

# COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION HARRISBURG, PENNSYLVANIA

TOM WOLF, GOVERNOR      PATRICK MCDONNELL, SECRETARY

## PROJECT NO. D06-434-102.1 NEW KERNSVILLE DAM REMOVAL PROJECT

TILDEN AND WINDSOR TOWNSHIPS  
BERKS COUNTY, PENNSYLVANIA

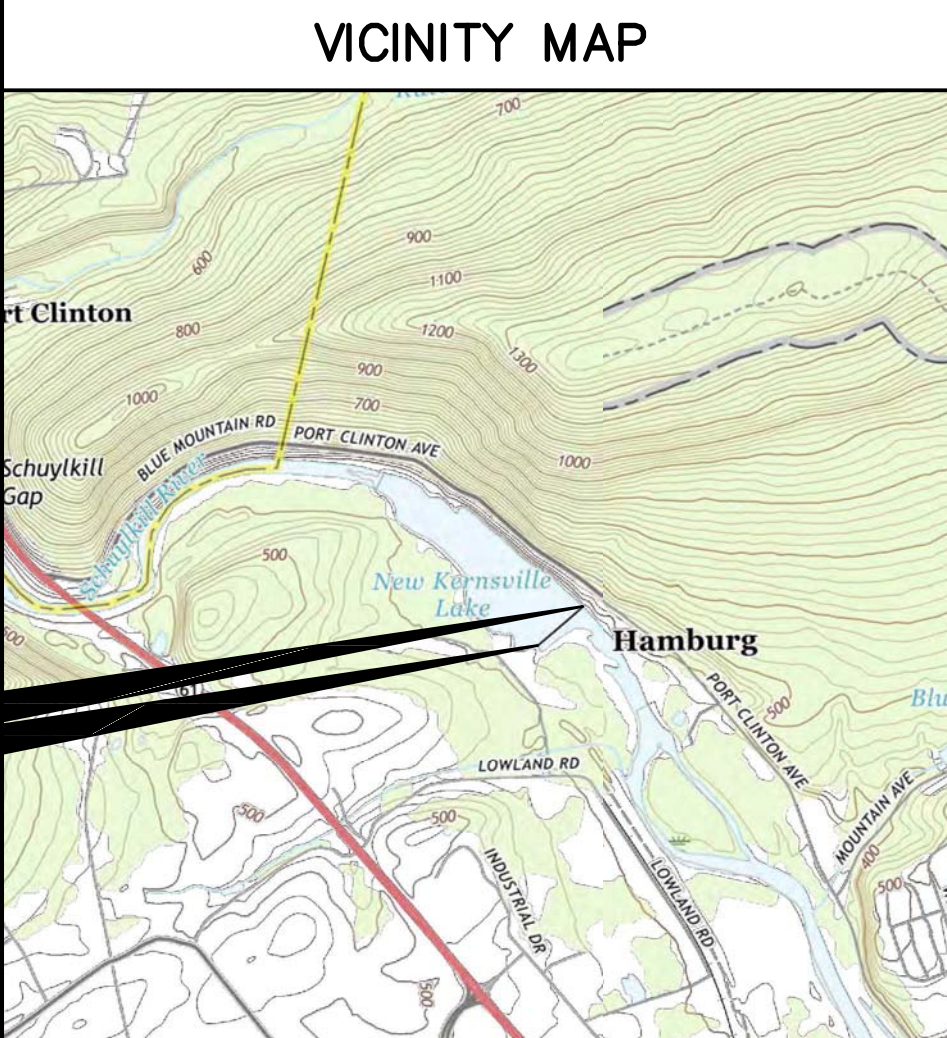
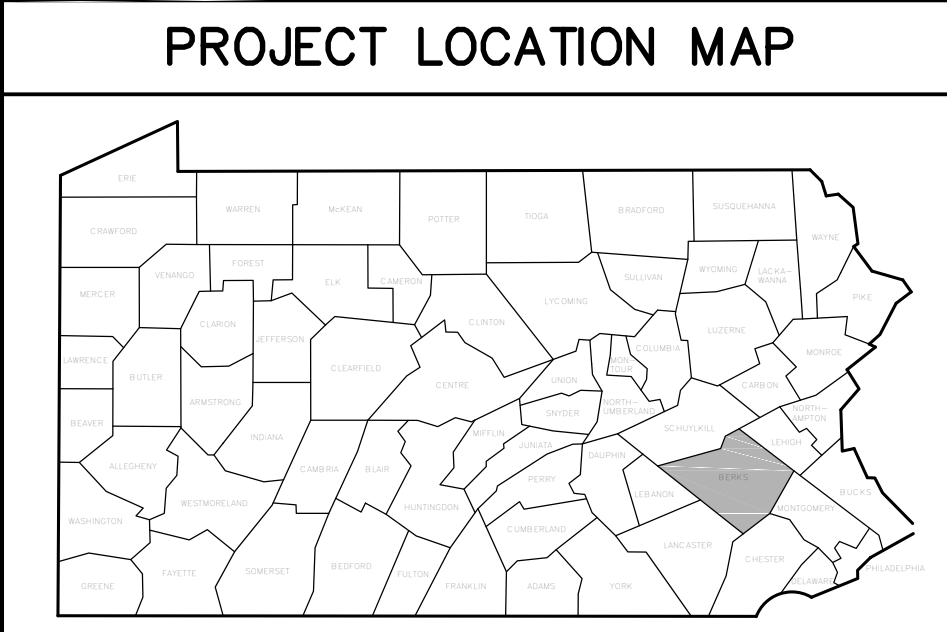


### DESIGN PROFESSIONAL

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WATERWAYS ENGINEERING AND WETLANDS  
HARRISBURG, PENNSYLVANIA

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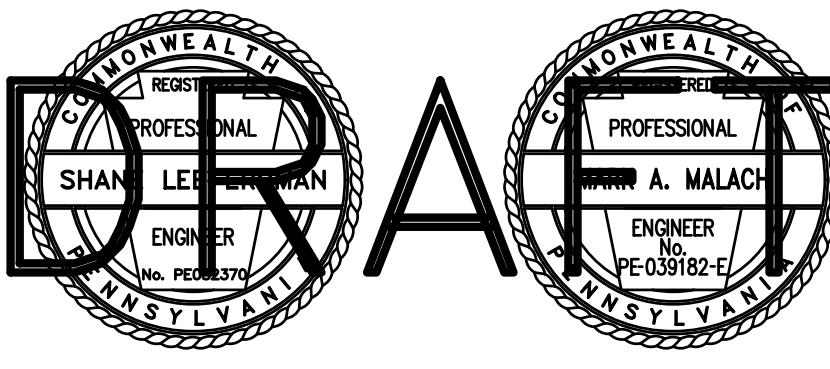


PROJECT

**APPROVALS**

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
DOUGLAS HILL, CHIEF  
DIVISION OF PROJECT DEVELOPMENT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ROGER ADAMS, DIRECTOR  
BUREAU OF WATERWAYS ENGINEERING AND WETLANDS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PROFESSIONAL'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ PROFESSIONAL'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF WATER PROGRAMS

PROJECT NO. D06-434-102.1

**NEW KERNSVILLE  
DAM REMOVAL PROJECT**  
SCHUYLKILL RIVER  
TILDEN TOWNSHIP      WINDSOR TOWNSHIP      BERKS COUNTY

**COVER SHEET**

DRAWN BY S.L.E.	DATE	DRAWING NO. CS-1
CHECKED BY	SCALE As Shown	

**SCOPE OF WORK/SEQUENCE OF WORK:**

1. Mark CWA limits. Place stakes at CWA corners and at 100-foot intervals. In the river and reservoir, place stakes at OHWL on banks.
2. Clear and dispose of vegetation and grade equipment access routes within the CWA only to the extent that is necessary to perform the contract work.
3. Install E&S control measures and rock construction entrances. Maintain in place for duration of contract or remove when measures are no longer needed.
4. Remove and dispose of floodlights and hand railing at left and right abutments. Remove and dispose of cable winch, drum, steel framing, and concrete foundations. Remove and dispose of cable guide rail.
5. Prepare to drawdown reservoir water level by partially removing left abutment and left spray wall to gain access to spillway. Use spoiled concrete to create causeway upstream of the spillway to access initial breach location. Drawdown reservoir by creating a notch in the spillway by removing a min. of 30' length at monolith Nos. 3 and 4. Remove spillway at notch to a max. elev. of 373.0 or min. of 10' from top of spillway. Remove spillway according to the rates of drawdown as specified in Technical Specification No. 5.
6. Remove right abutment to elev. 378.0. Remove right spray wall to elev. 378.0. Remove spillway to an elev. of 378.0 or 5' from top of spillway for monolith Nos. 4 thru 18. Use the top of the partially removed spillway as a causeway to access the work area.

7. Remove additional spillway at monolith Nos. 3, 4, and 5 (initial breach notch) to a max. elev. of 368.0 or min. of 15' from original top of spillway and an additional length of 70' for a total of 100' length to drawdown reservoir water level further and reduce flow velocity at notch.
8. Remove right abutment to elev. 373.0. Remove right spray wall to elev. 373.0 or 1 foot below finished grade. Remove spillway to a max. elev. of 373.0 or min. of 10' from original top of spillway for monolith Nos. 6 thru 18.
9. Remove spillway to a max. elev. of 363.0 or min. of 20' from original top of spillway for monolith Nos. 3 thru 8.
10. Remove and dispose offsite all steel railing, iron railing fittings, 4" cast iron pipe drains, copper water stop, buoys, stoplog guides and frames, floodlight corrugated metal sleeves, and all reinforcing steel.
11. Remove and spoil concrete boat ramp.
12. Remove and spoil boat slip wall 1' below proposed finished grade. Fill in boat slip by grading accumulated material. Grade right earth embankment as shown on the drawings.
13. Place aggregate and geotextile over prepared spoiled concrete surface. Grade onsite material or borrowed material at monolith Nos. 9 thru 20 to cover spillway, spray wall, and abutment as shown on the drawings or as directed by the Department.
14. Seed and mulch all areas disturbed by Contractor operation.
15. Remove E&S measures when approved by the Department.

**UTILITY LISTINGS**

COMPANY	ADDRESS	CONTACT PERSON	PHONE
Comcast	400 Riverfront Dr. Reading, PA 19602	Jeff Jacovidis	(610) 921-6219
FirstEnergy Corp.	76 S. Main St. Akron, OH 443081890	Office Personnel	1-800-545-7741
Hamburg Municipal Authority	61 N. 3rd St. Hamburg, PA 19526	Keith Brobst	(610) 562-7821
Tilden Township	874 Hex Hwy Hamburg, PA 19526	Michael Quick	(610) 223-8596

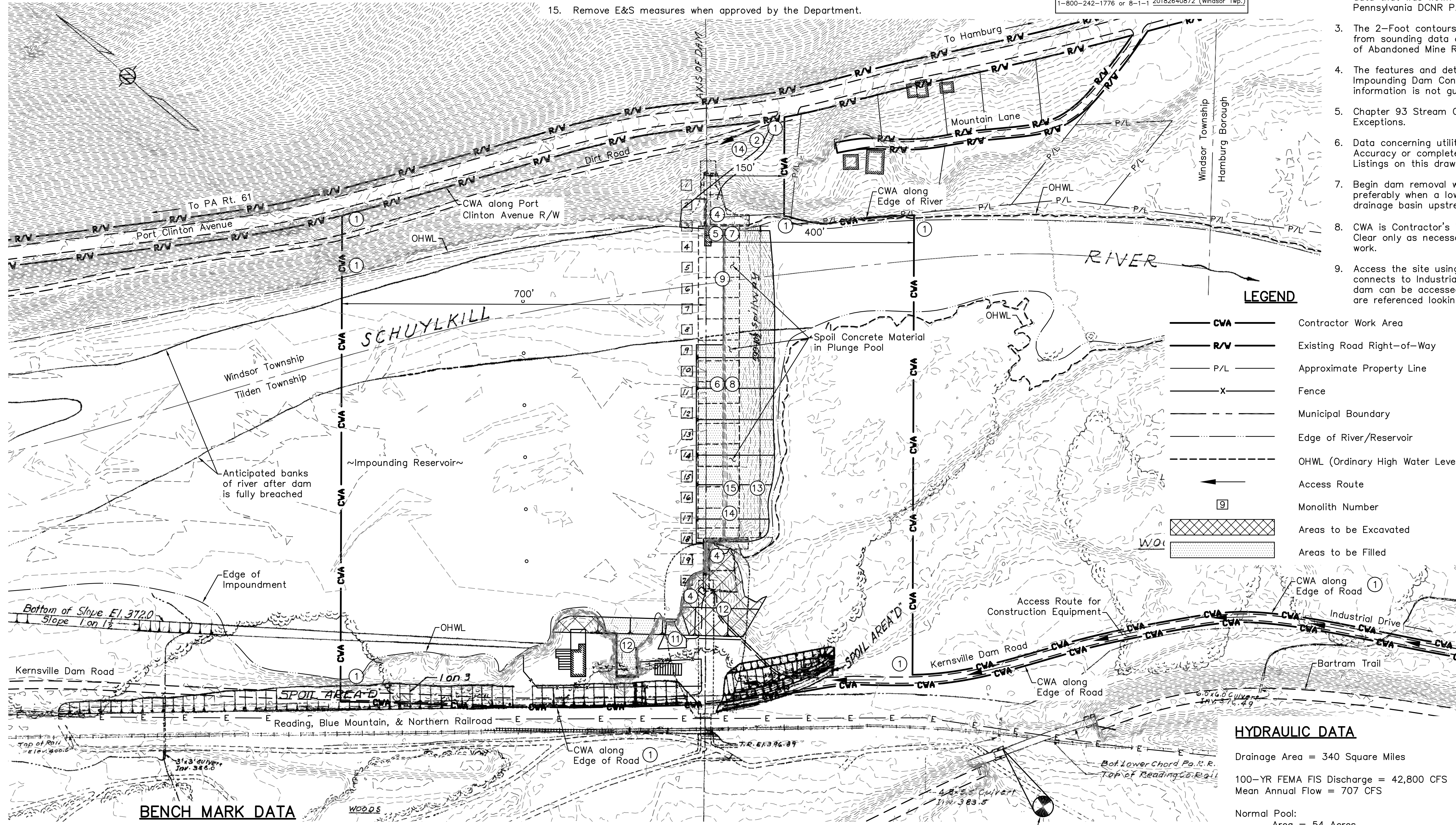
Note: The Contractor shall comply with Act 287 of the General Assembly, as amended, which defines the procedures for notification to Public Utilities prior to excavation, drilling or demolition work using power equipment or explosives.

**GENERAL NOTES:**

1. Dam structure elevations based on N.G.V.D. Lidar and sounding elevations based on N.A.V.D.
2. The 2-Foot contours were produced from Pennsylvania Spatial LiDAR data that was flown in 2008. This data was produced from the Pennsylvania DCNR PAMAP Program.
3. The 2-Foot contours within the reservoir and plunge pool were produced from sounding data collected in 2018 by the Pennsylvania DEP, Bureau of Abandoned Mine Reclamation.
4. The features and details of the dam are from the 1948 New Kernsville Impounding Dam Construction Drawings. The accuracy of this information is not guaranteed.
5. Chapter 93 Stream Classification for the Schuylkill River: WWF, No Exceptions.
6. Data concerning utilities has been obtained from available information. Accuracy or completeness of this data is not guaranteed. See Utility Listings on this drawing.
7. Begin dam removal when the river is in a low flow condition and preferably when a low chance of precipitation is forecasted in the drainage basin upstream of the dam.
8. CWA is Contractor's Work Area and is also the Limit of Disturbance. Clear only as necessary to access work areas and perform contract work.
9. Access the site using Kernsville Dam Road. Kernsville Dam Road connects to Industrial Drive south of the dam. The left side of the dam can be accessed from Port Clinton Avenue. Left and right sides are referenced looking downstream.

**CALL BEFORE YOU DIG!**

PA ONE CALL SYSTEM, INC. POCS SERIAL NUMBER  
 20182640871 (Tilden Twp.)  
 20182640872 (Windsor Twp.)  
 1-800-242-1776 or 8-1-1



**LEGEND**

- CWA Contractor Work Area
- R/W Existing Road Right-of-Way
- P/L Approximate Property Line
- X Fence
- Municipal Boundary
- Edge of River/Reservoir
- OHWL (Ordinary High Water Level)
- Access Route
- Monolith Number
- Areas to be Excavated
- Areas to be Filled

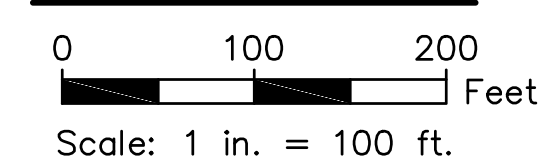
**HYDRAULIC DATA**

Drainage Area = 340 Square Miles  
 100-YR FEMA FIS Discharge = 42,800 CFS  
 Mean Annual Flow = 707 CFS  
 Normal Pool:  
 Area = 54 Acres  
 Length = 1.25 Miles  
 Capacity = 190,000,000 Gallons

**BENCH MARK DATA**

Point No.	Elevation	Location
H44	391.60 (NAVD 88)	Disk in the top of the coping stone on northwest corner of bridge

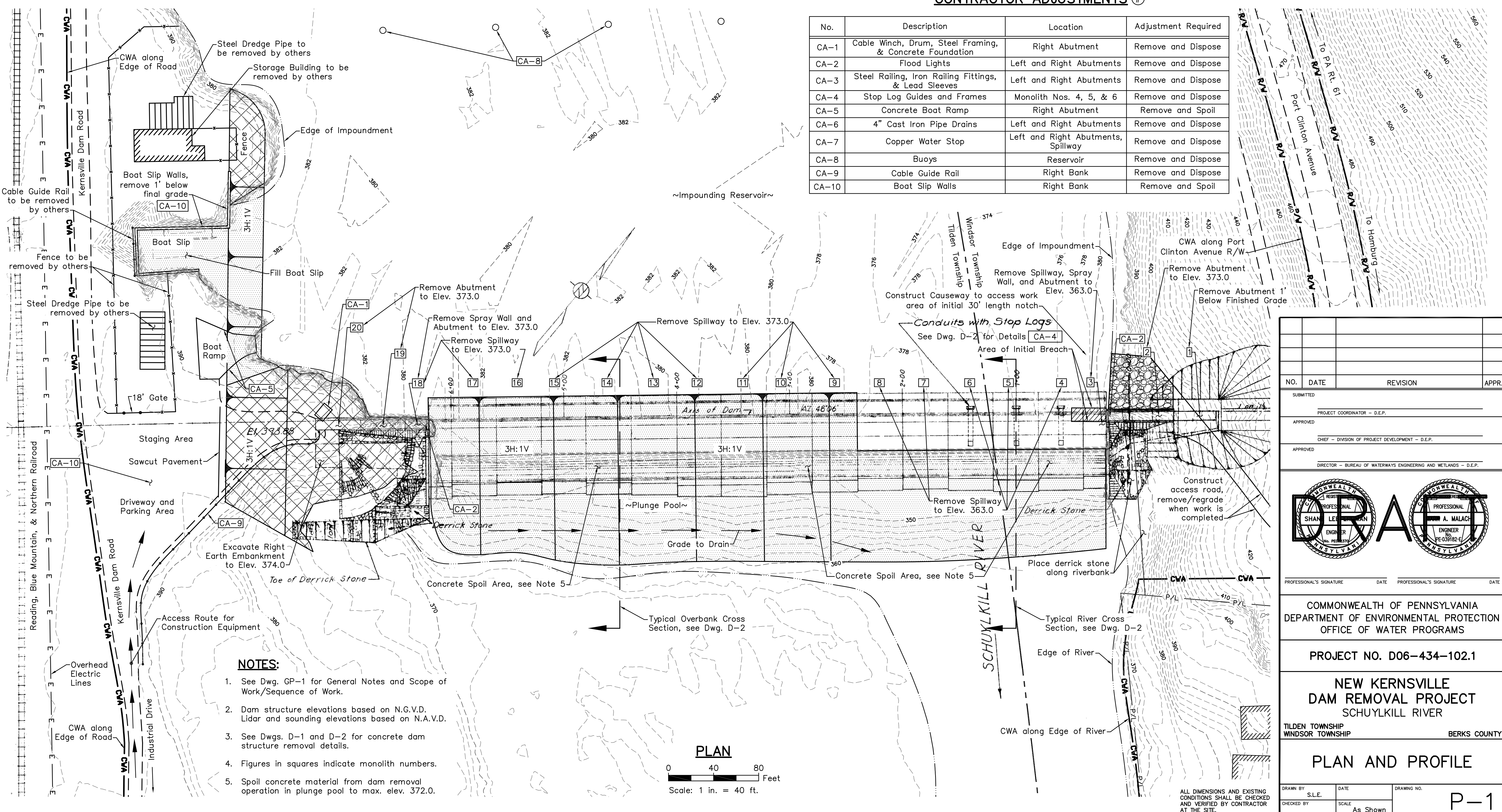
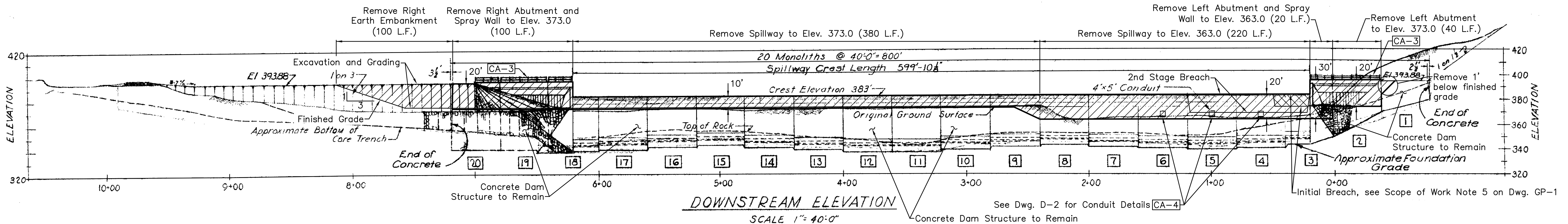
**GENERAL PLAN**



Total Area of Disturbance Below OHWL = 683,470 Square Feet (15.69 Acres)

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE		DATE	
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER PROGRAMS			
PROJECT NO. D06-434-102.1			
NEW KERNSVILLE DAM REMOVAL PROJECT SCHUYLKILL RIVER			
TILDEN TOWNSHIP WINDSOR TOWNSHIP		BERKS COUNTY	
GENERAL PLAN			
DRAWN BY	S.L.E.	DATE	DRAWING NO.
CHECKED BY	SCALE	As Shown	GP-1

ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY CONTRACTOR AT THE SITE.



- NOTES:**
1. See Dwg. GP-1 for General Notes and Scope of Work/Sequence of Work.
  2. Dam structure elevations based on N.G.V.D. Lidar and sounding elevations based on N.A.V.D.
  3. See Dwg. D-1 and D-2 for concrete dam structure removal details.
  4. Figures in squares indicate monolith numbers.
  5. Spoil concrete material from dam removal operation in plunge pool to max. elev. 372.0.

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DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			

PROFESSIONAL ENGINEER  
SHAN LEE SHAN  
No. PE039782-E  
PENNSYLVANIA

PROFESSIONAL ENGINEER  
A. MALACH  
No. PE039782-E  
PENNSYLVANIA

PROFESSIONAL'S SIGNATURE      DATE      PROFESSIONAL'S SIGNATURE      DATE

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
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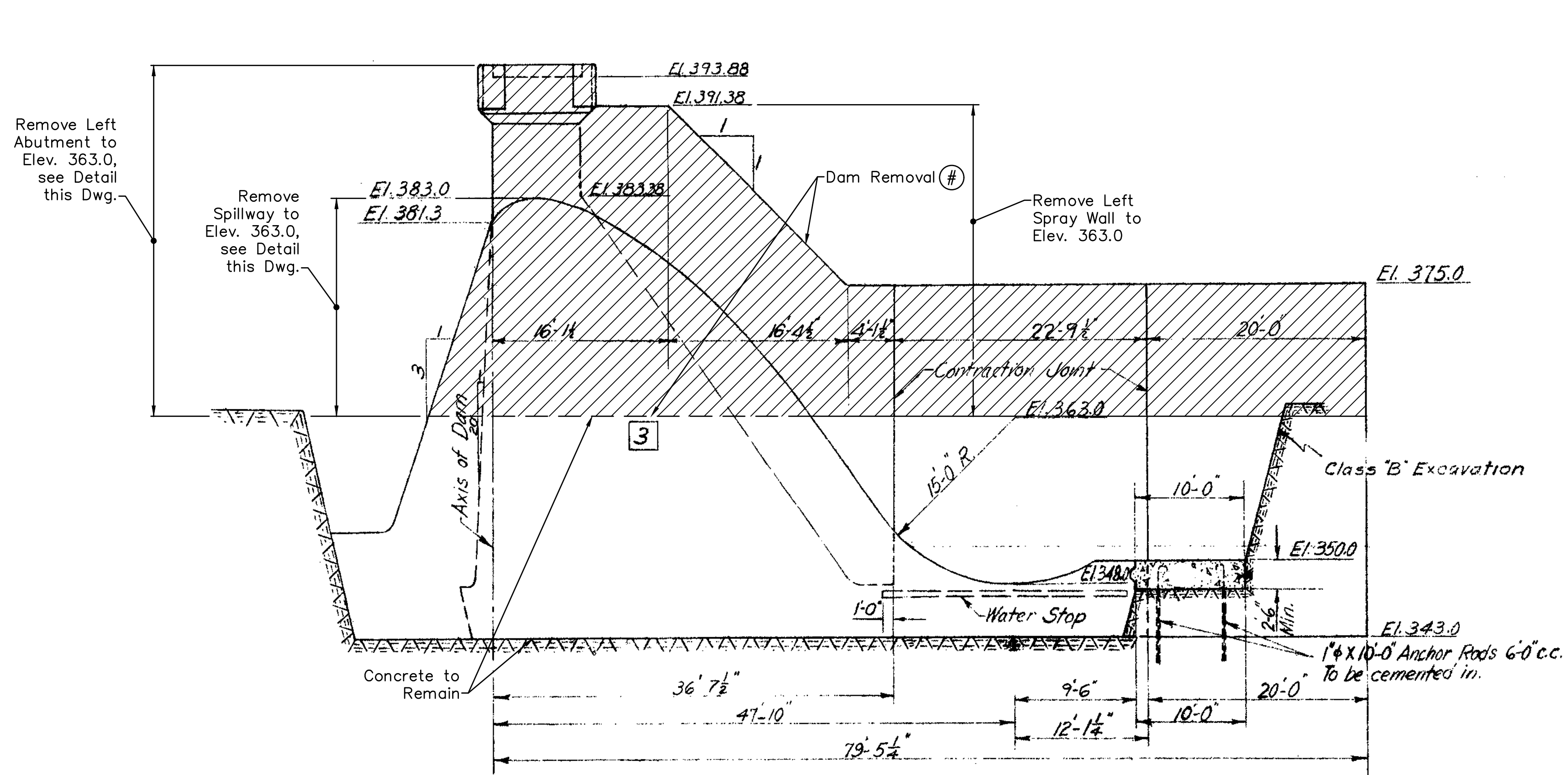
**NEW KERNSVILLE DAM REMOVAL PROJECT**  
SCHUYLKILL RIVER

TILDEN TOWNSHIP      WINDSOR TOWNSHIP      BERKS COUNTY

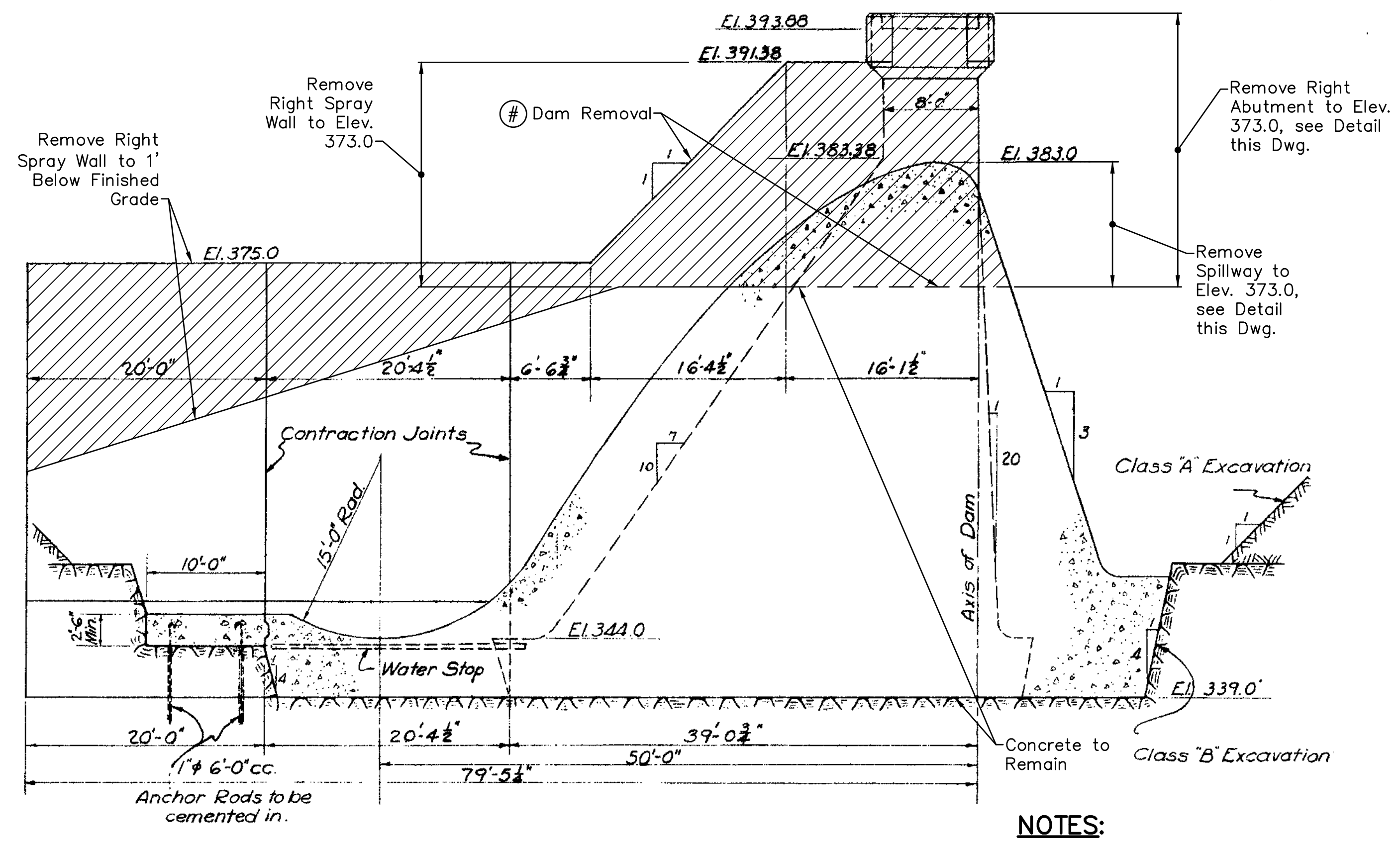
**PLAN AND PROFILE**

DRAWN BY	S.L.E.	DATE		DRAWING NO.	
CHECKED BY		SCALE	As Shown		P-1

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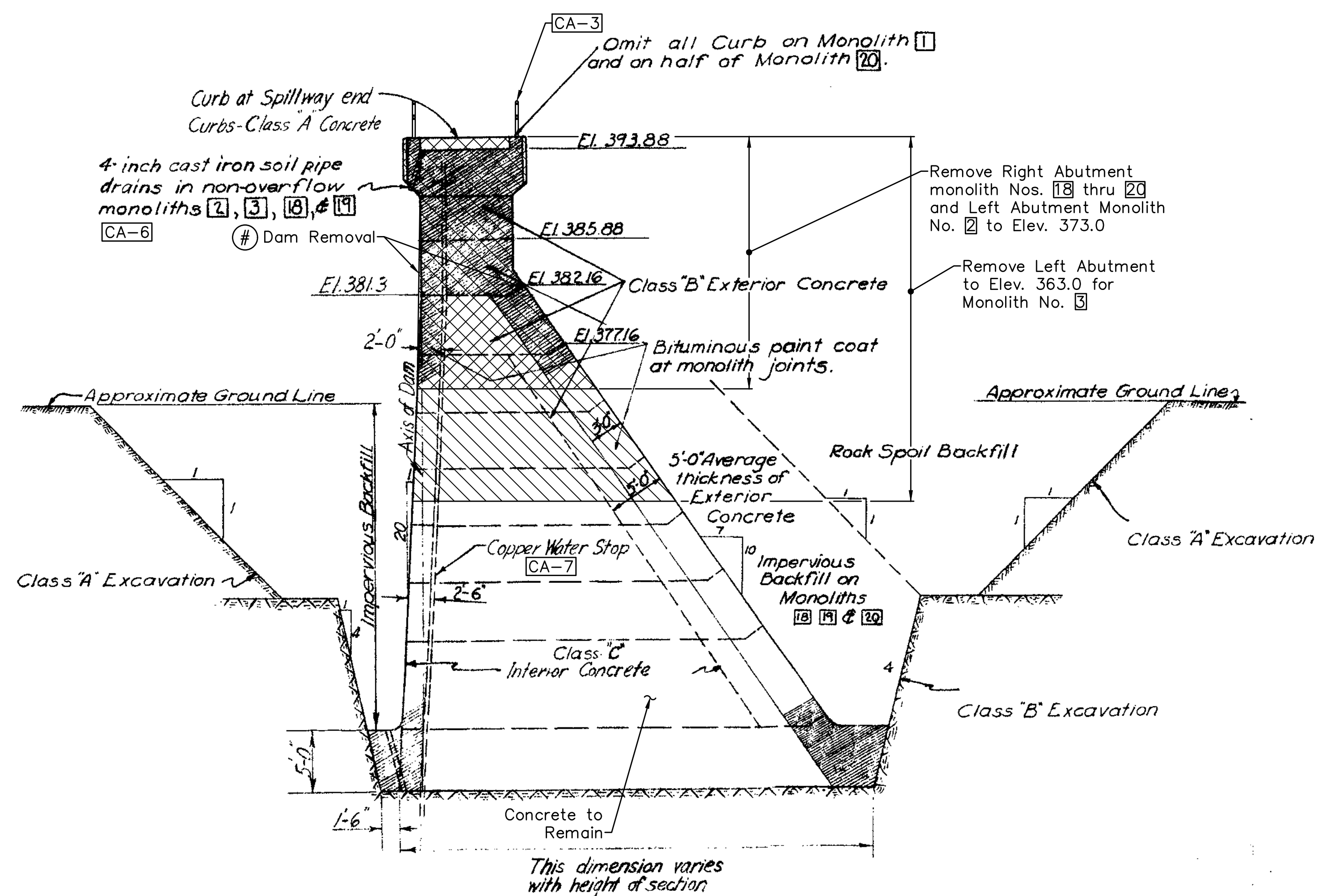
ELEVATION OF LEFT SPRAY WALL



ELEVATION OF RIGHT SPRAY WALL

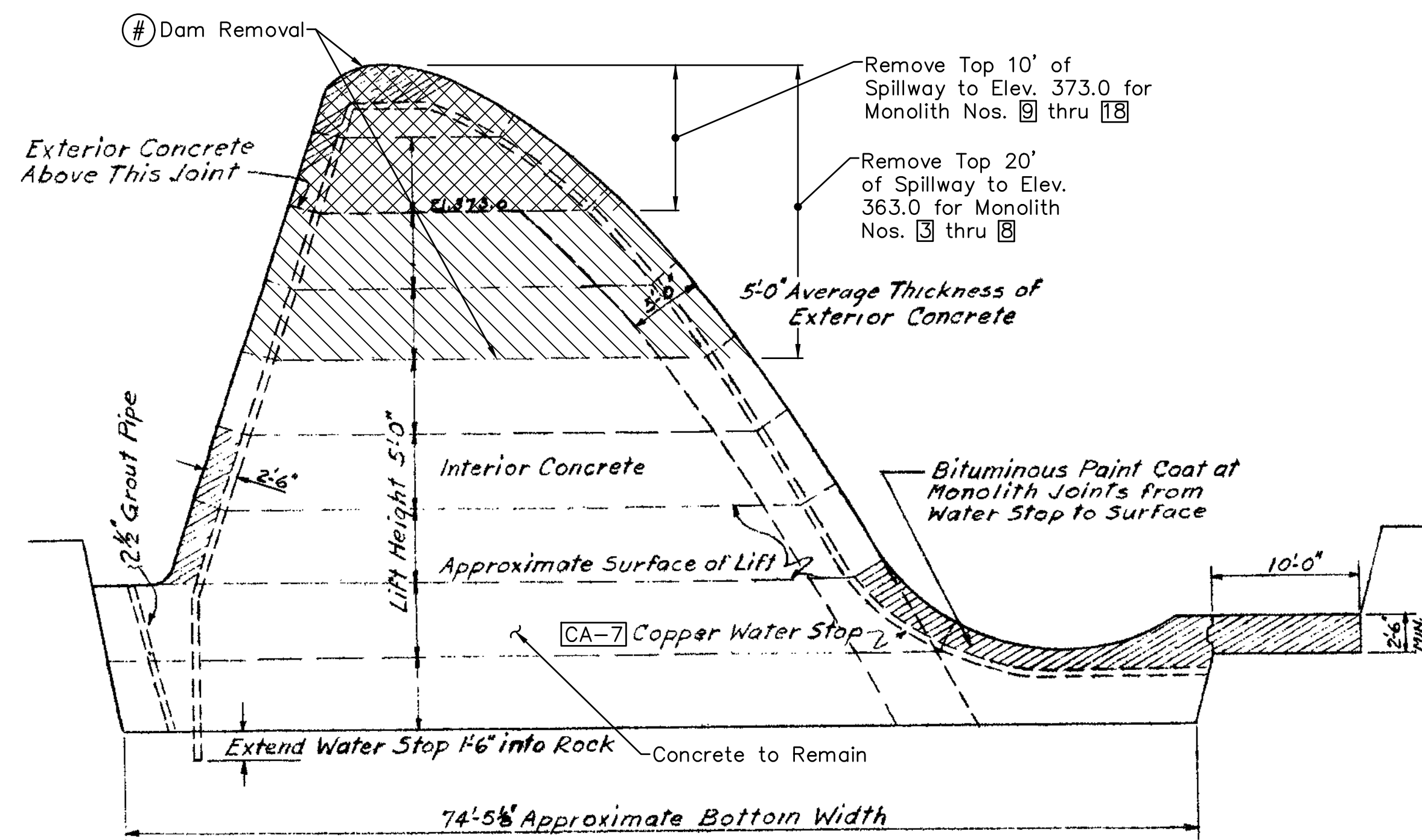
NOTES:

1. Dam structure elevations based on N.G.V.D. Lidar and sounding elevations based on N.A.V.D.
2. All information shown on this drawing has been obtained from as-built drawings and may not be accurate.



NON-OVERFLOW SECTION CONSTRUCTION DETAILS

Scale 1/8 in. = 1 ft.

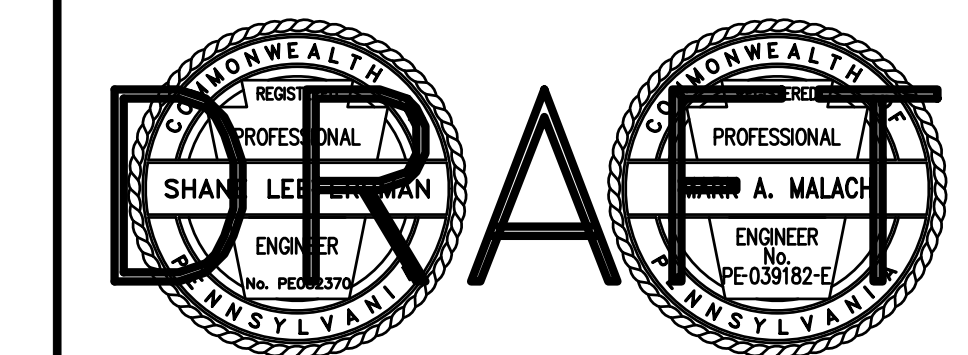


SPILLWAY CONSTRUCTION DETAILS

Scale 1/8 in. = 1 ft.

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SUBMITTED	PROJECT COORDINATOR - D.E.P.
APPROVED	CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.
APPROVED	DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.



PROFESSIONAL'S SIGNATURE DATE PROFESSIONAL'S SIGNATURE DATE

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DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF WATER PROGRAMS

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NEW KERNSVILLE  
DAM REMOVAL PROJECT  
SCHUYLKILL RIVER

TILDEN TOWNSHIP WINDSOR TOWNSHIP BERKS COUNTY

ABUTMENT, SPRAY WALL,  
AND SPILLWAY DETAILS

DRAWN BY	S.L.E.	DATE		DRAWING NO.	
CHECKED BY		SCALE	As Shown		

D-1

ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY CONTRACTOR AT THE SITE.