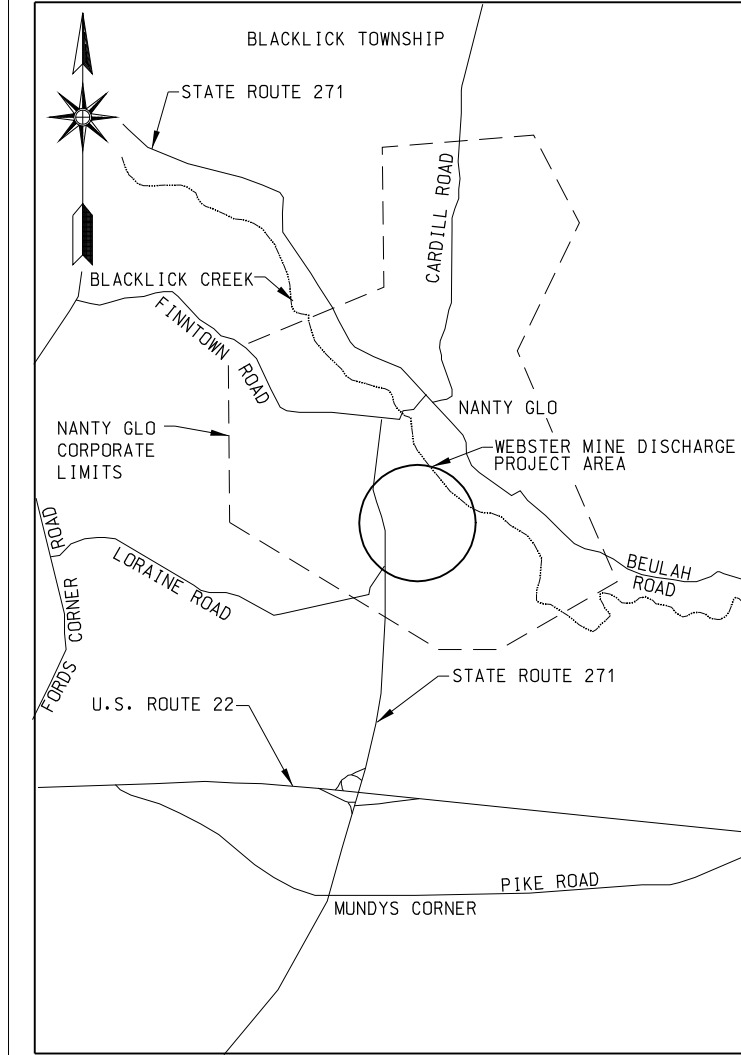
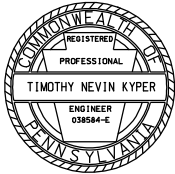
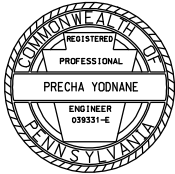


SCALE IN MILES
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U.S. ARMY ENGINEER DISTRICT, PITTSBURGH
REVISED: JANUARY 1997
PROJECT LOCATION



SCALE: 1" = 2000'
1000' 0 1000' 2000'
TRACED FROM
USGS 7.5 MINUTE QUADRANGLE
NANTY GLO, PENNSYLVANIA
1984
VICINITY MAP

ADDITIONAL AS-BUILT DRAWINGS PREPARED BY OSWALD ENGINEERING	
OVERALL PLAN & OVERALL ELEVATION	1 of 3
ELEVATION THRU ENTRY AND BULKHEAD DETAILS	2 of 3
CLEANOUT/VALVE VAULT & DISCHARGE LINE AT M.H. 2 & DETAILS	3 of 3



NOTES:
THE APPROVAL SIGNATURES APPEARING IN THE TITLE BLOCK ON THIS SHEET CONSTITUTE APPROVAL OF ALL DRAWINGS LISTED IN THE INDEX.

THIS PROJECT WAS DESIGNED BY THE PITTSBURGH DISTRICT OF THE U.S. ARMY CORPS OF ENGINEERS AND GAI CONSULTANTS, INC. THE INITIALS OR SIGNATURES AND REGISTRATION DESIGNATIONS OF U.S. ARMY CORPS OF ENGINEERS INDIVIDUALS APPEAR ON THESE PROJECT DOCUMENTS WITHIN THE SCOPE OF THEIR EMPLOYMENT AS REQUIRED BY ER 1110-1-8152.

DRAWING INDEX	
GENERAL DRAWINGS	
TITLE	DRAWING NUMBER
COVER SHEET	038abad-Z1-0/1
PROJECT LOCATION, VICINITY MAP AND DRAWING INDEX SHEET	038abad-Z1-3/1.1
SITE PLAN	038abad-Z1-4/1.1
DEMOLITION PLAN	038abad-Z1-4/2.1
CONTRACTOR WORK LIMITS	038abad-Z1-4/3
EROSION AND SEDIMENT CONTROL PLAN	038abad-Z1-4/4
GRADING PLAN	038abad-Z1-4/5.1
BORING LOCATION PLAN	038abad-Z1-10/1
BORING LOGS, WM-97-1 THRU WM-97-5 INCLUSIVE	038abad-Z1-10/2
BORING LOGS, WM-97-6 THRU WM-97-10 INCLUSIVE	038abad-Z1-10/3
BORING LOGS, WM-99-11 THRU WM-99-13	038abad-Z1-10/4
BORING LOGS, WM-99-MO-1 THRU WM-99-MO-3	038abad-Z1-10/5
BORING LOGS, WM-99-MO-4 THRU WM-99-MO-5	038abad-Z1-10/6
EROSION AND SEDIMENT CONTROL SECTIONS AND DETAILS	038abad-Z1-87/1
DIKE SECTIONS	038abad-Z1-87/2.1
VF POND UNDERDRAIN PLAN AND DETAILS	038abad-Z1-87/3.1
UNDERDRAIN SYSTEM SECTIONS AND DETAILS	038abad-Z1-87/4.1
VF POND SPILLWAY PLAN, SECTIONS AND DETAILS	038abad-Z1-87/5
WETLAND PLAN AND SECTIONS	038abad-Z1-87/6
WETLAND OUTLET WINDOW/OVERFLOW SPILLWAY PLAN, SECTIONS AND DETAILS	038abad-Z1-87/7.1
MINE DISCHARGE PIPE PLAN AND PROFILE	038abad-Z1-87/8.1
MINE DISCHARGE PIPE TIE-IN, SECTIONS AND DETAILS	038abad-Z1-87/9.1
MINE DISCHARGE PIPE, SECTIONS AND DETAILS	038abad-Z1-87/10.1
MINE DISCHARGE PIPE, VAULTS AND MANHOLES, SHEET 1 OF 2	038abad-Z1-87/11.1
MINE DISCHARGE PIPE, VAULTS AND MANHOLES, SHEET 2 OF 2	038abad-Z1-87/12.1
FENCING AND STREAMBANK PROTECTION DETAILS	038abad-Z1-87/13
REFERENCE DRAWINGS	
GEOLOGIC STANDARD, UNIFIED SOILS CLASSIFICATIONS WITH ABBREVIATIONS	0-Z24-1.2
GEOLOGIC STANDARD, ROCK AND SOIL DESCRIPTIONS WITH ABBREVIATIONS	0-Z24-2.2

CONTRACTOR: CHARLES C. MERLO, INCORPORATED
CONTRACT NO. DACW58-02-C-0002

"AS-BUILT" - 10 SEPTEMBER 2004

Drawing Number: 038abad-Z1-3/1.1

US Army Corps of Engineers
PITTSBURGH DISTRICT

Approved by: /s/ DANIEL H. HITCHINGS
DATE: 2/25/02
CHIEF, ENGINEERING DIVISION

Approval Recommended: /s/ HENRY J. MASER, P.E.
DATE: 2/21/02
CHIEF, DESIGN BRANCH

Submitted by: /s/ TERRY D. SHILLEY, P.E.
DATE: 2/19/02
SECTION CHIEF

Prepared by A/E: /s/ PRECHA YODNANE
DATE: 1/31/01
PRINCIPAL, A/E FIRM

User: GAI CONSULTANTS, INC.
Date: 1/31/01
Pen Table: PLT
Color Table: PLT
Settings: PALETTE A
2000, 187, 10, E, E002

Rev.	Description	Date	Appr.

A. DRAWING REVISED "AS-BUILT"
filename: a190301.dgn

PROJECT LOCATION, VICINITY MAP
AND DRAWING INDEX SHEET

SOUTH BRANCH BLACKLICK CREEK
ECOSYSTEM RESTORATION
WEBSTER MINE DISCHARGE
NANTY GLO, PENNSYLVANIA

NOTES:

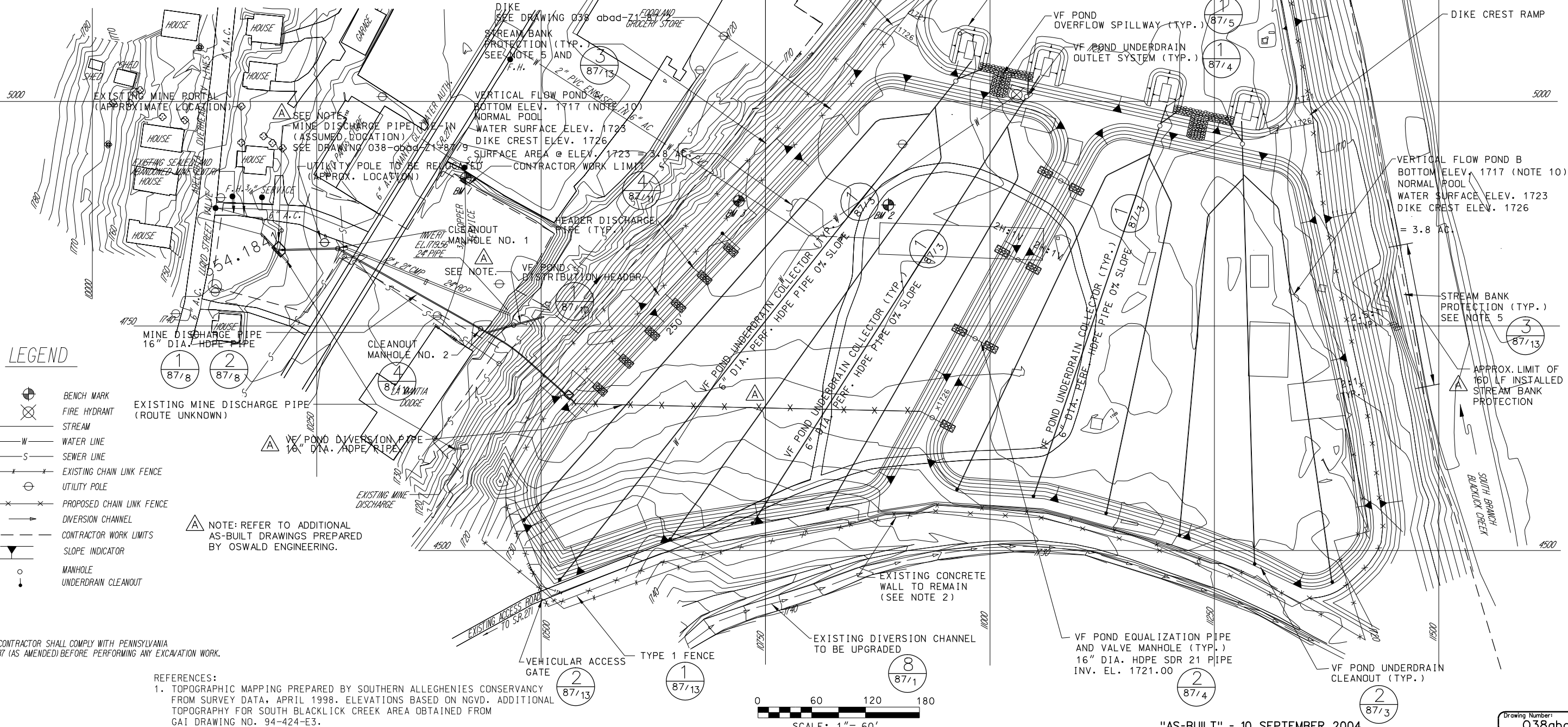
1. SEE DRAWING 038abad-Z1-4/3 FOR EROSION AND SEDIMENT CONTROL PLAN.
2. SEE DRAWING 038abad-Z1-4/2 FOR KNOWN UTILITIES AND DEMOLITION WORK TO BE PERFORMED.
3. SEE DRAWING 038abad-Z1-4/3 FOR SITE ACCESS AND CONTRACTOR WORK LIMITS.
4. SEE DRAWING 038abad-Z1-87/2 FOR DIKE CONSTRUCTION SECTIONS AND DETAILS.
5. INSTALL STREAM BANK PROTECTION ALONG SOUTH BRANCH BLACKLICK CREEK AND ALONG PERGRIN RUN ON ALL CONSTRUCTION DIKE FILL SLOPES BELOW ELEVATION OF 1711 FEET, NGVD.
6. SEED AND MULCH DISTURBED AREAS AND ALL DIKE SLOPES (INTERIOR AND EXTERIOR) PER SPECIFICATIONS.
7. SEE DRAWING 038abad-Z1-4/3 FOR COMPLETE CONTRACTOR WORK LIMITS.
8. ALL MINE DISCHARGE PIPE SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) SDR 21, SMOOTH WALL EXTERIOR AND SMOOTH WALL INTERIOR, AND BUTT FUSED UNLESS OTHERWISE INDICATED.
9. VF POND UNDERDRAIN PIPING SHALL BE CORRUGATED EXTERIOR HDPE DRAINAGE TUBING WITH SMOOTH WALL INTERIOR. CONNECTIONS TO UNDERDRAIN PIPING SHALL BE BY THE PIPING MANUFACTURER'S STOCK PRODUCT. CONNECTIONS OF VERTICAL FLOW POND UNDERDRAIN PIPING TO OTHER TYPE PIPING SHALL BE ACCOMPLISHED USING RECOMMENDED STOCK PRODUCT BY PIPING MANUFACTURER.
10. PROPOSED CONTOURS SHOW FINISHED GRADE/TOP OF LINER IN PONDS AND WETLAND. LIMESTONE BED AND ORGANIC SUBSTRATE NOT SHOWN FOR VF PONDS.

△ 160 LF OF STREAMBANK PROTECTION INSTALLED AT LOCATION SHOWN. ALL OTHER LOCATIONS WERE DELETED.

MONUMENT DATA

	NORTH	EAST	ELEVATION
BM1	4914.77	10416.06	1730.01
BM2	4884.88	10886.89	1717.58
BM3	4889.24	10720.25	1717.56

CONTRACTOR WORK LIMITS
DIKE CREST RAMP



THE CONTRACTOR SHALL COMPLY WITH PENNSYLVANIA ACT 187 (AS AMENDED) BEFORE PERFORMING ANY EXCAVATION WORK.

REFERENCES:

1. TOPOGRAPHIC MAPPING PREPARED BY SOUTHERN ALLEGHENIES CONSERVANCY FROM SURVEY DATA, APRIL 1998. ELEVATIONS BASED ON NGVD. ADDITIONAL TOPOGRAPHY FOR SOUTH BLACKLICK CREEK AREA OBTAINED FROM GAI DRAWING NO. 94-424-E3.

US Army Corps
of Engineers
PITTSBURGH DISTRICT

Submitted by:
/s/ PRECHA YODNANE
PRINCIPAL

Design by:
KLF

Drawn by:
JCN

Submission Date: 1/31/01
Revision Date: 1/31/01

Plot Scale: 1"=60'
Pen Table: PLOT DRIVER: GHPRT.LPT
Color Table: PLOT SETTINGS: PALETTE A

2000-87-10-E003

USER: GAI CONSULTANTS INC.

DATE: 1/31/01

FILENAME: a190401.dgn

APPROVED BY: LBP

DATE: 1 MAR 05

DESCRIPTION: STREAM PROTECTION

REVISION: REVISED "AS-BUILT" - STREAM PROTECTION

REVISION: REVISED, 16" HDPE PIPE DELETED & MANHOLE ADDED.

REVISION: 16" HDPE PIPE DELETED & MANHOLE ADDED.

REVISION: 16" HDPE PIPE DELETED & MANHOLE ADDED.

REVISION: 16" HDPE PIPE DELETED & MANHOLE ADDED.

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REVISION: 16" HDPE PIPE DELETED & MANHOLE ADDED.

REVISION: 16" HDPE PIPE DELETED & MANHOLE ADDED.

REVISION: 16" HDPE PIPE DELETED & MANHOLE ADDED.

1. ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE AREA TO BE DISTURBED FOR CONSTRUCTION OF VERTICAL FLOW PONDS A AND B AND THE WETLAND SHALL BE REMOVED. BURIED UTILITY PIPES ENTERING THESE AREAS SHALL BE CUT OFF APPROXIMATELY 10 FEET OUTSIDE LIMITS OF DISTURBANCE AND THE END OF THE PIPE ENTERING THE SITE SHALL BE SEALED TO PREVENT THE PIPE FROM LEAKING. LOCATIONS ARE APPROXIMATE.
2. UNLESS NOTED OTHERWISE, ALL BUILDINGS, STRUCTURES, AND FOUNDATIONS WITHIN THE LIMITS OF THE AREA TO BE DISTURBED FOR CONSTRUCTION OF VERTICAL FLOW PONDS A AND B AND WETLAND SHALL BE DEMOLISHED AND THE DEBRIS HAULED TO AN APPROVED LANDFILL FOR DISPOSAL.
3. EXISTING CONCRETE WALL TO REMAIN IN PLACE.
4. ALL TRASH, GARBAGE AND DEBRIS WITHIN CONTRACTOR WORK LIMITS SHALL BE REMOVED AND HAULED TO AN APPROVED LANDFILL FOR DISPOSAL.
5. ACCESS ROAD WITHIN THE LIMITS OF THE PONDS SHALL BE REMOVED.
6. OVER-EXCAVATE 1.5 FEET BELOW ALL STRUCTURES AS PART OF DEMOLITION.
7. EXISTING SUMP TO BE DEWATERED AND DEMOLISHED TO 1.5 FEET BELOW PROPOSED SUBGRADE, PIPES GROUTED SHUT, AND THE AREA BACKFILLED WITH SATISFACTORY FILL AND COMPACTED.
8. EXISTING MINE DISCHARGE STRUCTURE TO BE DEMOLISHED AT COMPLETION OF GROUTING EXISTING MINE DISCHARGE PIPE.
9. CONTRACTOR SHALL LOCATE WATER LINE AND REMOVE AND DISPOSE OF THE HYDRANT AND PIPING IF LOCATED WITHIN RANGE OF GRADING (INCLUDING SUBBASE).

NANTY GLO WATER AUTHORITY/BOROUGH/SEWER
872 CHESTNUT STREET
NANTY GLO, PA. 15943
MR. JIM FLANAGAN
724-749-9238

ADELPHIA CABLE - HIGHWAY VIDEO
1 ADELPHIA DRNE
BLAIRSVILLE, PA. 15717
MR. DAVID BOWEN
724-459-9042

GPU ENERGY
367 INDUSTRIAL PARK ROAD
EBensburg, PA 15931
MR. DON SWITZLER
814-471-8020

Submitted by: /s/ PRECHA YODNANE
PRINCIPAL

RFP NO.: DACW59-02-R-0003

Design by:	GJA	
Dwn by:	NJP	Ckd by: KLF
Submission Date:	1/31/01	Revision Date:

gai
CONSULTANTS

User: GAI/CONSULTANTS INC.
Date: 1/31/01
Plot Scale: PLOT SCALE: 1"=60'
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2000-187-10-E-0004

Rev.	Description	Date	Appr.
A	DRAWING REVISED "AS-BUILT" - ADDITIONAL STRUCTURES REMOVED.	7 MAR 05	LPB

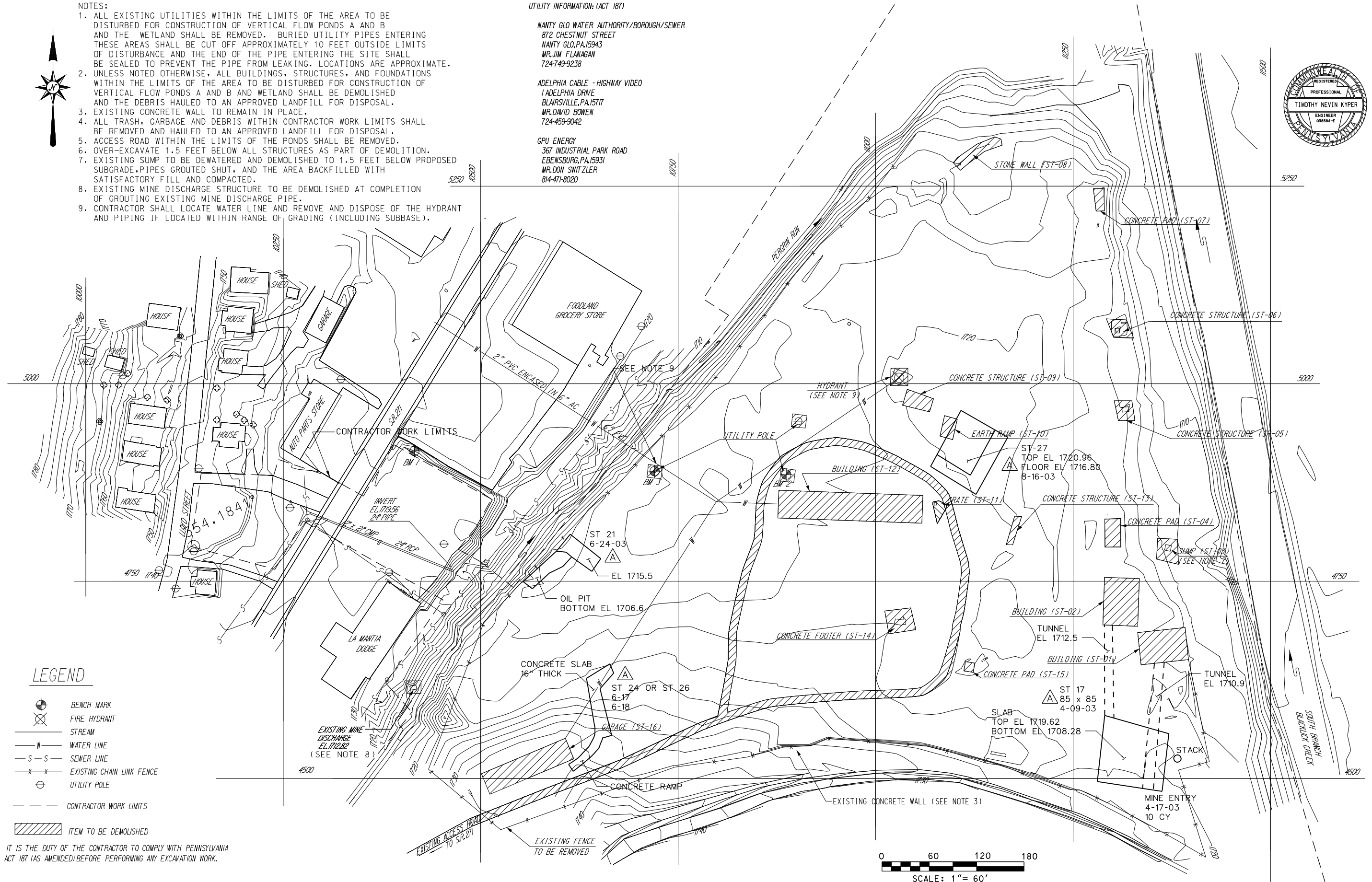
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DEMOLITION PLAN

SOUTH BRANCH BLACKLICK CREEK
ECOSYSTEM RESTORATION
WEBSTER MINE DISCHARGE
NANTY GLO, PENNSYLVANIA

Drawing Number:
038abad-Z1-4/2.1

"AS-BUILT" - 10 SEPTEMBER 2004



REFERENCES:

1. TOPOGRAPHIC MAPPING PREPARED BY SOUTHERN ALLEGHENIES CONSERVANCY FROM SURVEY DATA, APRIL 1998. ELEVATIONS BASED ON NGVD. ADDITIONAL TOPOGRAPHY FOR SOUTH BLACKLICK CREEK AREA OBTAINED FROM GAI DRAWING NO. 94-424-E3.



MONUMENT DATA			
	NORTH	EAST	ELEVATION
BM1	4914.77	10416.06	1730.01
BM2	4884.88	10886.86	1717.58
BM3	4889.24	10720.25	1717.56

- NOTES: 1) THE CONTRACTOR WORK AREA SHALL BE WITHIN THE CONTRACTOR WORK LIMITS INDICATED.
- 2) THE CONTRACTOR SHALL MINIMIZE EQUIPMENT TRAVEL THROUGH PERGRIN RUN.
- 3) THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE NORTHEAST GARAGE DOOR DURING AND AFTER CONSTRUCTION.
- 4) THE CONTRACTOR SHALL RESTORE THE EXISTING ACCESS ROAD TO PRE-CONSTRUCTION CONDITIONS
- 5) NO INFORMATION IS AVAILABLE ON THE INTEGRITY OF THIS BRIDE. USE OF THIS BRIDGE BY THE CONTRACTOR IS AT HIS OWN DISCRETION AND RISK. CONTRACTOR SHALL MAKE HIS OWN EVALUATION OF THE ADEQUACY OF THIS BRIDGE FOR ANY INTENDED USE.
- 6) CONTRACTOR SHALL MAINTAIN ACCESS TO DOLLAR GENERAL STORE. UTILITY POLE LOCATION IS APPROXIMATE AND WILL BE RELOCATED.

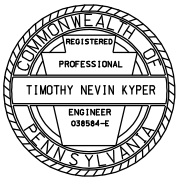
- LEGEND
- 2" X 2" HUB (SURVEY TURNING PT.)
 - BENCH MARK
 - BOREHOLE
 - FIRE HYDRANT
 - STREAM
 - DIVERSION
 - SEWER LINE
 - CHAIN LINK FENCE
 - UTILITY POLE
 - PK
 - CONTRACTOR WORK LIMIT

IT IS THE DUTY OF THE CONTRACTOR TO COMPLY WITH PENNSYLVANIA ACT 187 (AS AMENDED) BEFORE PERFORMING ANY EXCAVATION WORK.

REFERENCES: 1) BASE MAPPING OBTAINED FROM USACE, PITTSBURGH DISTRICT ADDITIONAL TOPOGRAPHY FOR SOUTH BLACKLICK CREEK AREA OBTAINED FROM GAI DRAWING NO. 94-424-E3.

2) FEE SIMPLE BOUNDARIES AND PERMANENT ROAD EASEMENT LOCATIONS ARE BASED ON INFORMATION OBTAINED FROM THE 4/22/98 REAL ESTATE PLAN MAPPING IN APPENDIX L OF THE MARCH 1999 FINAL GENERAL REEVALUATION REPORT, ECOSYSTEM RESTORATION, WEBSTER MINE DISCHARGE, NANTY GLO, PENNSYLVANIA, USACE, PITTSBURGH DISTRICT. LOCATIONS ARE APPROXIMATE.

US Army Corps
of Engineers
PITTSBURGH DISTRICT



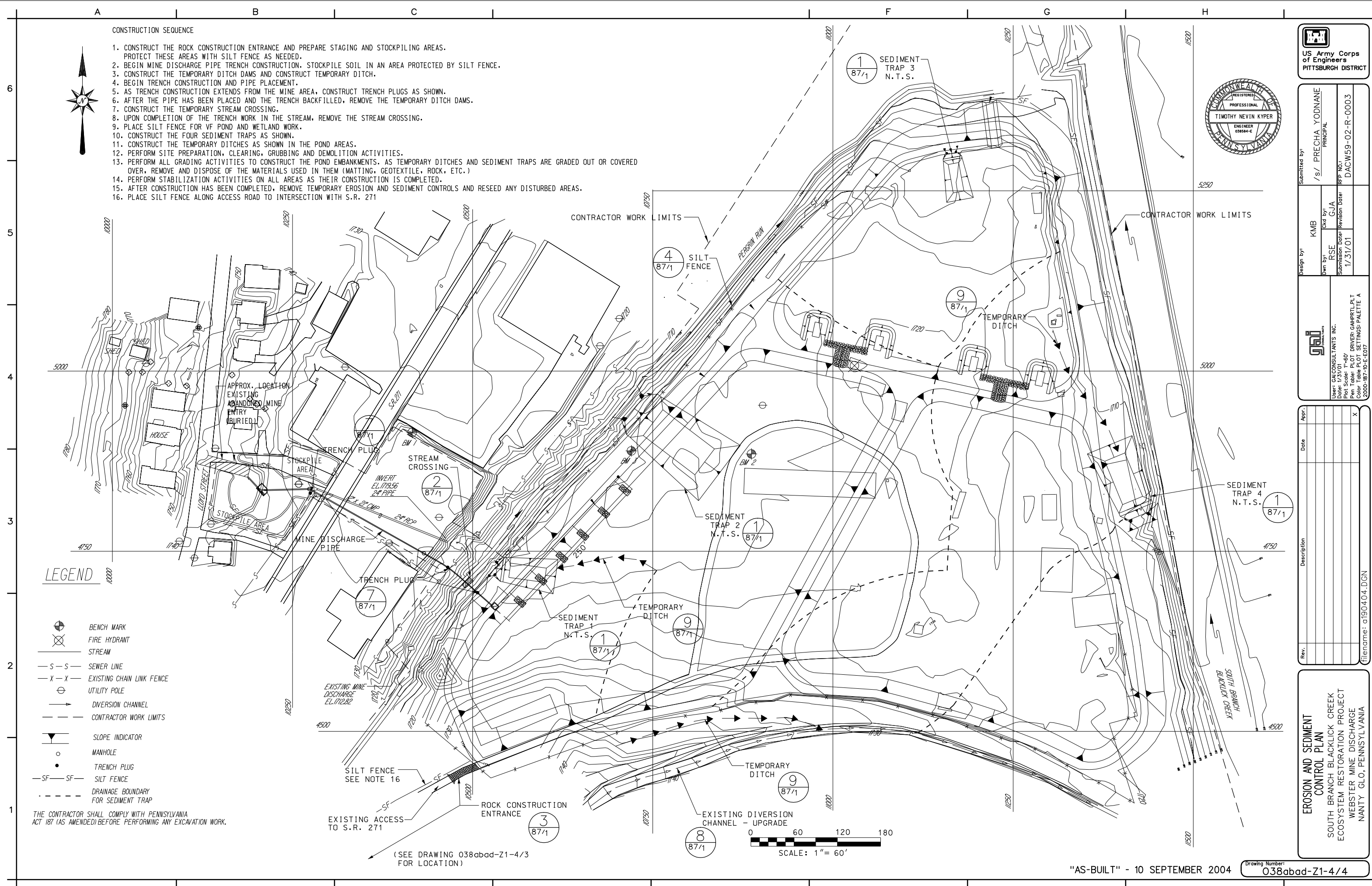
Submitted by:
/s/ PRECHA YODNANE
PRINCIPAL

Design by:
KLF
Dwn by:
RSE
GJA
Submission Date: 1/31/01
Revision Date: 1/31/01

GAI CONSULTANTS
User: GAI CONSULTANTS, INC.
Date: 1/31/01
Plot Scale: 1"=120'
Plot Table: PLOT DRIVER: GAIHRTLPLOT
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2000-187-10-E-020

Rev.	Description	Date	Appr.

CONTRACTOR WORK LIMITS
SOUTH BRANCH BLACKLICK CREEK
ECOSYSTEM RESTORATION
WEBSTER MINE DISCHARGE
NANTY GLO, PENNSYLVANIA



CONSTRUCTION SEQUENCE

1. CONSTRUCT THE ROCK CONSTRUCTION ENTRANCE AND PREPARE STAGING AND STOCKPILING AREAS. PROTECT THESE AREAS WITH SILT FENCE AS NEEDED.
2. BEGIN MINE DISCHARGE PIPE TRENCH CONSTRUCTION. STOCKPILE SOIL IN AN AREA PROTECTED BY SILT FENCE.
3. CONSTRUCT THE TEMPORARY DITCH DAMS AND CONSTRUCT TEMPORARY DITCH.
4. BEGIN TRENCH CONSTRUCTION AND PIPE PLACEMENT.
5. AS TRENCH CONSTRUCTION EXTENDS FROM THE MINE AREA, CONSTRUCT TRENCH PLUGS AS SHOWN.
6. AFTER THE PIPE HAS BEEN PLACED AND THE TRENCH BACKFILLED, REMOVE THE TEMPORARY DITCH DAMS.
7. CONSTRUCT THE TEMPORARY STREAM CROSSING.
8. UPON COMPLETION OF THE TRENCH WORK IN THE STREAM, REMOVE THE STREAM CROSSING.
9. PLACE SILT FENCE FOR VF POND AND WETLAND WORK.
10. CONSTRUCT THE FOUR SEDIMENT TRAPS AS SHOWN.
11. CONSTRUCT THE TEMPORARY DITCHES AS SHOWN IN THE POND AREAS.
12. PERFORM SITE PREPARATION, CLEARING, GRUBBING AND DEMOLITION ACTIVITIES.
13. PERFORM ALL GRADING ACTIVITIES TO CONSTRUCT THE POND EMBANKMENTS. AS TEMPORARY DITCHES AND SEDIMENT TRAPS ARE GRADED OUT OR COVERED OVER, REMOVE AND DISPOSE OF THE MATERIALS USED IN THEM (MATTING, GEOTEXTILE, ROCK, ETC.)
14. PERFORM STABILIZATION ACTIVITIES ON ALL AREAS AS THEIR CONSTRUCTION IS COMPLETED.
15. AFTER CONSTRUCTION HAS BEEN COMPLETED, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS AND RESEED ANY DISTURBED AREAS.
16. PLACE SILT FENCE ALONG ACCESS ROAD TO INTERSECTION WITH S.R. 271

LEGEND

- BENCH MARK
- FIRE HYDRANT
- STREAM
- S-S SEWER LINE
- X-X EXISTING CHAIN LINK FENCE
- UTILITY POLE
- DIVERSION CHANNEL
- CONTRACTOR WORK LIMITS
- SLOPE INDICATOR
- MANHOLE
- TRENCH PLUG
- SF-SF SILT FENCE
- DRAINAGE BOUNDARY FOR SEDIMENT TRAP

THE CONTRACTOR SHALL COMPLY WITH PENNSYLVANIA ACT 187 (AS AMENDED) BEFORE PERFORMING ANY EXCAVATION WORK.

US Army Corps of Engineers
PITTSBURGH DISTRICT

Submitted by: /s/ PRECHA YODNAME
Principal

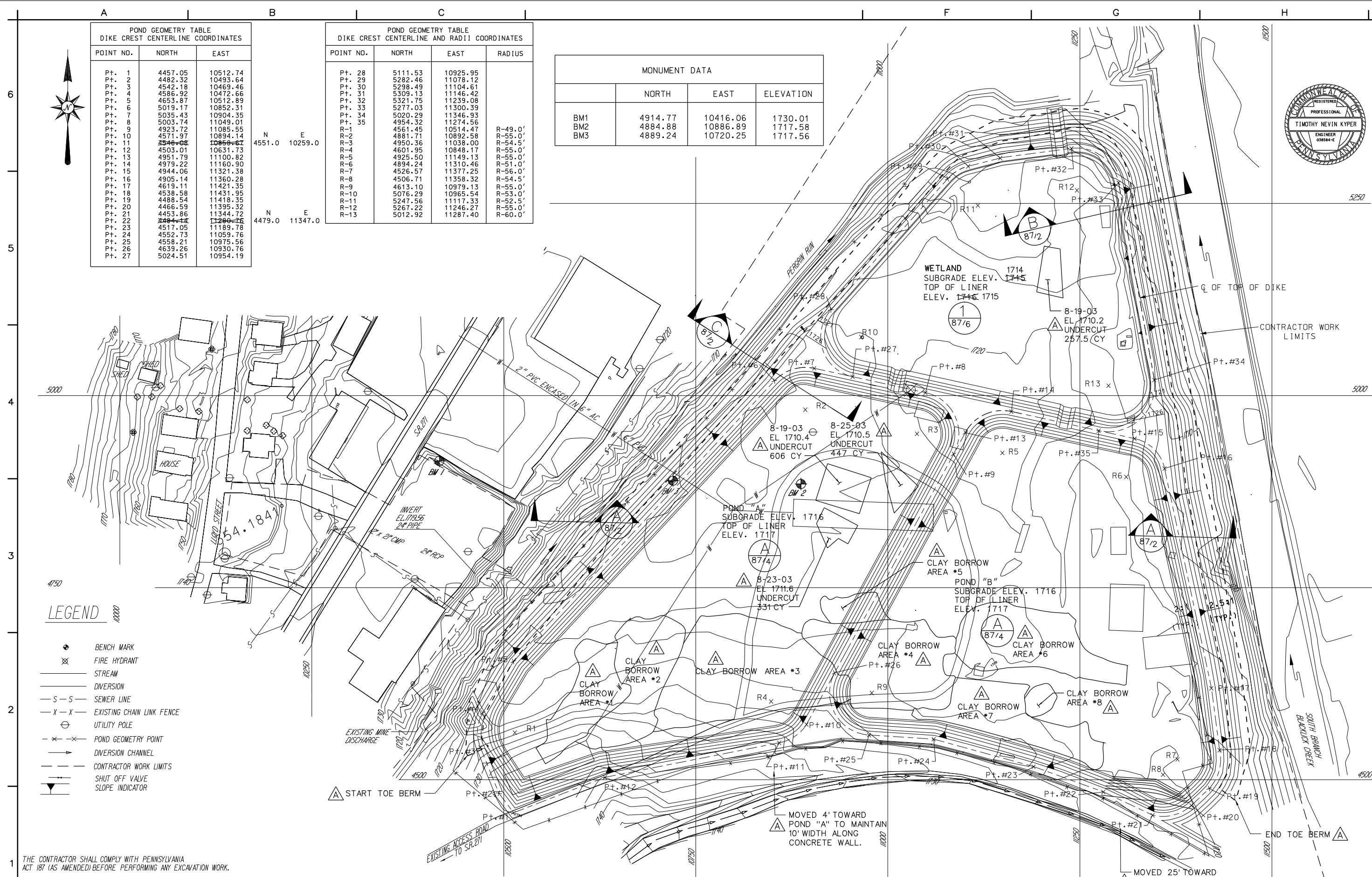
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Drawn by: RSE
Submitted Date: 1/31/01
Revision Date: 1/31/01

Approved: [Signature]
Date: 1/31/01

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Color Table Plot Settings: PALETTE A
2000-187-10-E-007

EROSION AND SEDIMENT CONTROL PLAN
SOUTH BRANCH BLACKLICK CREEK
ECOSYSTEM RESTORATION PROJECT
WEBSTER MINE DISCHARGE
NANTY GLO, PENNSYLVANIA

Drawing Number: 038abad-Z1-4/4



POND GEOMETRY TABLE DIKE CREST CENTERLINE COORDINATES		
POINT NO.	NORTH	EAST
Pt. 1	4457.05	10512.74
Pt. 2	4482.32	10493.64
Pt. 3	4542.18	10469.46
Pt. 4	4586.92	10472.66
Pt. 5	4653.87	10512.89
Pt. 6	5019.17	10852.31
Pt. 7	5035.43	10904.35
Pt. 8	5003.74	11049.01
Pt. 9	4923.72	11085.55
Pt. 10	4571.97	10894.14
Pt. 11	4546.08	10856.67
Pt. 12	4503.01	10631.73
Pt. 13	4951.79	11100.82
Pt. 14	4979.22	11160.90
Pt. 15	4944.06	11321.38
Pt. 16	4905.14	11360.28
Pt. 17	4619.11	11421.35
Pt. 18	4538.58	11431.95
Pt. 19	4488.54	11418.35
Pt. 20	4466.59	11395.32
Pt. 21	4453.86	11344.72
Pt. 22	4434.14	11290.76
Pt. 23	4517.05	11189.78
Pt. 24	4552.73	11059.76
Pt. 25	4558.21	10975.56
Pt. 26	4639.26	10930.76
Pt. 27	5024.51	10954.19

POND GEOMETRY TABLE DIKE CREST CENTERLINE AND RADIUS COORDINATES			
POINT NO.	NORTH	EAST	RADIUS
Pt. 28	5111.53	10925.95	
Pt. 29	5282.46	11078.12	
Pt. 30	5298.49	11104.61	
Pt. 31	5309.13	11146.42	
Pt. 32	5321.75	11239.08	
Pt. 33	5277.03	11300.39	
Pt. 34	5020.29	11346.93	
Pt. 35	4954.32	11274.56	
R-1	4561.45	10514.47	R-49.0'
R-2	4881.71	10892.58	R-55.0'
R-3	4950.36	11038.00	R-54.5'
R-4	4601.95	10848.17	R-55.0'
R-5	4925.50	11149.13	R-55.0'
R-6	4894.24	11310.46	R-51.0'
R-7	4526.57	11377.25	R-56.0'
R-8	4506.71	11358.32	R-54.5'
R-9	4613.10	10979.13	R-55.0'
R-10	5076.29	10965.54	R-53.0'
R-11	5247.56	11117.33	R-52.5'
R-12	5267.22	11246.27	R-55.0'
R-13	5012.92	11287.40	R-60.0'

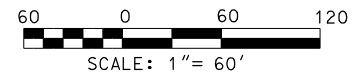
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	NORTH	EAST	ELEVATION
BM1	4914.77	10416.06	1730.01
BM2	4884.88	10886.89	1717.58
BM3	4889.24	10720.25	1717.56

LEGEND

- BENCH MARK
- FIRE HYDRANT
- STREAM
- DIVERSION
- SEWER LINE
- EXISTING CHAIN LINK FENCE
- UTILITY POLE
- POND GEOMETRY POINT
- DIVERSION CHANNEL
- CONTRACTOR WORK LIMITS
- SHUT OFF VALVE
- SLOPE INDICATOR

THE CONTRACTOR SHALL COMPLY WITH PENNSYLVANIA ACT 187 (AS AMENDED) BEFORE PERFORMING ANY EXCAVATION WORK.

REFERENCES:
1. TOPOGRAPHIC MAPPING PREPARED BY SOUTHERN ALLEGHENIES CONSERVANCY FROM SURVEY DATA, APRIL 1998. ELEVATIONS BASED ON NGVD. ADDITIONAL TOPOGRAPHY FOR SOUTH BLACKLICK CREEK AREA OBTAINED FROM GAI DRAWING NO. 94-424-E3.



US Army Corps of Engineers
PITTSBURGH DISTRICT

Submitted by: /s/ PRECHA YODNANE
PRINCIPAL

Design by: KLF
KLF

Dwn by: JCN
JCN

Submission Date: 1/31/01
Revision Date: 1/31/01

RF# NO: DACW59-02-R-0003

Users: GAI CONSULTANTS INC.
Date: 1/31/01
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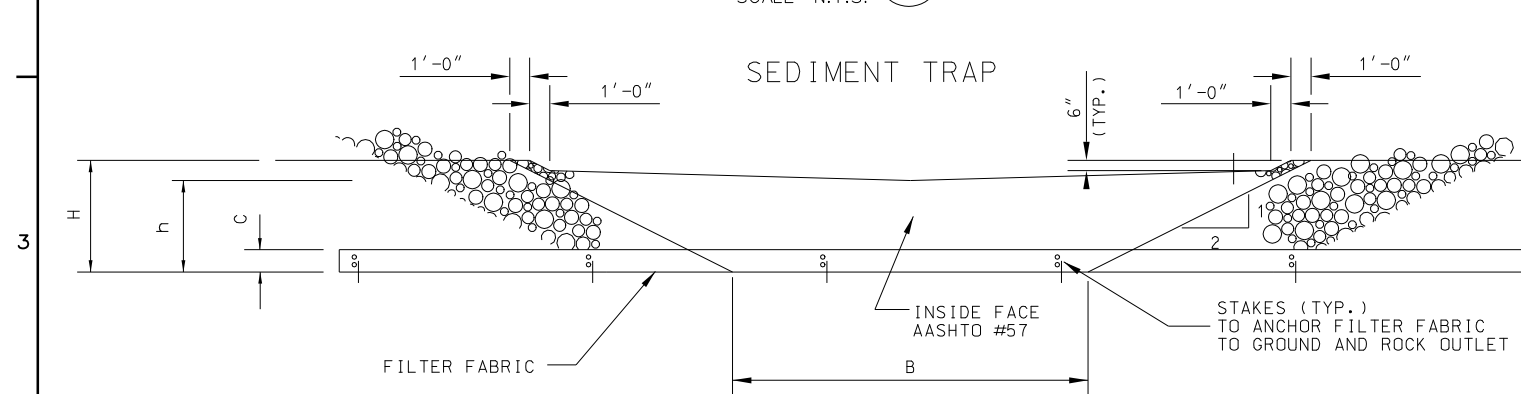
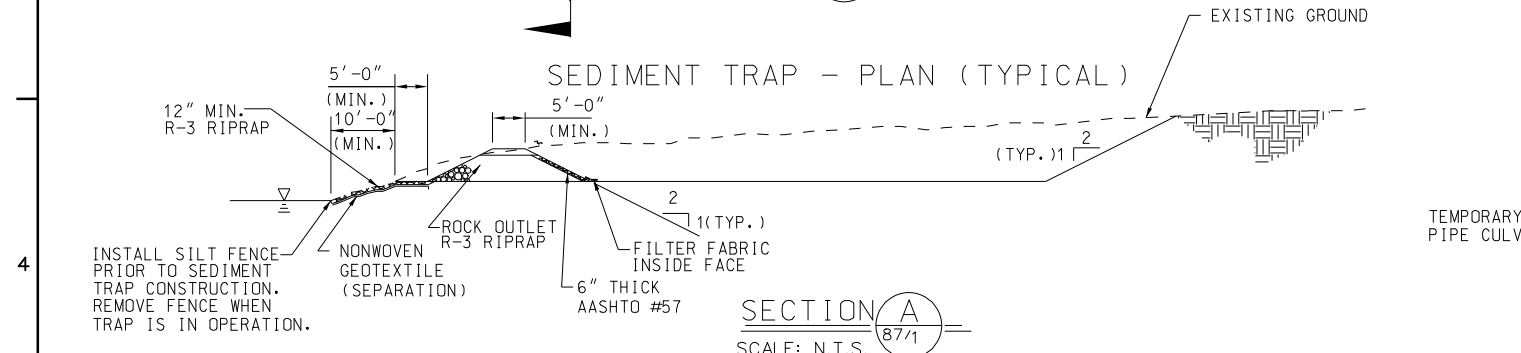
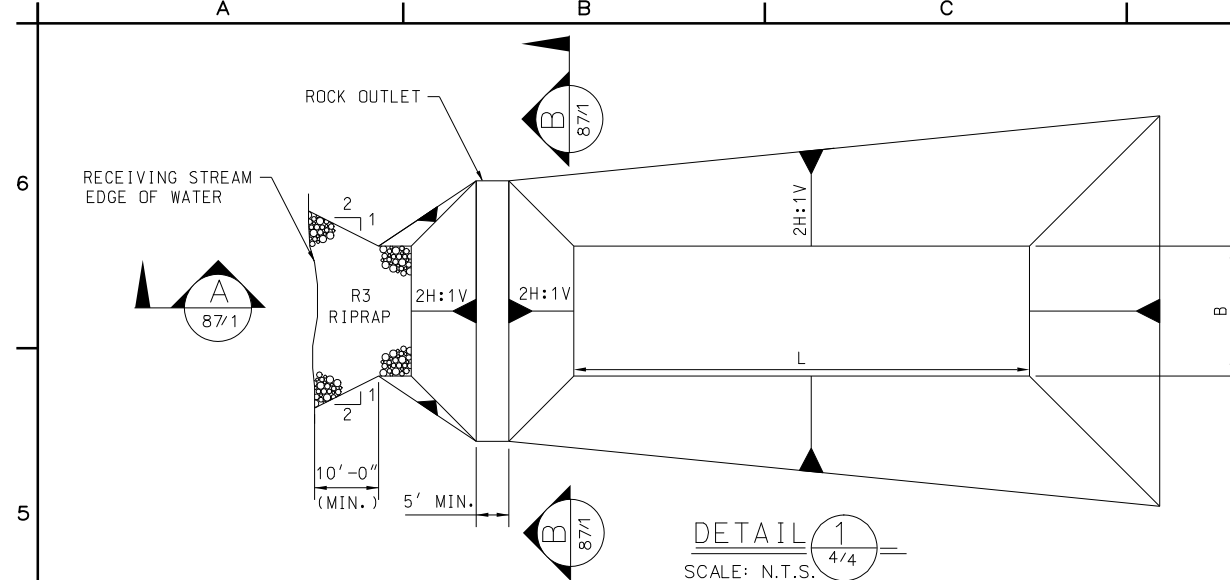
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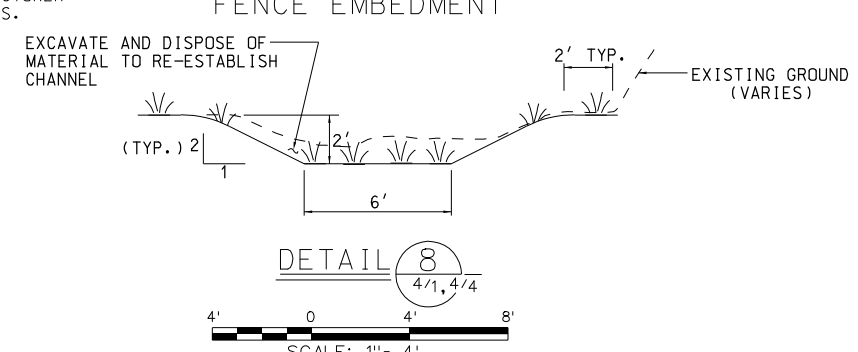
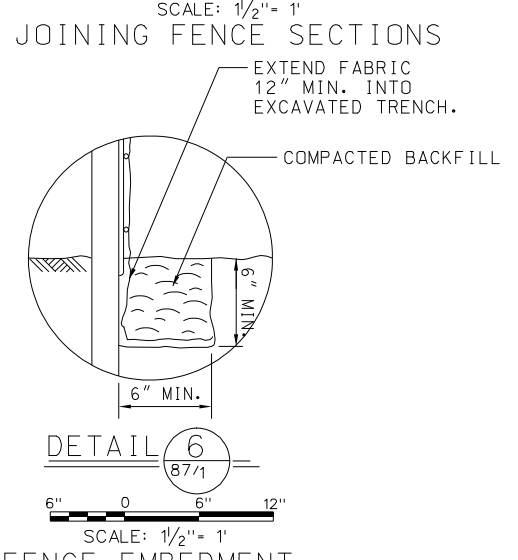
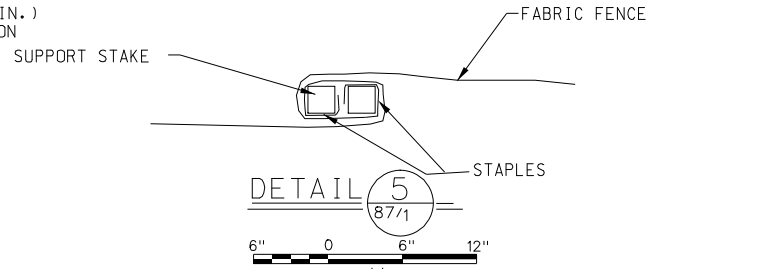
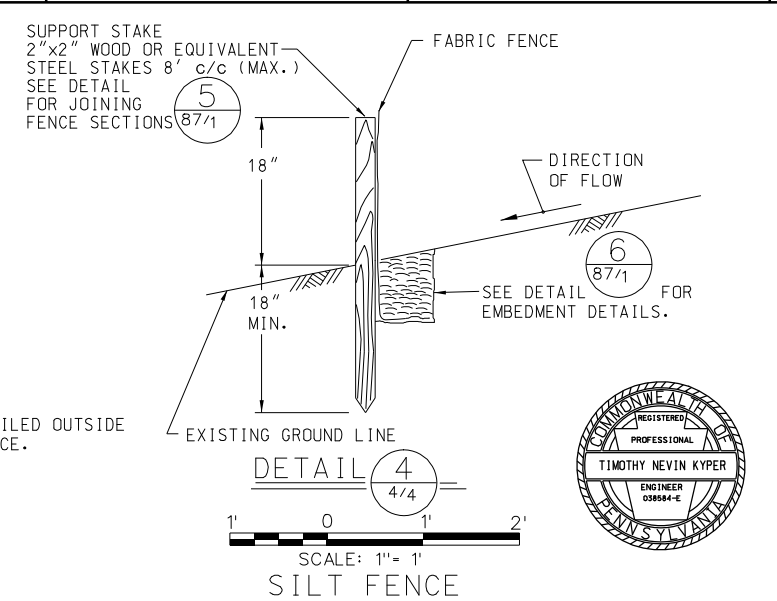
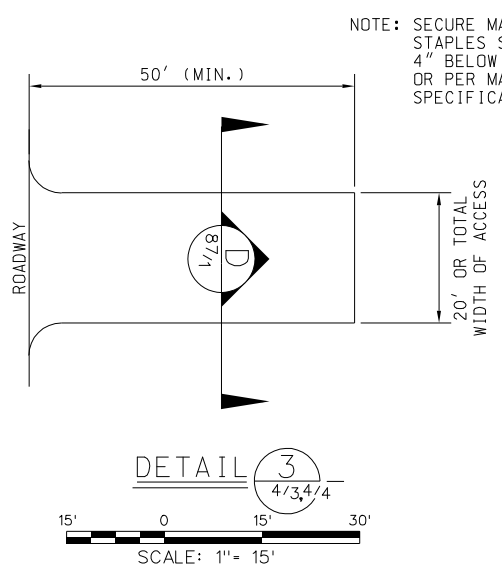
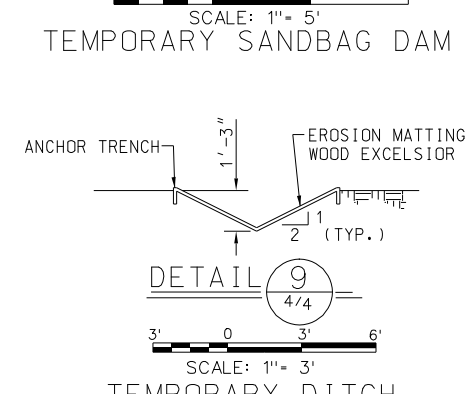
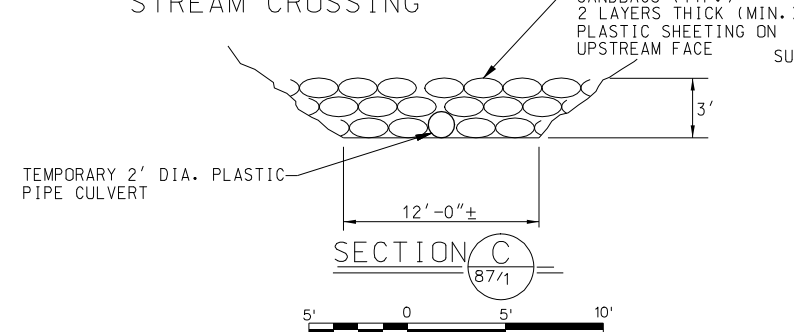
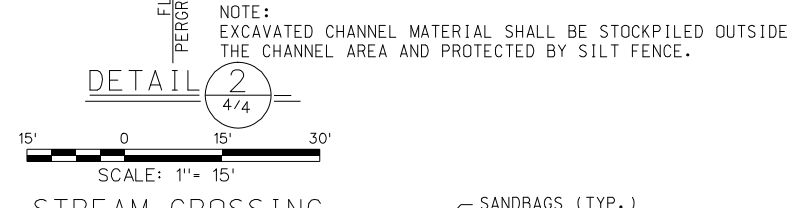
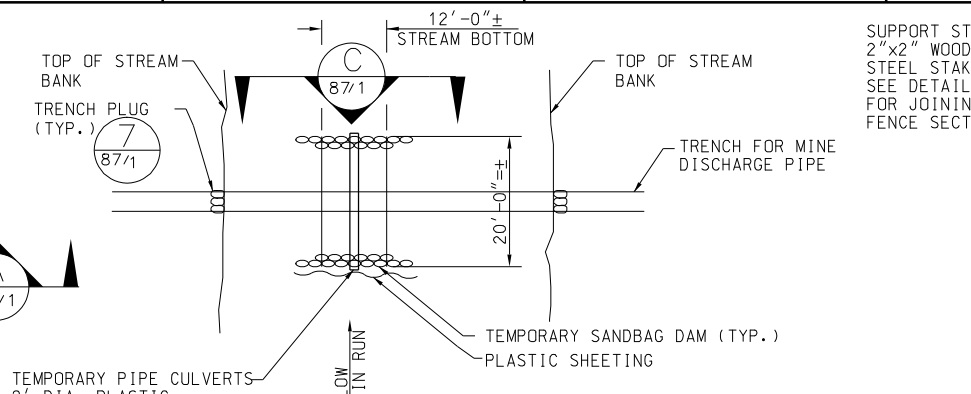
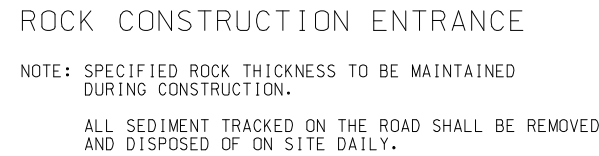
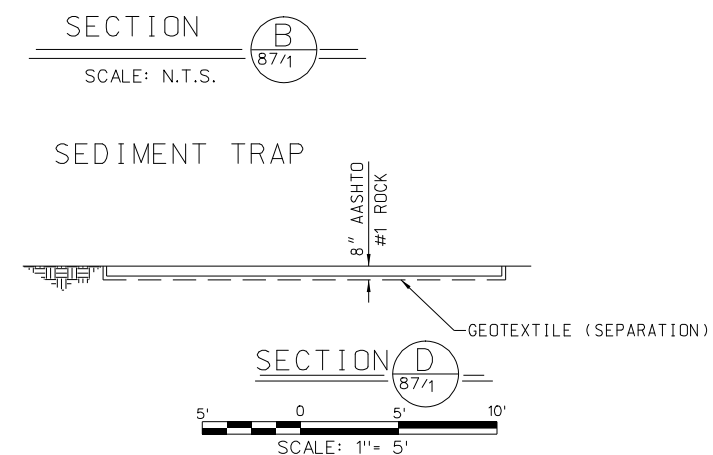
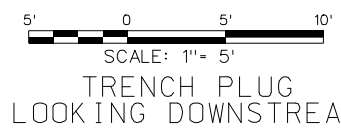
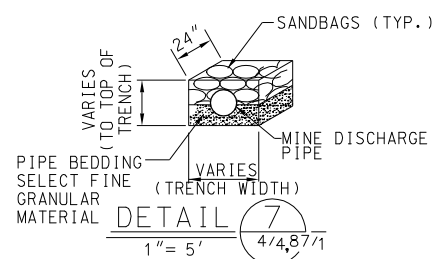
Rev: []

GRADING PLAN

SOUTH BRANCH BLACKLICK CREEK
ECOSYSTEM RESTORATION
WEBSTER MINE DISCHARGE
NANTY GLO, PENNSYLVANIA



SEDIMENT TRAP	B (ft)	L (ft)	H (ft)	h (ft)	C (ft)
1	8	40	5	4	2.1
2	25	66	5	4	1.8
3	6	30	5	4	2.1
4	15	48	5	4	1.9



EXISTING DIVERSION CHANNEL TO BE UPGRADED

US Army Corps of Engineers
PITTSBURGH DISTRICT

Submitted by: /s/ PRECHA YODNANE PRINCIPAL

Design by: KMB

Drawn by: GJA

Submission Date: 1/31/01

Revision Date: 1/31/01

RFP NO: DACW59-02-R-0003

REGISTERED PROFESSIONAL ENGINEER
TIMOTHY NEVIN KYPER
03884-E
PENNSYLVANIA

User: GAI CONSULTANTS INC.

Date: 1/31/01

Plot Scale: 1"=15'

Pen Table: PLOT DRIVER: GAIHPRT.LPT

Color Table: PALETTE A

2000-107-10-E-008

Apr:

Date

Description

Rev.

EROSION AND SEDIMENT CONTROL SECTIONS AND DETAILS

SOUTH BRANCH BLACKLICK CREEK ECOSYSTEM RESTORATION

WEBSTER MINE DISCHARGE

NANTY GLO, PENNSYLVANIA

1. ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE AREA TO BE DISTURBED FOR CONSTRUCTION OF VERTICAL FLOW PONDS A AND B AND THE WETLAND SHALL BE REMOVED. BURIED UTILITY PIPES ENTERING THESE AREAS SHALL BE CUT OFF APPROXIMATELY 10 FEET OUTSIDE LIMITS OF DISTURBANCE AND THE END OF THE PIPE ENTERING THE SITE SHALL BE SEALED TO PREVENT THE PIPE FROM LEAKING. LOCATIONS ARE APPROXIMATE.
2. UNLESS NOTED OTHERWISE, ALL BUILDINGS, STRUCTURES, AND FOUNDATIONS WITHIN THE LIMITS OF THE AREA TO BE DISTURBED FOR CONSTRUCTION OF VERTICAL FLOW PONDS A AND B AND WETLAND SHALL BE DEMOLISHED AND THE DEBRIS HAULED TO AN APPROVED LANDFILL FOR DISPOSAL.
3. EXISTING CONCRETE WALL TO REMAIN IN PLACE.
4. ALL TRASH, GARBAGE AND DEBRIS WITHIN CONTRACTOR WORK LIMITS SHALL BE REMOVED AND HAULED TO AN APPROVED LANDFILL FOR DISPOSAL.
5. ACCESS ROAD WITHIN THE LIMITS OF THE PONDS SHALL BE REMOVED.
6. OVER-EXCAVATE 1.5 FEET BELOW ALL STRUCTURES AS PART OF DEMOLITION.
7. EXISTING SUMP TO BE DEWATERED AND DEMOLISHED TO 1.5 FEET BELOW PROPOSED SUBGRADE, PIPES GROUTED SHUT, AND THE AREA BACKFILLED WITH SATISFACTORY FILL AND COMPACTED.
8. EXISTING MINE DISCHARGE STRUCTURE TO BE DEMOLISHED AT COMPLETION OF GROUTING EXISTING MINE DISCHARGE PIPE.
9. CONTRACTOR SHALL LOCATE WATER LINE AND REMOVE AND DISPOSE OF THE HYDRANT AND PIPING IF LOCATED WITHIN RANGE OF GRADING (INCLUDING SUBBASE).

NANTY GLO WATER AUTHORITY/BOROUGH/SEWER
872 CHESTNUT STREET
NANTY GLO, PA. 15943
MR. JIM FLANAGAN
724-749-9238

ADELPHIA CABLE - HIGHWAY VIDEO
1 ADELPHIA DRIVE
BLAIRSVILLE, PA. 15717
MR. DAVID BOWEN
724-459-9042

GPU ENERGY
367 INDUSTRIAL PARK ROAD
EBENSBURG, PA. 15931
MR. DON SWITZLER
814-471-8020



US Army Corps
of Engineers
PITTSBURGH DISTRICT

/s/ PRECHA YODNANE	PRINCIPAL
RFP NO.:	DACW59-02-R-0003

GJA	
Dwn by: NJP	Ckd by: KLF
Submission Date: 1/31/01	

gci
CONSULTANTS

User: GA/CONSULTANTS INC.
Date: 1/31/01
Plot Scale: PLOT SCALE: 1"=60'
Pen Table: PLOT DRIVER: GAHPRTL.PLT
Color Table: PLOT SETTINGS: PALETTE A
2000_187-10-E_E004










	A	DRAWING REVISED "AS-BUILT" - ADDITIONAL STRUCTURES REMOVED.	7 MAR 05	LPB

filename: s190402.dgn

DEMOLITION PLAN

Drawing Number:
038abad-Z1-4/2.1

LEGEND

 BENCH MARK
 FIRE HYDRANT
 STREAM
 WATER LINE
 SEWER LINE
 EXISTING CHAIN LINK FENCE
 UTILITY POLE
 CONTRACTOR WORK LIMITS
 ITEM TO BE DEMOLISHED

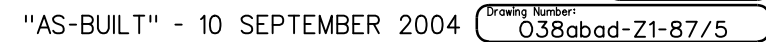
IT IS THE DUTY OF THE CONTRACTOR TO COMPLY WITH PENNSYLVANIA
ACT 187 (AS AMENDED) BEFORE PERFORMING ANY EXCAVATION WORK.

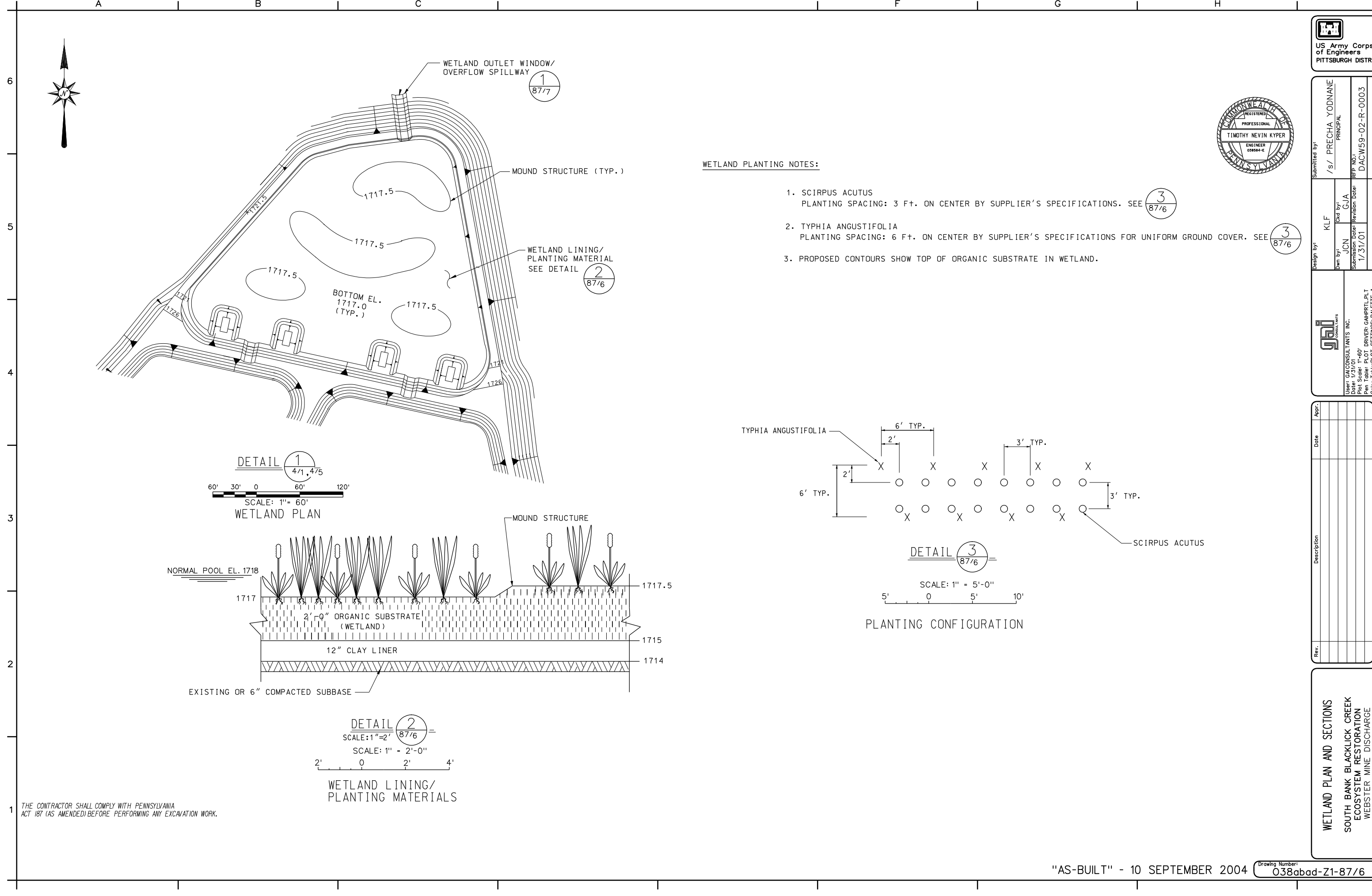
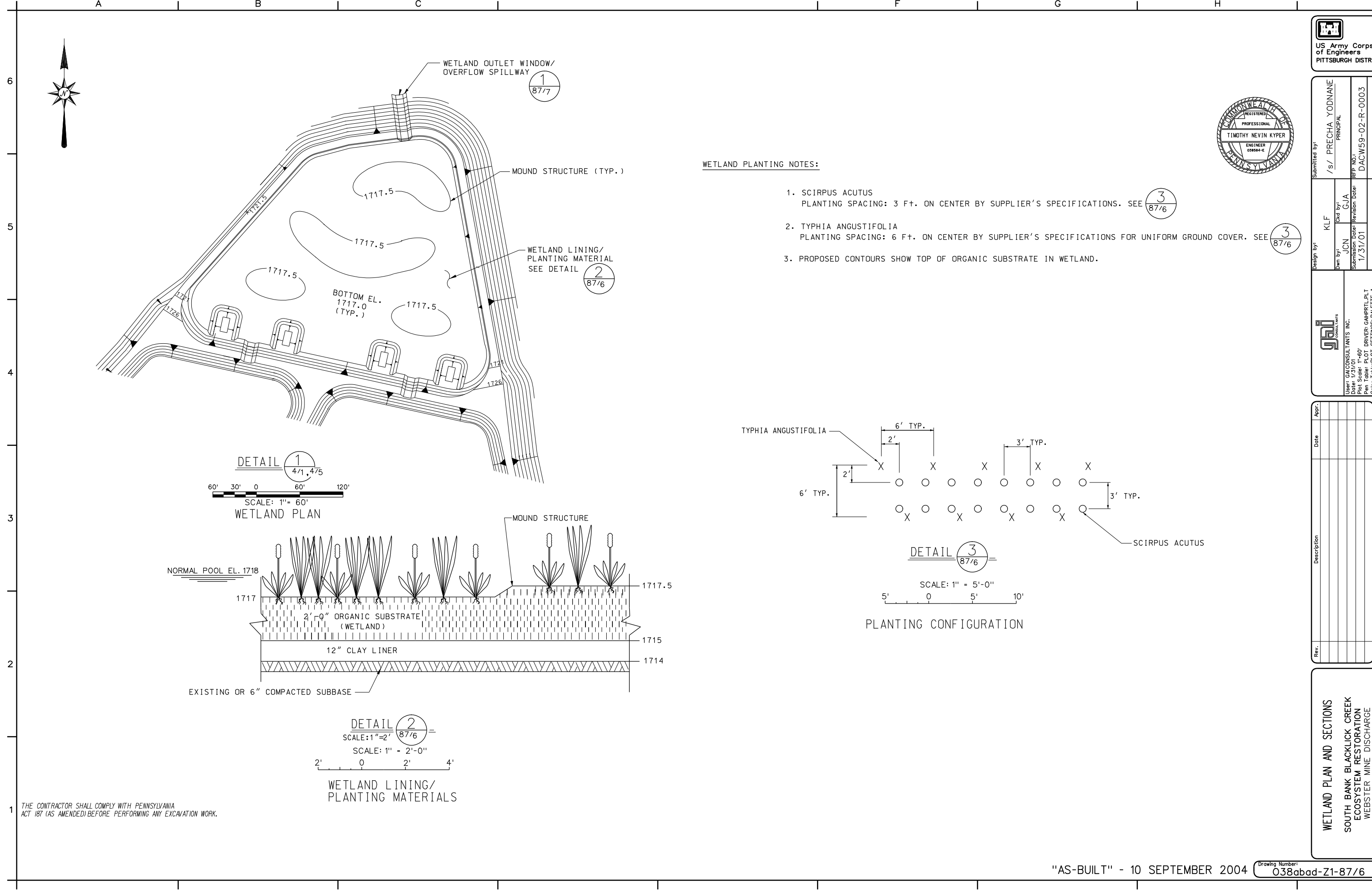
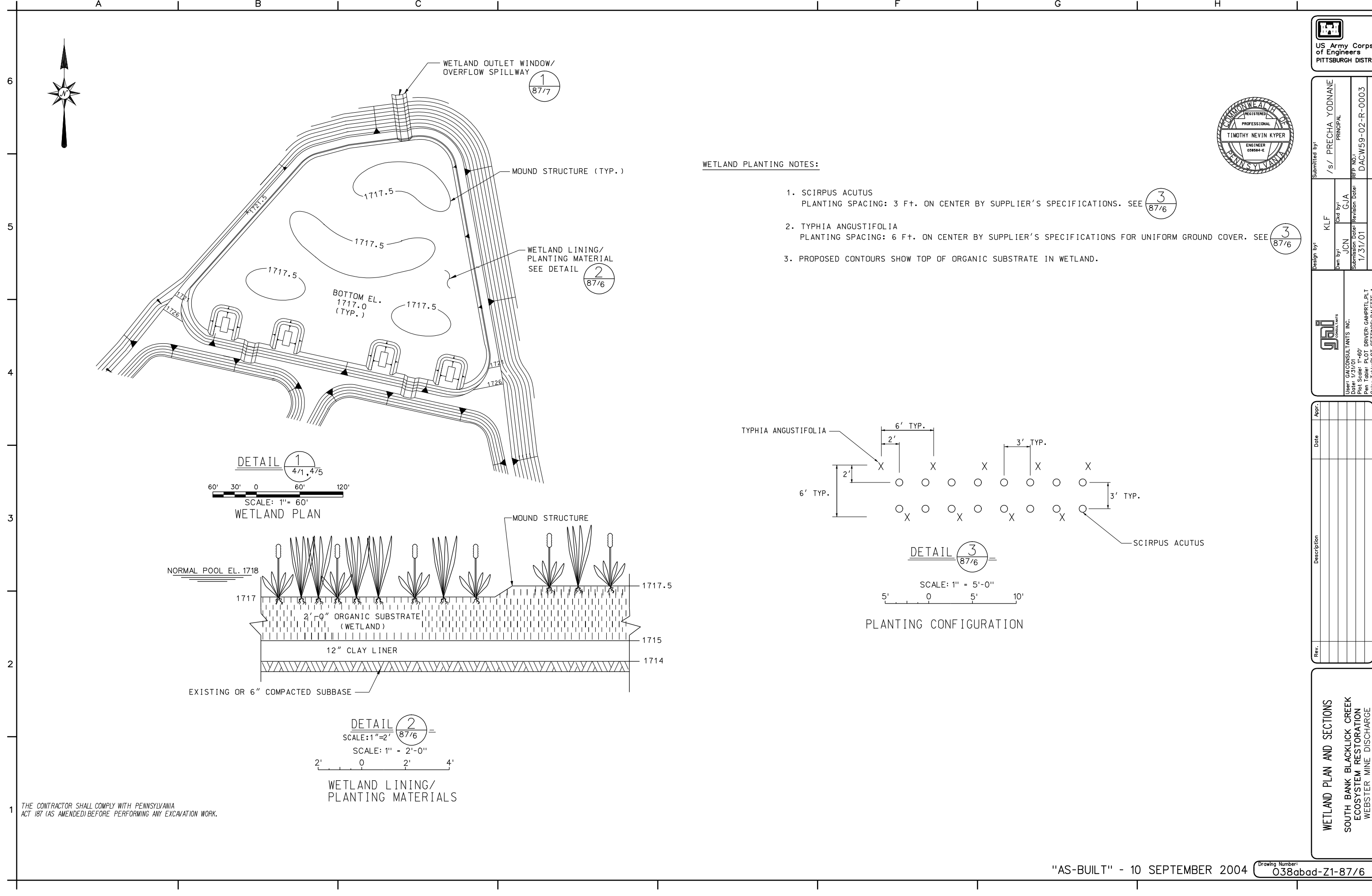
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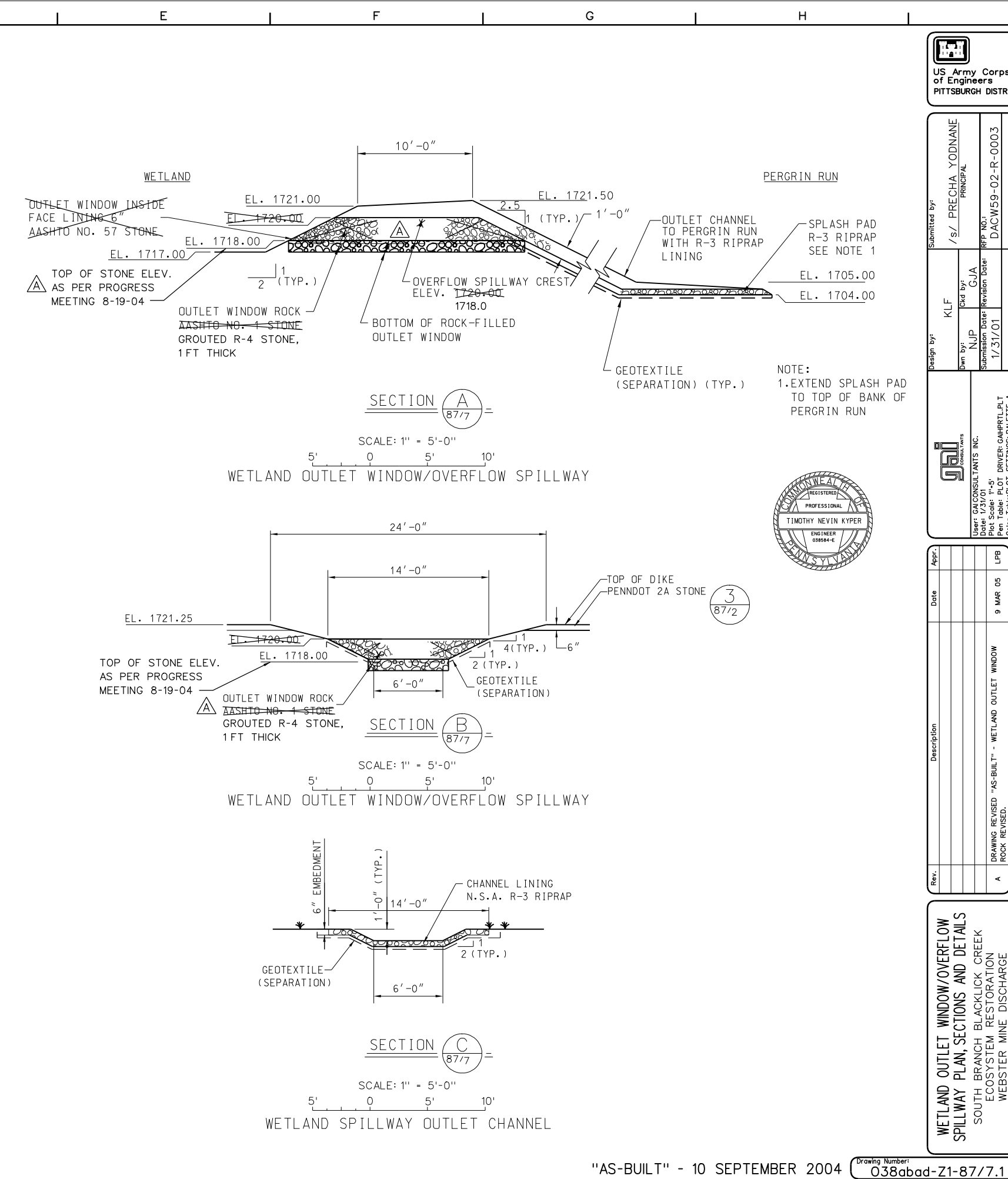
1. TOPOGRAPHIC MAPPING PREPARED BY SOUTHERN ALLEGHENIES CONSERVANCY FROM SURVEY DATA, APRIL 1998. ELEVATIONS BASED ON NGVD. ADDITIONAL TOPOGRAPHY FOR SOUTH BLACKLICK CREEK AREA OBTAINED FROM GAI DRAWING NO. 94-424-E3.

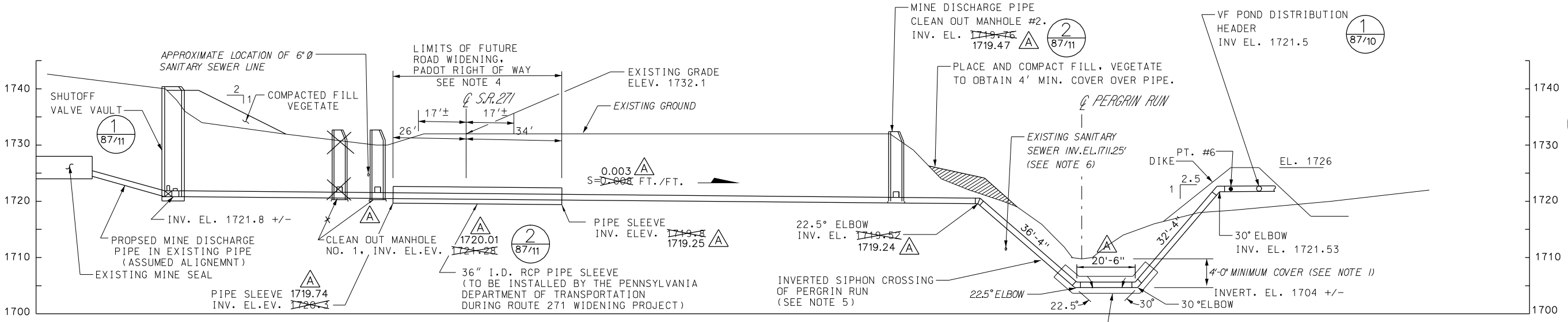
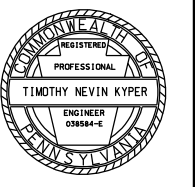
"AS-BUILT" - 10 SEPTEMBER 2004

Drawing Number:



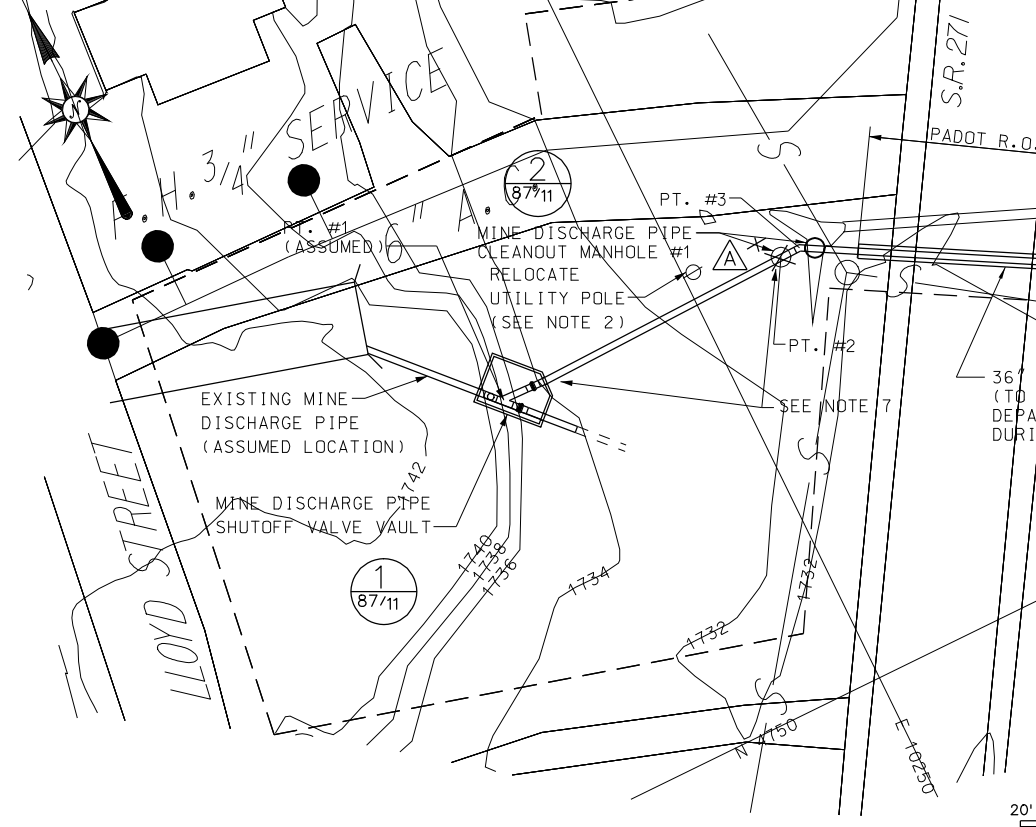
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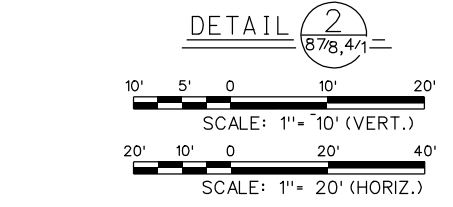


PROPOSED MINE DISCHARGE OUTLET PIPES GEOMETRY					
POINT	NORTH	EAST	INVERT ELEVATION	DESCRIPTION	
Pt. #1	4880 +/-	10219 +/-	1721.8 +/-	MINE DISCHARGE PIPE AT 45° WYE, ASSUMED	
Pt. #2	4836.16	10269.36	1721.28	MINE DISCHARGE PIPE @ CLEANOUT MANHOLE #1	
Pt. #3	4911.48	10280.96	1721.25	MINE DISCHARGE PIPE @ 30° ELL	
Pt. #4	4899.23	10483.66	1719.61	BEGIN RADIUS	
Pt. #5	4893.30	10528.44	1719.39	END RADIUS	
Pt. #6	4877.19	10580.06	1721.5	DISTRIBUTION HEADER	

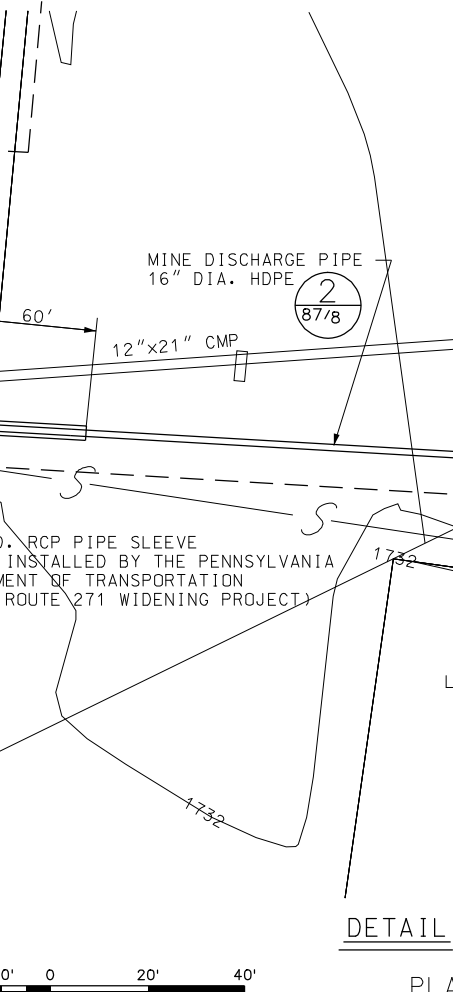
POINT	NORTH	EAST
Pt. #1	4834.87	10205.88
Pt. #2	4836.21	10269.73
Pt. #3	4836.27	10274.01
Pt. #4	4736.68	10450.94
Pt. #5	4713.85	10482.95
Pt. #6	4674.09	10527.64



THE CONTRACTOR SHALL COMPLY WITH PENNSYLVANIA ACT 187 (AS AMENDED) BEFORE PERFORMING ANY EXCAVATION WORK.



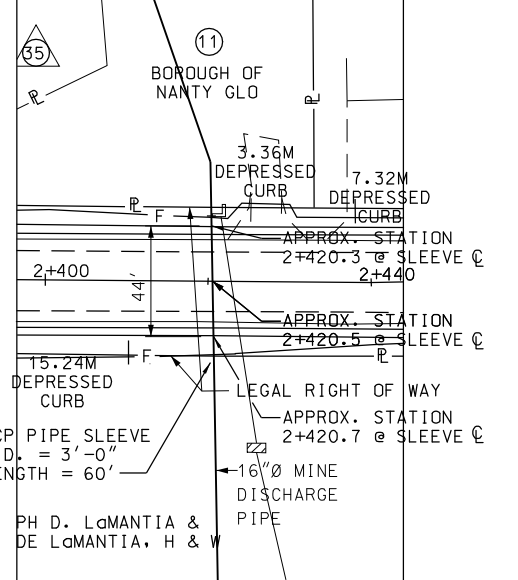
PROFILE
MINE DISCHARGE PIPE



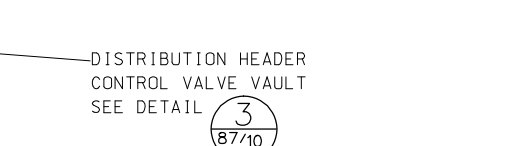
PLAN
MINE DISCHARGE PIPE

NOTE:
PIPE PLAN AND PROFILE WHICH WERE PREPARED BY GAI CONSULTANTS, INC. WERE REVISED ON 11 DECEMBER 2001 BY ADDING A 36" PIPE SLEEVE TO BE INSTALLED BY PADOT.

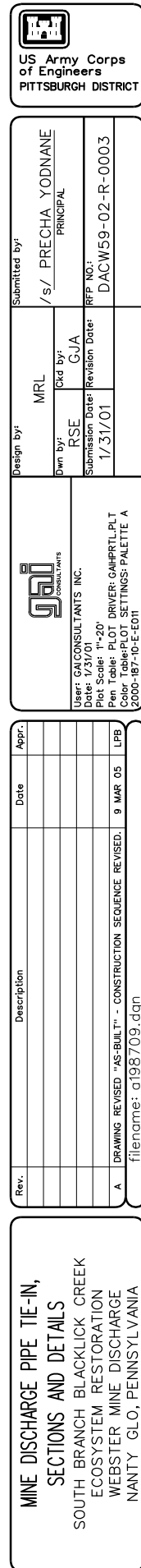
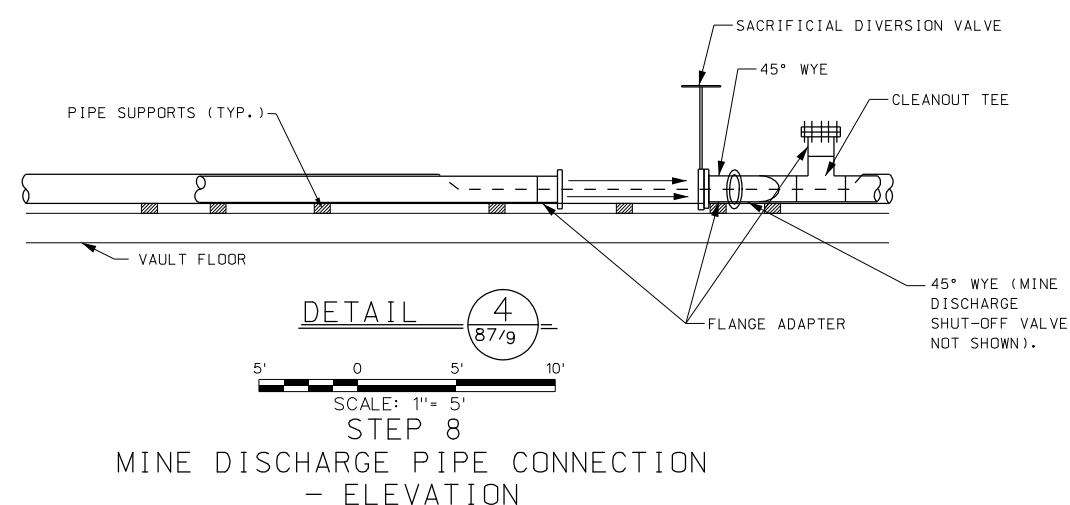
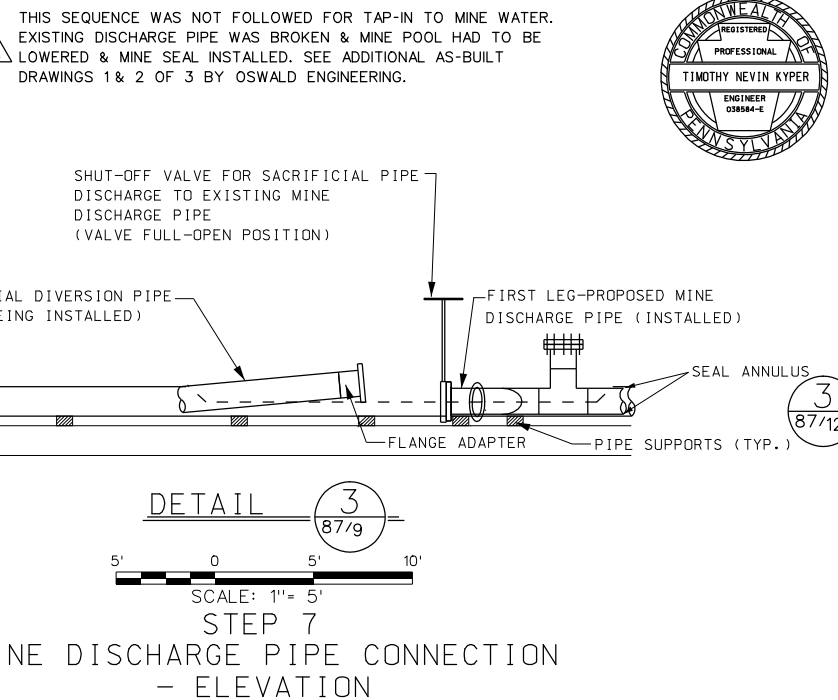
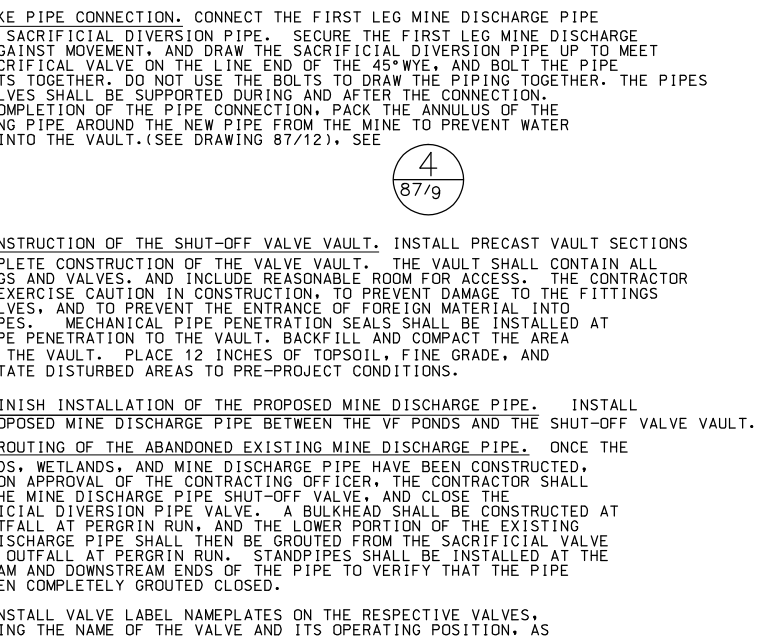
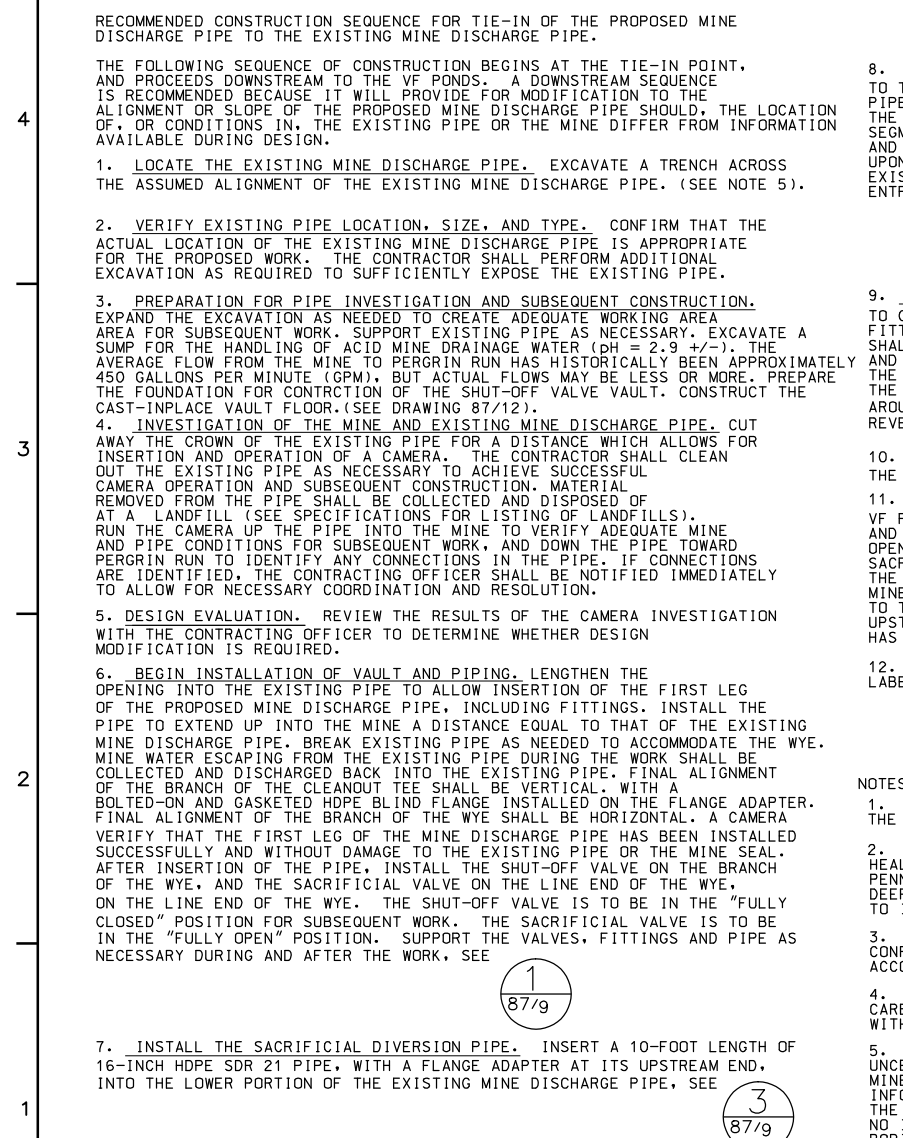
- NOTES:
1. MAINTAIN 4'-0" MINIMUM COVER OVER THE MINE DISCHARGE PIPE.
 2. EXISTING UTILITY POLE IS SHOWN IN APPROXIMATE LOCATION. RELOCATION OF POLE WILL BE REQUIRED. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES AND COORDINATE RELOCATION WITH GPU ENERGY.
 3. MAINTAIN MINIMUM 0'-6" VERTICAL CLEARANCE TO RELOCATED SANITARY SEWER.
 4. OWNER HAS OBTAINED A HIGHWAY OCCUPANCY PERMIT FROM THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION FOR THE SR 271 CROSSING. CONTRACTOR SHALL FOLLOW THE CONDITIONS SET FORTH IN THE PERMIT
 5. OWNER HAS OBTAINED BWM GENERAL PERMIT GP-5 FOR A UTILITY LINE STREAM CROSSING OF PERGRIN RUN. CONTRACTOR SHALL FOLLOW THE CONDITIONS SET FORTH IN THE PERMIT.
 6. MAINTAIN MINIMUM 2' CLEARANCE FROM THE SANITARY SEWER
 7. DEFLECT PIPE UNIFORMLY WITHIN MANUFACTURER'S RECOMMENDATIONS TO ACCOMPLISH ALIGNMENT

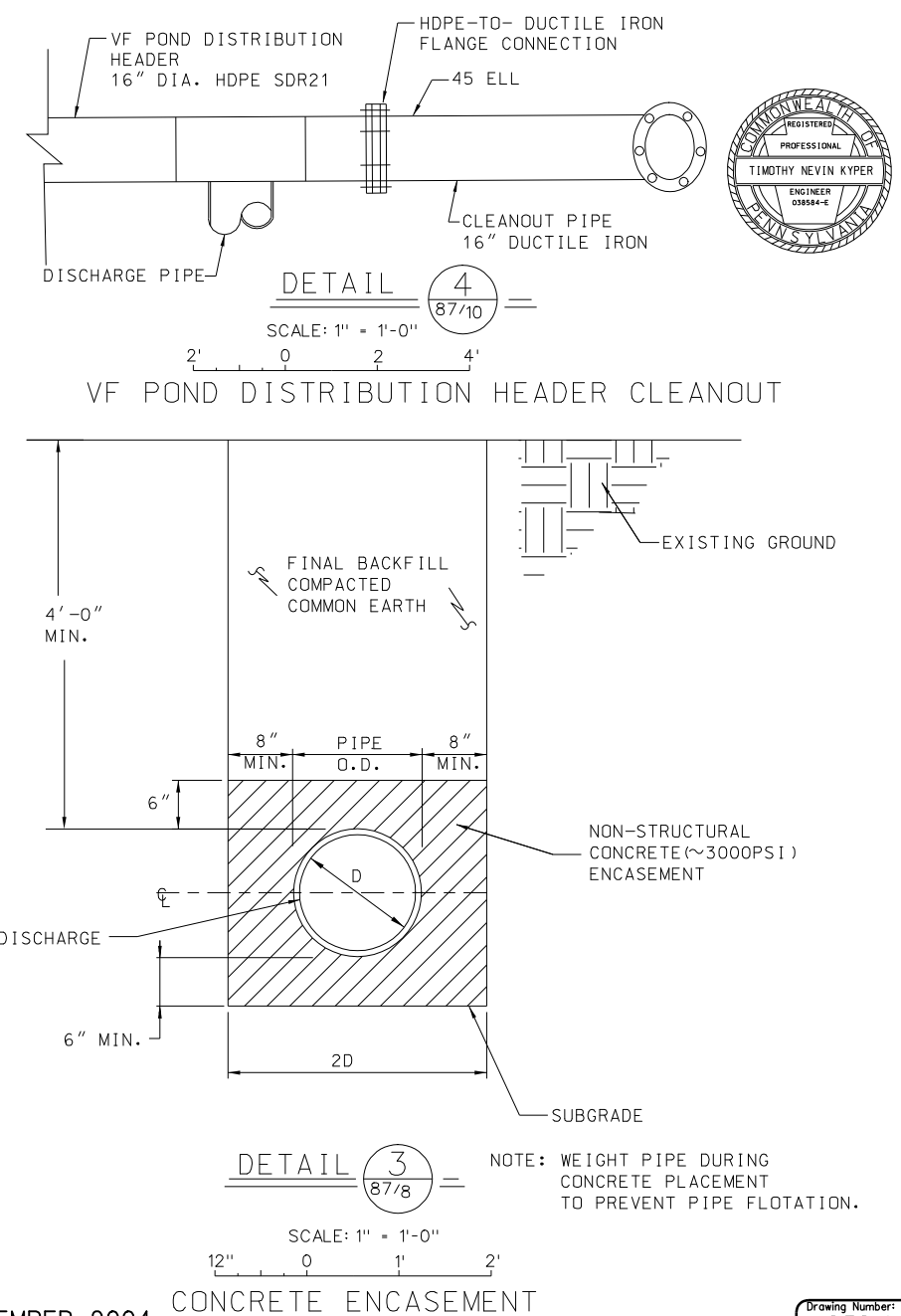


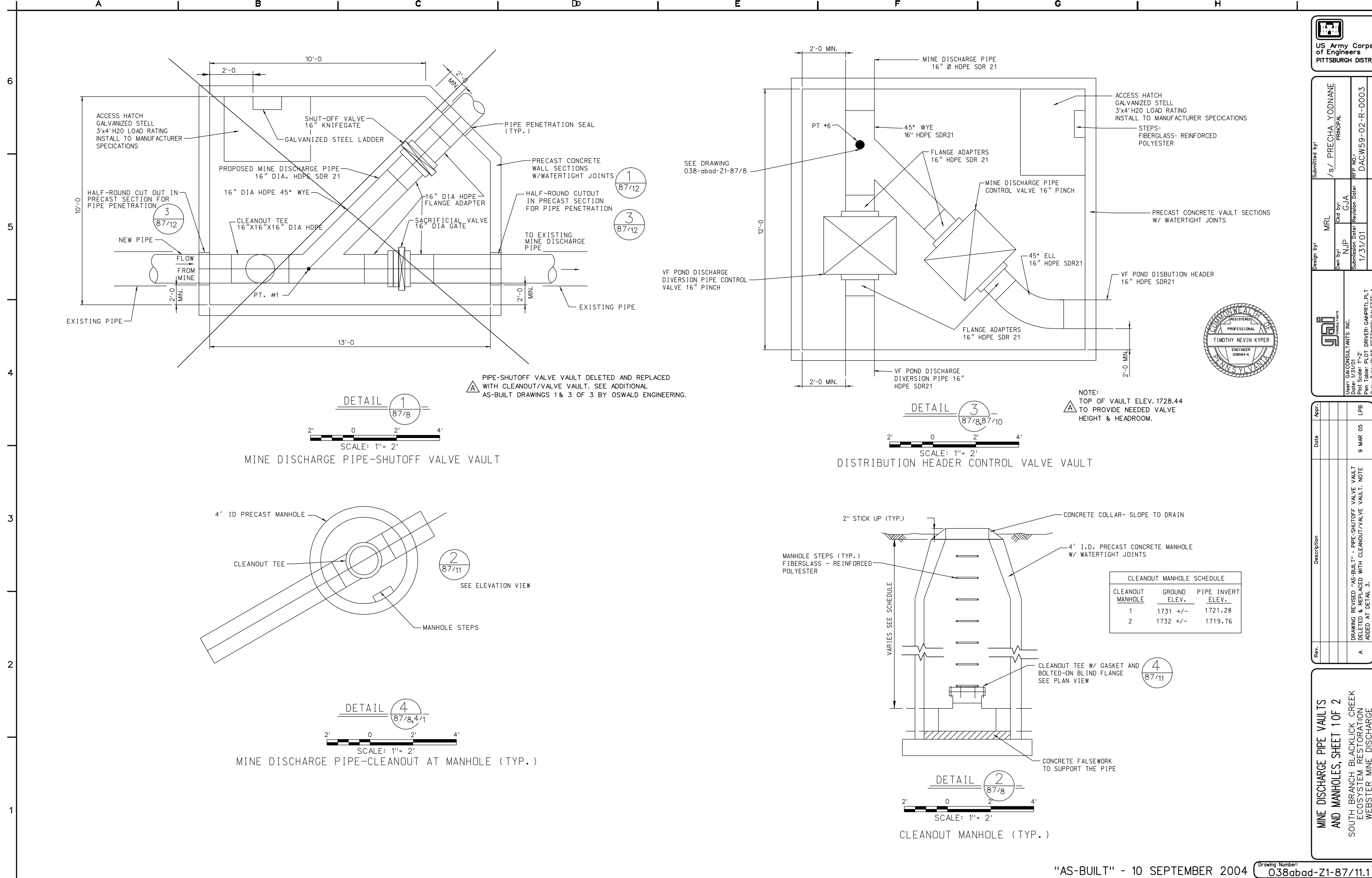
REFERENCE: PADOT DRAWINGS FOR THE PERGRIN HILL PROJECT, SHEET 12 OF 31
STATIONING IS IN METERS



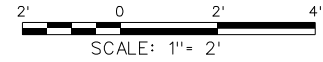
DISTRIBUTION HEADER
CONTROL VALVE VAULT
SEE DETAIL 3





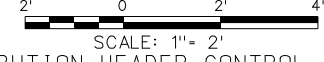


DETAIL 1
87/8



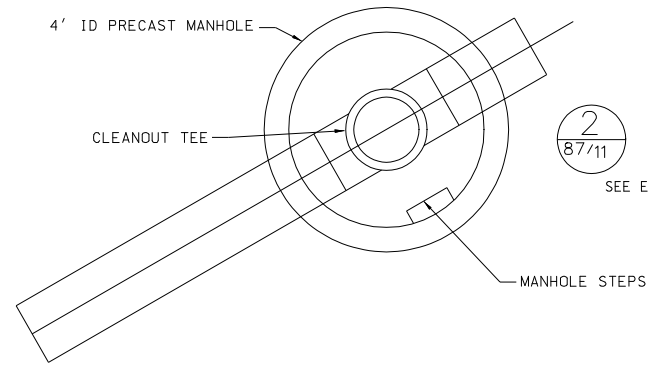
MINE DISCHARGE PIPE-SHUTOFF VALVE VAULT

DETAIL 3
87/8, 87/10

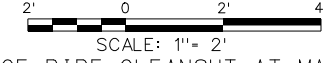


DISTRIBUTION HEADER CONTROL VALVE VAULT

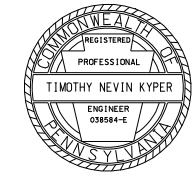
DETAIL 2
87/11



DETAIL 4
87/8, 4/1



MINE DISCHARGE PIPE-CLEANOUT AT MANHOLE (TYP.)

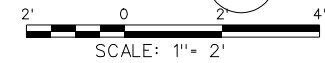


NOTE:
TOP OF VAULT ELEV. 1728.44
TO PROVIDE NEEDED VALVE
HEIGHT & HEADROOM.

CLEANOUT MANHOLE SCHEDULE		
CLEANOUT MANHOLE	GROUND ELEV.	PIPE INVERT ELEV.
1	1731 +/-	1721.28
2	1732 +/-	1719.76

DETAIL 4
87/11

DETAIL 2
87/8



CLEANOUT MANHOLE (TYP.)

US Army Corps of Engineers
PITTSBURGH DISTRICT

Submitted by: /s/ PRECHA YODNANE
PRINCIPAL

Design by: MRL
Drawn by: NJP
Check by: GJA

Submission Date: 1/31/01
Revision Date: 1/31/01

USER: GAI CONSULTANTS INC.
Date: 1/31/01
Plot Scale: 1"=2'
Pen Table: PLOT DRIVER: GAIHRTLP.LPT
Color Table: PLOT SETTINGS: PALETTE A
000-87-10-E02

Appr. _____
Date _____

Description _____

Rev. _____

MINE DISCHARGE PIPE VAULTS
AND MANHOLES, SHEET 1 OF 2

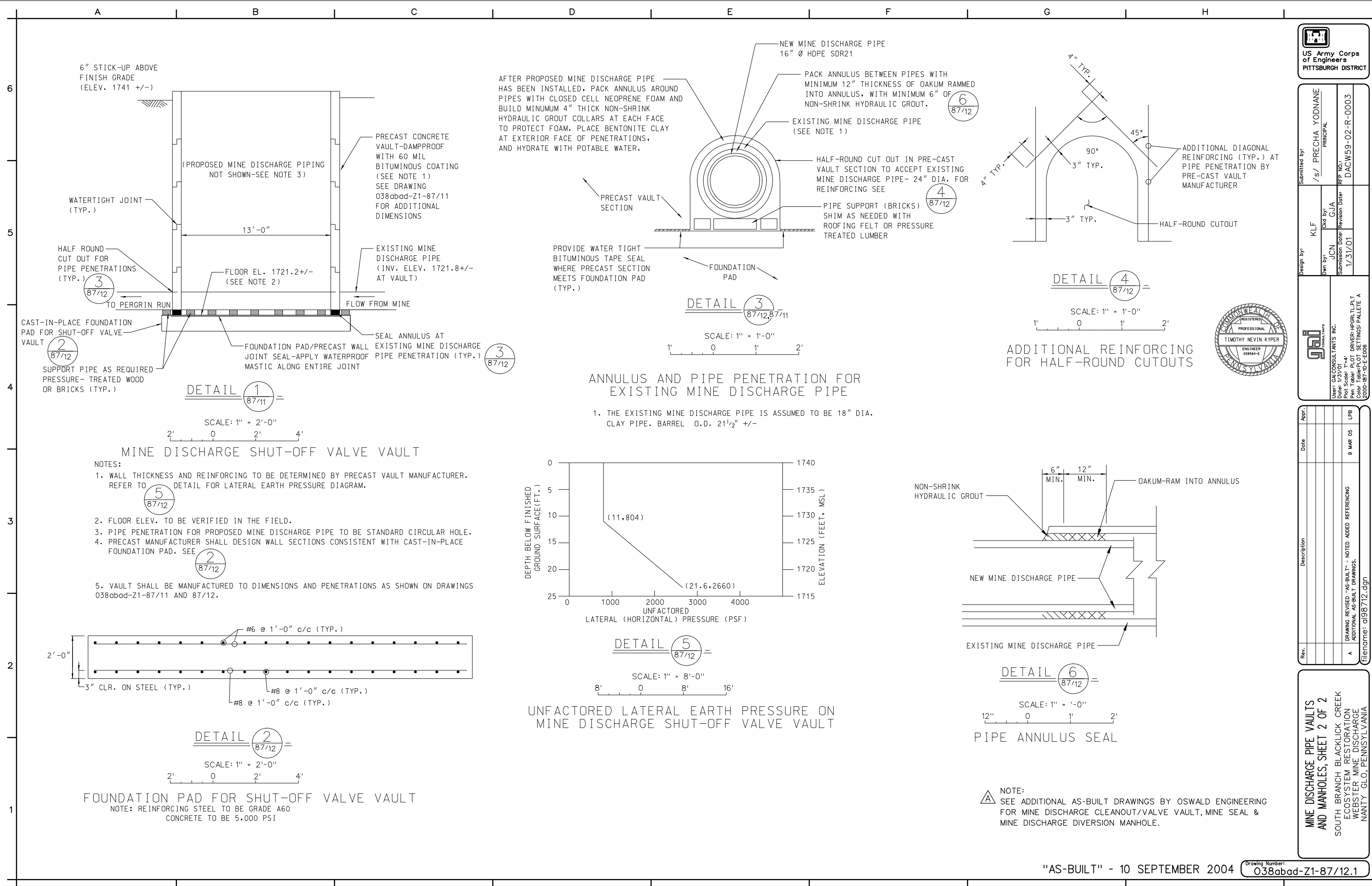
SOUTH BRANCH BLACKLICK CREEK
ECOSYSTEM RESTORATION
WEBSTER MINE DISCHARGE
NANTY GLO, PENNSYLVANIA

Drawing Number: 038abad-Z1-87/11.1

9 MAR 05

LPB

filename: d198711.dgn



US Army Corps of Engineers
PITTSBURGH DISTRICT

Submitted by: /s/ PRECHA YODNANE PRINCIPAL

Design by: KLF

Drawn by: JCN

Check by: GJA

Submission Date: 1/31/01

Revision Date: 1/31/01

RF# NO: DACW59-02-R-0003

REGISTERED PROFESSIONAL ENGINEER
TIMOTHY NEVIN KYPRE
ENGINEER 038584-E
PENNSYLVANIA

GA CONSULTANTS INC.

User: GA CONSULTANTS INC.
Date: 1/31/01
Plot Scale: 1"=4'
Pen Table: PLOT DRIVER: HPGLT.LPT
Color Table: PLOT SETTINGS: PALLETTE A
2000-87-10-E-006

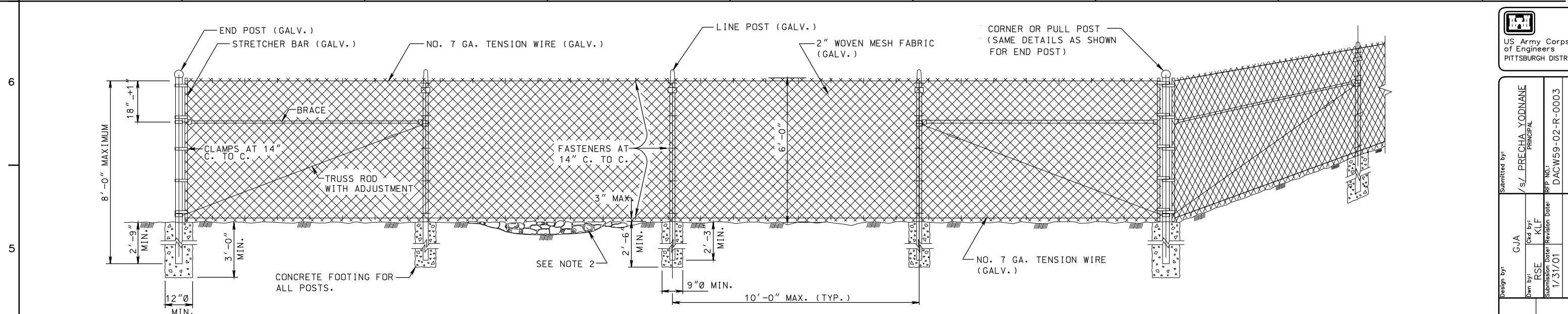
Rev.	Description	Date	Appr.
A	DRAWING REVISED "AS-BUILT" - NOTED ADDED REFERENCING ADDITIONAL AS-BUILT DRAWINGS.	9 MAR 05	LPB

filename: d198712.dgn

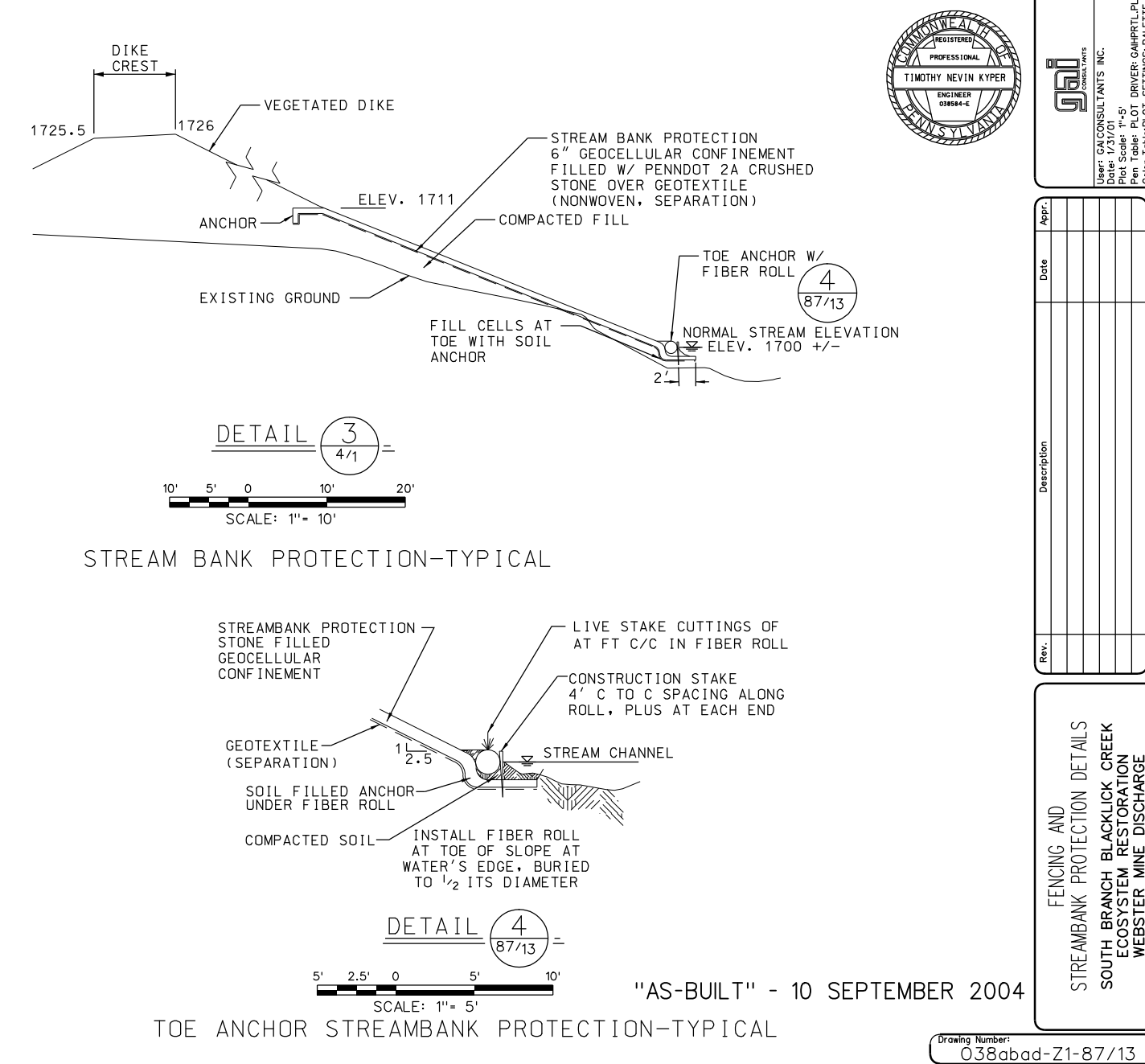
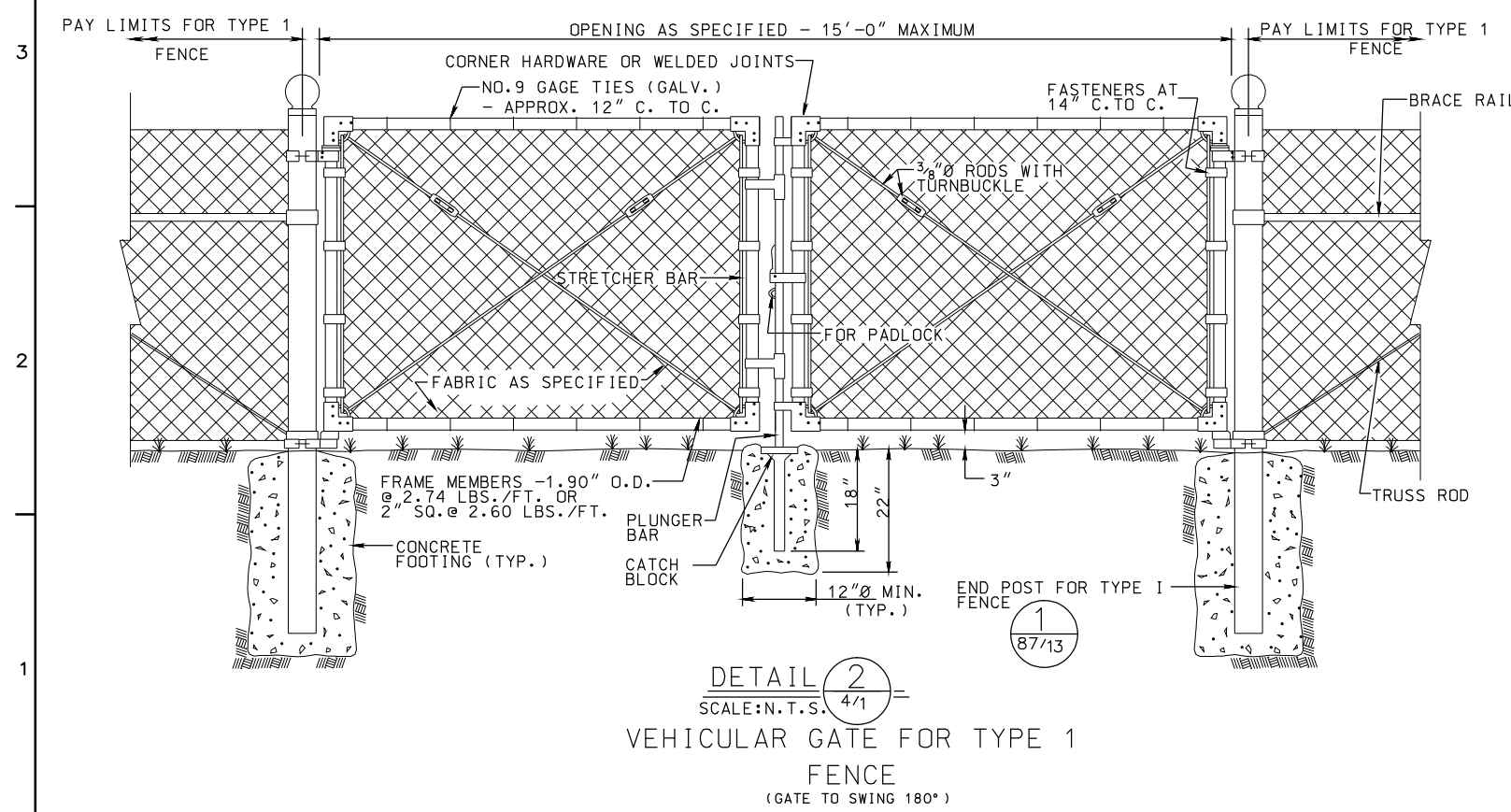
MINE DISCHARGE PIPE VAULTS
AND MANHOLES, SHEET 2 OF 2

SOUTH BRANCH BLACKLICK CREEK
ECOSYSTEM RESTORATION
WEBSTER MINE DISCHARGE
NANTY GLO, PENNSYLVANIA

A B C D E F G H



- NOTES:
1. PROVIDE AND CONSTRUCT IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 408 SPECIFICATIONS, SECTION 624 AND SECTION 1110 (CURRENT EDITION).
 2. FILL ALL DEPRESSIONS GREATER THAN 3 INCHES AND LESS THAN 1 FOOT WITH R-3 RIPRAP OR COMPACTED EARTH TO PREVENT ANIMALS FROM GOING UNDER THE FENCE.
 3. PLACE PULL POSTS AT ANGLE POINTS IN VERTICAL ALIGNMENT AT MAXIMUM 500 FOOT INTERVALS BETWEEN END AND/OR CORNER POSTS IN LEVEL TERRAIN AND/OR WHERE DIRECTED.
 4. ALL FENCE AND GATE COMPONENTS SHALL BE GALVANIZED PER PENNDOT PUBLICATION 408 SPECIFICATIONS, SECTION 1110 (CURRENT EDITION).
- DETAIL 1
SCALE: N.T.S. 4/1, 87/13
TYPE 1 FENCE



US Army Corps of Engineers
PITTSBURGH DISTRICT

Submitted by: /s/ PRECHA YODNANE PRINCIPAL

Design by: GJA

Drawn by: RSE

Check by: KLF

Submission Date: 1/31/01

Revision Date: 1/31/01

RF# NO: DACW59-02-R-0003

REGISTERED PROFESSIONAL
TIMOTHY NEVIN KYPER
ENGINEER
038544-E

USER: GAI CONSULTANTS INC.
Date: 1/31/01
Plot Scale: 1"=5'
Pen Table: PLOT DRIVER: GAIHRTLP.LPT
Color Table: PLOT SETTINGS: PALETTE A
000-187-10-E-006

Rev.	Description	Date	Appr.

filename: d198713.dgn

FENCING AND
STREAMBANK PROTECTION DETAILS

SOUTH BRANCH BLACKLICK CREEK
ECOSYSTEM RESTORATION
WEBSTER MINE DISCHARGE
NANTY GLO, PENNSYLVANIA

Drawing Number:
038abad-Z1-87/13