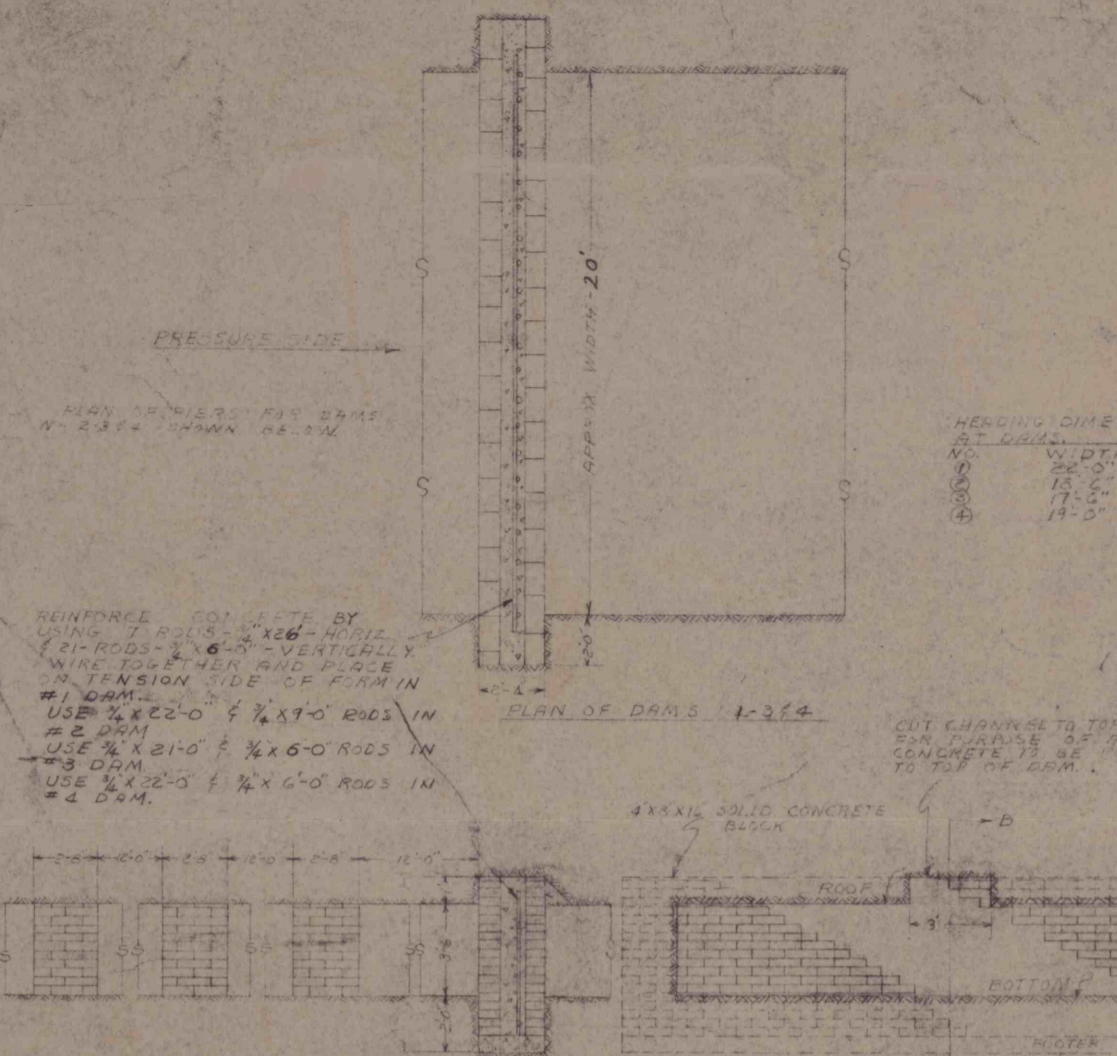
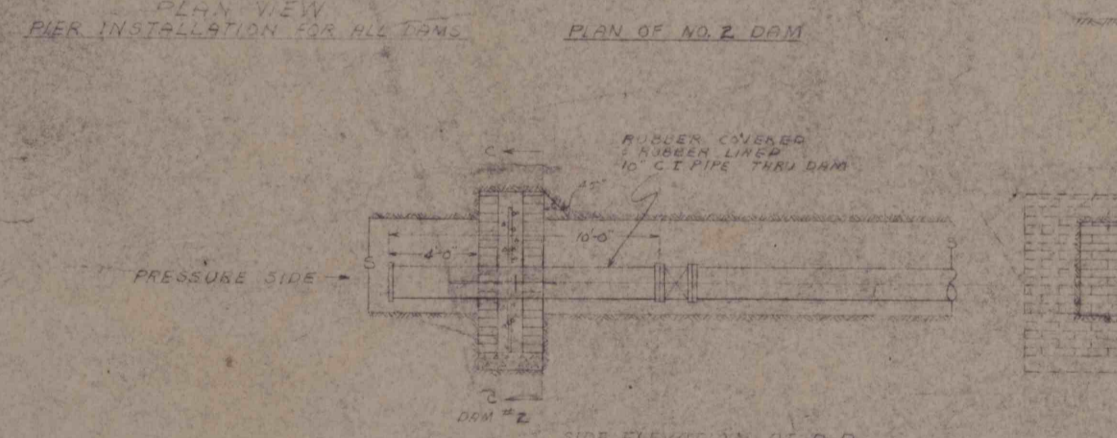
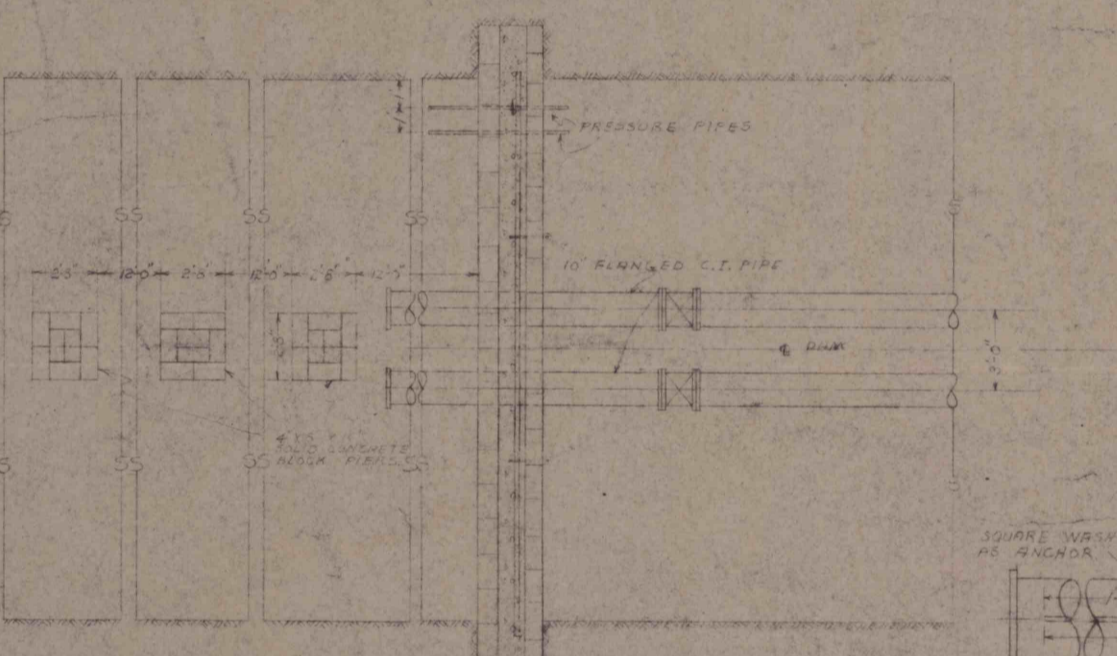


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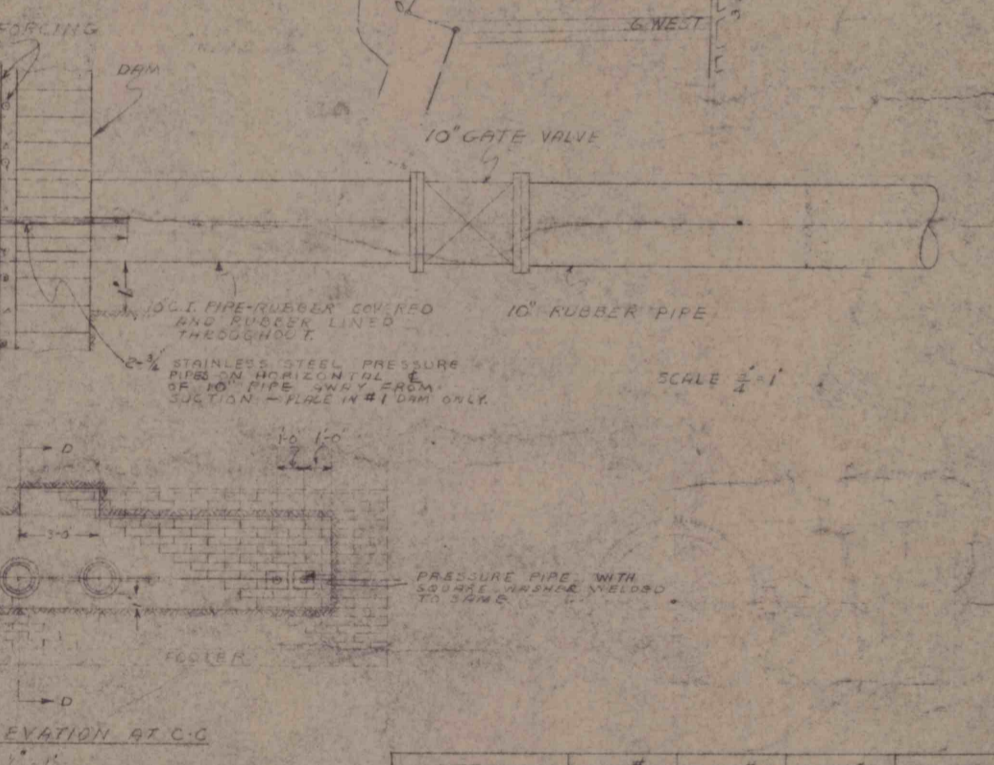


ELEVATION (ALL DAMS) OF PIER CONSTRUCTION SIDE ELEVATION B-B DAM 1-3&4 FRONT ELEVATION A-A DAM 2-3&4



- SPECIFICATIONS**
- Standard grade A 4" x 8" x 16" solid concrete blocks shall be used in the construction of dams and piers. Compression strength test over 2500 lbs. per sq. inch.
  - Concrete mix. 1 : 2 : 4 Use acid free water.
  - Mortar mix. 1 part portland cement, 3 parts of river sand and use acid free water.
  - Reinforcing steel rods of 3/4" in diameter to be used and so placed as to be on the tension side (outby side) of the poured concrete.
  - Minimum thickness of dams to be 28", consisting of two widths of the above mentioned blocks laid one foot apart and the resulting space, wherein reinforcing rods have been fixed, to be filled with poured concrete.
  - Piers to be 2'-8" x 2'-8" x 4'-0". To be built in the center of the heading 12 feet apart.
  - Minimum 6" footer to be laid in bottom hitch.
  - Excavate side hitches a minimum depth of two feet without blasting.
  - Excavate bottom hitches a minimum depth of two feet down to hard rock.
  - Excavate top hitches a minimum depth of one foot in solid roof.
  - All hitches to be inspected by a commission member before dams are installed.
  - Excavate a three foot wide channel in roof on outby side of dams to allow room to pour concrete to top of dams.
  - All dams to be sealed at top. (Full thickness of dams).
  - Suction ends of pipe to be placed in middle of dams, one foot from bottom, on 3' centers.
  - The 10" gate valve to be connected to 10" C. I. pipe at dams.
  - Pipe line to be laid in dam one foot off bottom arranged to be kept free of contact of water throughout its entire length.
  - Area of dead water to be shown in violet color, and the area of the active sump to be shown in green color.
  - Two 10" Cast Iron flanged pipes to be placed in the #2 Dam.
  - A 200 foot solid barrier pillar will be left along the entire sump and no mining is to be done in this pillar of coal as long as the area is in use as a sump.

GENERAL PLAN LOCATION OF DAMS SCALE 1"=100'



MATERIALS	DAM #1	DAM #2	DAM #3	DAM #4
4'x8'x16' SOLID CONCRETE BLOCK	768	777	607	652
CEMENT	38 BGS	52 BGS	34 BGS	36 BGS
SAND	3 1/2 TON	4 1/2 TON	3 TON	3 1/4 TON
GRAVEL	6 1/2 TON	8 1/4 TON	5 1/2 TON	6 TON

**APPROVAL OF DAMS**

STATE OF PENNSYLVANIA  
COUNTY OF INDIANA

On this 27th day of \_\_\_\_\_ 1949, before me the undersigned officer, personally appeared \_\_\_\_\_ who acknowledged that the concrete block dams hereon detailed, were constructed under his supervision according to the specifications shown hereon.

Approved:

*L. D. Kimmel* Inspector 30th Bitu, District  
L. D. Kimmel

*R. J. Benington* Inspector 25th Bitu, District  
R. J. Benington

*Charles E. Fisher* Inspector 10th Bitu, District  
Charles E. Fisher



ROCKEFELLER & PITTSBURGH COAL CO.  
ENGINEERING DEPT. INDIANA

PLAN OF PROPOSED INSTALLATION OF DAMS AT WATERMAN NO. 2 MINE.

DATE: E.S. 4-15-49

CHECKED BY: \_\_\_\_\_