

DATE: December 12, 2023

DEPARTMENT OF GENERAL SERVICES
BUREAU OF CAPITAL PROJECT DESIGN MANAGEMENT
1800 HERR STREET
HARRISBURG, PENNSYLVANIA

ADDENDUM NO. 2

on

PROJECT NO. DGS C-0199-0038 PHASE 001

PROJECT TITLE - Belmont Lake Dam - Belmont Lake Dam Upgrades

PROFESSIONAL:

Schnabel Engineering, LLC
3 Dickinson Drive
Chadds Ford, PA, 19317

If you submitted a bid prior to this Addendum being issued, your bid has been discarded and you must re-submit your bid(s) prior to the bid opening date and time.

ADMINISTRATIVE CHANGES – ALL CONTRACTS

Item 1 - Item 1 - Refer to General Plan (C-1) for possible staging, stockpile and spoils location.

Item 2 - Refer to Article 9.6 of the General Conditions to the Construction Contract, substitutions of Materials. In addition, according the DGS Project Procedures Manual Requests 905.5 A the Department's approval of "equal" products/systems or "substitutions" will not be considered during the bidding period.

Item 3 – CADD files are not available during proposal preparation. CADD files are available to the successful proposer after Construction Contract execution as described in the CADD File Waiver paragraph in Specification 01 04 00.

Item 4 – For concrete mix designs refer to Specification 03 30 00 Cast-In-Place Concrete Section 1.5 Submittals for Review.

SPECIFICATION CHANGES – ALL CONTRACTS

Item 1 - Specification 32 34 00 – Fabricated Bridge, Paragraph 2.2 B. shall be revised to read as follows:

B. In addition to normal dead loads, the bridge shall be designed for the following:

1. Vehicle Loads: The bridge shall be designed for H-20-44 loading in accordance with AASHTO Section 3.

2. Wind Load: The bridge structure shall be designed for wind loads in accordance with AASHTO Section 3.

3. Seismic: All bridges shall be designed for seismic loads of the intensity required by AASHTO criteria unless specified otherwise.

Item 2 - Specification 32 34 00 – Fabricated Bridge, Paragraph 1.8 A. shall be revised to read as follows:

A. Width: Inside clear width of bridge shall be 10 ft.

Item 3 - Specification 31 25 73 – Control of Water, Section 1.4.A.5e shall be revised to read as:

e. Should the water surface overtop the cofferdam and reach EL 1951.2, a voluntary evacuation may be conducted by the Wayne County Office of Emergency Management.

Item 4 - Specification 03 30 00 Cast-In-Place Concrete section 1.4 shall be revised to read as:

ASTM C1293 – Standard Test Method for Determination of Length of Change of Concrete Due to Alkali-Silica Reaction

Item 5 - Specification 03 30 00 Cast-In-Place Concrete section 2.1A shall be revised to read as:

A. Cement: ASTM C150, Type II – Moderate Sulfate Resistant Portland type or ASTM C595 – Blended Hydraulic Cement. Cement used throughout the work shall be uniform in color. The maximum alkali content of the cement shall be 0.6 percent.

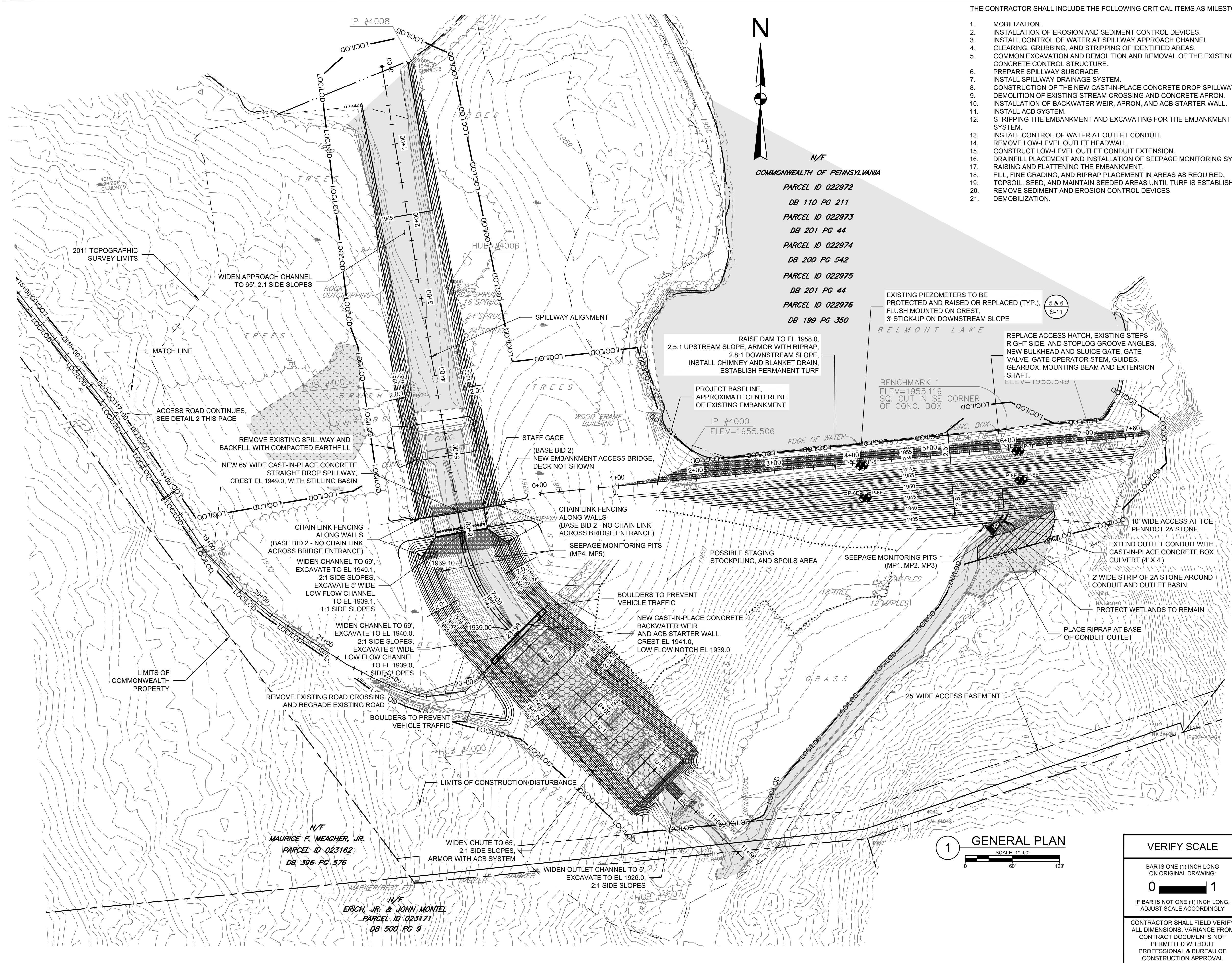
DRAWING CHANGES – ALL CONTRACTS

Item 1 - Drawings C-13, Spillway Drainage Plan, and C-14, Spillway Drainage Profile & Details shall be added to the Contract Drawings

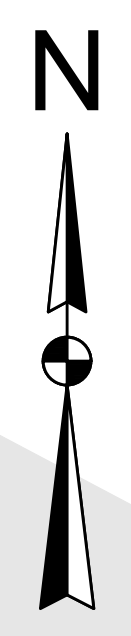
Item 2 – Drawing C-1, General Plan, has been revised to include riprap upstream of the new cast-in-place

straight drop spillway.

Item 3 – Drawing ES-1, E&S Plan, has been revised to include riprap upstream of the new cast-in-place straight drop spillway.



- THE CONTRACTOR SHALL INCLUDE THE FOLLOWING CRITICAL ITEMS AS MILESTONES:
1. MOBILIZATION.
 2. INSTALLATION OF EROSION AND SEDIMENT CONTROL DEVICES.
 3. INSTALL CONTROL OF WATER AT SPILLWAY APPROACH CHANNEL.
 4. CLEARING, GRUBBING, AND STRIPPING OF IDENTIFIED AREAS.
 5. COMMON EXCAVATION AND DEMOLITION AND REMOVAL OF THE EXISTING CONCRETE CONTROL STRUCTURE.
 6. PREPARE SPILLWAY SUBGRADE.
 7. INSTALL SPILLWAY DRAINAGE SYSTEM.
 8. CONSTRUCTION OF THE NEW CAST-IN-PLACE CONCRETE DROP SPILLWAY.
 9. DEMOLITION OF EXISTING STREAM CROSSING AND CONCRETE APRON.
 10. INSTALLATION OF BACKWATER WEIR, APRON, AND ACB STARTER WALL.
 11. INSTALL ACB SYSTEM.
 12. STRIPPING THE EMBANKMENT AND EXCAVATING FOR THE EMBANKMENT DRAINAGE SYSTEM.
 13. INSTALL CONTROL OF WATER AT OUTLET CONDUIT.
 14. REMOVE LOW-LEVEL OUTLET HEADWALL.
 15. CONSTRUCT LOW-LEVEL OUTLET CONDUIT EXTENSION.
 16. DRAINFILL PLACEMENT AND INSTALLATION OF SEEPAGE MONITORING SYSTEM.
 17. RAISING AND FLATTENING THE EMBANKMENT.
 18. FILL, FINE GRADING, AND RIPRAP PLACEMENT IN AREAS AS REQUIRED.
 19. TOPSOIL, SEED, AND MAINTAIN SEEDED AREAS UNTIL TURF IS ESTABLISHED.
 20. REMOVE SEDIMENT AND EROSION CONTROL DEVICES.
 21. DEMOBILIZATION.



N/F
COMMONWEALTH OF PENNSYLVANIA
PARCEL ID 022972
DB 110 PG 211
PARCEL ID 022973
DB 201 PG 44
PARCEL ID 022974
DB 200 PG 542
PARCEL ID 022975
DB 201 PG 44
PARCEL ID 022976
DB 199 PG 350

EXISTING PIEZOMETERS TO BE PROTECTED AND RAISED OR REPLACED (TYP.), FLUSH MOUNTED ON CREST, 3' STICK-UP ON DOWNSTREAM SLOPE

BENCHMARK 1
ELEV=1955.119
SQ. CUT IN SE CORNER OF CONC. BOX

REPLACE ACCESS HATCH, EXISTING STEPS RIGHT SIDE, AND STOPLOG GROOVE ANGLES. NEW BULKHEAD AND SLUICE GATE, GATE VALVE, GATE OPERATOR STEM, GUIDES, GEARBOX, MOUNTING BEAM AND EXTENSION SHAFT.
ELEV=1950.349

RAISE DAM TO EL 1958.0, 2.5:1 UPSTREAM SLOPE, ARMOR WITH RIPRAP, 2.8:1 DOWNSTREAM SLOPE, INSTALL CHIMNEY AND BLANKET DRAIN, ESTABLISH PERMANENT TURF

PROJECT BASELINE, APPROXIMATE CENTERLINE OF EXISTING EMBANKMENT

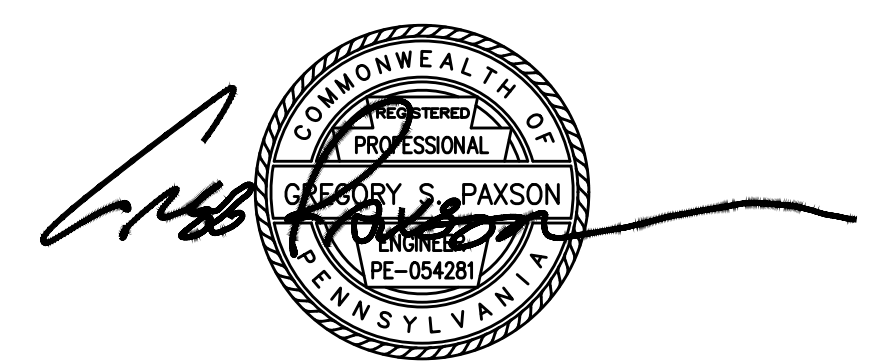
IP #4000
ELEV=1955.506

2 ACCESS AND STAGING PLAN

SCALE: 1"=250'

DESCRIPTION	DESCRIPTION

RECORD REVISIONS



SCHNABEL ENGINEERING
3 DICKINSON DRIVE, SUITE 200
CHADDS FORD, PENNSYLVANIA 19317

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT NO. 199-38 PHASE 1

BELMONT LAKE DAM UPGRADES
PENNSYLVANIA FISH & BOAT COMMISSION
MT. PLEASANT TOWNSHIP, WAYNE COUNTY, PA

GENERAL PLAN

VERIFY SCALE
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

DRAWN BY NLY	DATE DEC 2020	DRAWING NO. C-1
CHECK BY LMC	SCALE AS NOTED	

1 GENERAL PLAN
SCALE: 1"=60'

PROJECT DESCRIPTION

THE PROPOSED CONSTRUCTION AT BELMONT DAM WILL INCLUDE THE FOLLOWING:

1. RAISING THE TOP OF DAM ELEVATION.
2. DEMOLITION OF EXISTING CONCRETE SPILLWAY CONTROL SECTION AND REPLACEMENT WITH CAST-IN-PLACE CONCRETE STRAIGHT-DROP SPILLWAY.
3. ARMORING THE SPILLWAY CHANNEL WITH ARTICULATING CONCRETE BLOCK (ACBs).
4. INSTALLING AN EMBANKMENT CHIMNEY AND BLANKET DRAIN SYSTEM, CONSISTING OF A SLOTTED PLASTIC DRAIN PIPE ENCASED IN A TWO-STAGE GRADED FILTER.
5. EXTENDING THE EXISTING OUTLET CONDUIT.
6. INSTALLATION OF A SEEPAGE MONITORING SYSTEM THAT INCLUDES WEIR BOXES TO MEASURE FLOW FROM THE NEW DRAIN SYSTEM, IN CONJUNCTION WITH THE EXISTING PIEZOMETERS TO MONITOR PHREATIC LEVELS IN THE EMBANKMENT AND FOUNDATION.

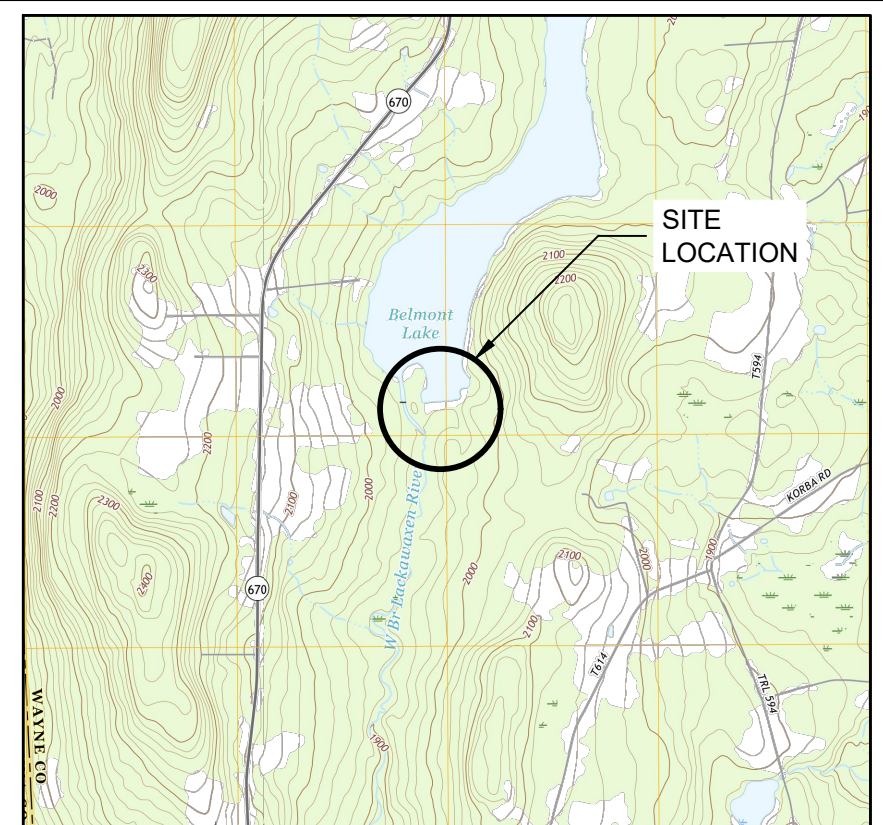
CONSTRUCTION SEQUENCE (FOR E&S CONTROL PURPOSES ONLY)

GENERAL: ALL ACTIVITIES SHALL BE SEQUENCED TO MINIMIZE THE LENGTH OF TIME ANY AREA REMAINS DENUDED. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CLEARING OR EARTH DISTURBING ACTIVITIES. WORK IS NOT ALLOWED IN WATERWAYS BETWEEN APRIL 1 THROUGH JUNE 15. ACTIVITIES SHALL BE SEPARATED INTO TWO SEQUENCES, NAMELY SPILLWAY REHABILITATION AND EMBANKMENT REHABILITATION, THAT MAY BE COMPLETED SIMULTANEOUSLY.

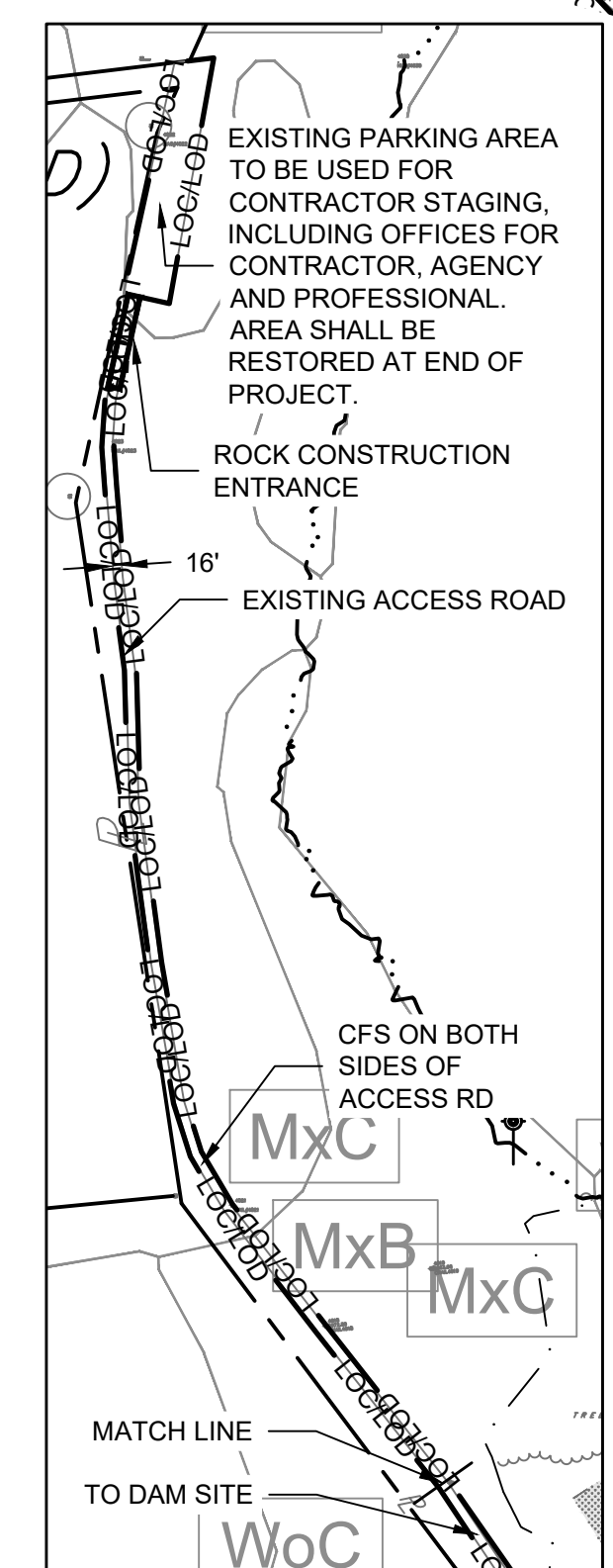
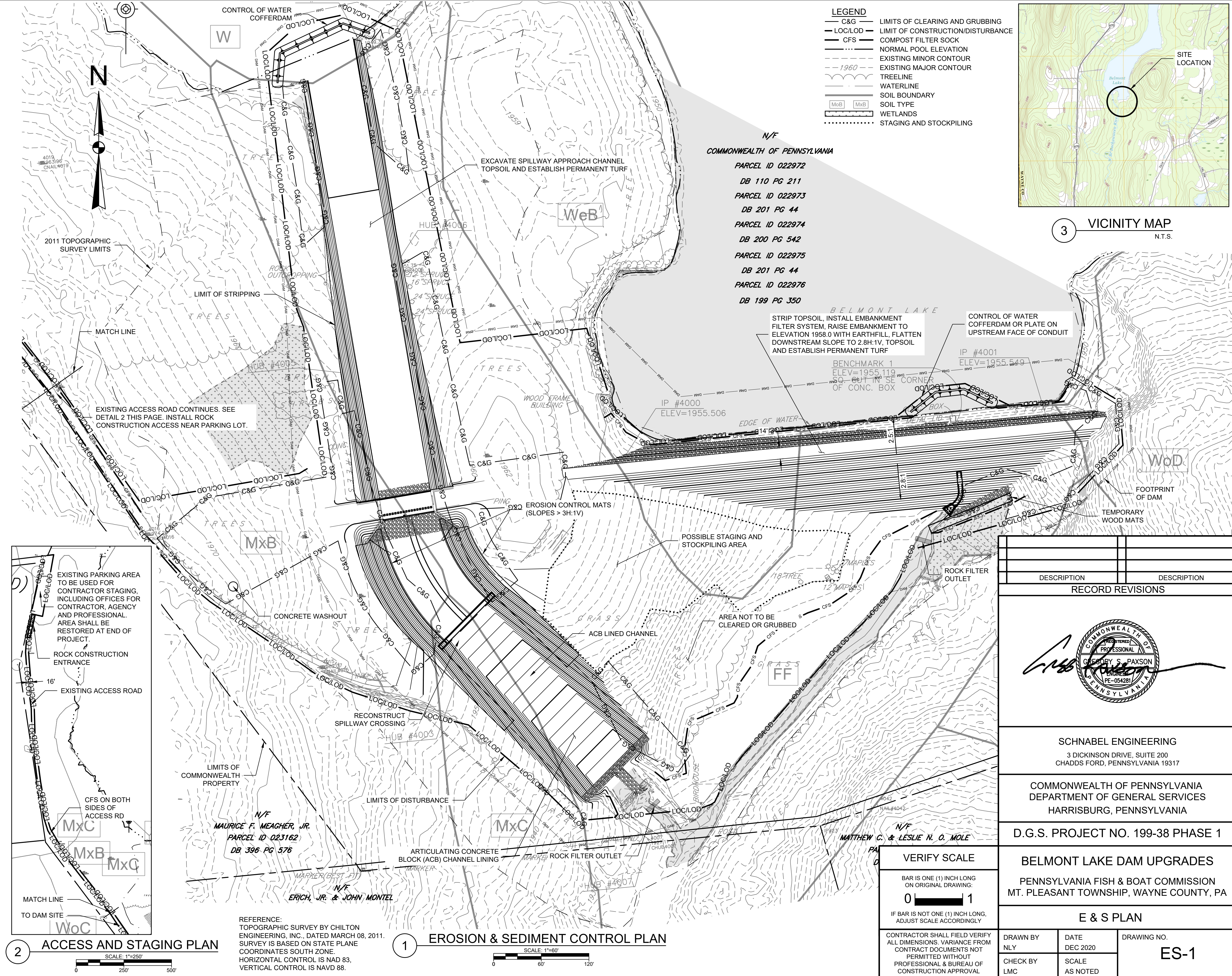
1. INSTALL COMPOST FILTER SOCK AND CONSTRUCTION ENTRANCE(S) AS SHOWN. INSTALL COMPOST FILTER SOCK.
2. INSTALL REMAINING ESC DEVICES INCLUDING BUT NOT LIMITED TO TEMPORARY WOOD MATS, CONCRETE WASHOUT, AND ROCK FILTER.
3. INSTALL CONTROL OF WATER (COFFERDAMS SHOWN FOR CONCEPTUAL PURPOSES)
4. SET UP STAGING AND STOCKPILE AREAS.
5. CLEAR AND GRUB WHERE REQUIRED. STRIPPING OF TOPSOIL SHALL ONLY BE CONDUCTED IMMEDIATELY BEFORE NECESSARY ACTIVITIES.
6. AREA #1 - SPILLWAY CHANNEL: REMOVE EXISTING SPILLWAY; EXCAVATE FOR PROPOSED SPILLWAY; CONSTRUCT CAST IN PLACE CONCRETE SPILLWAY, SPILLWAY CROSSING, AND ACB ARMORING.
7. AREA #2 - EMBANKMENT: CONSTRUCT LOW LEVEL OUTLET CONDUIT EXTENSION; EXCAVATE FOR EMBANKMENT DRAIN; INSTALL EMBANKMENT AND TOE DRAINS; RAISE CREST AND FLATTEN SLOPE WITH EARTHFILL.
8. REMOVE STAGING AND STOCKPILE AREAS AND REMOVE CONTROL OF WATER.
9. TOPSOIL, SEED, AND MULCH (OR EROSION CONTROL BLANKET) ON ALL DISTURBED AREAS.
10. AFTER A UNIFORM 70% VEGETATIVE COVER IS ESTABLISHED AND APPROVED BY A REPRESENTATIVE FROM WAYNE CONSERVATION DISTRICT, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.

LEGEND

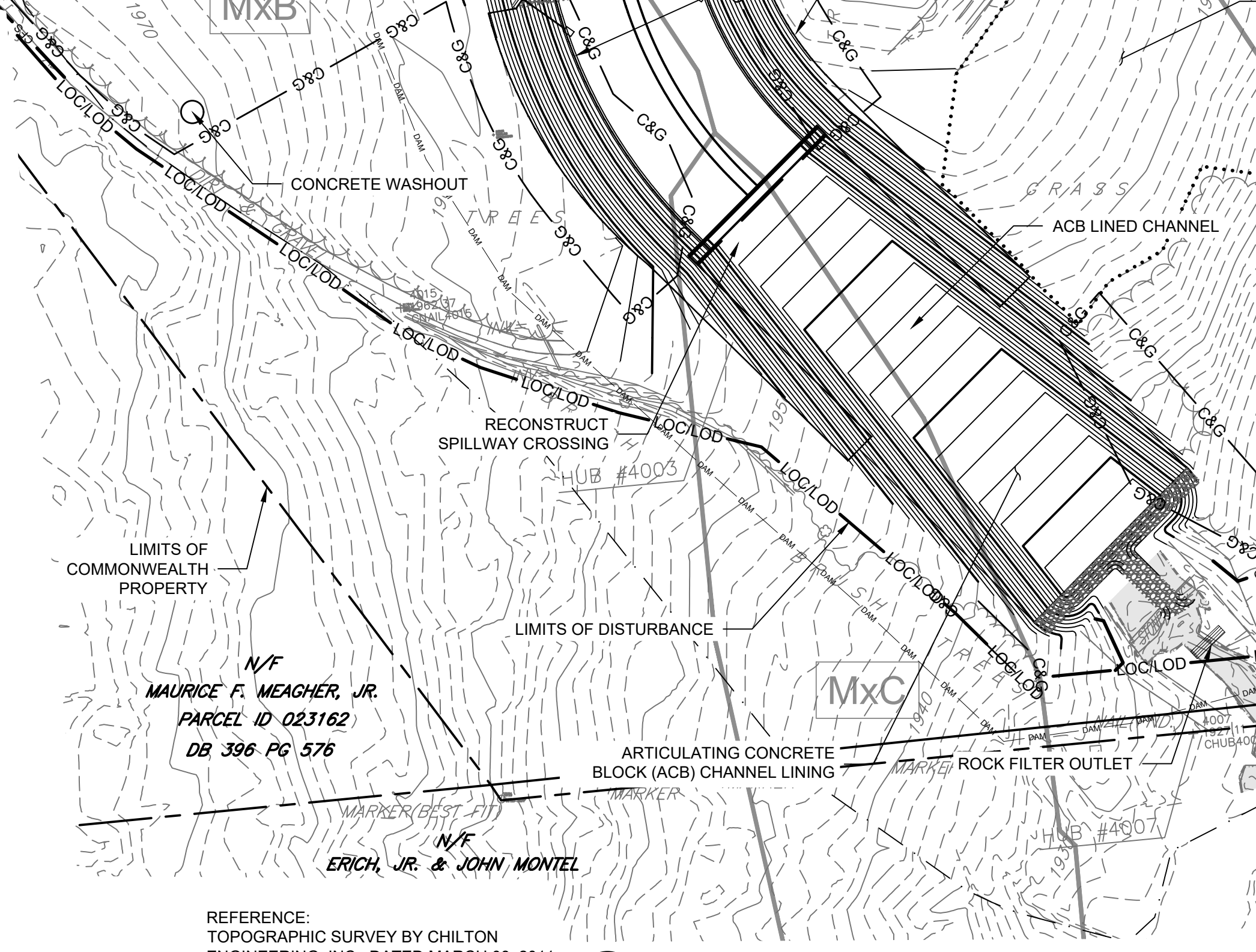
C&G	LIMITS OF CLEARING AND GRUBBING
LOC/LOD	LIMIT OF CONSTRUCTION/DISTURBANCE
CFS	COMPOST FILTER SOCK
---	NORMAL POOL ELEVATION
- - - -	EXISTING MINOR CONTOUR
- - - -	EXISTING MAJOR CONTOUR
- - - -	TREELINE
---	WATERLINE
---	SOIL BOUNDARY
MxB, MxC, MxD, MxE, MxG	SOIL TYPE
---	WETLANDS
.....	STAGING AND STOCKPILING



3 VICINITY MAP
N.T.S.



2 ACCESS AND STAGING PLAN
SCALE: 1"=250'



1 EROSION & SEDIMENT CONTROL PLAN
SCALE: 1"=60'

N/F
COMMONWEALTH OF PENNSYLVANIA
PARCEL ID 022972
DB 110 PG 211
PARCEL ID 022973
DB 201 PG 44
PARCEL ID 022974
DB 200 PG 542
PARCEL ID 022975
DB 201 PG 44
PARCEL ID 022976
DB 199 PG 350

N/F
MAURICE F. MEAGHER, JR.
PARCEL ID 023162
DB 396 PG 576

N/F
ERICH, JR. & JOHN MONTEL

VERIFY SCALE
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
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CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

DESCRIPTION	DESCRIPTION

RECORD REVISIONS

SCHNABEL ENGINEERING
3 DICKINSON DRIVE, SUITE 200
CHADDS FORD, PENNSYLVANIA 19317

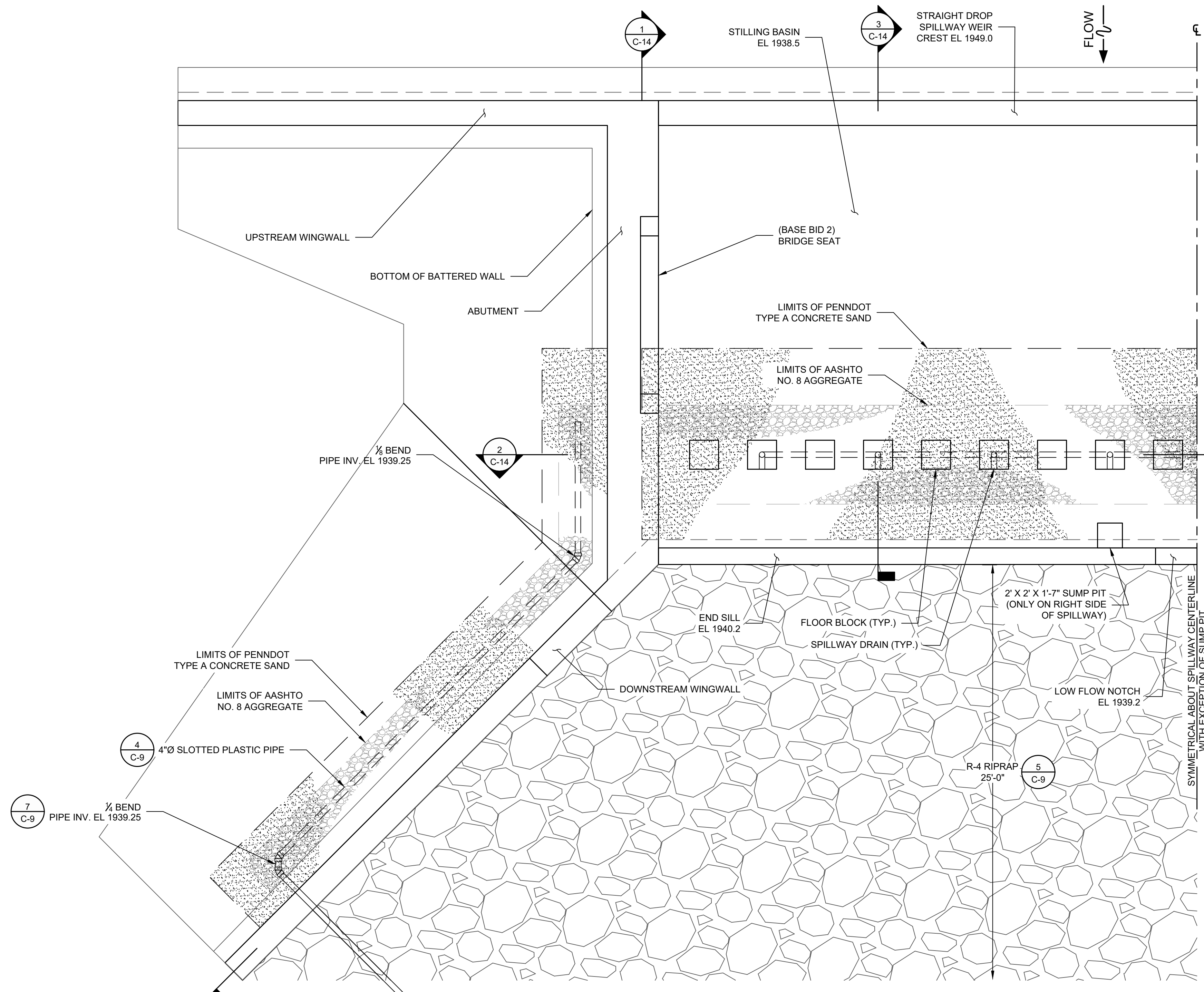
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT NO. 199-38 PHASE 1

BELMONT LAKE DAM UPGRADES
PENNSYLVANIA FISH & BOAT COMMISSION
MT. PLEASANT TOWNSHIP, WAYNE COUNTY, PA

E & S PLAN		
DRAWN BY NLY	DATE DEC 2020	DRAWING NO. ES-1
CHECK BY LMC	SCALE AS NOTED	

REFERENCE:
TOPOGRAPHIC SURVEY BY CHILTON ENGINEERING, INC., DATED MARCH 08, 2011. SURVEY IS BASED ON STATE PLANE COORDINATES SOUTH ZONE. HORIZONTAL CONTROL IS NAD 83. VERTICAL CONTROL IS NAVD 88.



SEEPAGE MONITORING PIT NO.	PIPE INV. EL	SPILLWAY ALIGNMENT STATION	SPILLWAY ALIGNMENT OFFSET
MP4 (LEFT)	1938.60	6+43.95	37.48L
MP5 (RIGHT)	1938.60	6+37.85	37.21R

1 SPILLWAY DRAINAGE PLAN
SCALE: 1/4"=10'

VERIFY SCALE
BAR IS ONE (1) INCH LONG
ON ORIGINAL DRAWING:
0 1
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ADJUST SCALE ACCORDINGLY

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CONSTRUCTION APPROVAL

DESCRIPTION	DESCRIPTION
RECORD REVISIONS	



SCHNABEL ENGINEERING
3 DICKINSON DRIVE, SUITE 200
CHADDS FORD, PENNSYLVANIA 19317

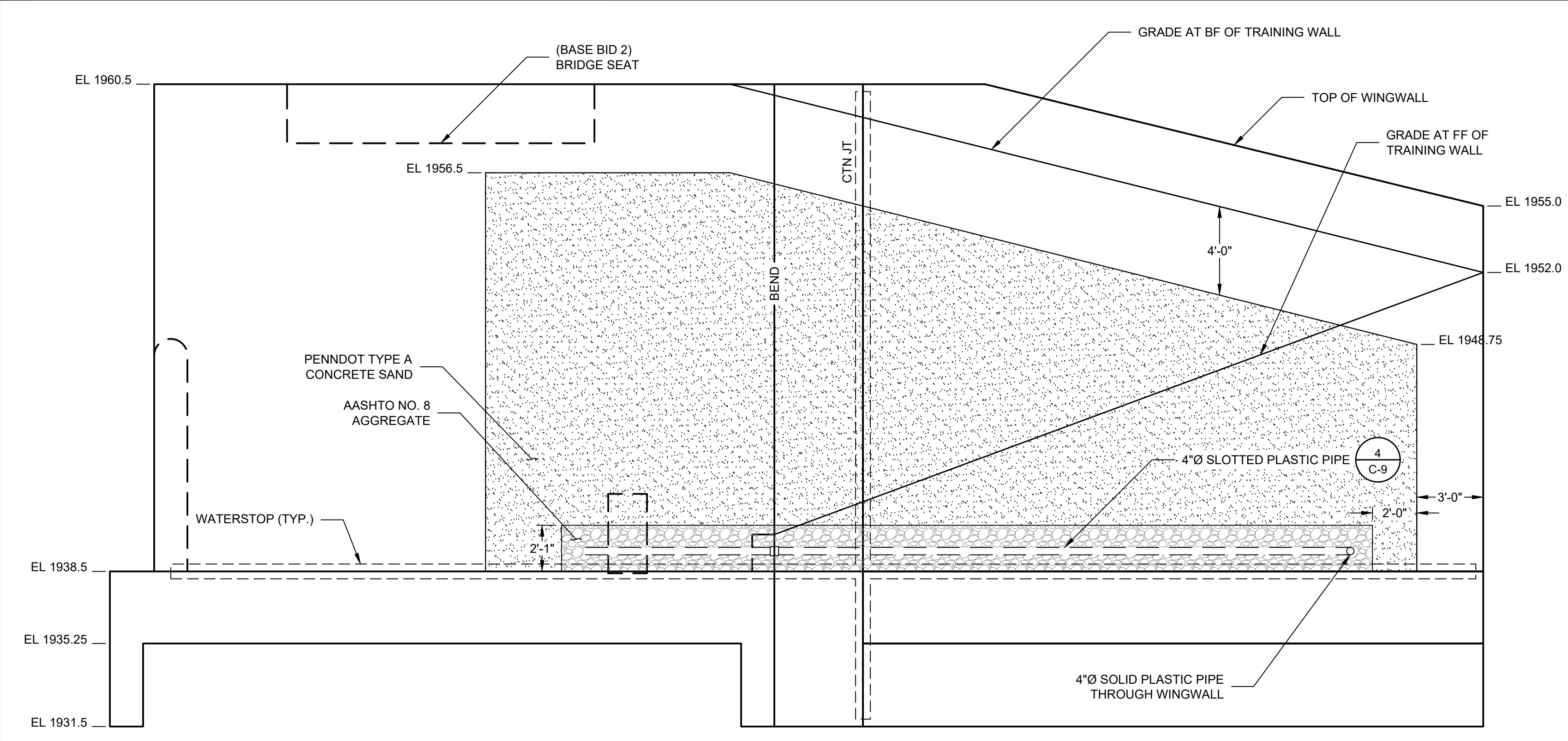
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT NO. 199-38 PHASE 1

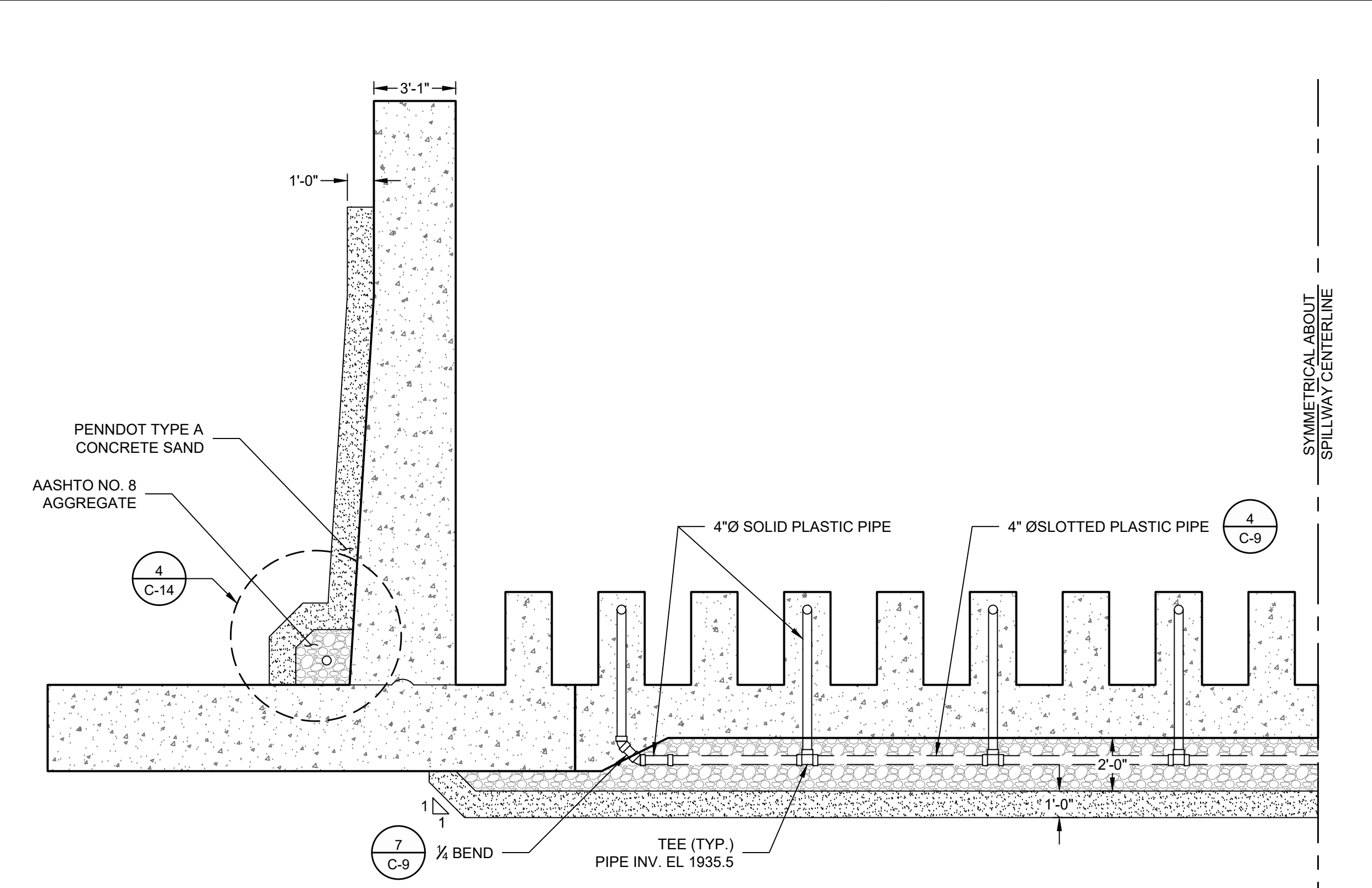
BELMONT LAKE DAM UPGRADES
PENNSYLVANIA FISH & BOAT COMMISSION
MT. PLEASANT TOWNSHIP, WAYNE COUNTY, PA

SPILLWAY DRAINAGE PLAN

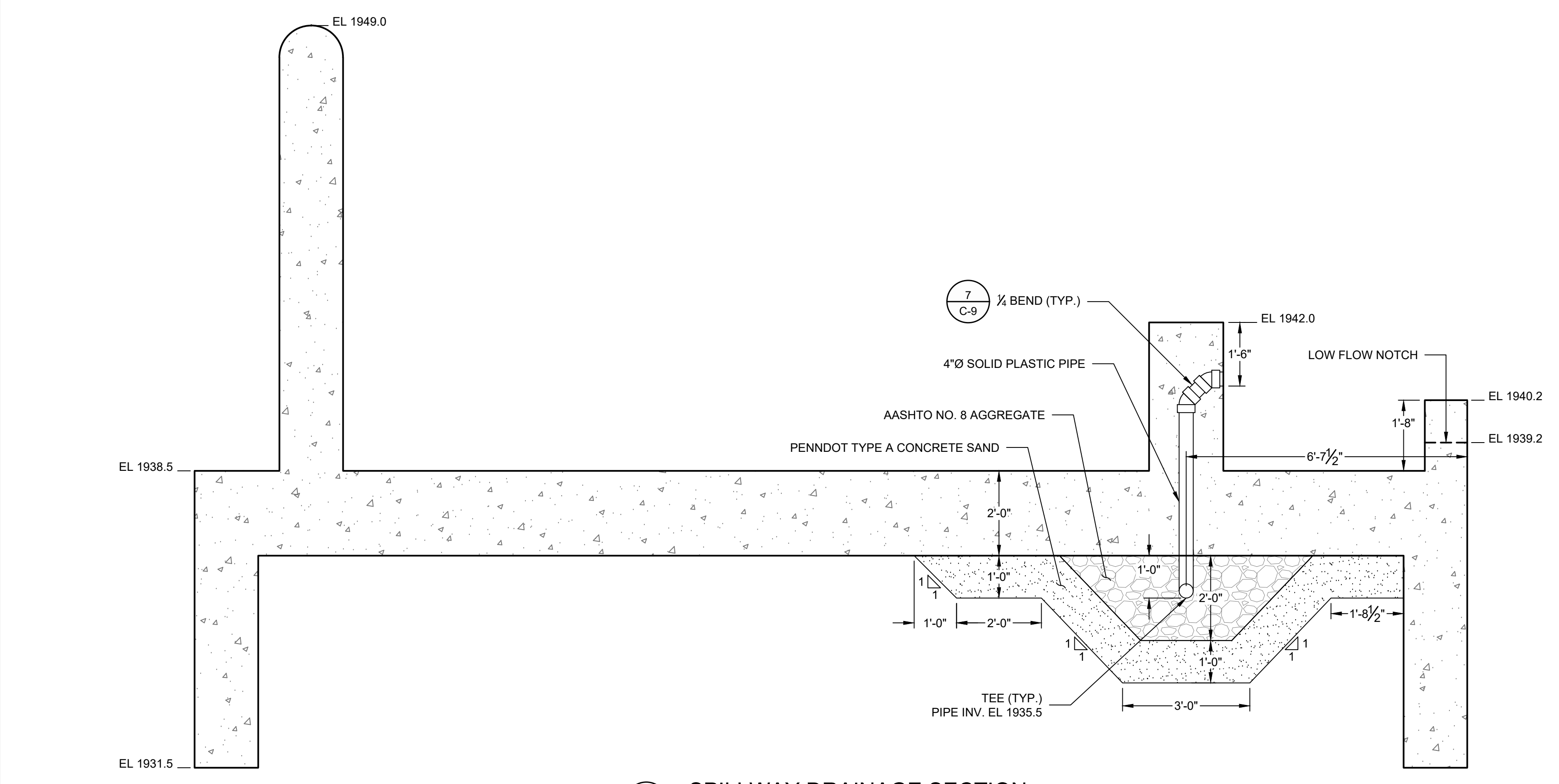
DRAWN BY NLY/CSS	DATE DEC 2020	DRAWING NO. C-13
CHECK BY LMC	SCALE AS NOTED	



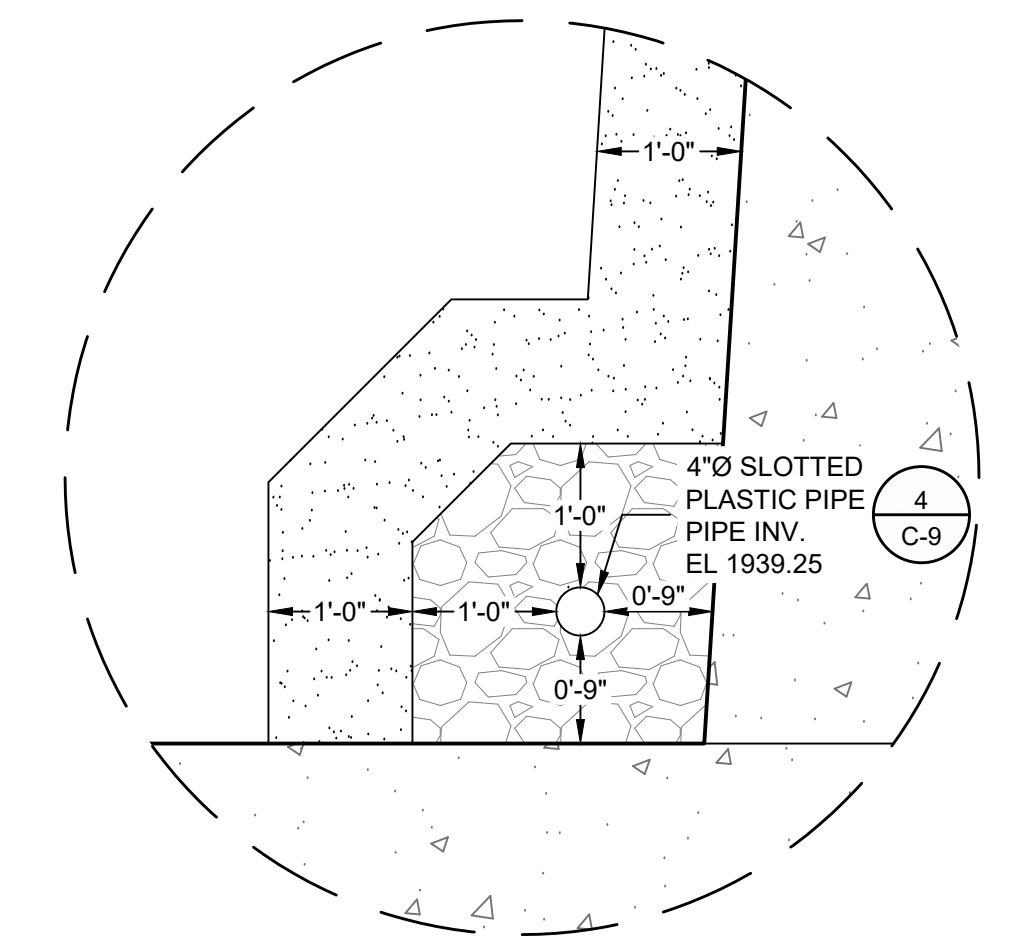
1 SPILLWAY PROFILE - TRAINING WALL DRAINAGE
SCALE: 1/4"=1'0"
0 4 8



2 SPILLWAY SECTION - DRAINAGE
SCALE: 1/4"=1'0"
0 4 8



3 SPILLWAY DRAINAGE SECTION
SCALE: 1/2"=1'0"
0 2 4



4 TRAINING WALL DRAIN DETAIL
SCALE: 3/4"=1'0"
0 1 2

DESCRIPTION	DESCRIPTION											
RECORD REVISIONS												
SCHNABEL ENGINEERING 3 DICKINSON DRIVE, SUITE 200 CHADDS FORD, PENNSYLVANIA 19317												
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA												
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SPILLWAY DRAINAGE PROFILE & DETAILS												
VERIFY SCALE BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING: 0 1 IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY	<table border="1"> <tr> <td>DRAWN BY</td> <td>DATE</td> <td rowspan="2">DRAWING NO. C-14</td> </tr> <tr> <td>NLY/ICSS</td> <td>DEC 2020</td> </tr> <tr> <td>CHECK BY</td> <td>SCALE</td> <td></td> </tr> <tr> <td>LMC</td> <td>AS NOTED</td> <td></td> </tr> </table>	DRAWN BY	DATE	DRAWING NO. C-14	NLY/ICSS	DEC 2020	CHECK BY	SCALE		LMC	AS NOTED	
DRAWN BY	DATE	DRAWING NO. C-14										
NLY/ICSS	DEC 2020											
CHECK BY	SCALE											
LMC	AS NOTED											
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