

AUTHORITY FOR DETERMINING THICKNESS OF DAM
 COAL MINERS POCKET BOOK - 1928-12TH EDITION

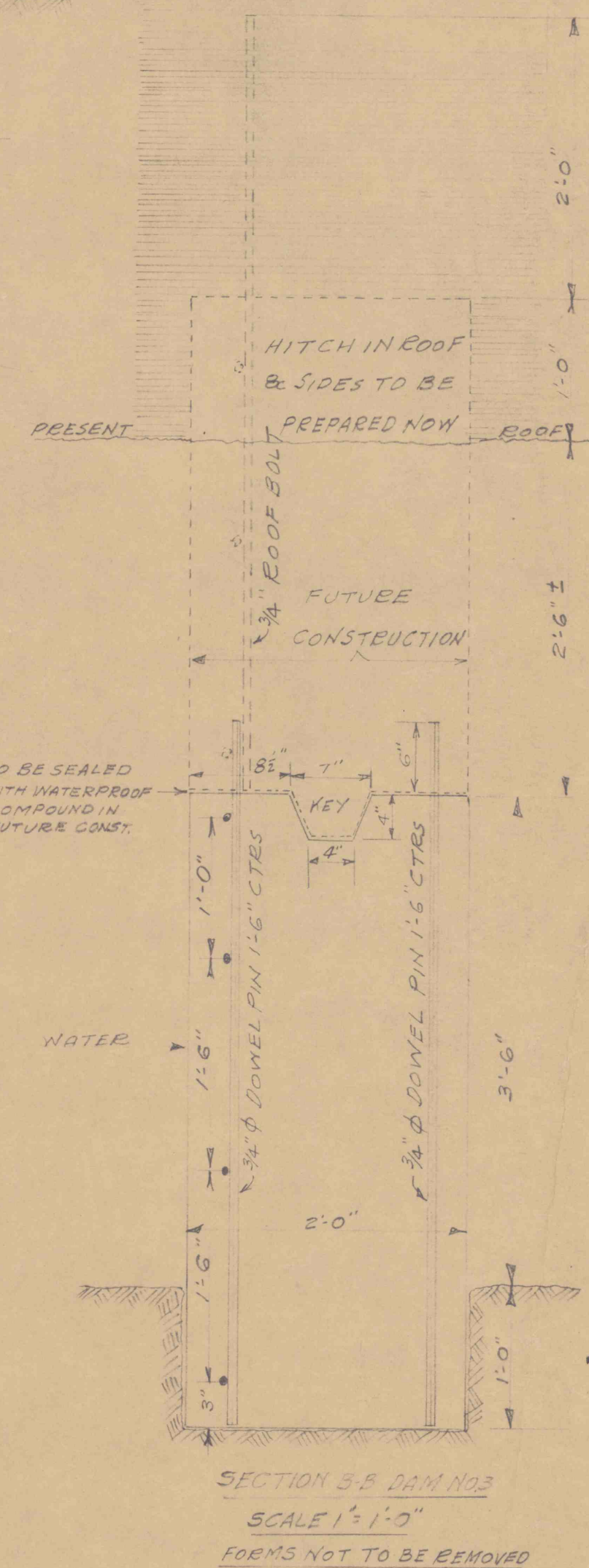
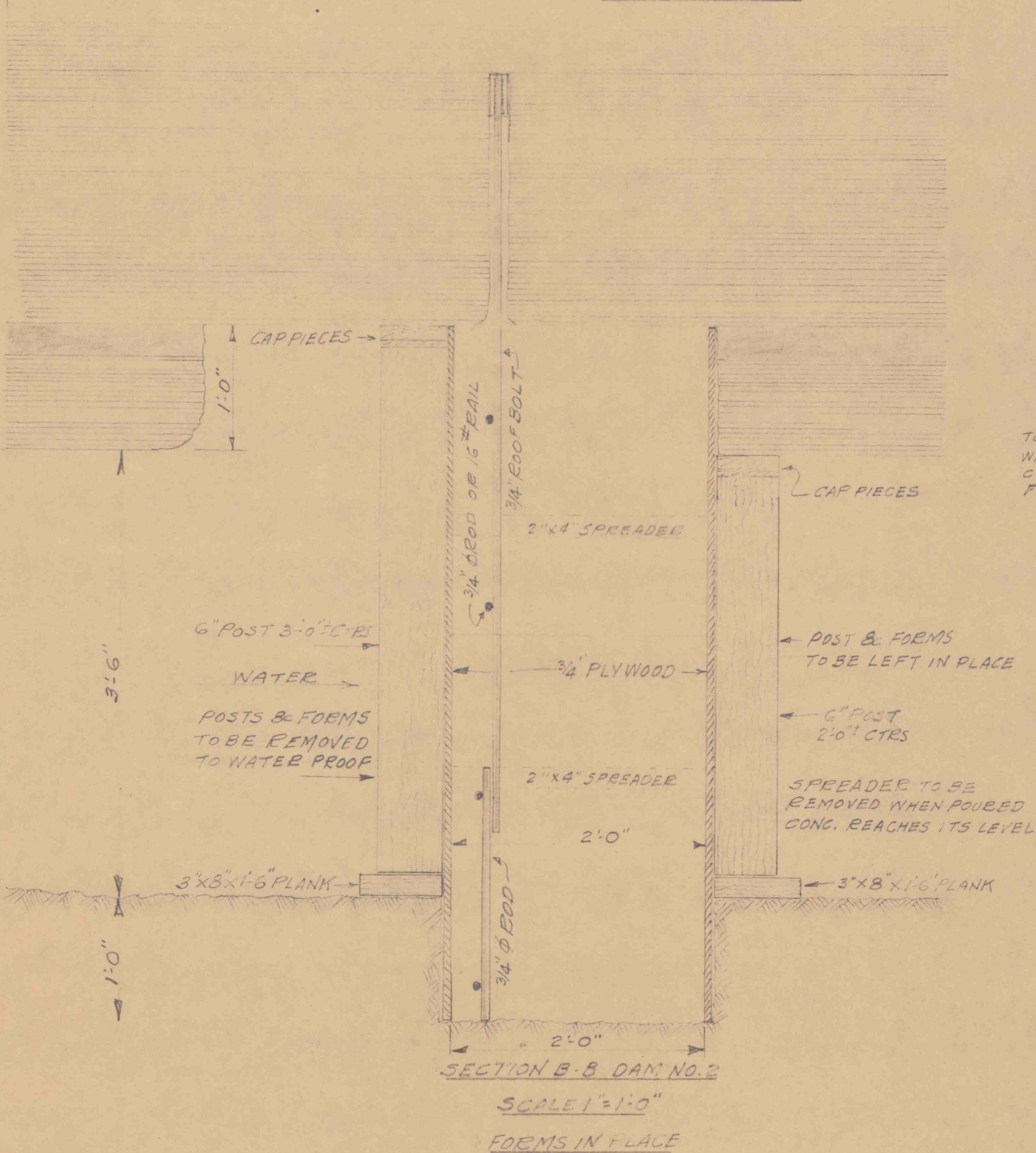
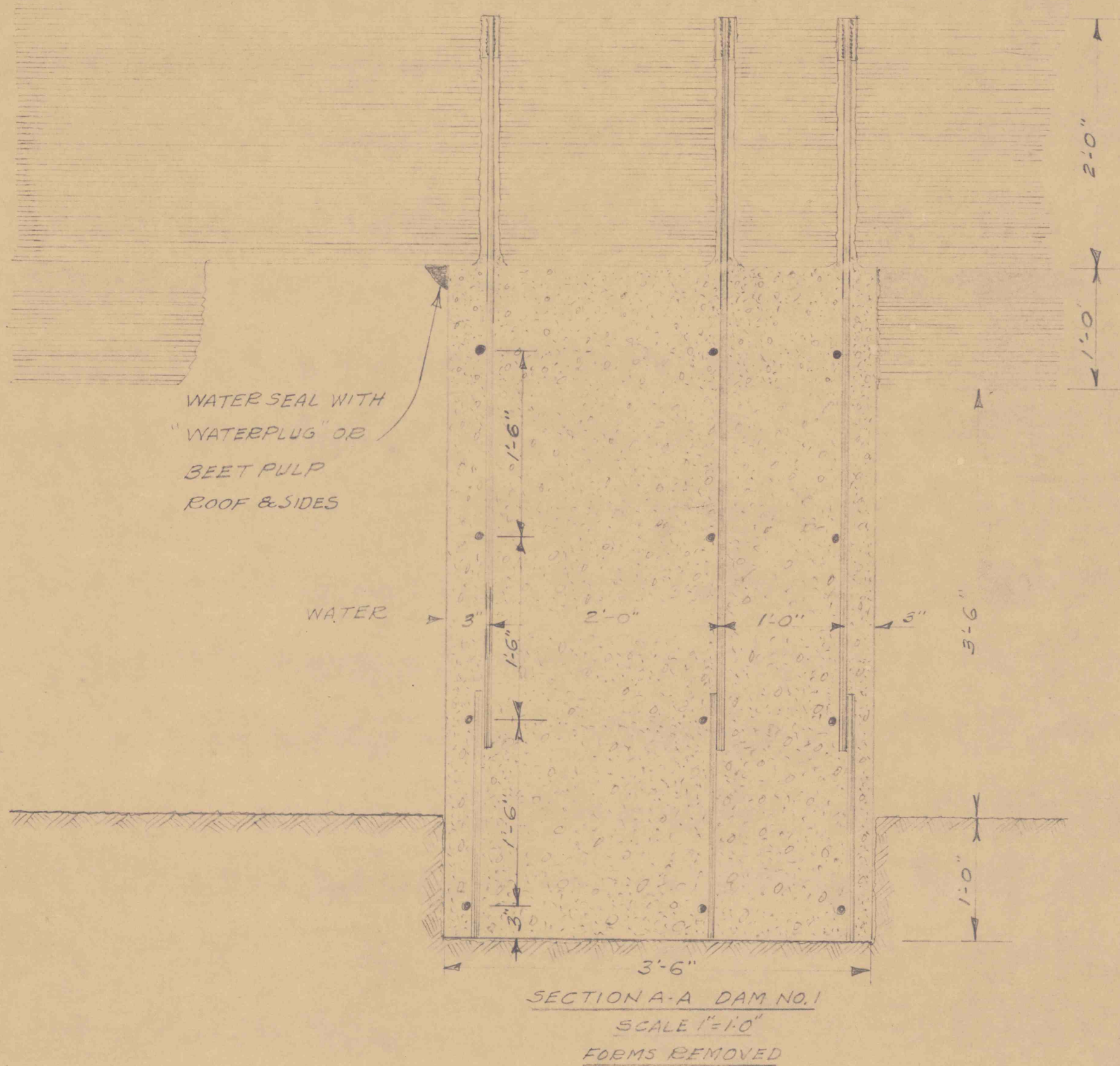
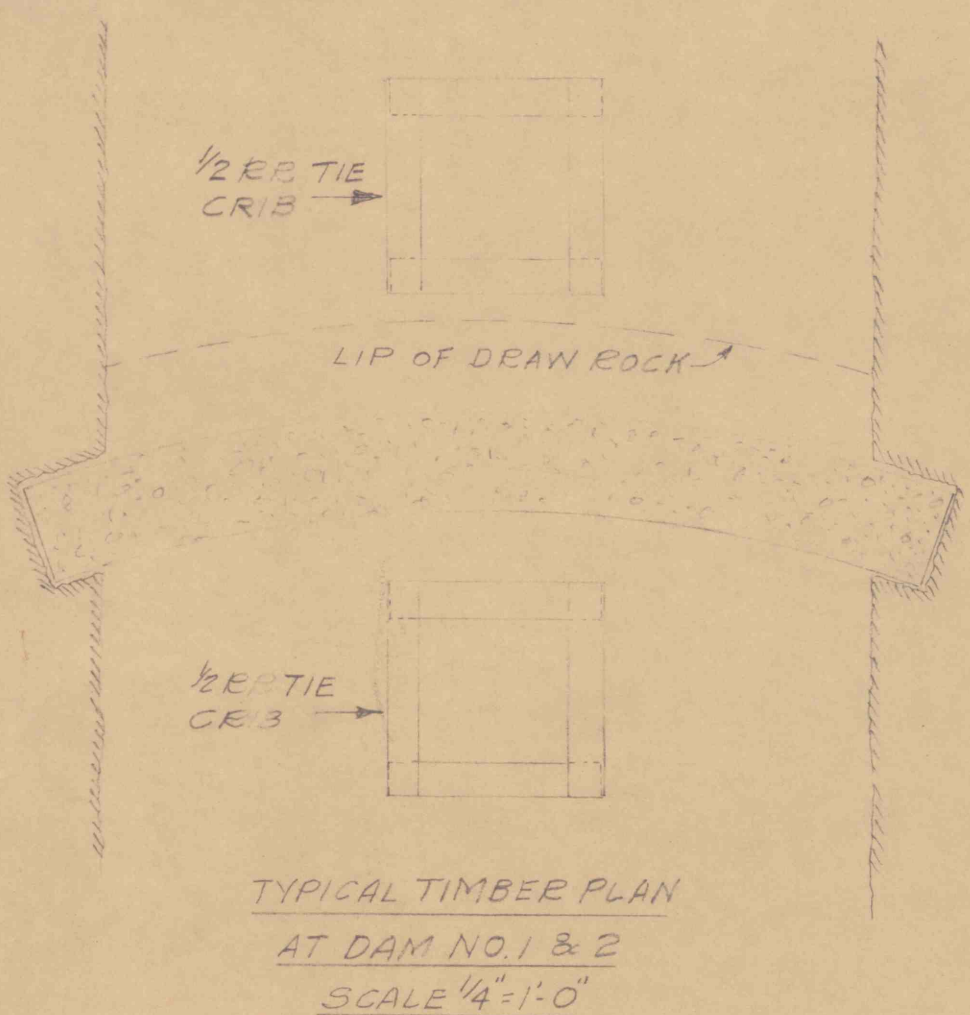
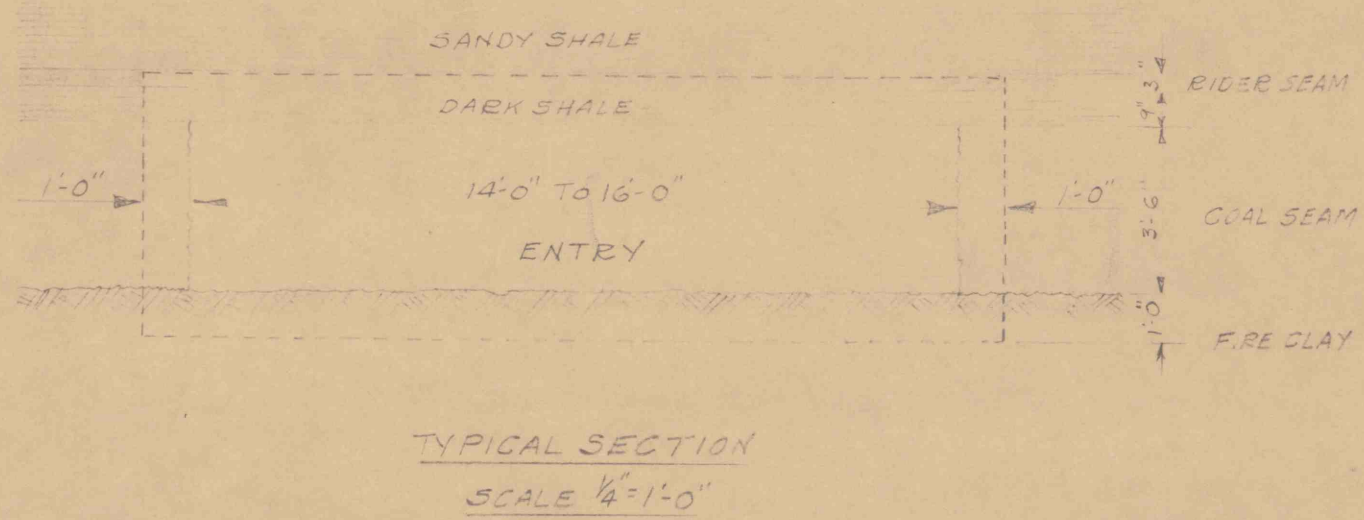
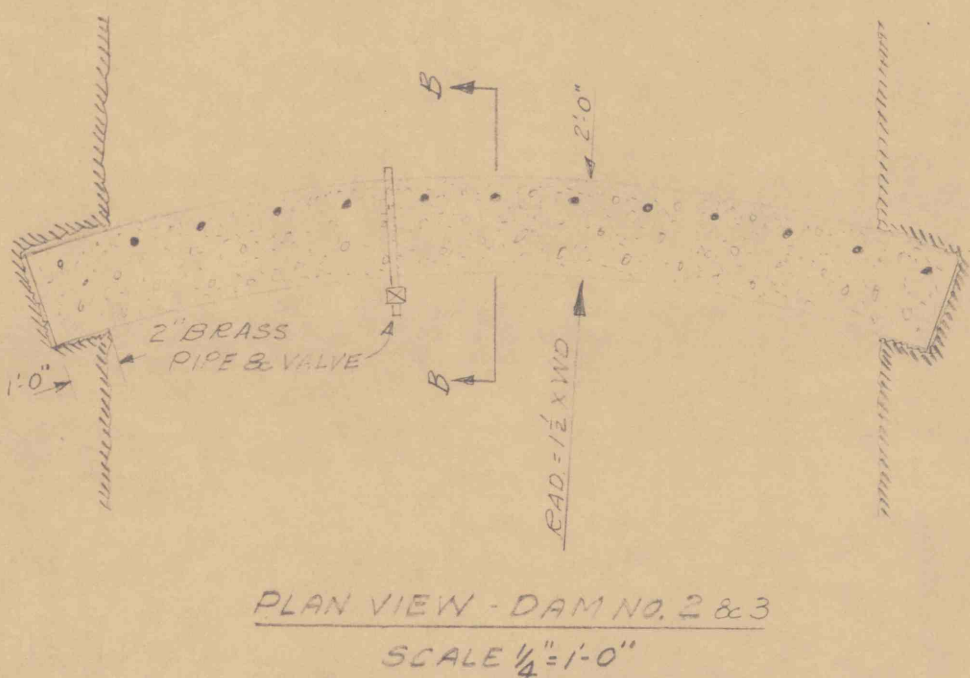
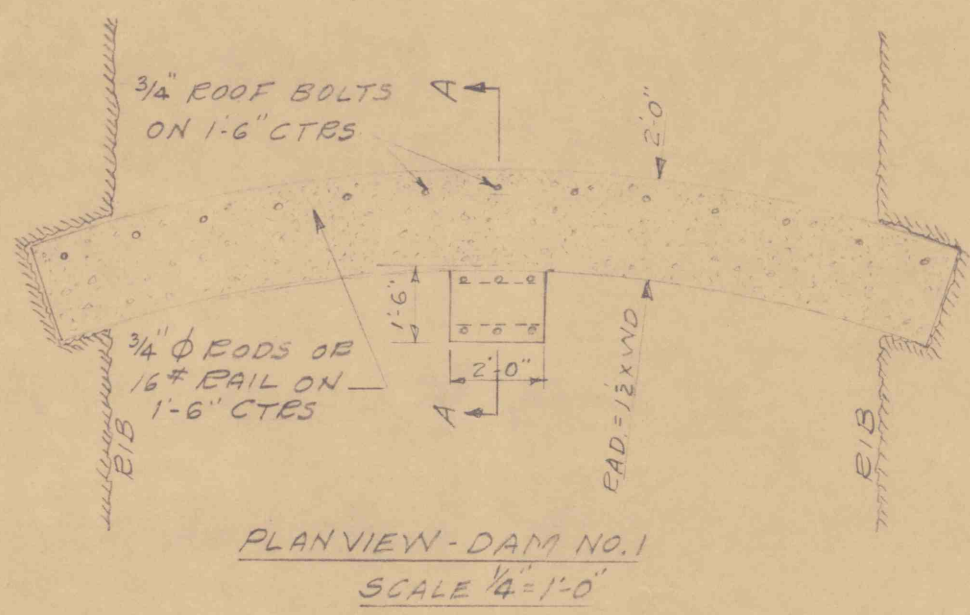
FORMULA:

T = THICKNESS OF DAM IN INCHES
 R = SHORTER RADIUS IN INCHES = $1\frac{1}{2} \times 216 = 324"$
 W = WIDTH OF OPENING IN INCHES = 216"
 S = COMPRESSIVE STRENGTH CONG. SAFE LOAD = 500 #/sq. in.
 P = WATER PRESSURE AT DAM = (14 DEPTH) = 608 #/sq. in.

$$T = \frac{PW\sqrt{4R^2-1}}{4S}$$

$$T = \frac{6.08 \times 216 \sqrt{4 \times 324^2 - 1}}{4 \times 500} = 23.64 \text{ OR } 24"$$

CONCRETE MIX = 1:2:4



PLAN AND SECTIONS
 DAMS TO BE CONSTRUCTED
 PINE NO. 1 DIP MINE
 PINE TWP, INDIANA CO, PA
 SCALE AS SHOWN APR. 30, 1963

NOTE:
 ALL EXCAVATIONS TO BE
 MADE WITHOUT SHOOTING