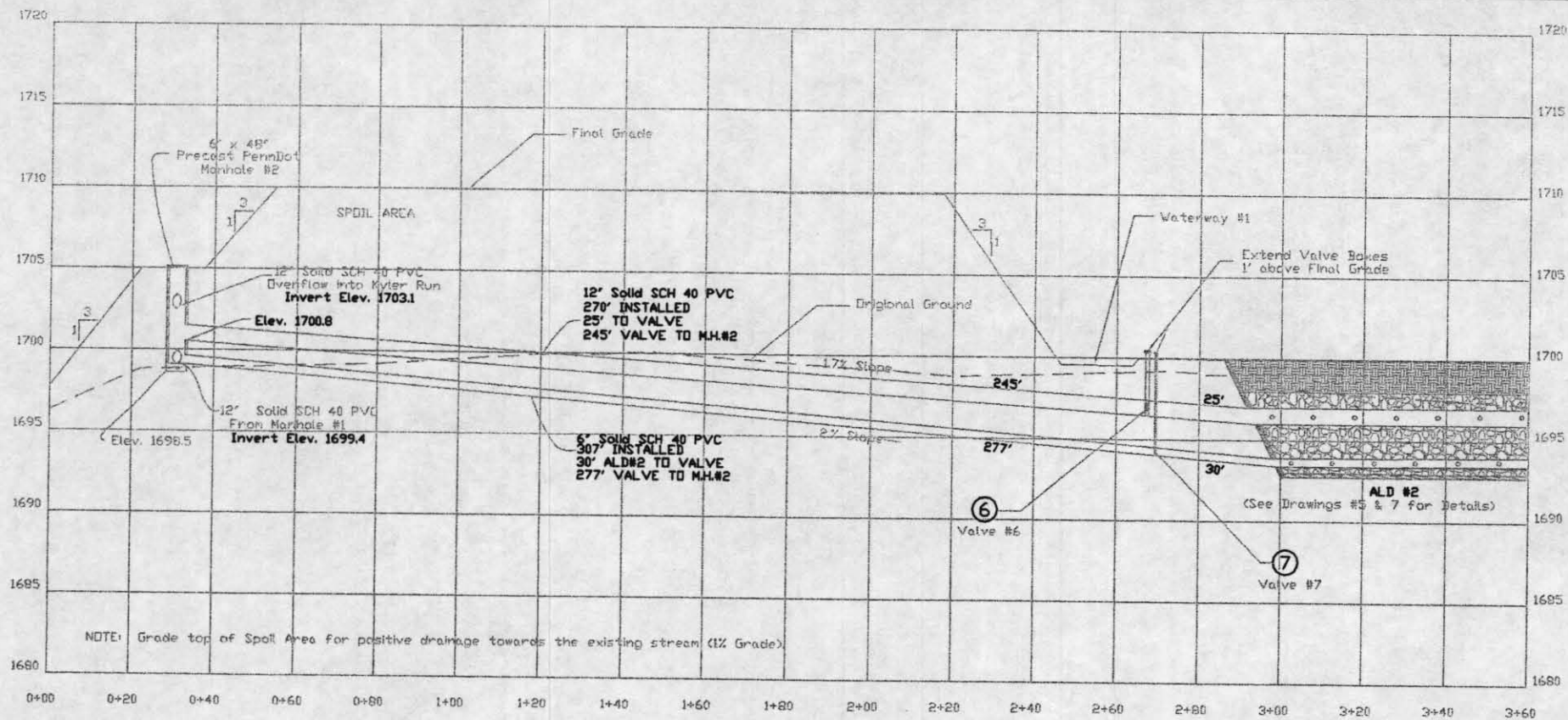
PROFILE A-2

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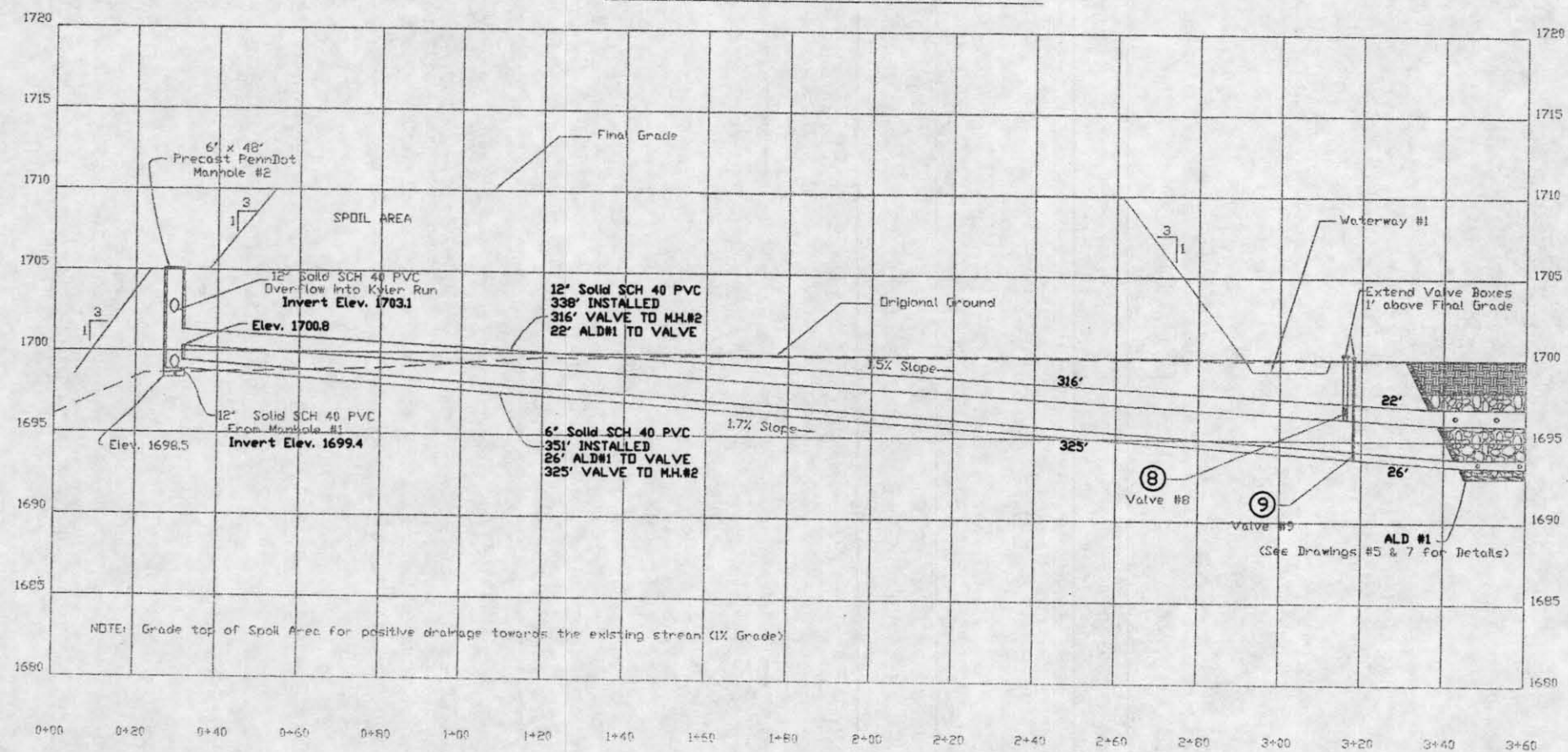


**LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT**
ELK COUNTY, PENNSYLVANIA
PIPE PROFILES A-1 & A-2

Drawing No.	PROFILES 2
Sheet	No. 13 of 24



PROFILE A-3



PROFILE A-4

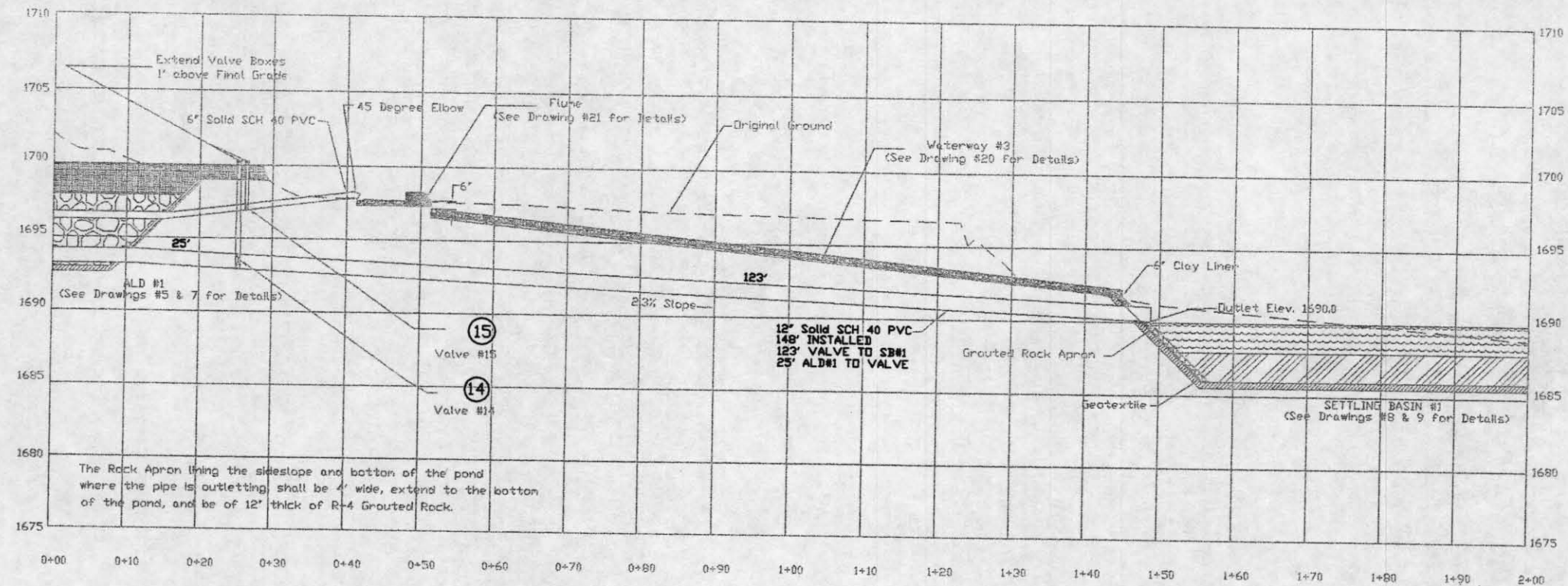
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Date	8/00

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Date	8/00

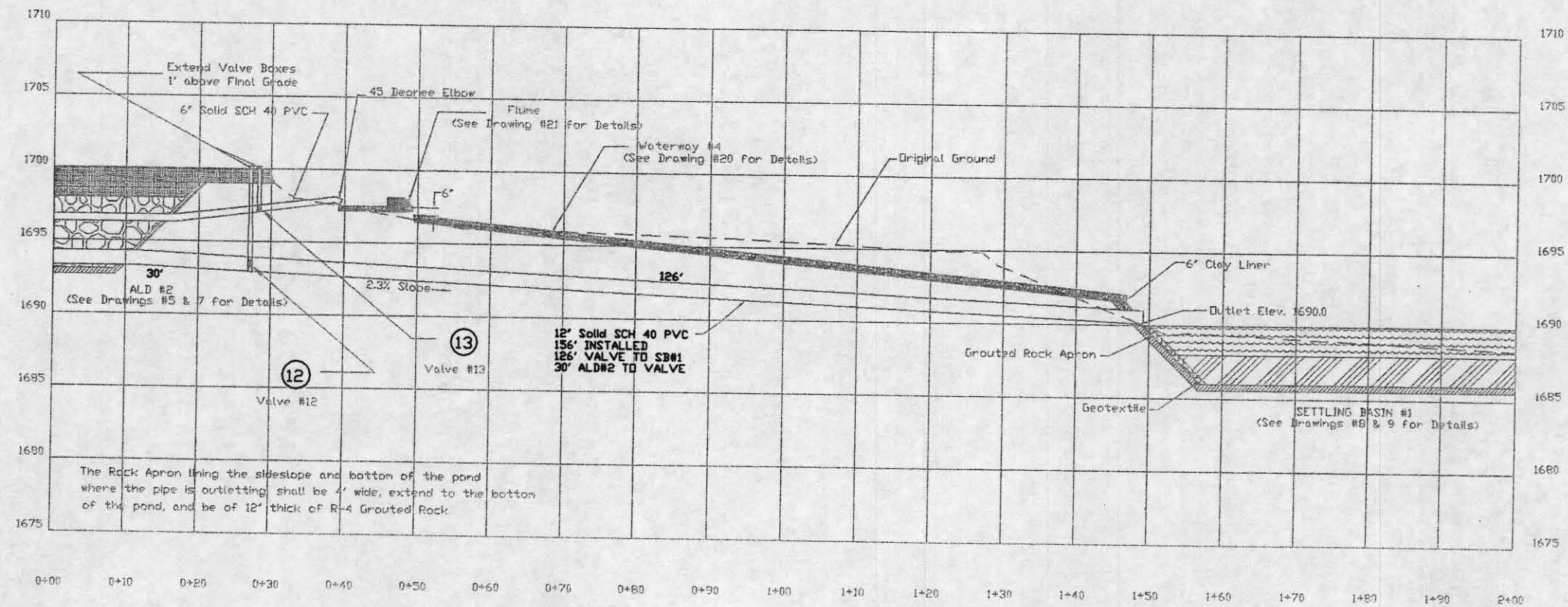


**LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT**
ELK COUNTY, PENNSYLVANIA
PIPE PROFILES A-3 & A-4

Drawing No.	PROFILES 3
Sheet	14 of 24



ALD#1 OUTLET PIPE PROFILE



ALD#2 OUTLET PIPE PROFILE

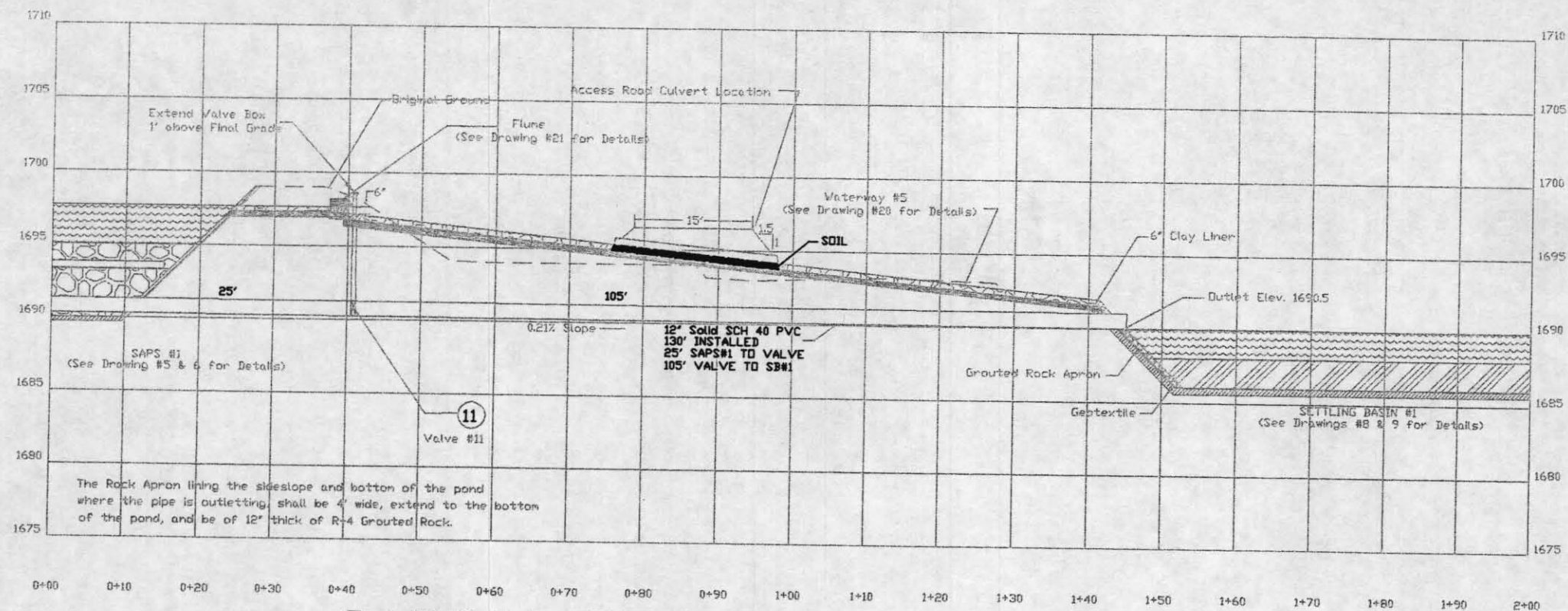
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Drawn by				
Reviewed by				
Checked by				

USDA NRCS
Natural Resource Conservation Service

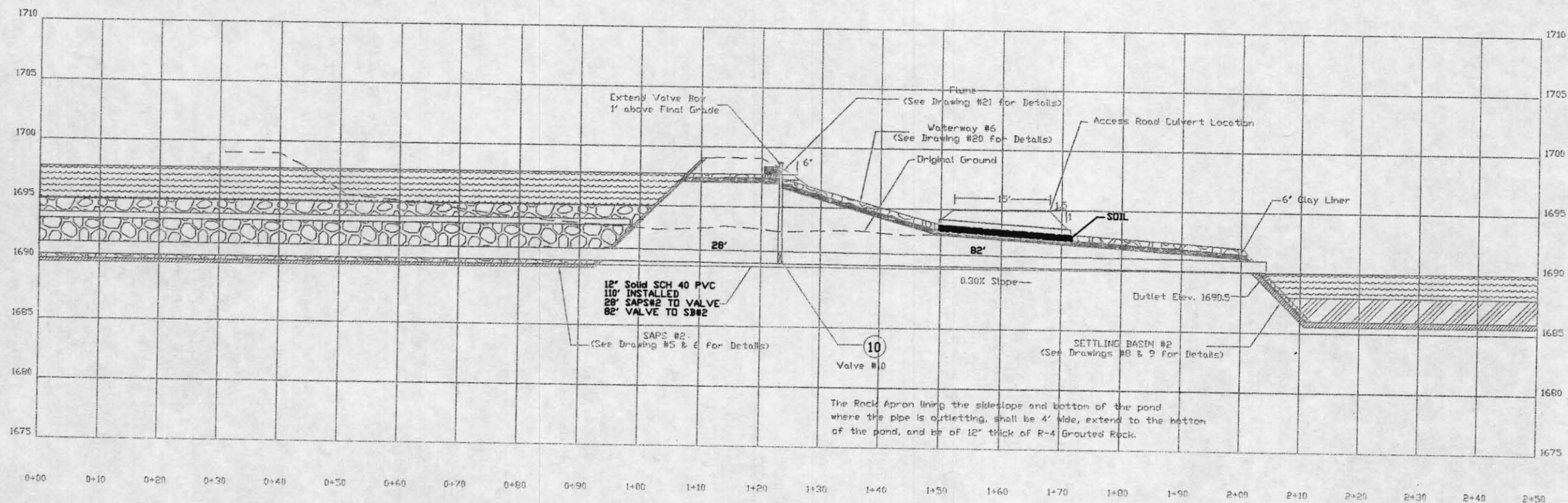
LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT
ELK COUNTY, PENNSYLVANIA
ALD OUTLET PIPE PROFILES

Drawing No. PROFILES 4
Sheet No. 15 of 24

AS BUILT



SAPS#1 OUTLET PIPE PROFILE



SAPS#2 OUTLET PIPE PROFILE

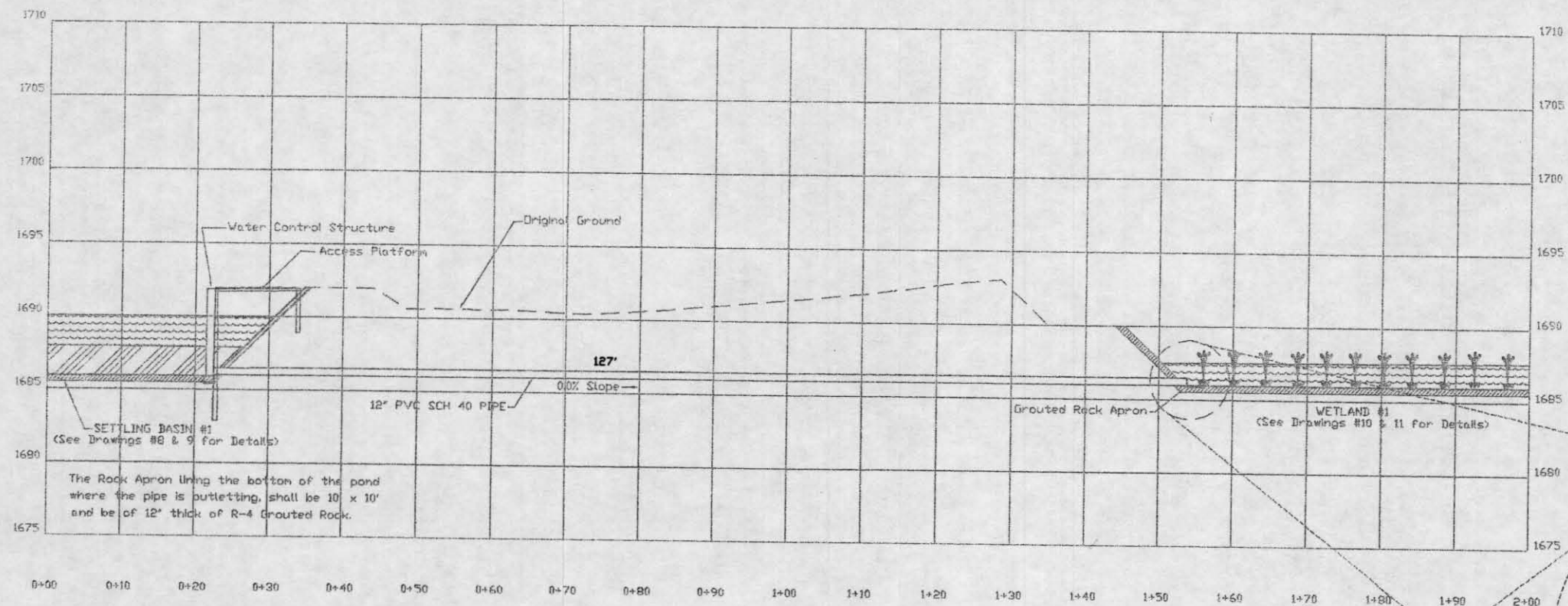
REVISED 7/31/02
SEE MOD #2
SAP#2 MOVED 80' CLOSER
TO SB#2. ROCK WW#6 &
12\"/>

**LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT**
ELK COUNTY, PENNSYLVANIA
SAPS OUTLET PIPE PROFILES

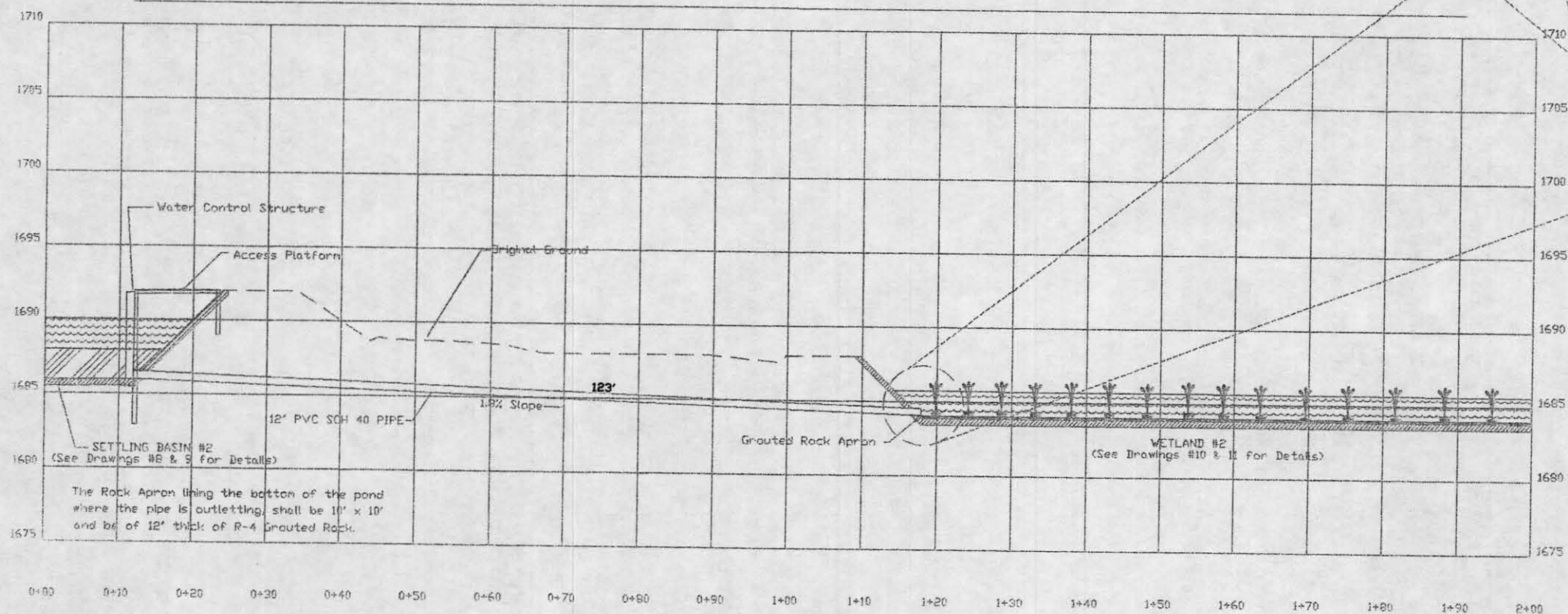
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Natural Resources Conservation Service

Date	By	Check
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12/00	RCD	
4/01	RCD	
3/01	ADW	

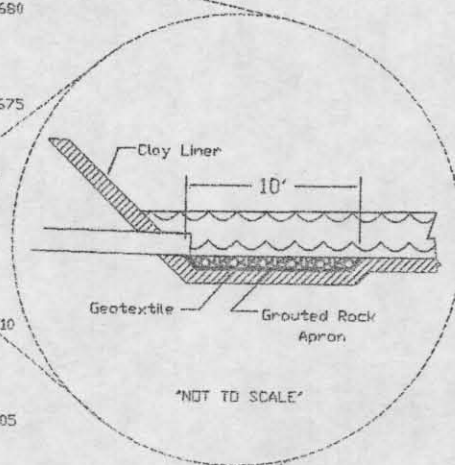
Drawing No. **PROFILES 5**
Sheet No. **16** of **24**



SETTLING BASIN #1 OUTLET PIPE PROFILE



SETTLING BASIN #2 OUTLET PIPE PROFILE



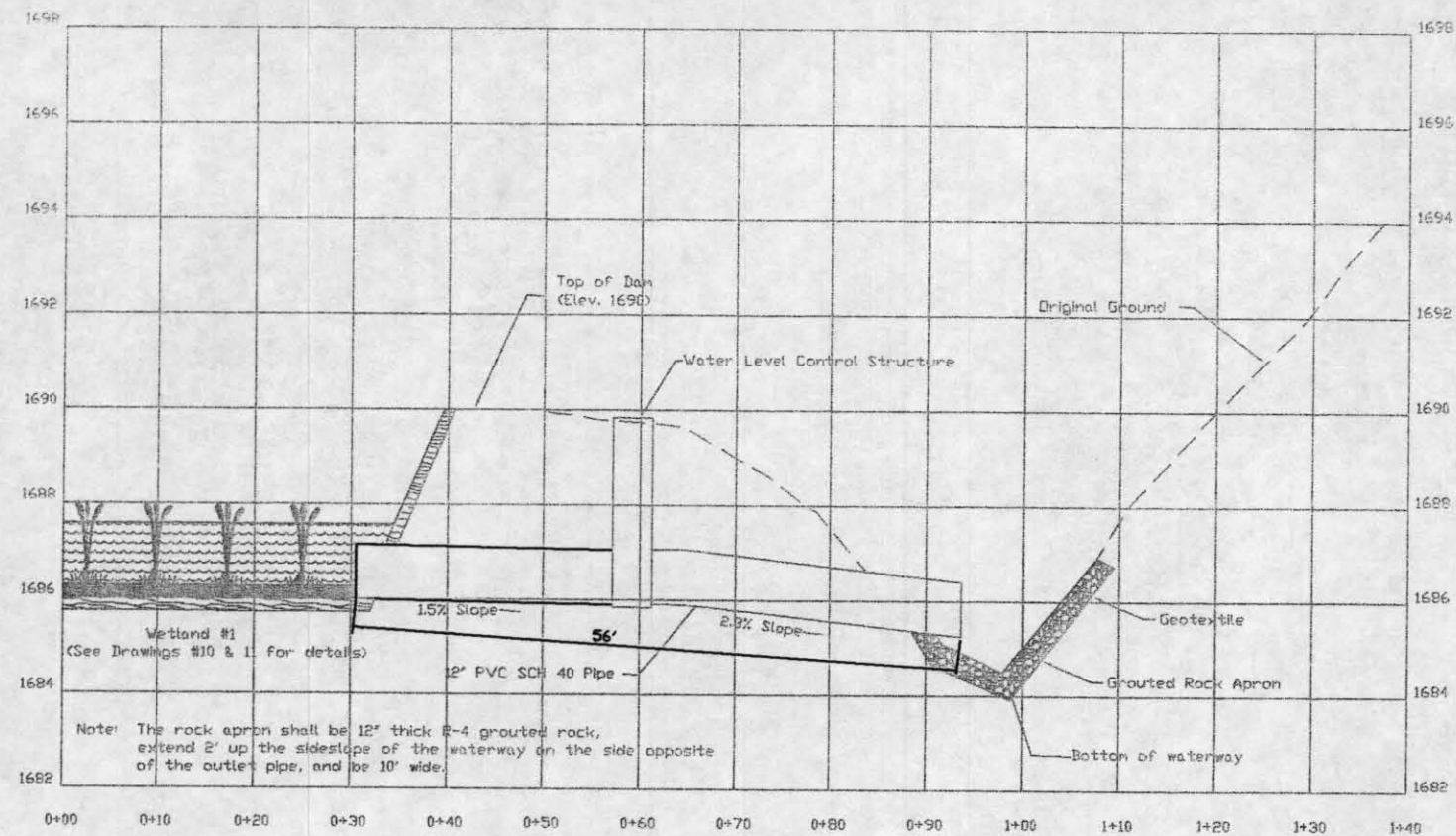
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Reviewed By				
Checked By				

USDA NRCS
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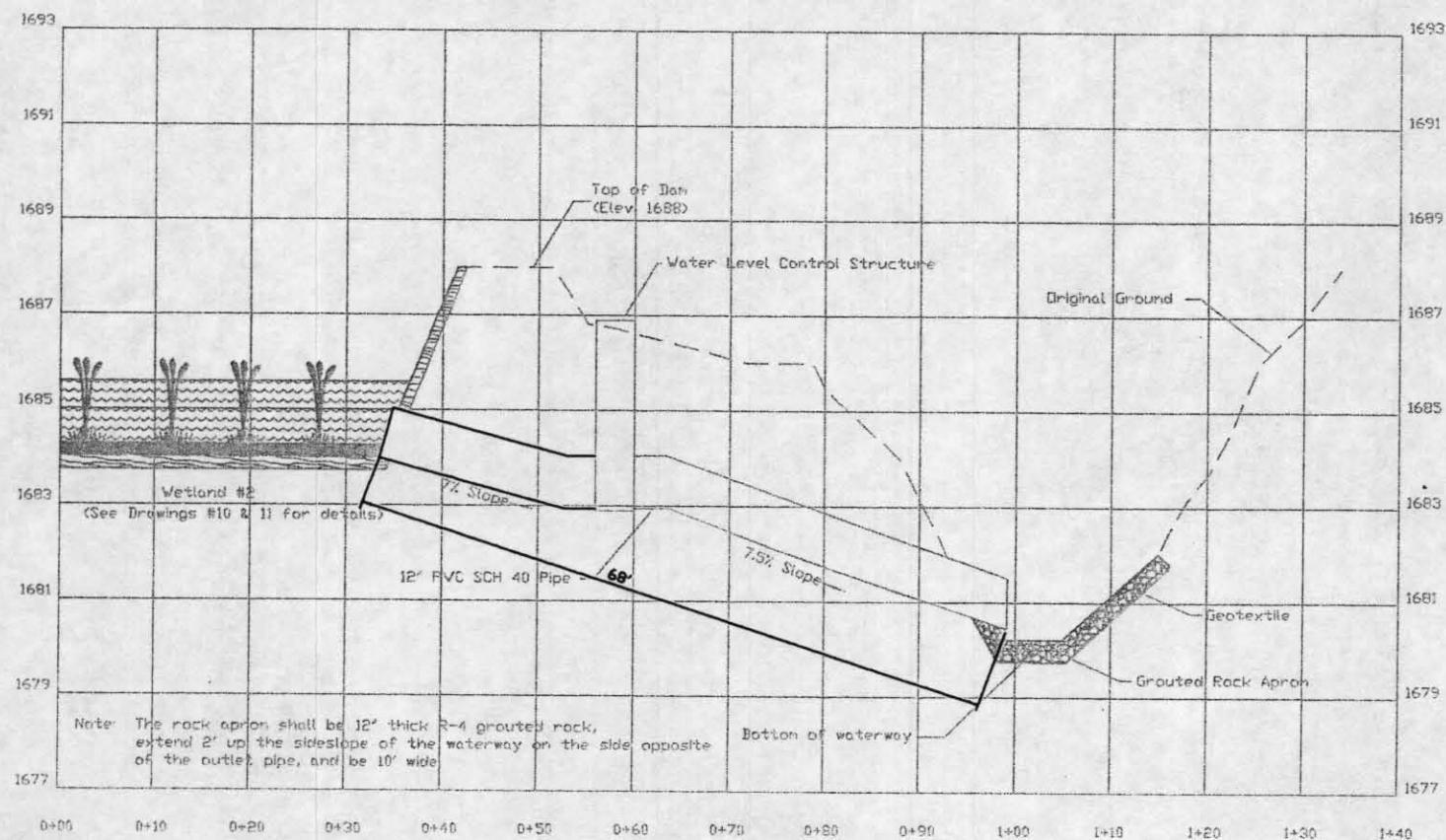
LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT
ELK COUNTY, PENNSYLVANIA
SETTLING BASIN OUTLET PIPE PROFILE

Drawing No. PROFILES 6
Sheet No. 17 of 24

AS BUILT



WETLAND #1 OUTLET PIPE PROFILE



WETLAND #2 OUTLET PIPE PROFILE

Approved by	_____
Title	_____
Date	_____

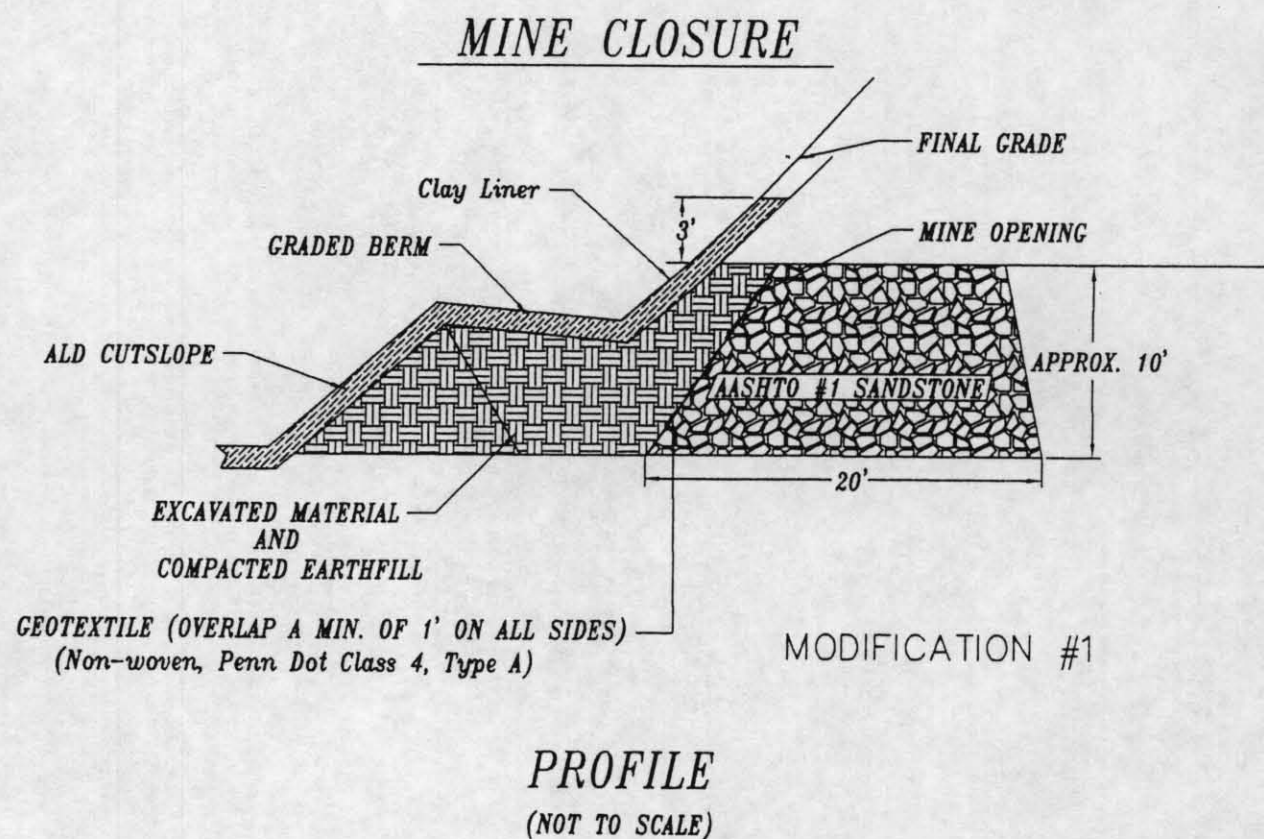
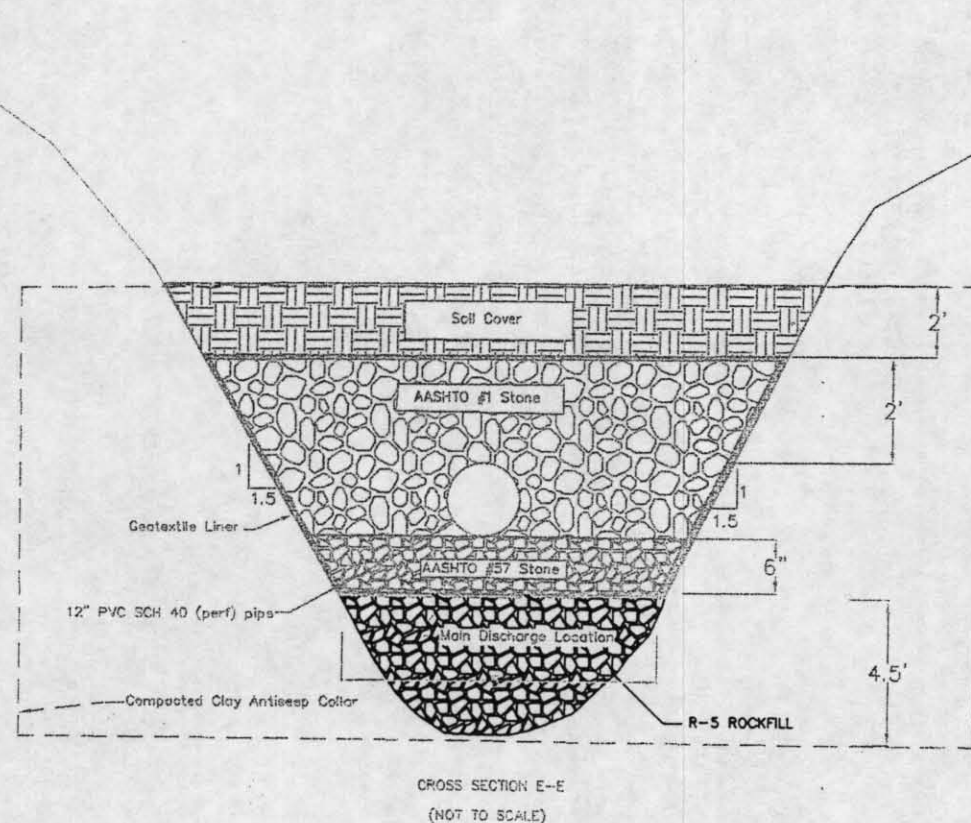
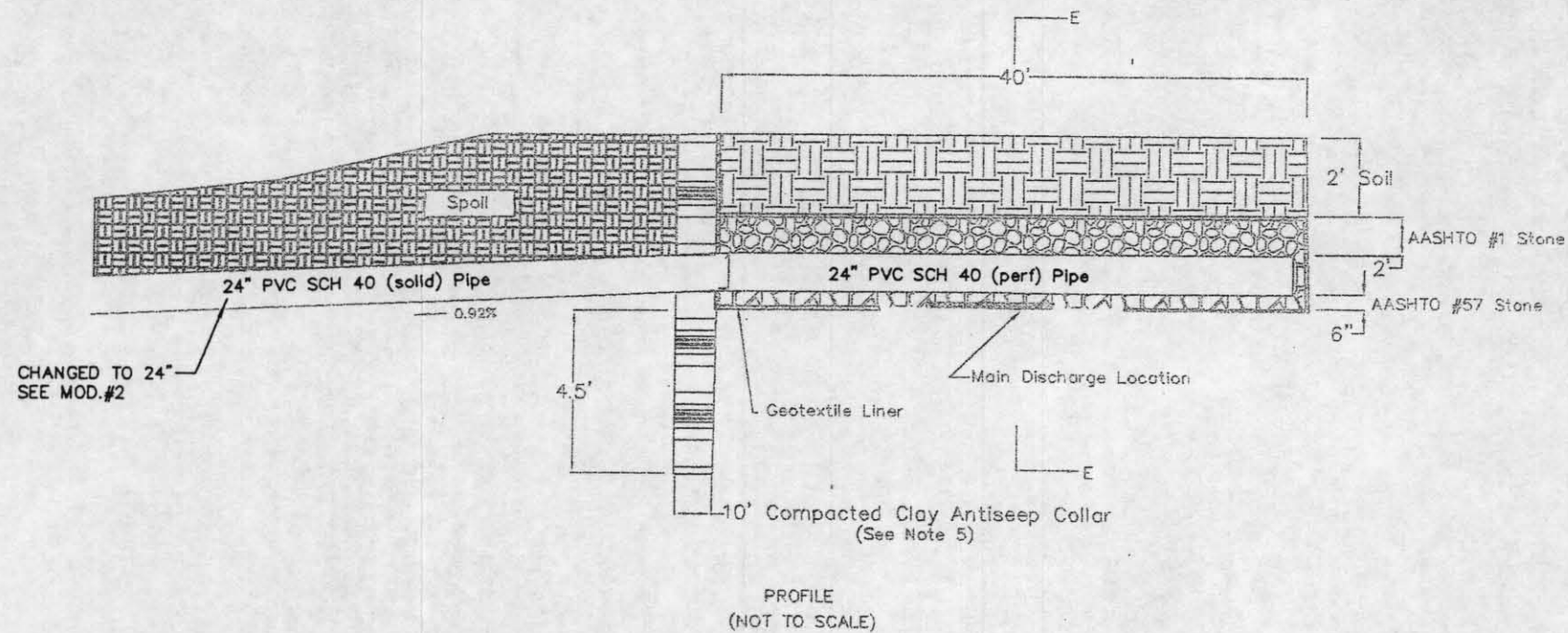
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Drawn	RCD	12/00
Marked	RCD	4/01
Checked	ADW	3/01



**LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT**
ELK COUNTY, PENNSYLVANIA
WETLAND OUTLET PIPE PROFILES

Drawing No.	PROFILES 2
Sheet	18 of 24

AS BUILT



- NOTES:**
- The perforations in the 12" PVC SCH 40 Pipe are as follows:
7 rows of 1" diameter holes
Each row is spaced 45 degrees apart, starting with top-dead-center of the pipe for the placement of the first row (Top 270 degrees of pipe get perforations)
Holes are spaced 1" on apart, with the first and last holes in each row being 6" from the ends of the pipe.
 - All Stone in this Mine Water Collection System MUST be Sandstone
 - Overlap Geotextile a min. of 1' on all sides
 - All excavated material (spoils) shall be compacted after being placed
 - Length of Cut-off collar shall be determined in the field by the project engineer.

Date	Approved by	Title
8/00	CLM	CLM
12/00	RCD	RCD
4/01	RCD	RCD
3/01	ADW	ADW

Date	Approved by	Title
8/00	CLM	CLM
12/00	RCD	RCD
4/01	RCD	RCD
3/01	ADW	ADW

USDA NRCS
Natural Resources Conservation Service

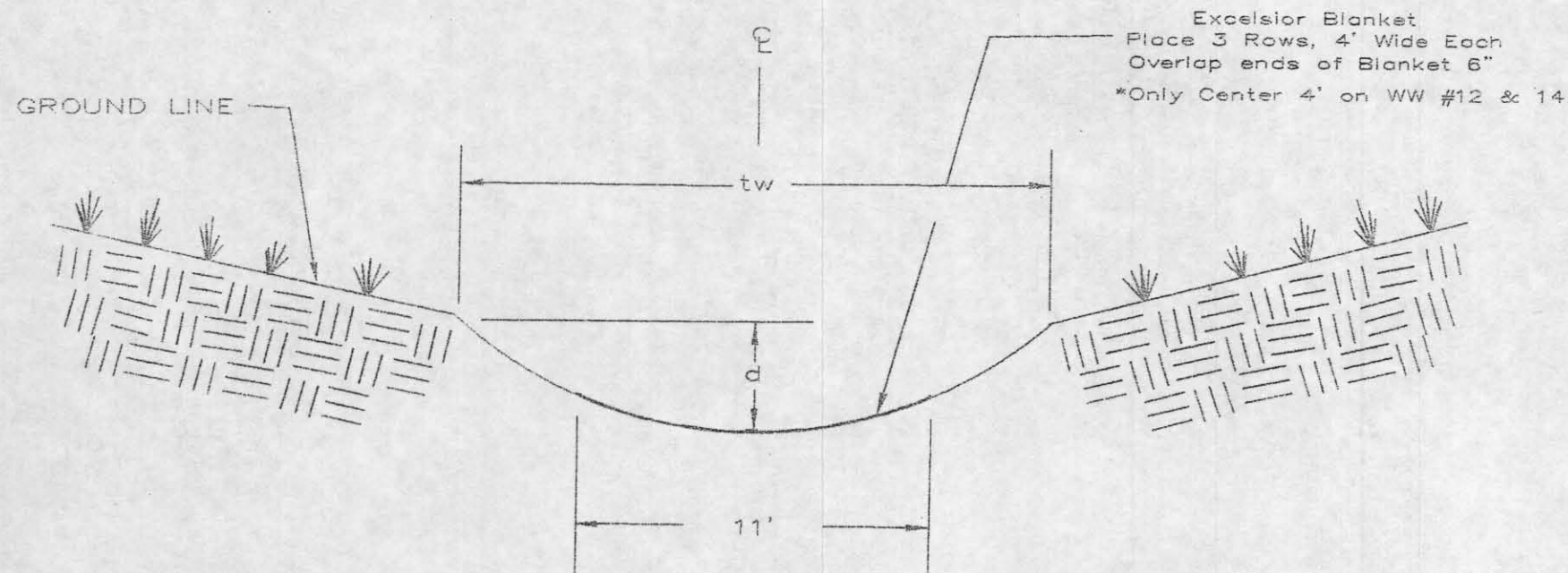
LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT
ELK COUNTY, PENNSYLVANIA
MINE WATER COLLECTION SYSTEM DETAIL

Drawing No.	Collection
19	24

AS BUILTS

VEGETATED WATERWAYS

NOT TO SCALE



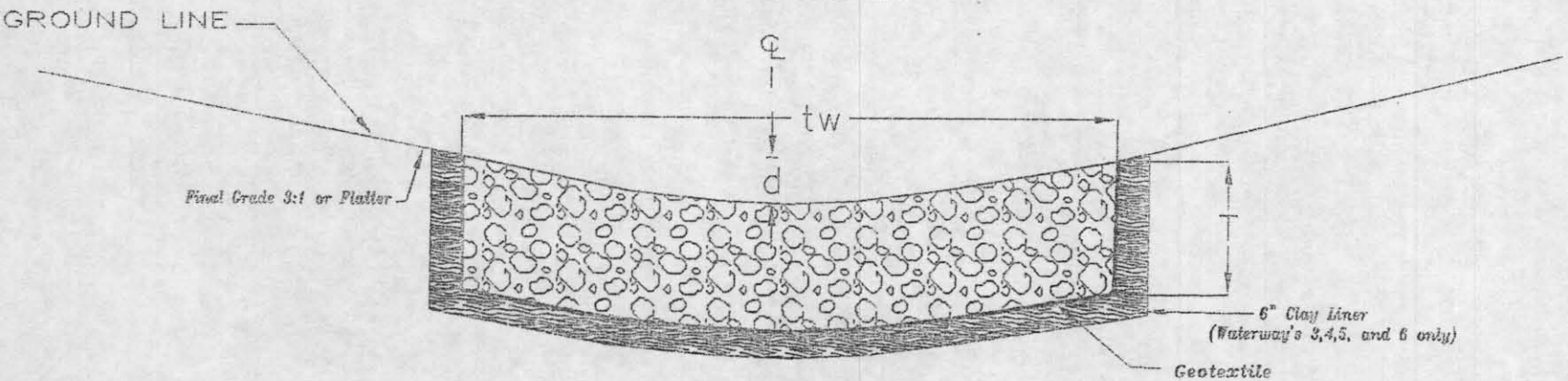
VEGETATED WATERWAY SIZES:

Veg. WW Location	tw	d	Length
WW #1	21'	1'	285'
WW #2	21'	1'	130'
WW #7	13'	1'	300'
WW #12	5'	1.2'	285'
WW #14	5'	1'	170'

The rock waterways at the ends of the vegetated waterways, are to be the same size as the vegetated waterway in which they are extending from. They shall contain 12 inches of R-4 Grouted Rock.

ROCK WATERWAYS

NOT TO SCALE



CROSS SECTION
(NOT TO SCALE)

CONSTRUCTION NOTE:

1. AT 1/2 TW, DEPTH IS EQUAL TO D/4. AND AT 3/4 TW, DEPTH IS EQUAL TO D/2.

ROCK WATERWAY SIZES:

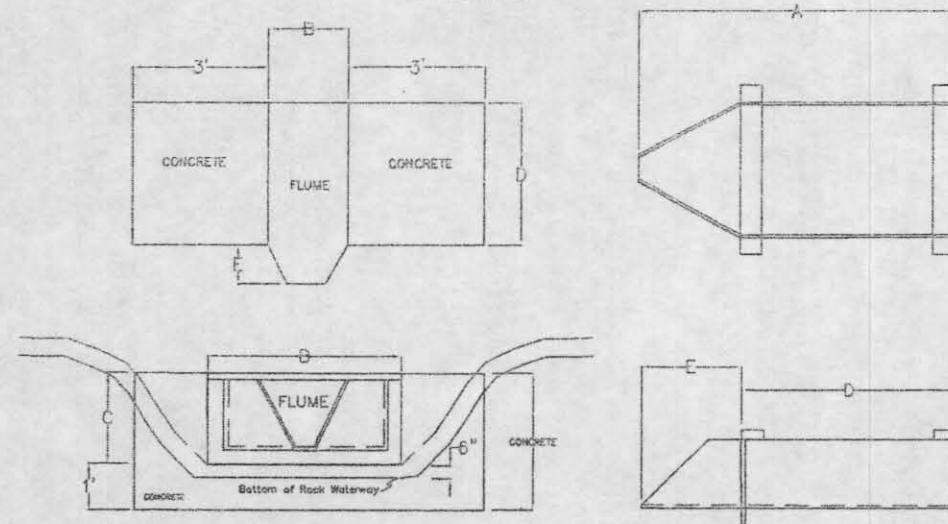
Rock WW Location	tw	d	T	Length	Rock Size
WW #3	6'	1'	18"	105'	NCSA R-4
WW #4	6'	1'	18"	105'	NCSA R-4
WW #5	6'	1'	9"	115'	NCSA R-3
WW #6	6'	1'	9"	170'	NCSA R-3
WW #8	6.5'	1'	18"	200'	NCSA R-4
WW #11	12'	1'	27"	195'	NCSA R-5
WW #13	5'	1'	18"	155'	NCSA R-4
WW #15	5'	1'	18"	50'	NCSA R-4

*AMENDMENT #1



LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT
ELK COUNTY, PENNSYLVANIA
WATERWAY DETAILS

FLUME



(NOT TO SCALE)

NOTE:

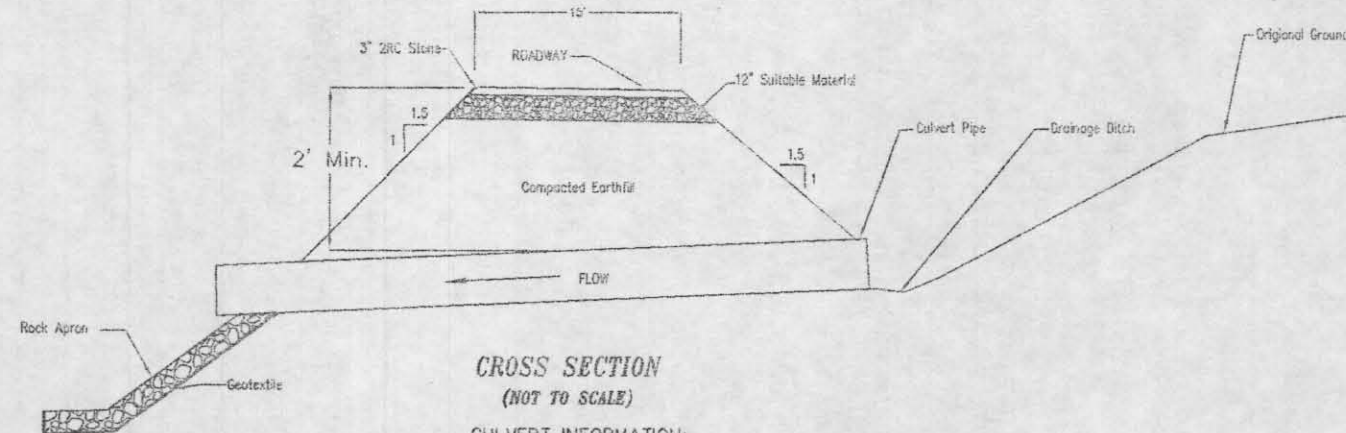
Recommended Model: H-Flume Model 75H (Or Equivalent)

Dimensions

MODEL	CAPACITY	A	B	C	D	E
75H	440 gpm	39 3/4	21	11 1/2	27 5/8	12 1/8

* All Dimensions are approximate

ACCESS ROAD PIPE



CROSS SECTION
(NOT TO SCALE)

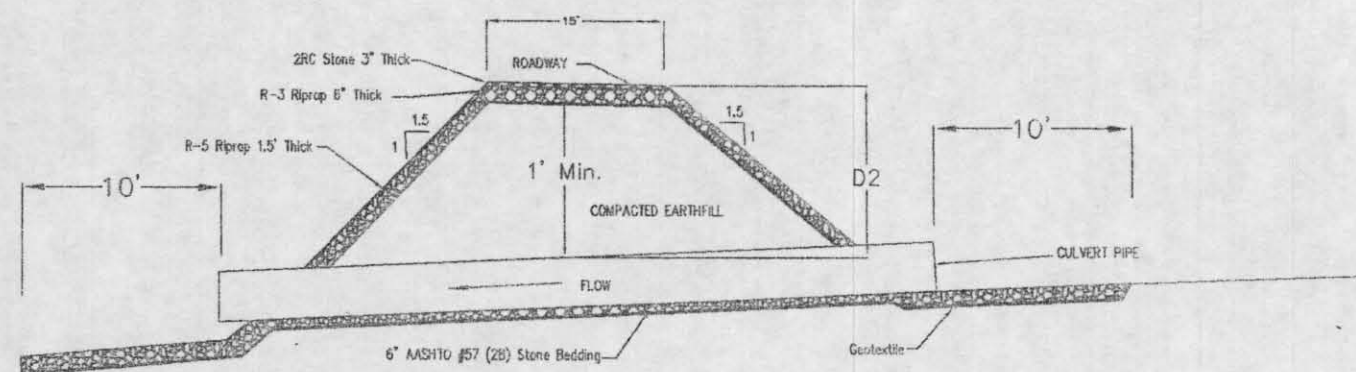
CULVERT INFORMATION:

LOCATION	PIPE SIZE	LENGTH OF PIPE	# OF PIPES (AT DIFFERENT LOCATIONS) WITH SAME DIMENSIONS
Crossing Access Rd.	24"	30'	2
Crossing Access Rd.	12"	30'	7

NOTES:

1. Rock aprons are to be 12 inches of R-4 grouted rock. Length of apron varies with the culvert location and width is to be 4'.
2. The entire length of the access road is to be stabilized with 12" (Minimum) of shale, sandstone, or equivalent material, which may be found on site.
3. Maintain 1% Slope on pipes.

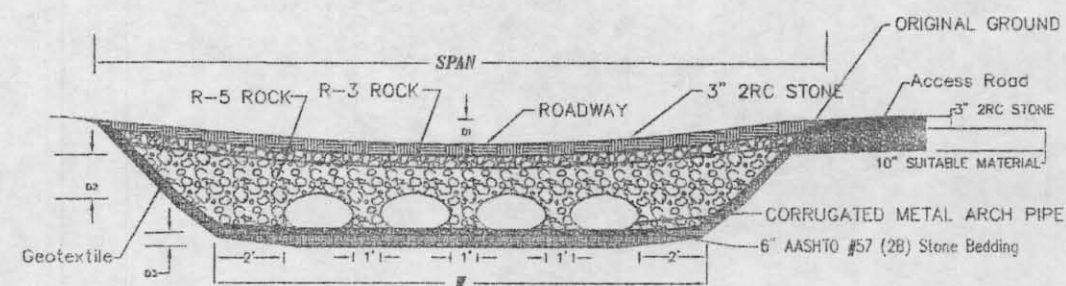
STREAM CROSSINGS



CROSS SECTION
(NOT TO SCALE)

CULVERT INFORMATION:

LOCATION	SPAN	W	D1	D2	D3	PIPE SIZE	NUMBER OF PIPES	LENGTH OF PIPES
Crossing Kyler Run	90'	15'	1.5'	1.5'	6"	24" x 18"	4	24'
Near Wetland #2	30'	13'	1.5'	3.5'	2'	49" x 33"	2	24'



CROSS SECTION
(NOT TO SCALE)

CONSTRUCTION NOTES:

1. PIPES SHALL EXTEND BEYOND TOE OF ROADWAY.
2. ROADWAY SHALL BE DEPRESSED OVER CULVERTS TO ALLOW FOR OVERFLOW.
3. STREAM MATERIAL IS NOT TO BE USED FOR ROCKFILL.
4. MAINTAIN 1% SLOPE ON CULVERT PIPES.
5. RIPRAP ONLY APPLIES TO THE ARCH CULVERT PIPE INSTALLATION LOCATIONS.

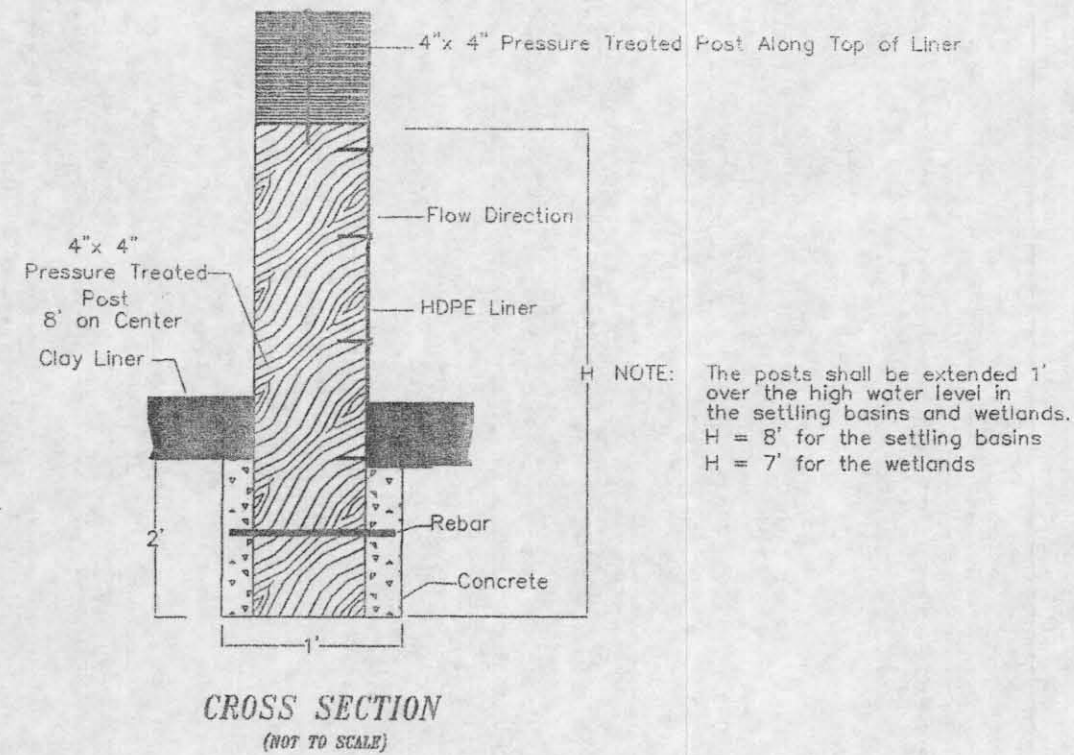
USDA NRCS
Natural Resources Conservation Service

LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT
ELK COUNTY, PENNSYLVANIA
FLUME & CULVERT DETAILS

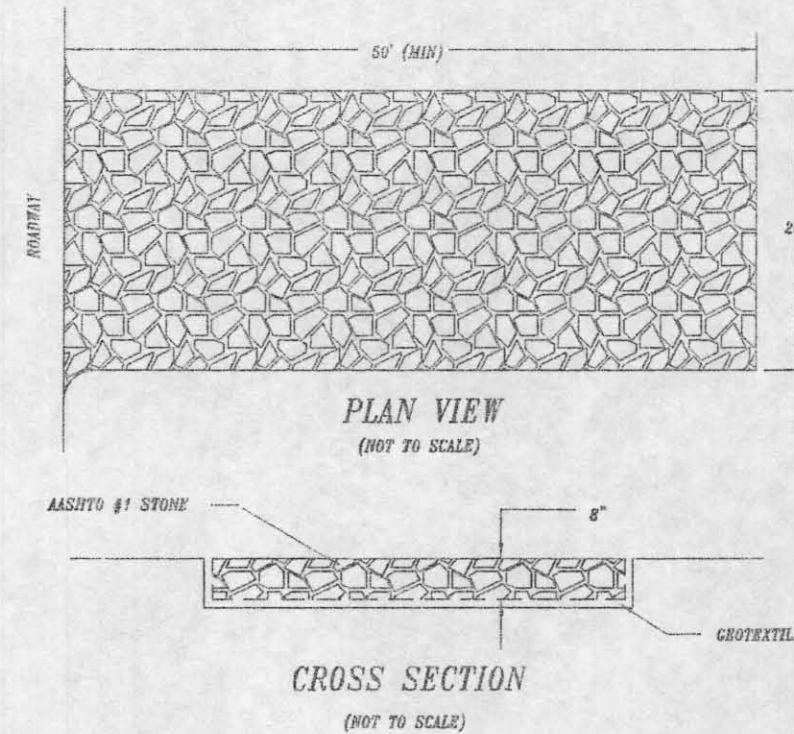
Drawing No. 21
Sheet 21 of 24

AS BUILTS

BAFFEL ANCHORING



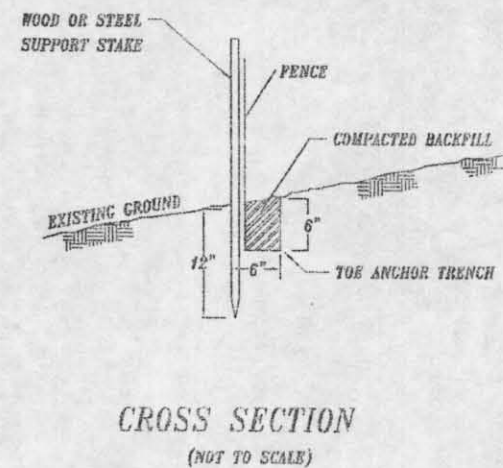
ROCK CONSTRUCTION ENTRANCE



CONSTRUCTION NOTES:

1. ROCK SHALL BE MAINTAINED TO THE SPECIFIC DIMENSIONS. A STOCKPILE OF ROCK SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE.
2. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON THE ROADWAY SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.

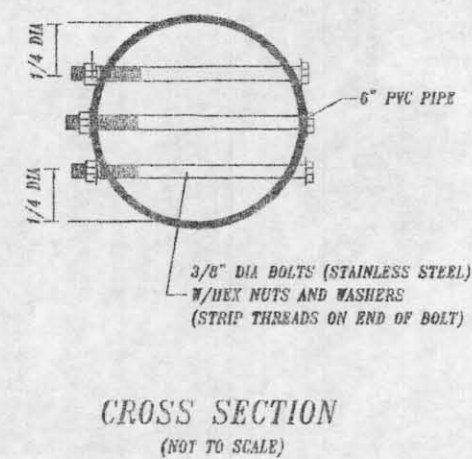
FILTER FABRIC FENCE



CONSTRUCTION NOTES:

1. THE SPACING OF SUPPORT STAKES SHALL BE 8' MAXIMUM.
2. THE MINIMUM FENCE HEIGHT SHALL BE 10 INCHES.
3. THE FENCE SHALL BE PLACED ON THE CONTOUR.

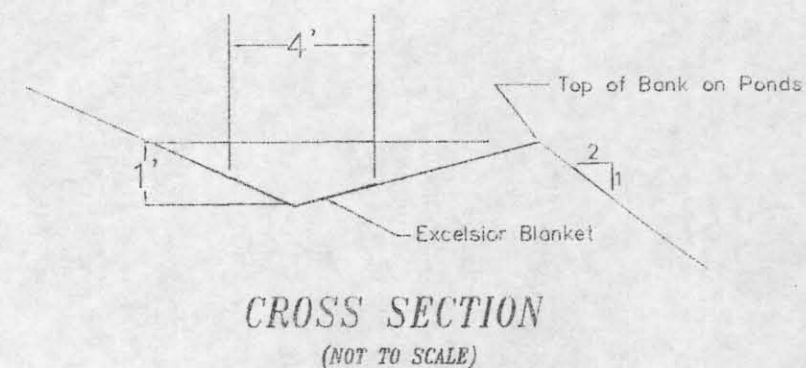
ANIMAL GUARD



CONSTRUCTION NOTE:

1. PLACE BOLTS HORIZONTALLY AND 2" FROM END OF PIPE.

GRADED BERM



NOTE: Berms are to be installed on a 1% Grade.

Date	8/00	12/00	4/01	9/01
Approved by	CLM	RCD	RCD	ADW
Drawn	CLM	RCD	RCD	ADW
Checked	CLM	RCD	RCD	ADW
Design	CLM	RCD	RCD	ADW

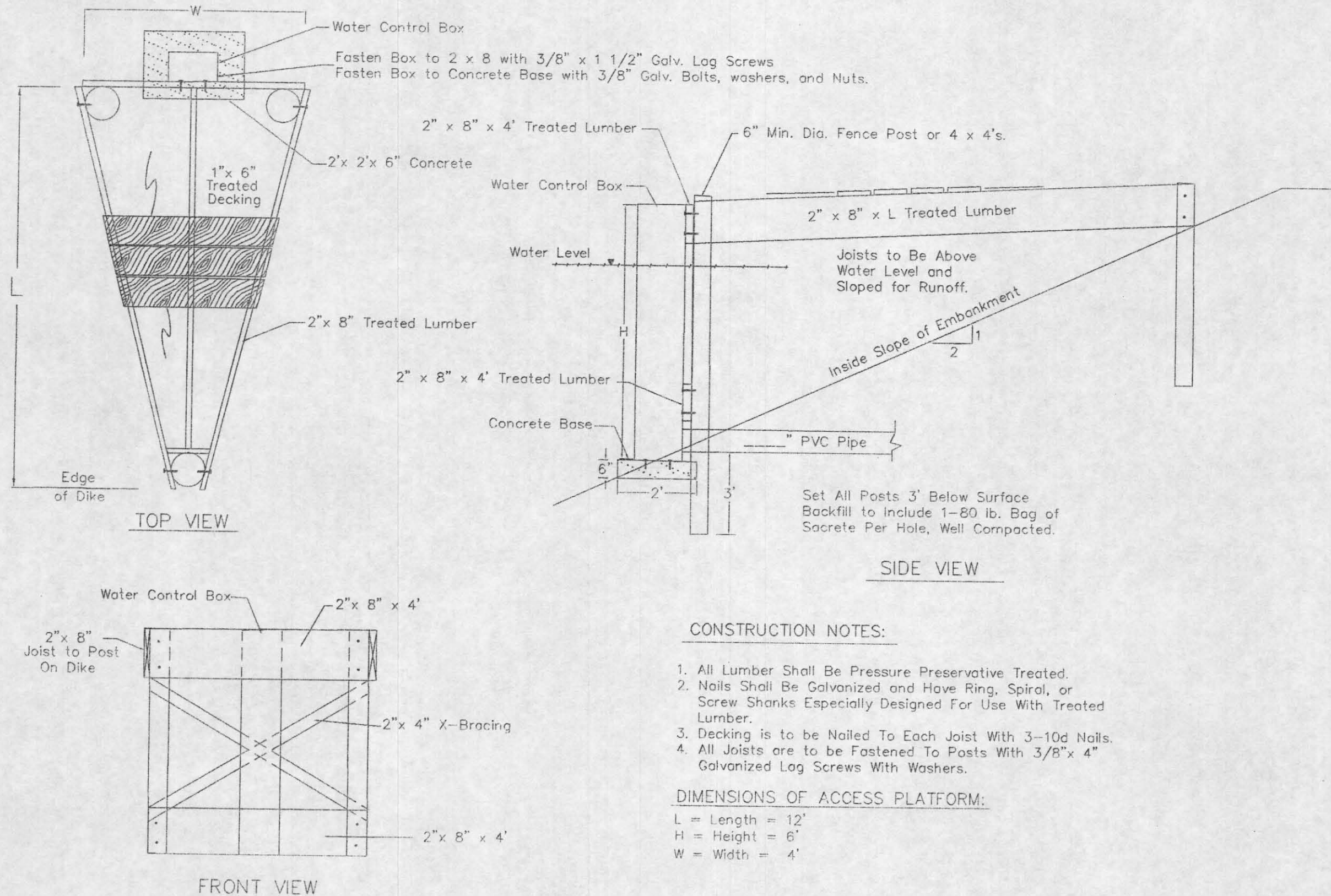
USDA NRCS
Natural Resources Conservation Service

**LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT**
ELK COUNTY, PENNSYLVANIA
E&S, BERM, BAFFLE DETAILS

Sheet No. 22 of 24

AS BUILT

ACCESS PLATFORM



CONSTRUCTION NOTES:

1. All Lumber Shall Be Pressure Preservative Treated.
2. Nails Shall Be Galvanized and Have Ring, Spiral, or Screw Shanks Especially Designed For Use With Treated Lumber.
3. Decking is to be Nailed To Each Joist With 3-10d Nails.
4. All Joists are to be Fastened To Posts With 3/8" x 4" Galvanized Log Screws With Washers.

DIMENSIONS OF ACCESS PLATFORM:

L = Length = 12'
H = Height = 6'
W = Width = 4'

"NOT TO SCALE"

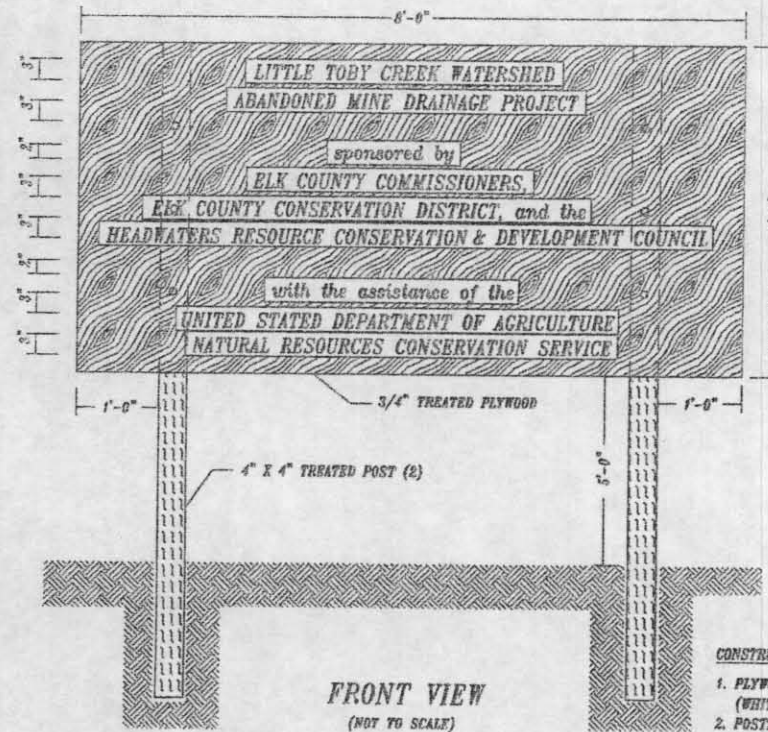
USDA NRCS
Natural Resources Conservation Service

LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT
ELK COUNTY, PENNSYLVANIA
PLATFORM DETAILS

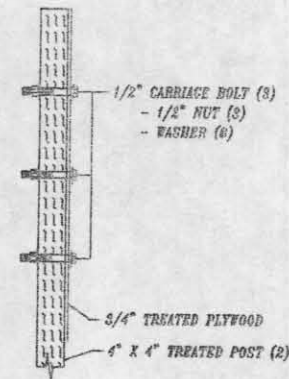
Sheet No. 23 of 24
DETAILS 4

Designed by GARY STOFF
Drawn by RCP
Reviewed by ADP
Date 2000 12/06
Approval by 3/01

PROJECT IDENTIFICATION SIGN



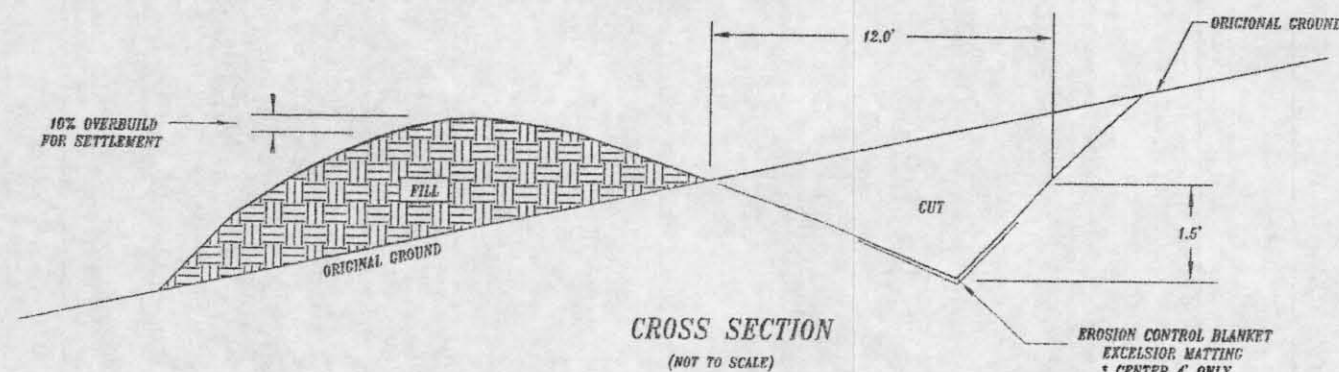
FRONT VIEW
(NOT TO SCALE)



CONSTRUCTION NOTES:

1. PLYWOOD SHALL BE PAINTED WITH EXTERIOR PAINT (WHITE BACKGROUND AND BLACK LETTERS).
2. POSTS SHALL BE BURIED 3' BELOW GROUND LEVEL.
3. SIGN SHALL BE PAINTED BY A COMMERCIAL SIGN PAINTER.

DIVERSION (V-DITCH)



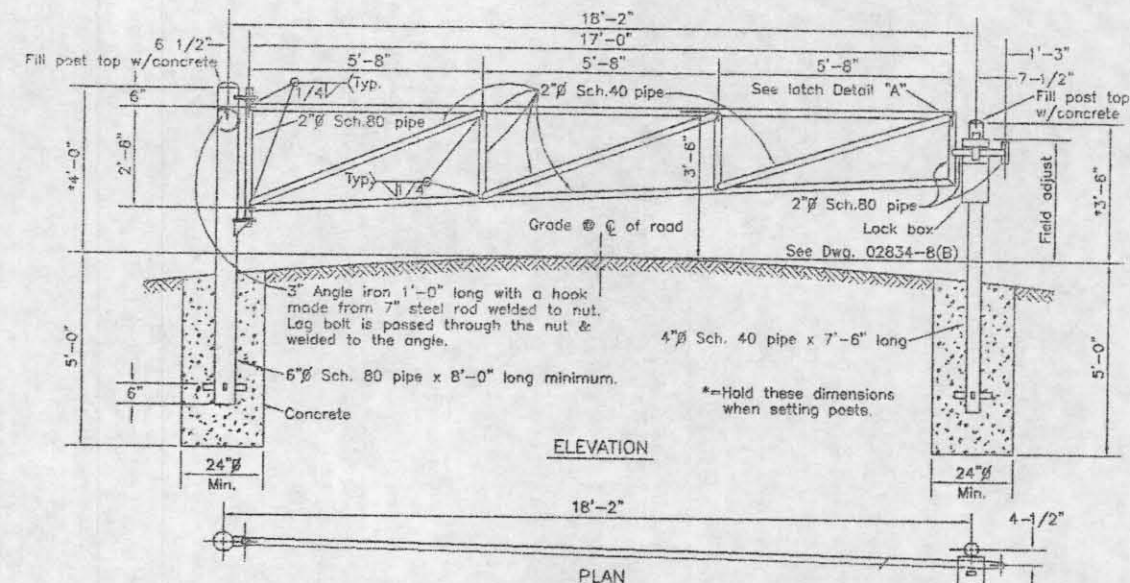
CROSS SECTION
(NOT TO SCALE)

CONSTRUCTION NOTES:

1. DIVERSION SHALL BE CONSTRUCTED ON A 1.0% CHANNEL GRADE.

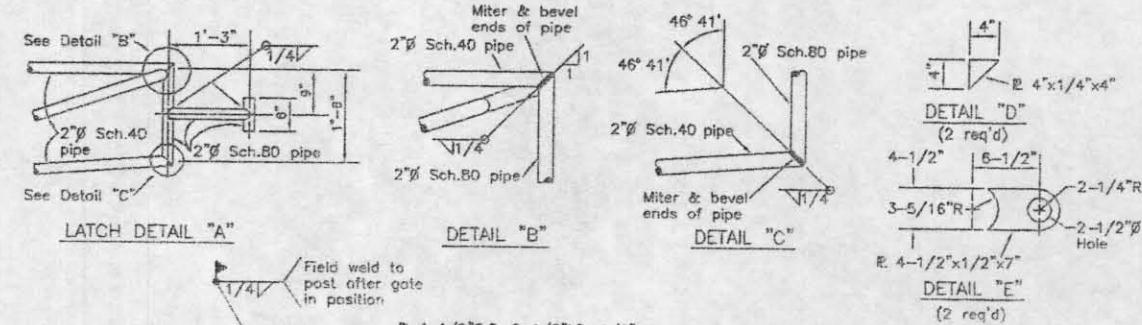
EROSION CONTROL BLANKET
EXCELSIOR MATTING
* CENTER 4' ONLY

PIPE GATE

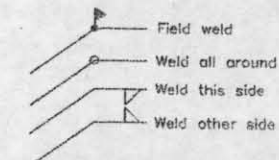


ELEVATION

PLAN

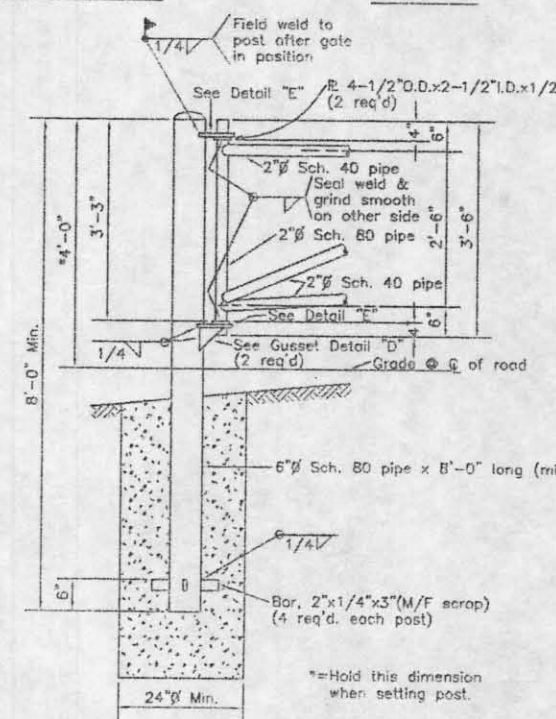


WELDING SYMBOL LEGEND



NOTE:

1. The exposed surface of the concrete shall be crowned to shed water.



HINGE POST DETAIL

* A PARM TYPE GATE MAY ALSO BE USED IN PLACE OF THIS TYPE, BUT IT MUST BE APPROVED BY THE ENGINEER.

Date		Approved by	
8/00	12/00	8/01	3/01
GLM	RCD	RCD	ADW
Designed	Drawn	Revised	Checked

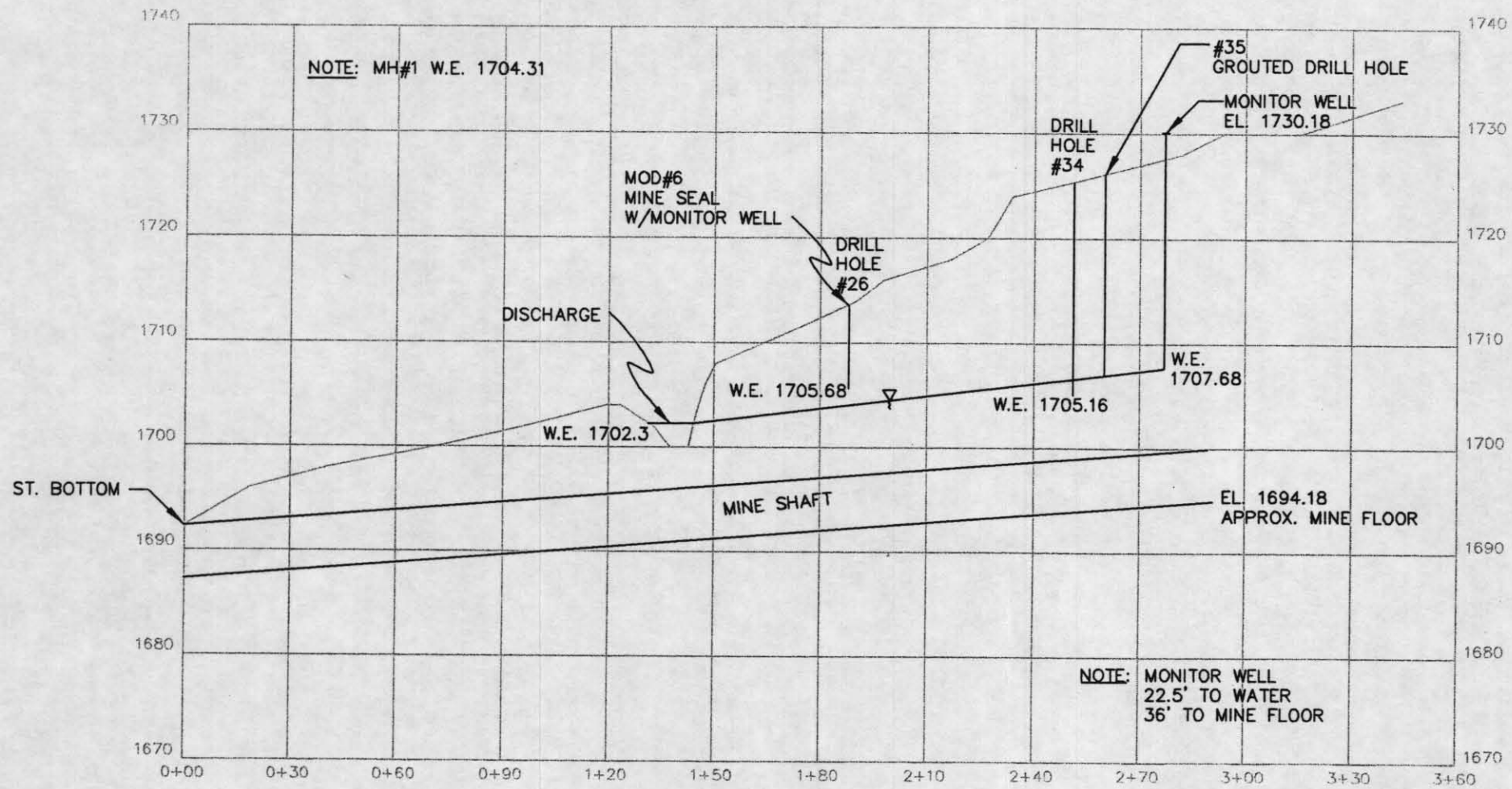
USDA NRCS
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**LITTLE TOBY CREEK, KYLER HOLLON
ABANDONED MINE DRAINAGE PROJECT**
ELK COUNTY, PENNSYLVANIA

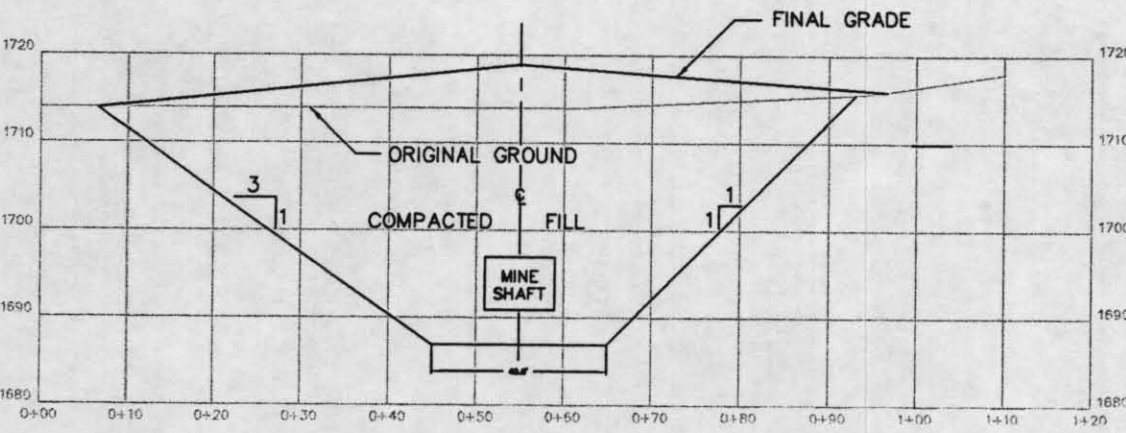
GATE, SIGN, DIVERSION DETAILS

Drawing No.	
DETAILS 5b	
Sheet	24 of 24

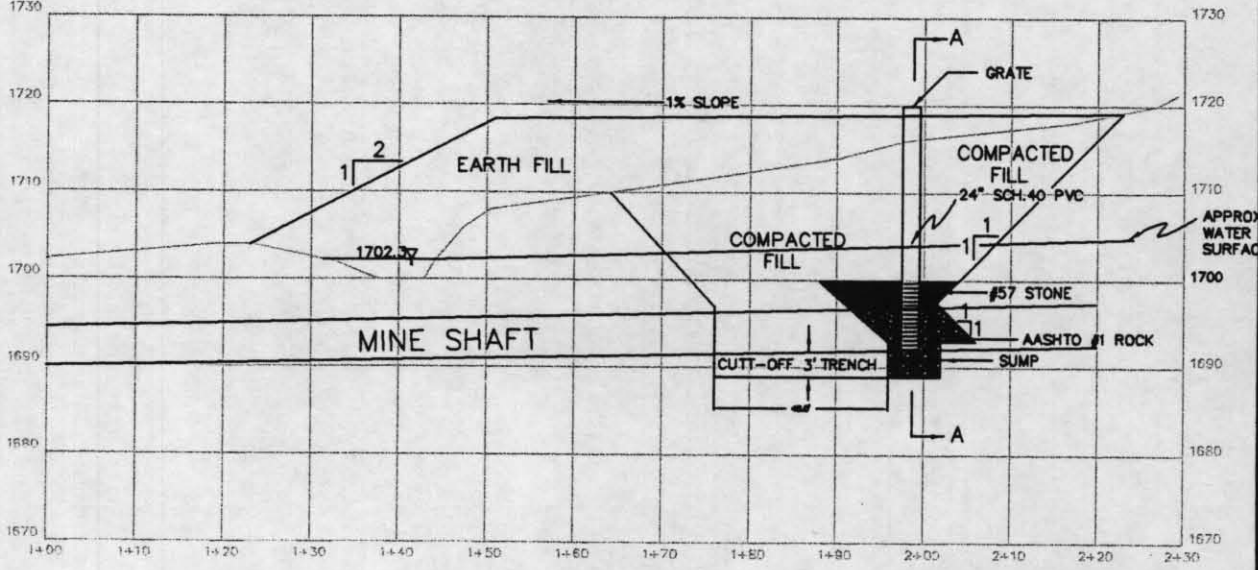
MOD#5 & MOD#6



MINE SHAFT PROFILE



SECTION A-A



MINE SEAL PROFILE

NOTE: 16" PIPE PERFORATIONS 4 ROWS, 1/2"x6" SLOTS @ 6" SPACING

USDA NRCS
Natural Resources Conservation Service

LITTLE TOBY CREEK, KYLER HOLLOW
ABANDONED MINE DRAINAGE PROJECT
ELK COUNTY, PENNSYLVANIA
MINE PROFILES & SECTION

Drawing No. _____
Sheet _____ of _____
Date _____
Approved by _____
Title _____
Checked _____
Date 8/00 12/00 4/01 3/01
Designed GLM Draw RGD Recheck RGD Check ADW

AS BUILT S