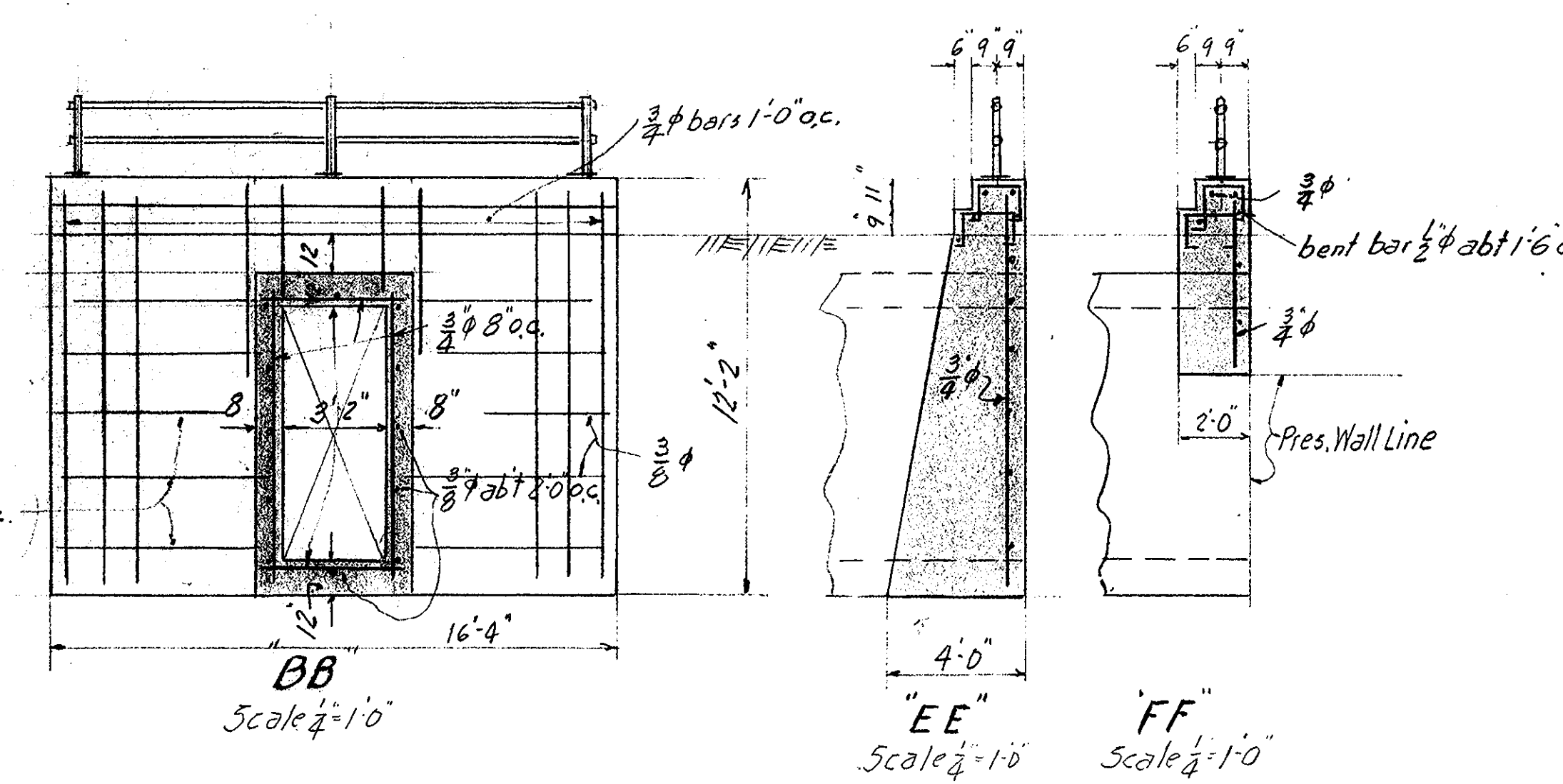
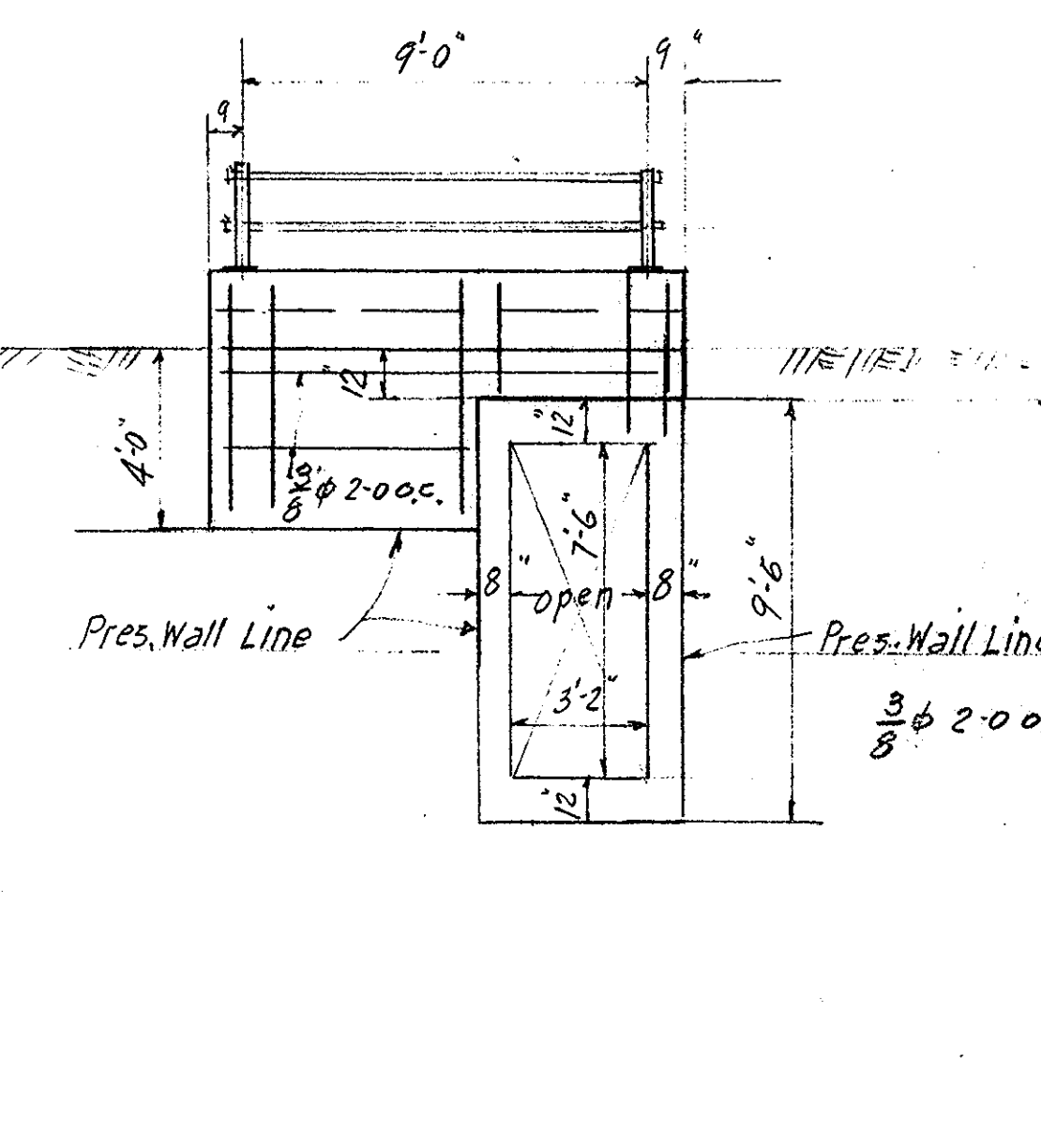
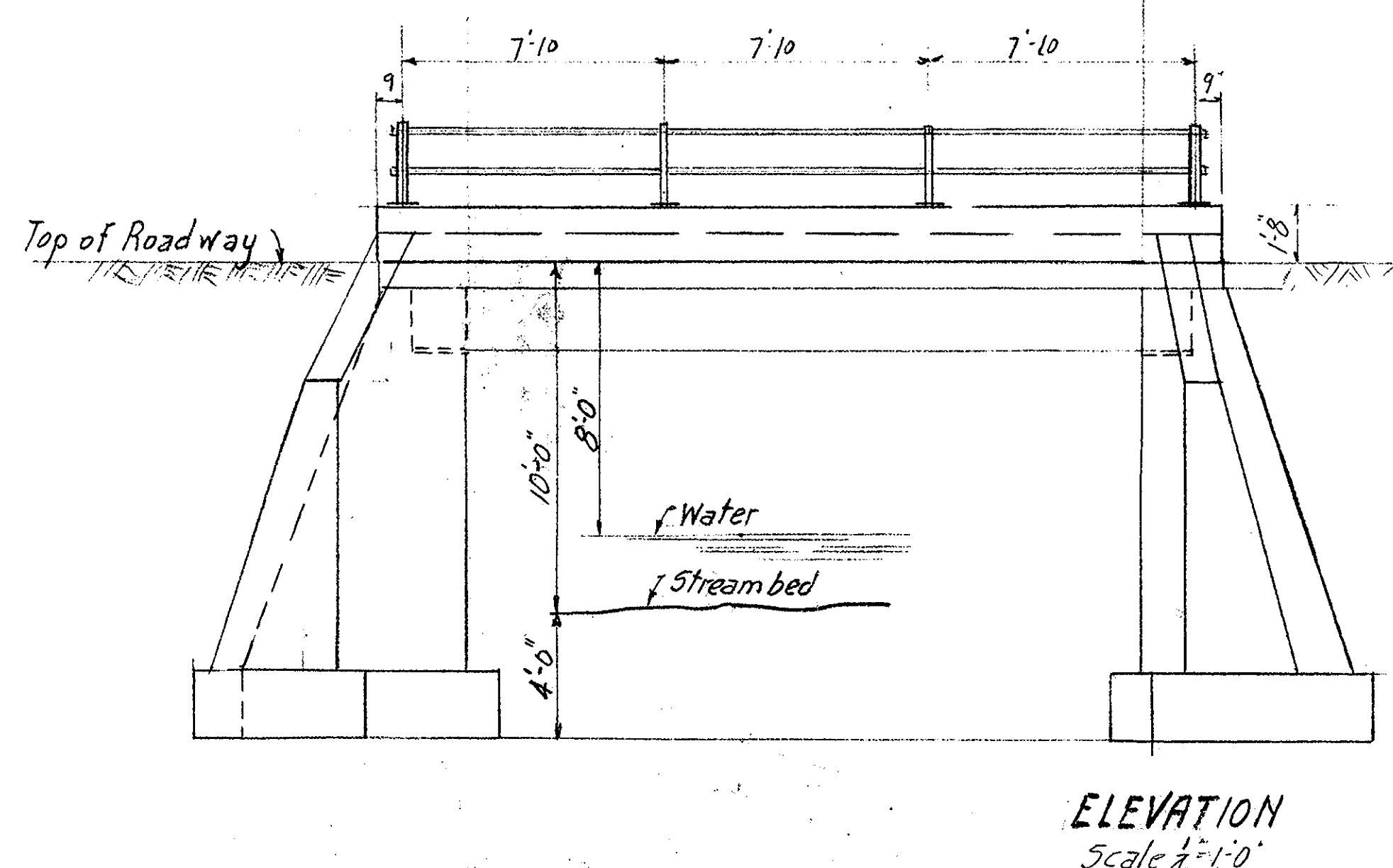
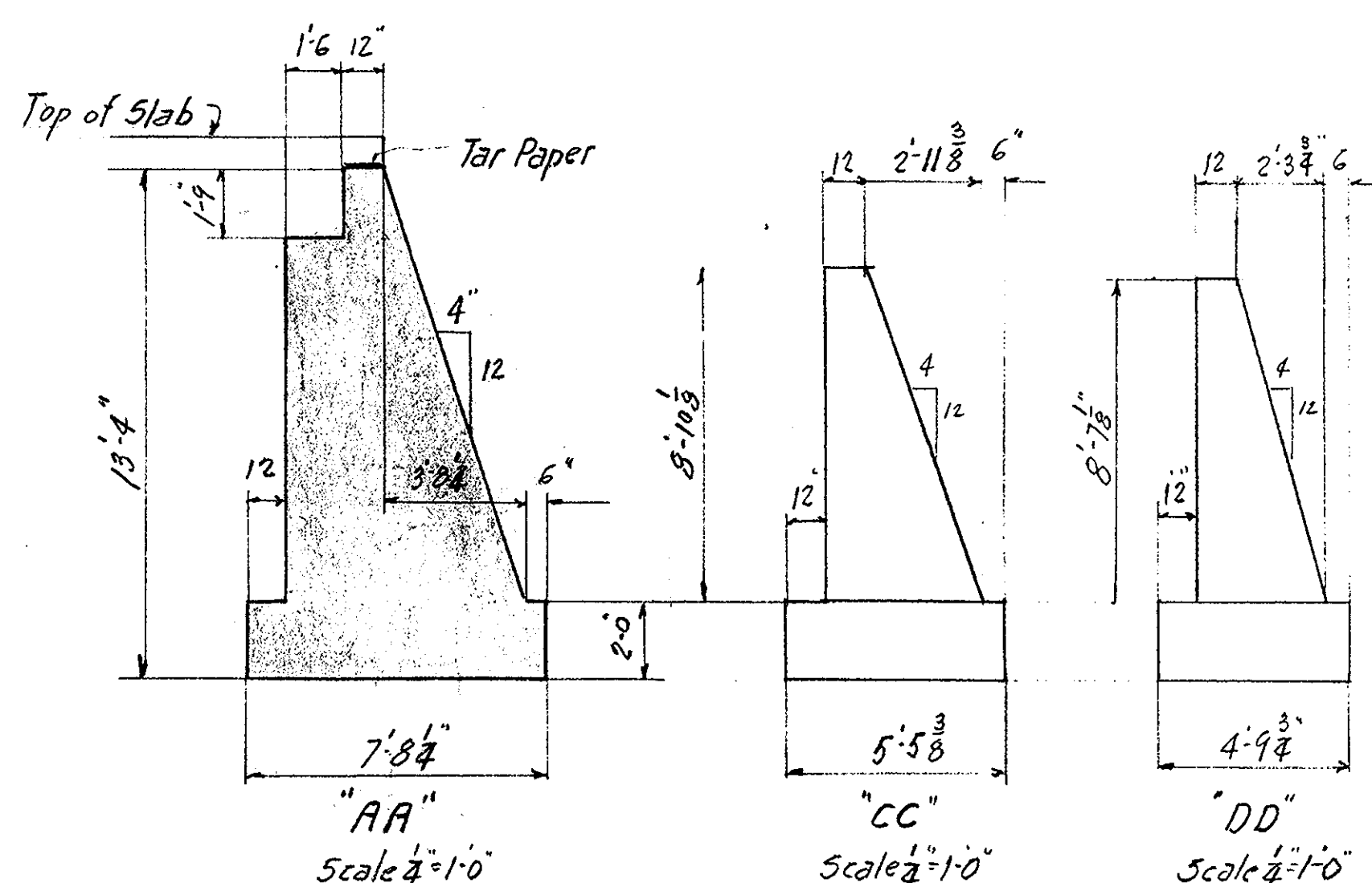
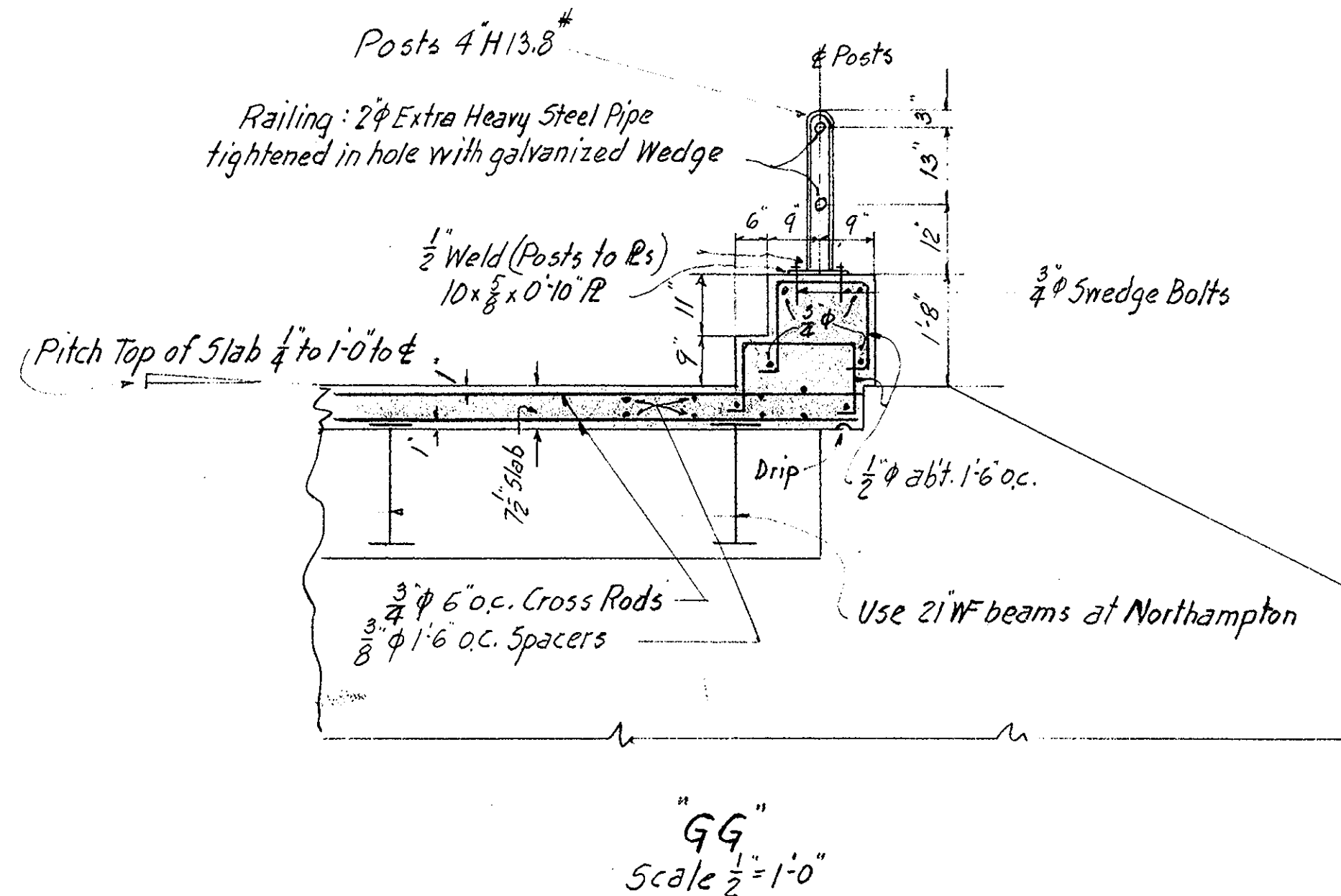
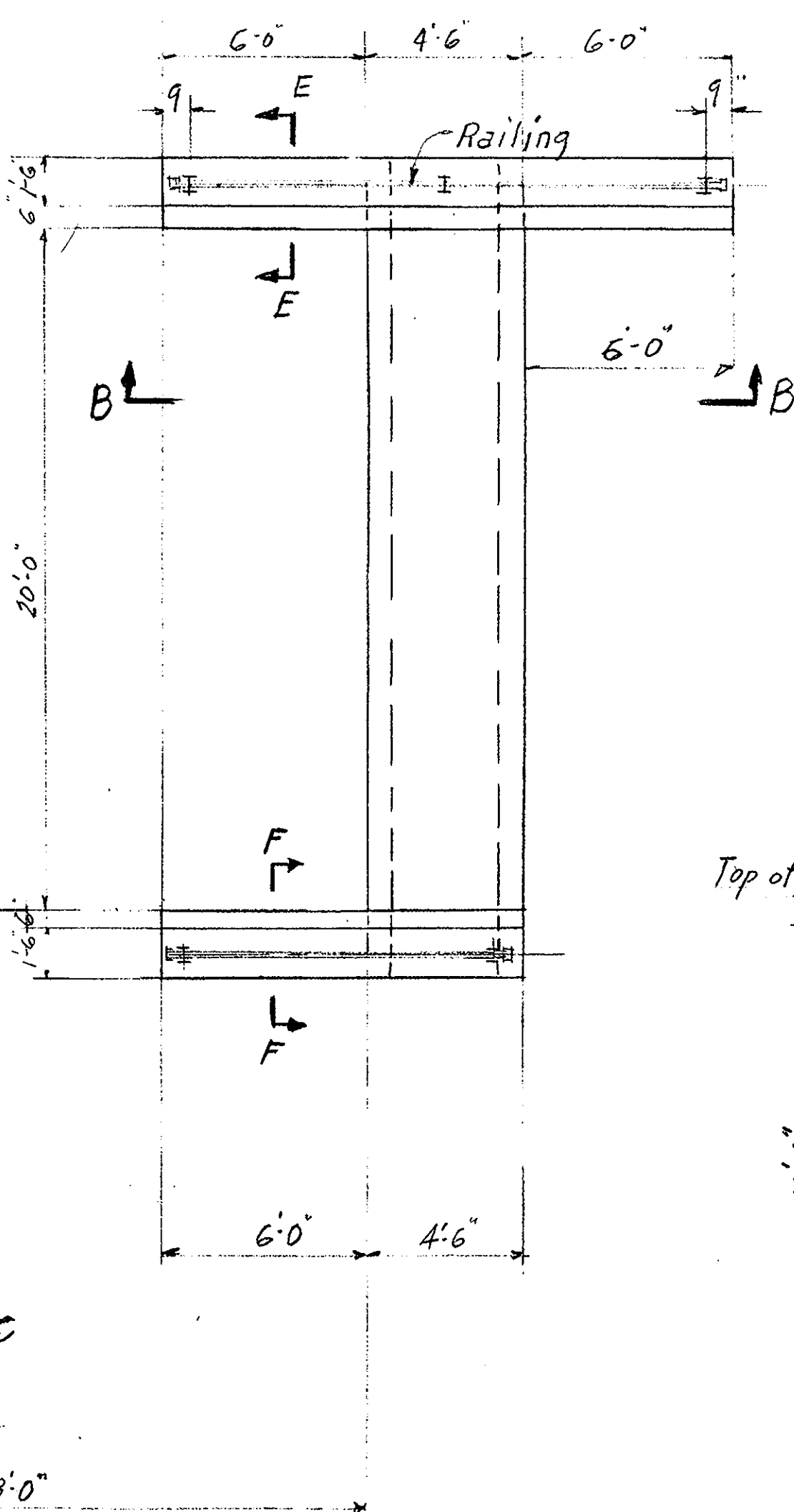
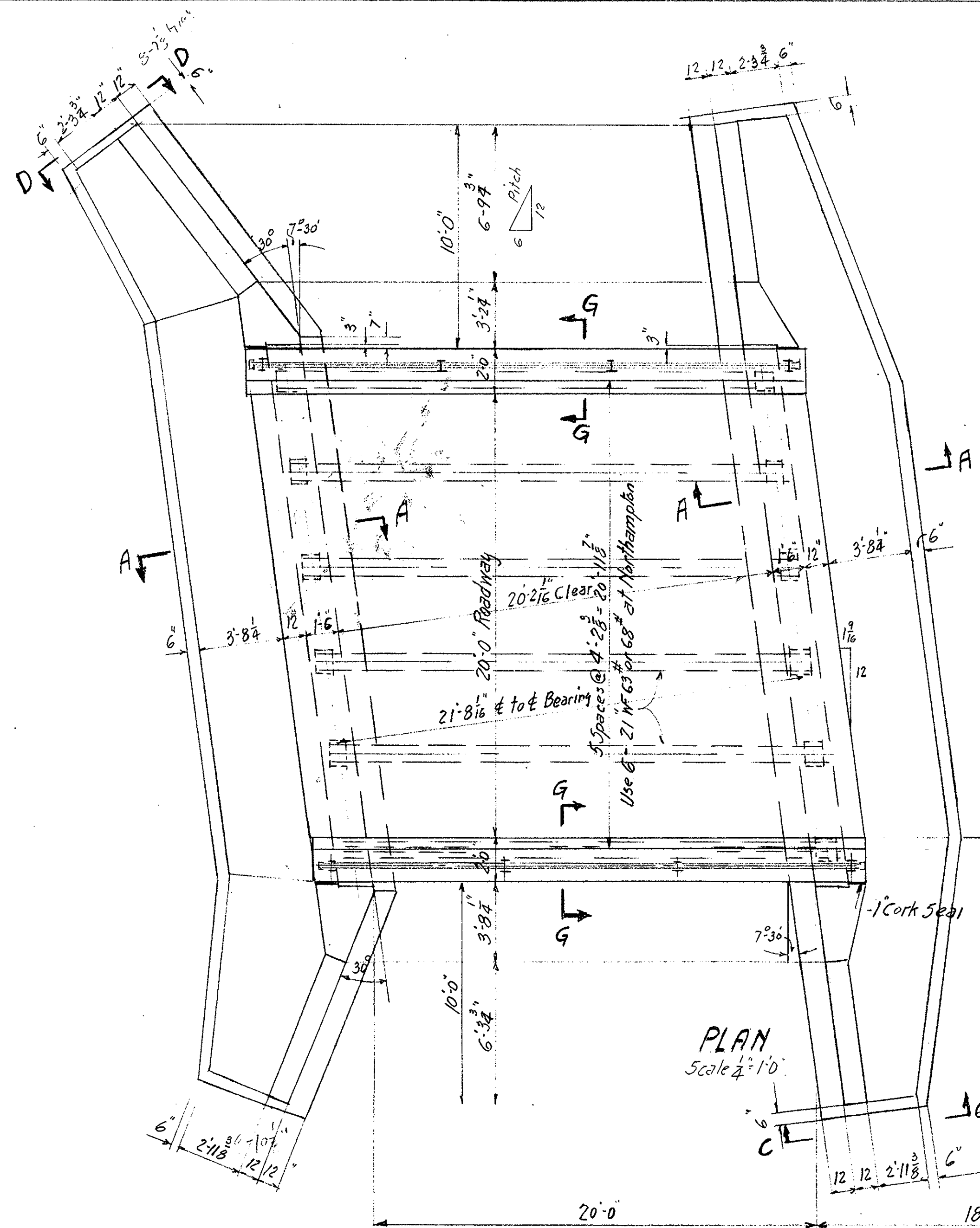




GENERAL NOTES

FINISH — All Exposed Concrete Surfaces to be Rubbed Smooth with Corundum Brick and left free from all Form Marks and Imperfections.

FOUNDATION — May be Altered if necessary to suit Condition of Construction.

DESIGN — According to Specifications of American Association of State Highway Officials (1938 Edition) for H Loading

ESTIMATED QUANTITIES
(NOT GUARANTEED)

ITEM	QUANTITY	UNIT
EXCAVATION (LEDGE)	50	CU. YDS.
EXCAVATION (BRIDGE)	500	CU. YDS.
do (TRENCH LEDGE)	50	do
do (CHANNEL)	20	do
BORROW GRAVEL	70	do
CONCRETE (CLASS A)	45	do
do (" C")	272	do
REMOVAL OF SUPERSTRUCTURE	Lump Sum	
REINFORCING STEEL	31,000	Lbs.
STRUCTURAL STEEL (Second Hand)	8700	Lbs.
Fence (2 Rails)	71	Lineal Ft.
RIP RAP	50	cu yd.

FOR
CONSTRUCTION
DATE 12/15/38
FENCE REVISION 5/1/39

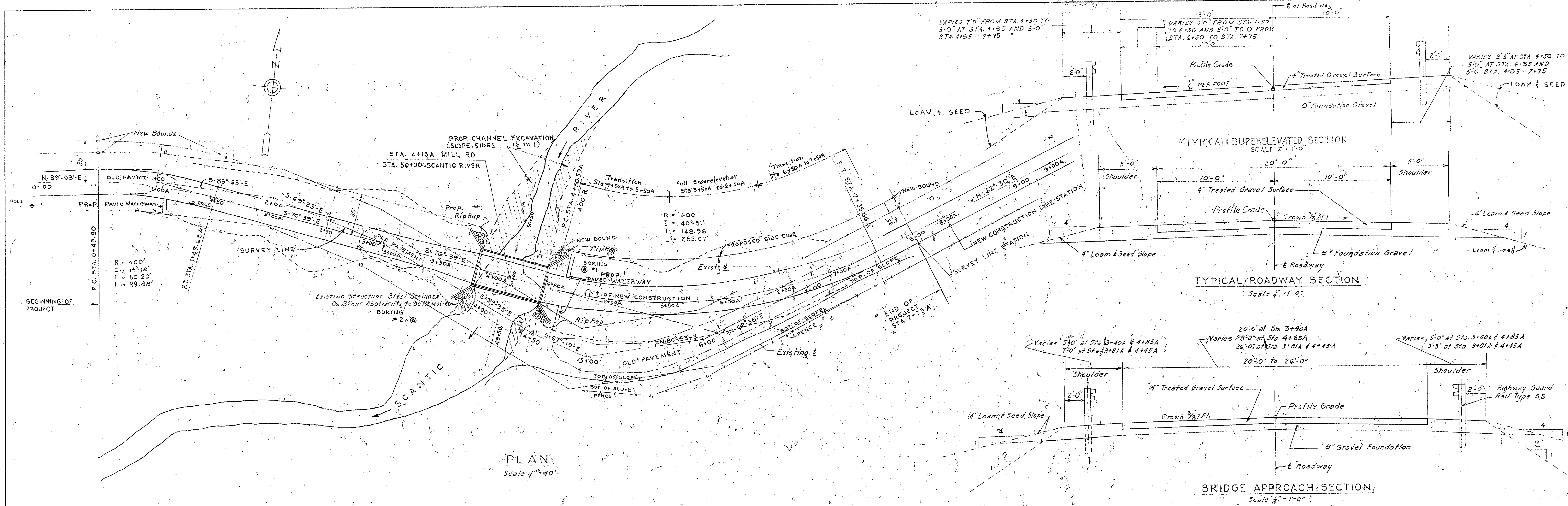
MOORE & HALLER
INCORPORATED
CONSULTING ENGINEERS
CAMBRIDGE MASS.

THE COMMONWEALTH OF MASSACHUSETTS
PROPOSED BRIDGE
BELCHERTOWN #2
PASSENGER BRIDGE OVER JADISH BROOK

SCALES AS NOTED
OFFICE OF
DEPARTMENT OF PUBLIC WORKS
100 NASHUA ST. BOSTON MASS.
NOV. 1938

BRIDGE ENGINEER
CHIEF ENGINEER

BRIDGE NO. B-5-9
11/6/38



GENERAL

FOUNDATIONS:
MAY BE ALTERED IF NECESSARY TO SU

DESIGN:
ACCORDING TO SPECIFICATIONS OF AME
STATE HIGHWAY OFFICIALS (1944 EDITION)

BENCH MARK:
SPIKE IN BASE OF 30" MAPLE AT APPROX. STA.
SURVEY LINE

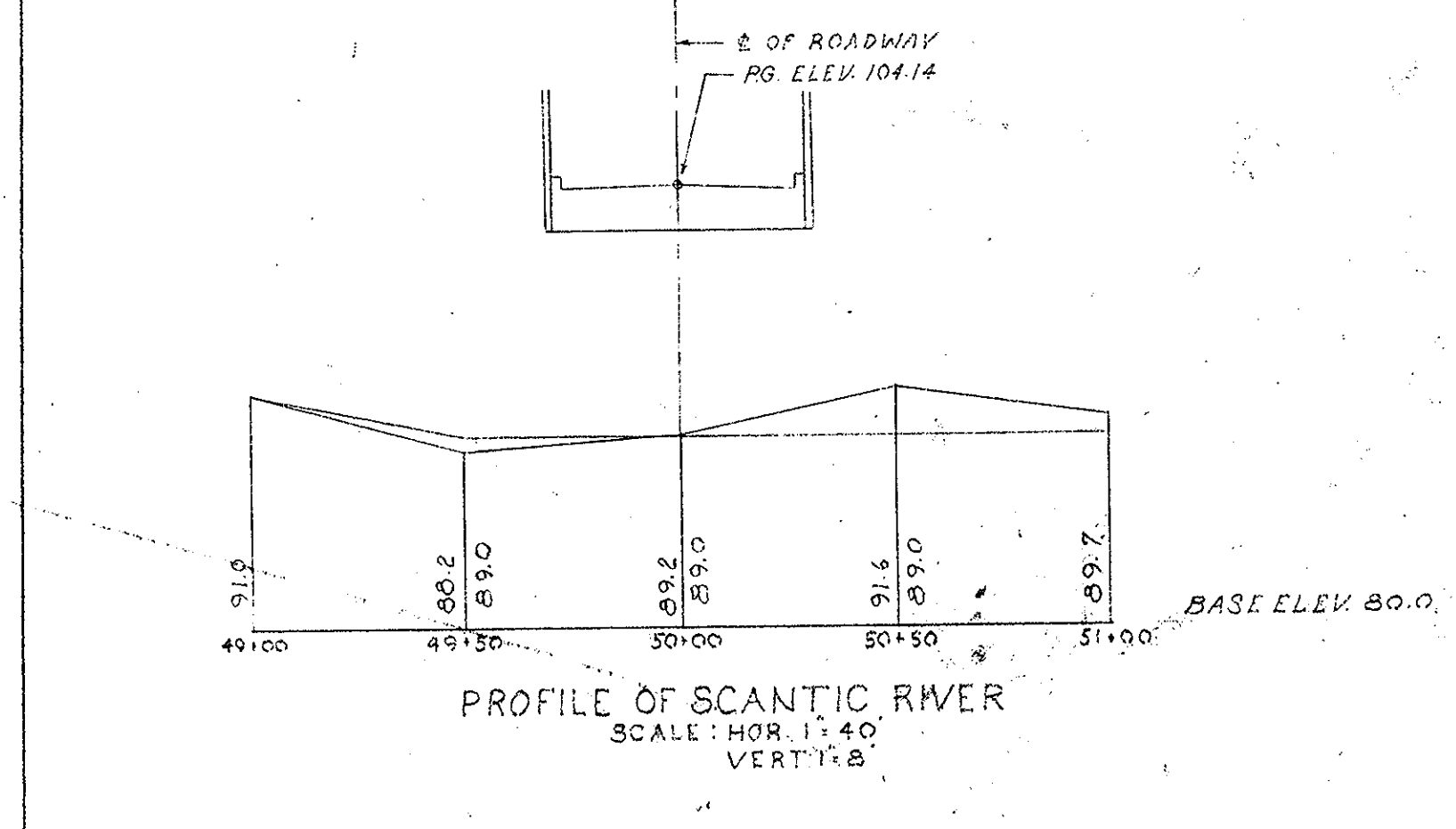
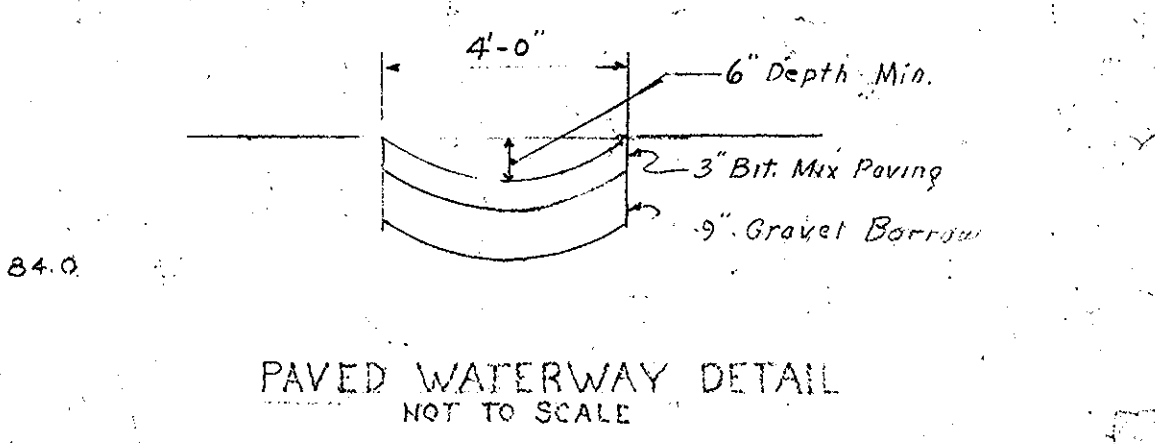
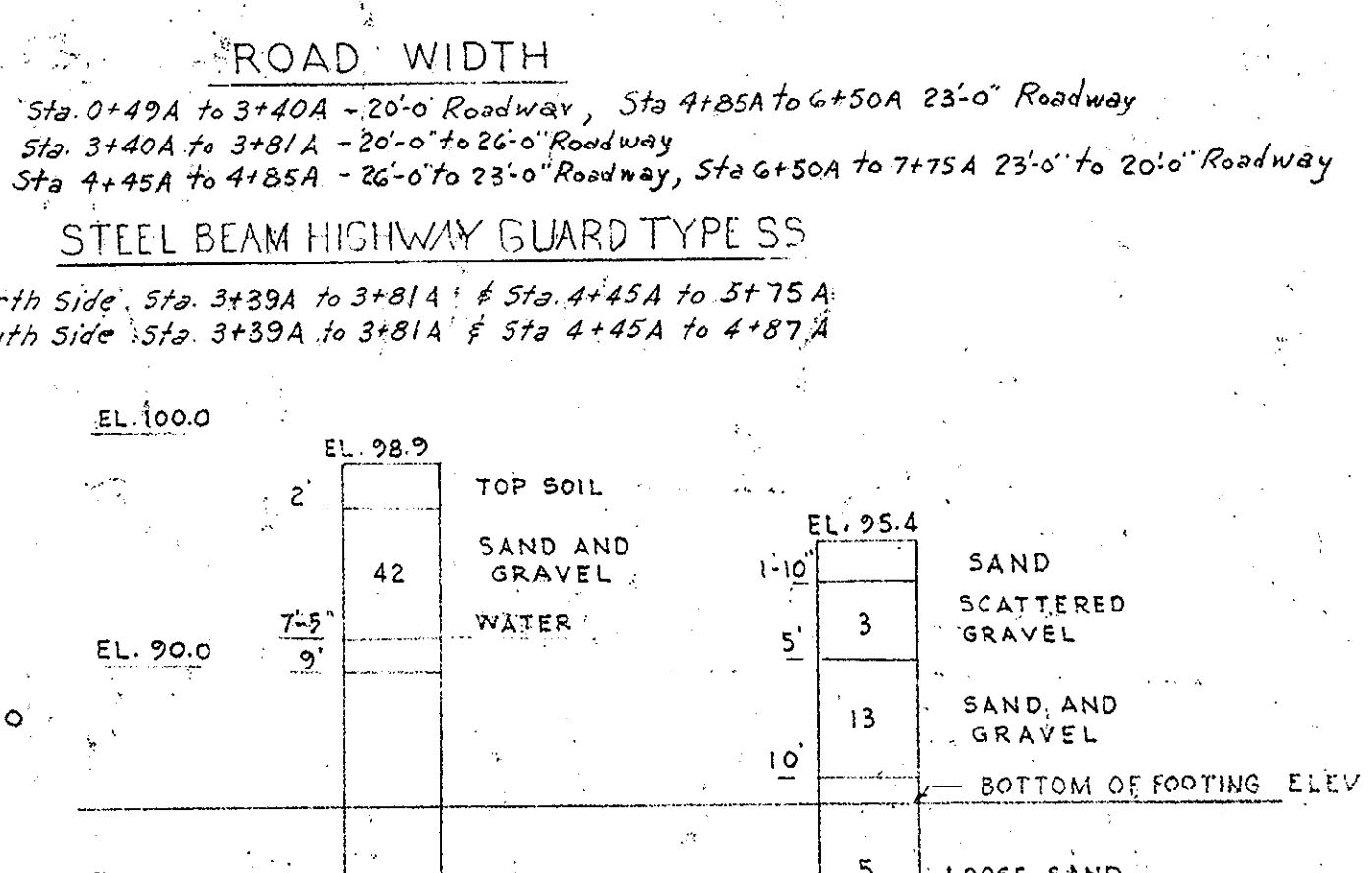
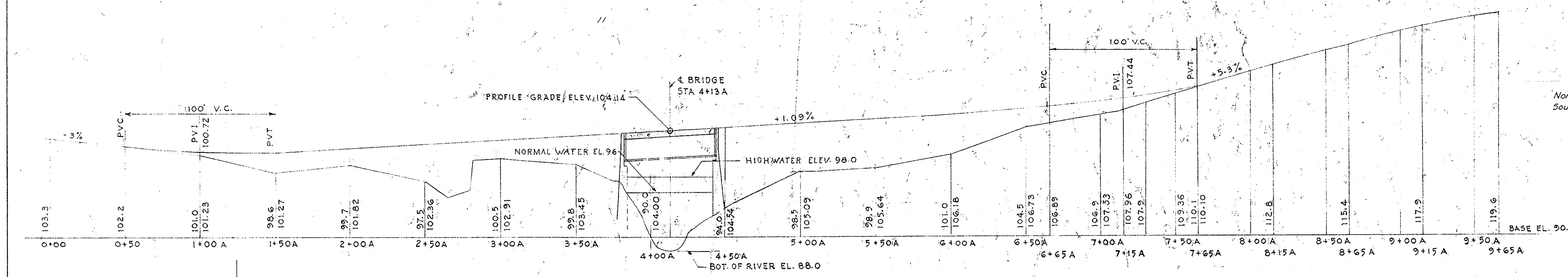
REINFORCEMENT:
ALL BARS SHALL HAVE DEFORMATIONS CONFOR
DESIGNATION A305, UNLESS OTHERWISE SHOWN ON
REINFORCING BARS SHALL BE LAPPED 20 DIAMETER.
SPICE EXCEPT THAT MAIN REINFORCING BARS NEAR
AND BEAMS HAVING MORE THAN 12 INCHES OF CONCRETE
THE BARS SHALL BE LAPPED 35 DIAMETERS TO MAKE A SPLICE

HYDRAULIC DATA
SIZE OF DRAINAGE AREA = 24.9 SQ. MILES
BRIDGE OPENING PROVIDED FOR - MAJOR FLOOD
ESTIMATED DISCHARGE = 3100 CU.FT. PER SECOND
VELOCITY OF FLOW = 8 FT. PER SECOND

STRUCTURAL STEEL
THE STEEL FOR THE STEEL STRINGERS AND COVER PLATES SHALL CONFORM
TO A.S.T.M. DESIGNATION A-373-54T AND NEED NOT BE COPPER BEARING
DATE
TO BE PLACED ON INSIDE FACE OF NORTHEAST AND SOUTHWEST
END POSTS

ESTIMATED QUANTITIES
(NOT GUARANTEED)

ITEM	QUANTITY	UNITS
CLASS 'A' ROCK EXCAVATION	10	C.Y.
BRIDGE EXCAVATION (H-4-1)	420	C.Y.
CHANNEL EXCAVATION	870	C.Y.
CLASS 'B' ROCK EXCAVATION	20	C.Y.
GRAVEL BORROW	450	C.Y.
RIP RAP	30	C.Y.
REMOVAL OF PRESENT BRIDGE (H-4-1)	1	LUMP SUM.
BRIDGE STRUCTURE (H-4-1)	1	LUMP SUM.
UNTREATED TIMBER PILES (H-4-1)	3650	L.F.



BORING DATA
SCALE 1/8"=1'-0" BORINGS TAKEN SEPT. 27, 1955 BY JOHN J. BOYLE

BORING NOTES
BORINGS TAKEN FOR PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS BUT DO NOT NECESSARILY SHOW
NATURE OF MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION
FIGURES IN COLUMN INDICATE BLOWS PER FOOT ON A 1" PIPE PRODUCED BY 30" FALL OF A 140# HAMMER
BORING SAMPLES MAY BE SEEN AT THE OFFICE OF THE BRIDGE ENGINEER, MR. J.C. RUNDLETT, ROOM 609, 100 NASHUA ST. BOSTON, MASS.

DEC. 21, 1955 ISSUED FOR CONSTRUCTION

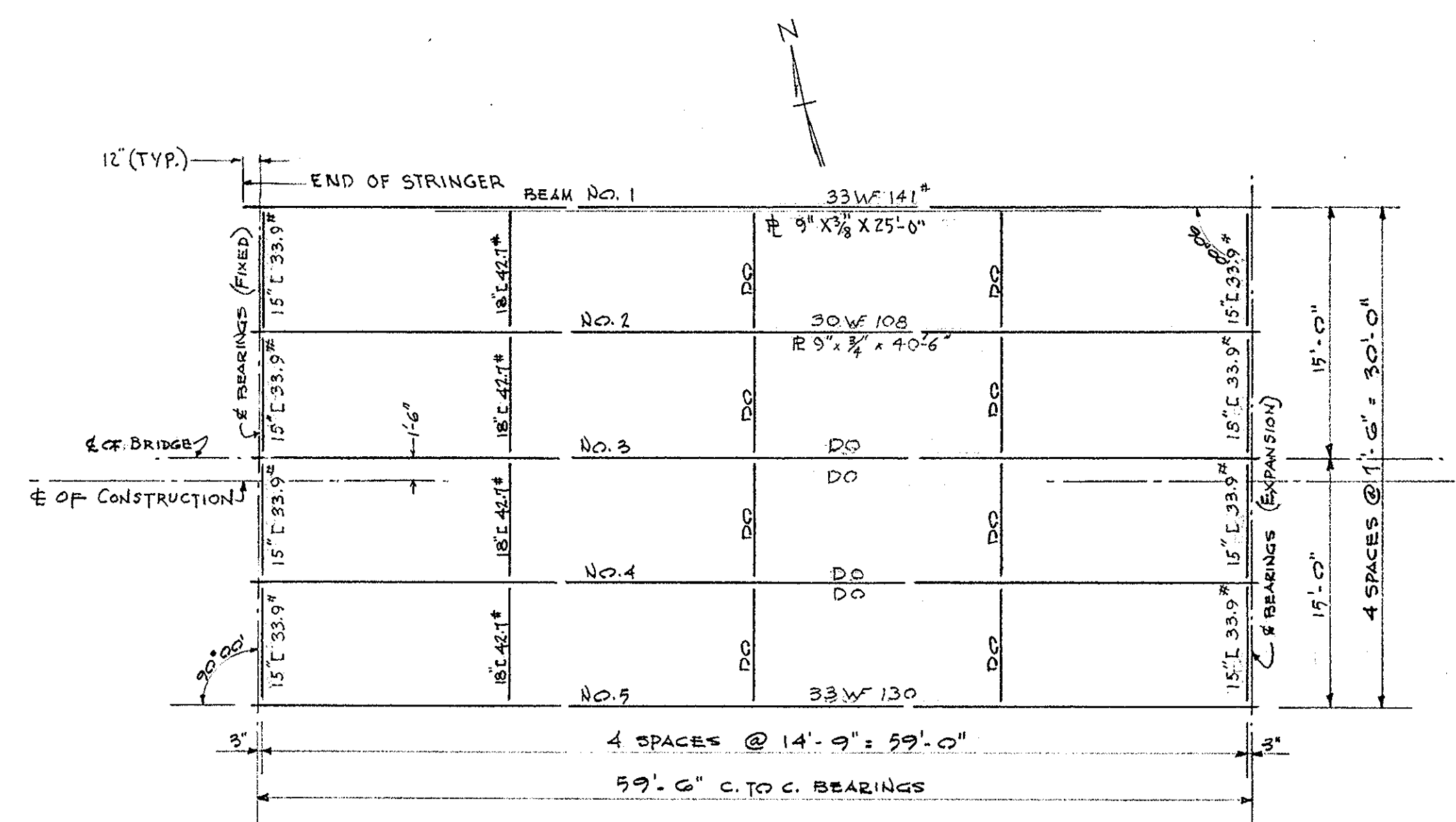
THE COMMONWEALTH OF MASSACHUSETTS
PROPOSED 1955 FLOOD BRIDGE

HAMPDEN
MILL ROAD AT SCANTIC RIVER

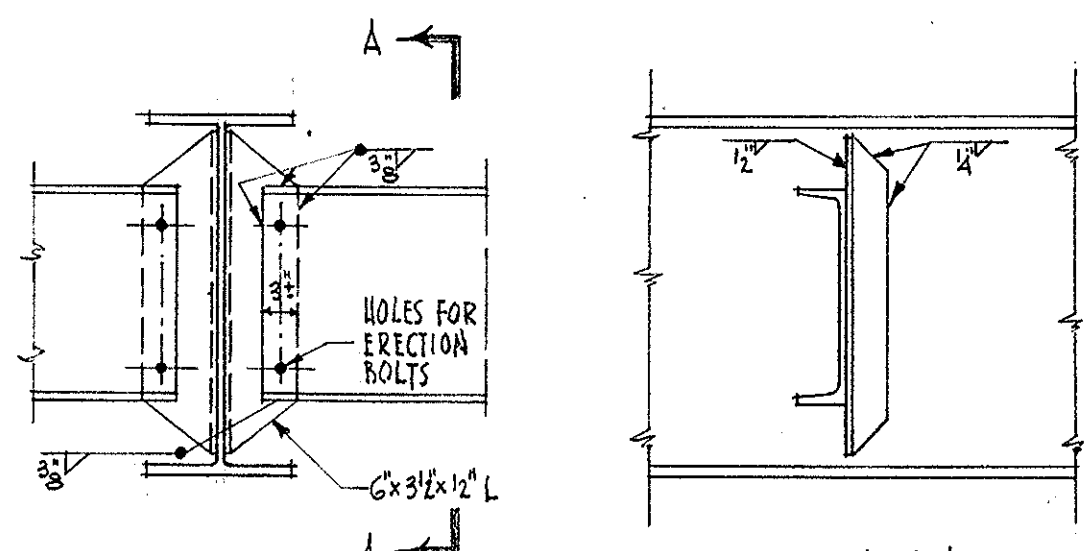
SCALES AS NOTED
OFFICE OF
DEPARTMENT OF PUBLIC WORKS
100 NASHUA ST. BOSTON, MASS.
DEC. 1955

HAYDEN, HARDING & BUCHANAN
CONSULTING ENGINEERS

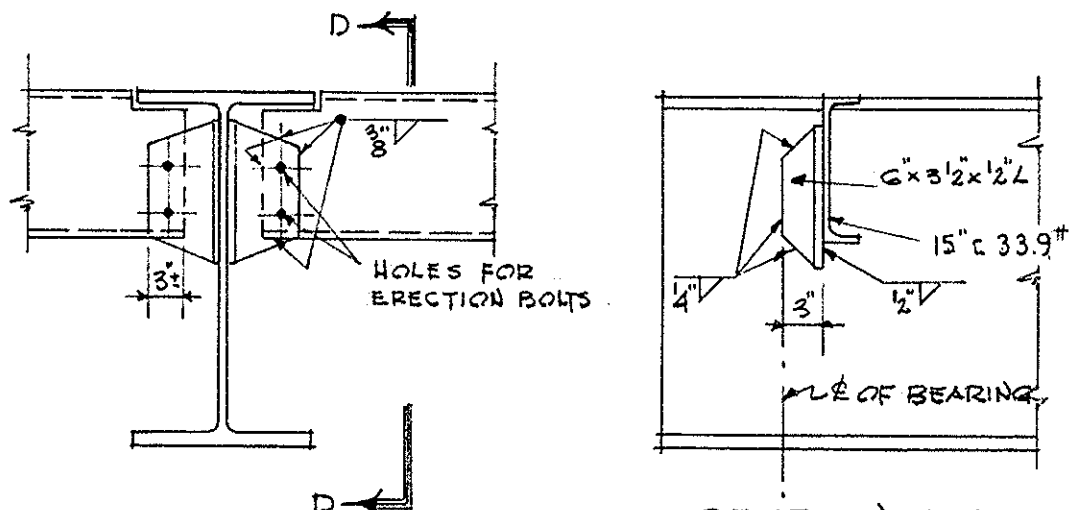
BRIDGE ENGINEER
CHIEF ENGINEER



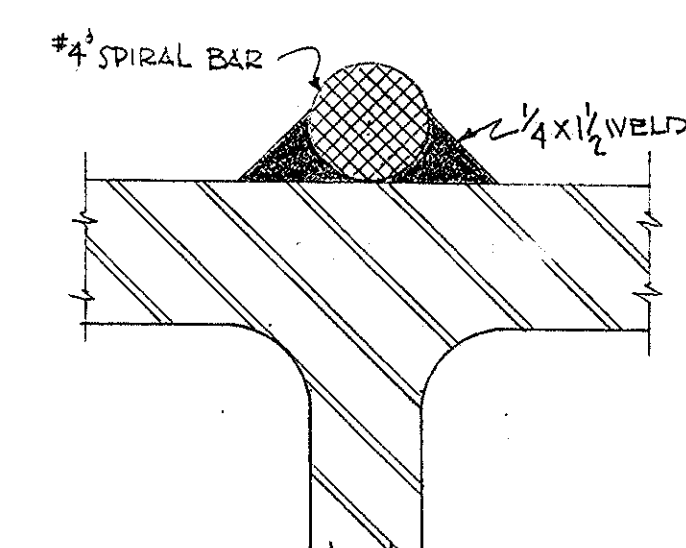
STEEL LAYOUT
SCALE: 1/8" = 1'-0"



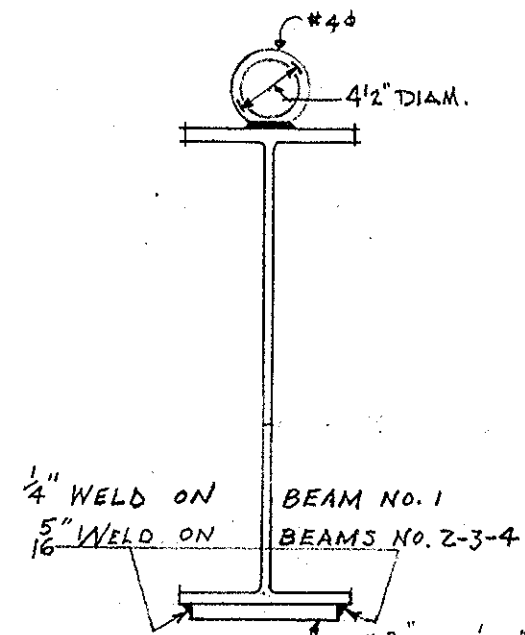
SECTION A-A
WELDED DIAPHRAGM CONNECTIONS
SCALE: 3/4" = 1'-0"



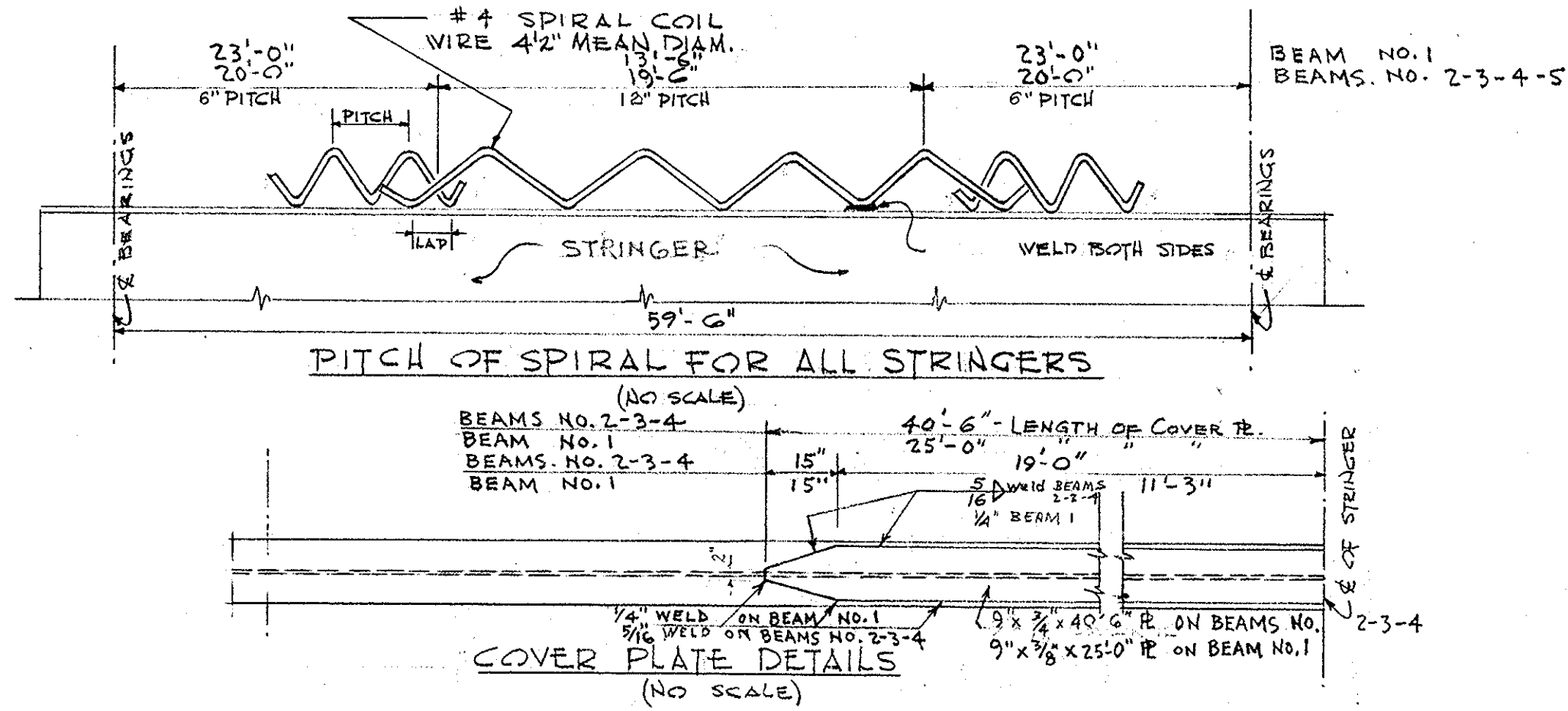
SECTION D-D
WELDED END DIAPHRAGM CONNECTION
SCALE: 3/4" = 1'-0"



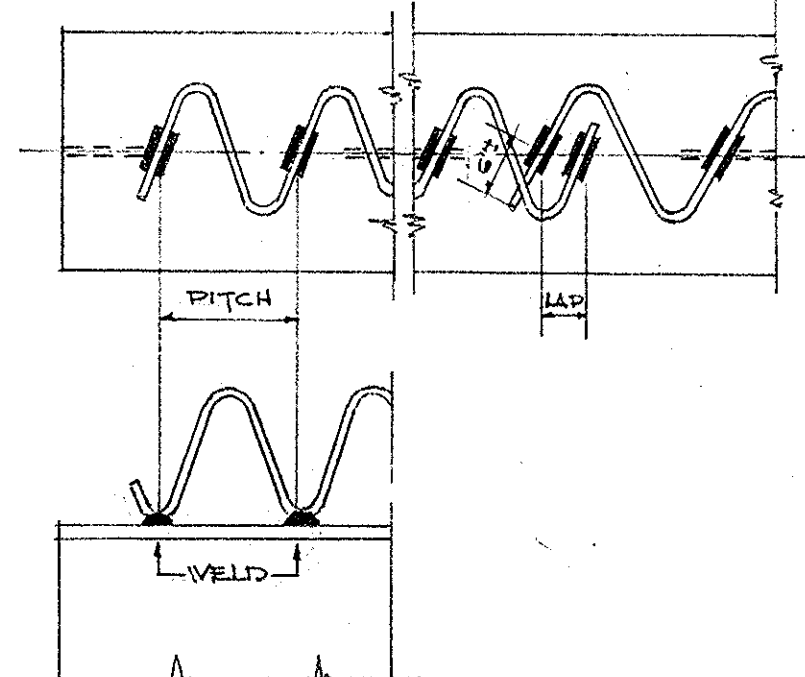
DETAIL OF SPIRAL WELDING
SCALE: FULL SIZE



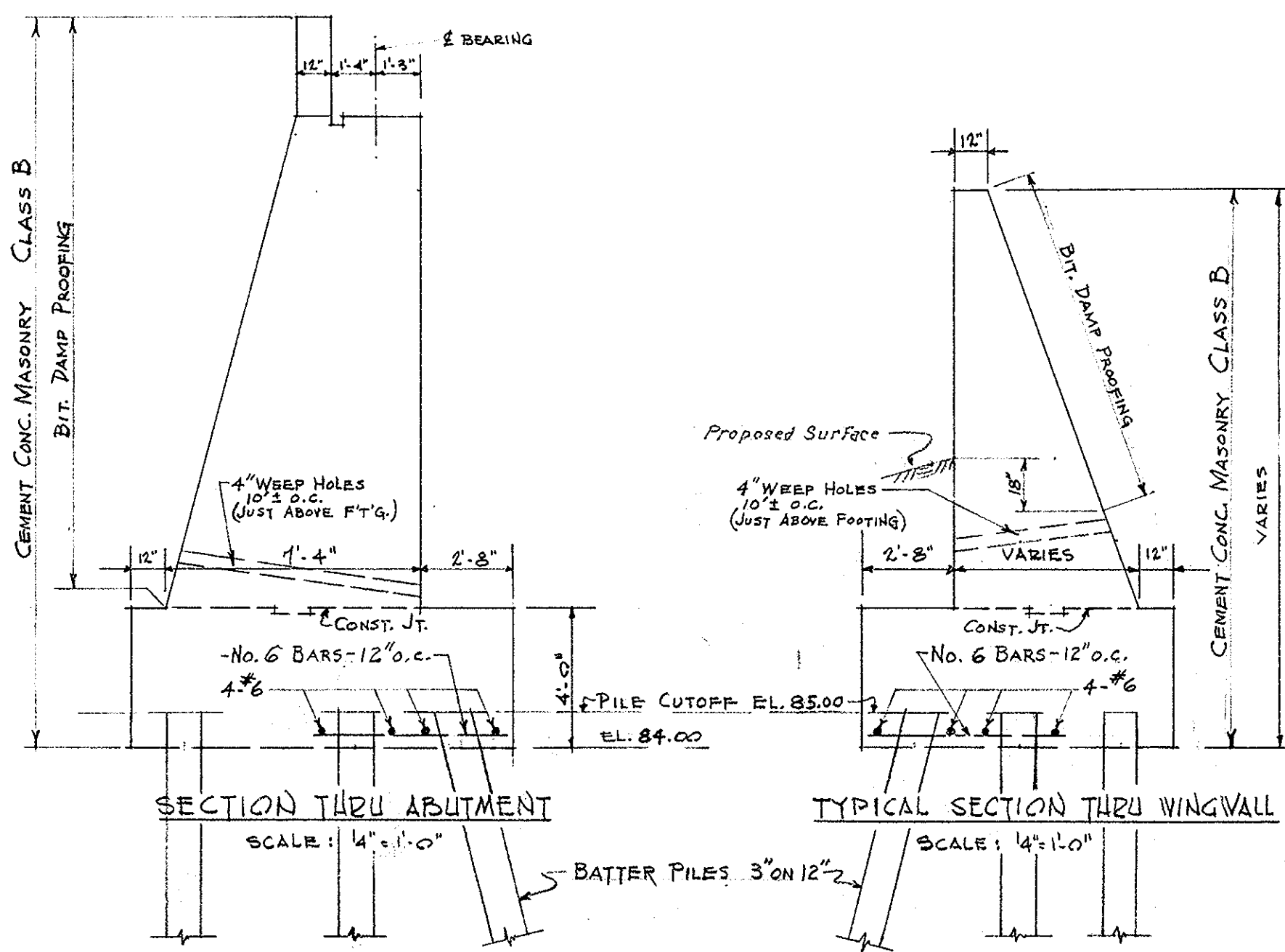
SPIRAL DETAIL
SCALE: 1" = 1'-0"



COVER PLATE DETAILS
(NO SCALE)

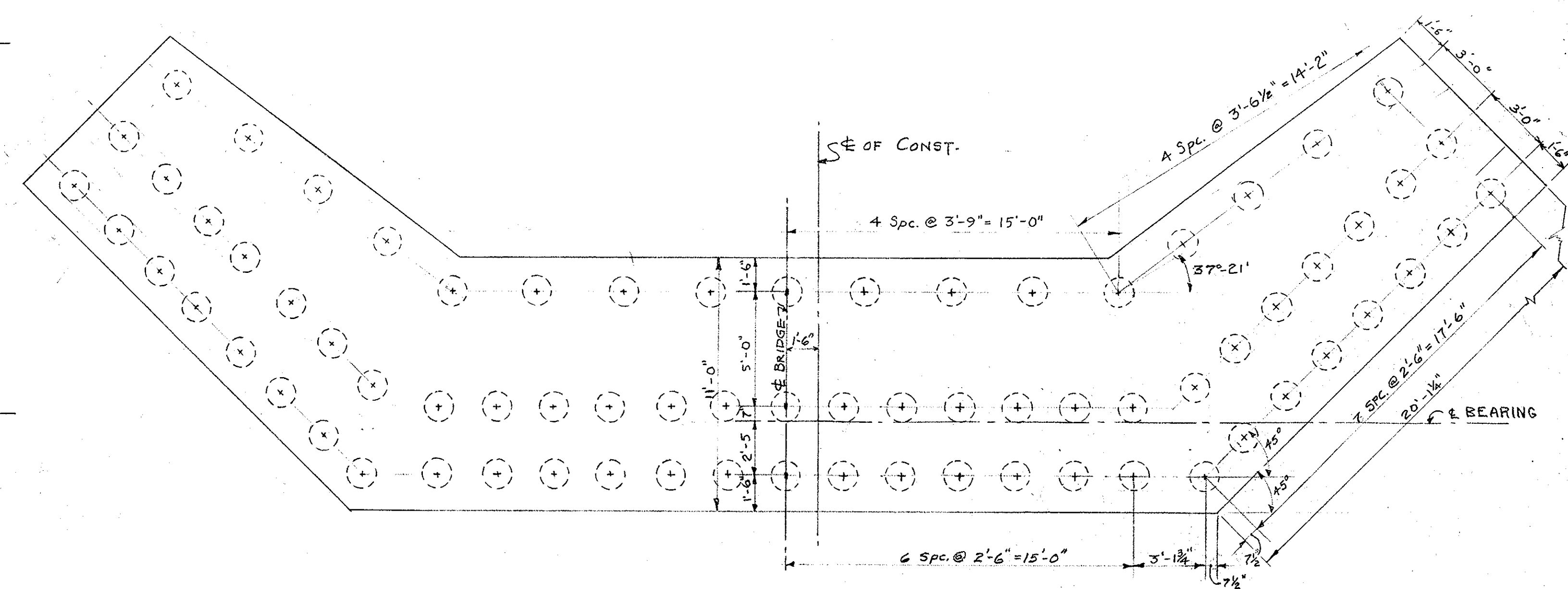


DETAILS OF SPIRAL REINFORCEMENT
(NO SCALE)

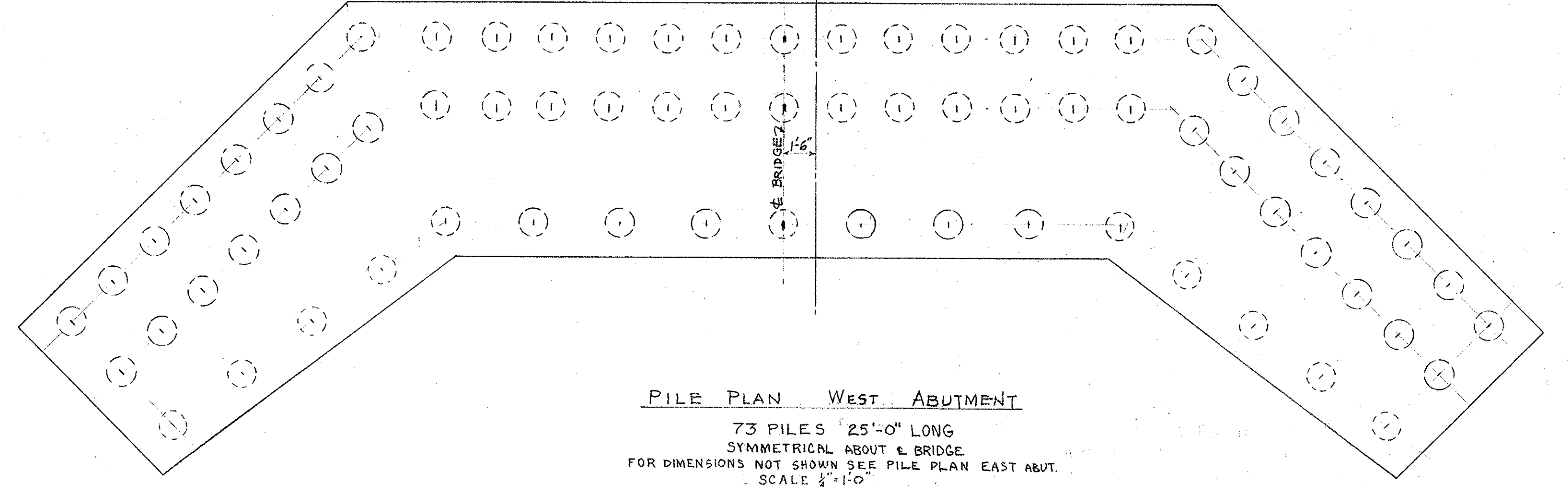


SECTION THRU ABUTMENT
SCALE: 1/4" = 1'-0"

TYPICAL SECTION THRU WINGWALL
SCALE: 1/4" = 1'-0"



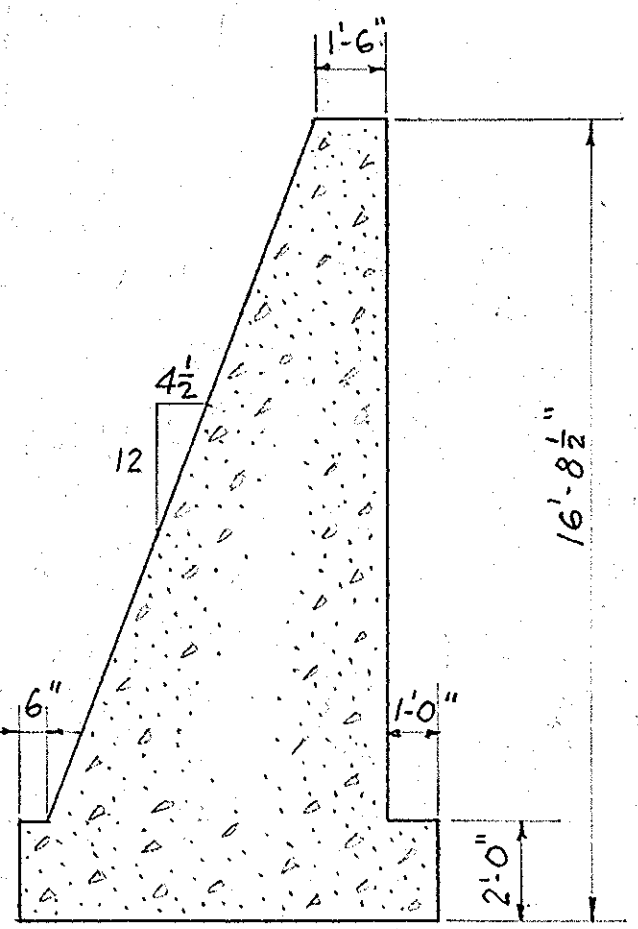
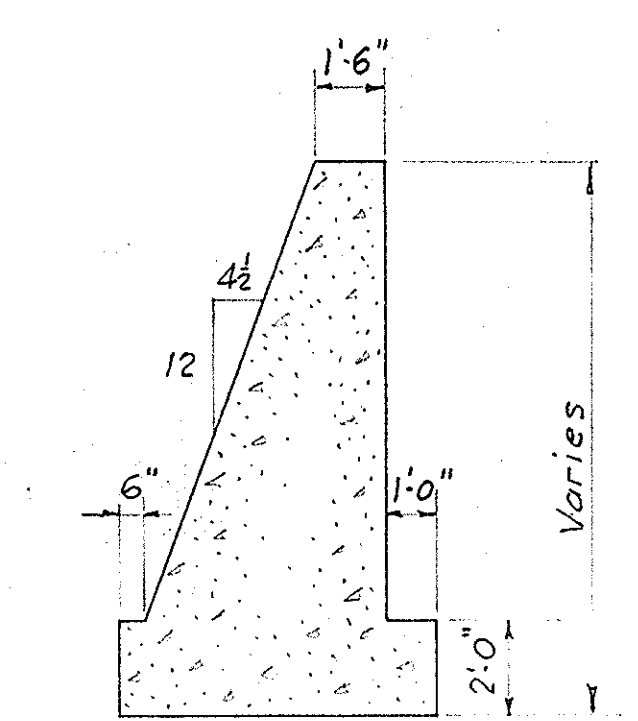
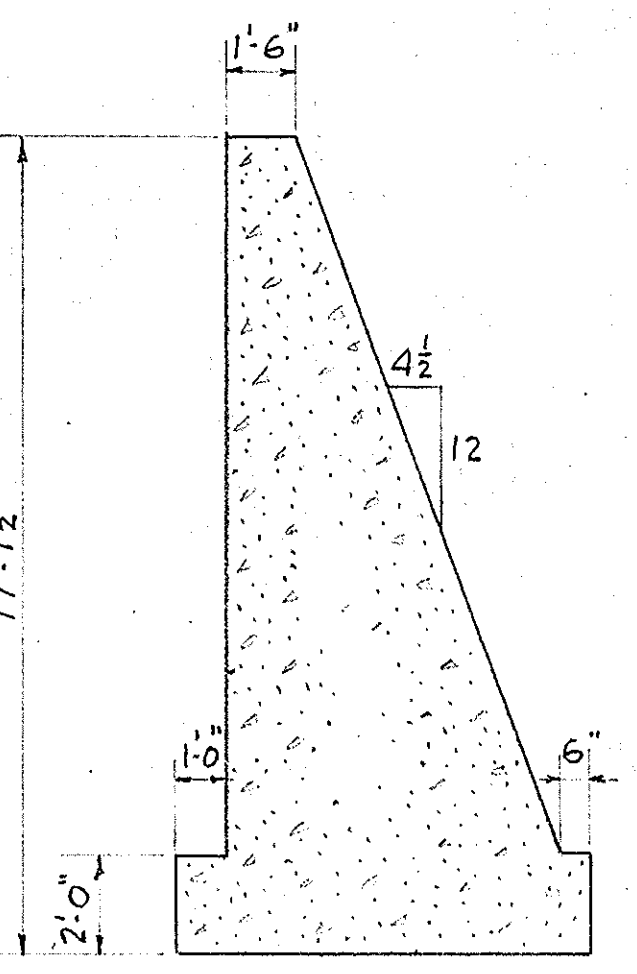
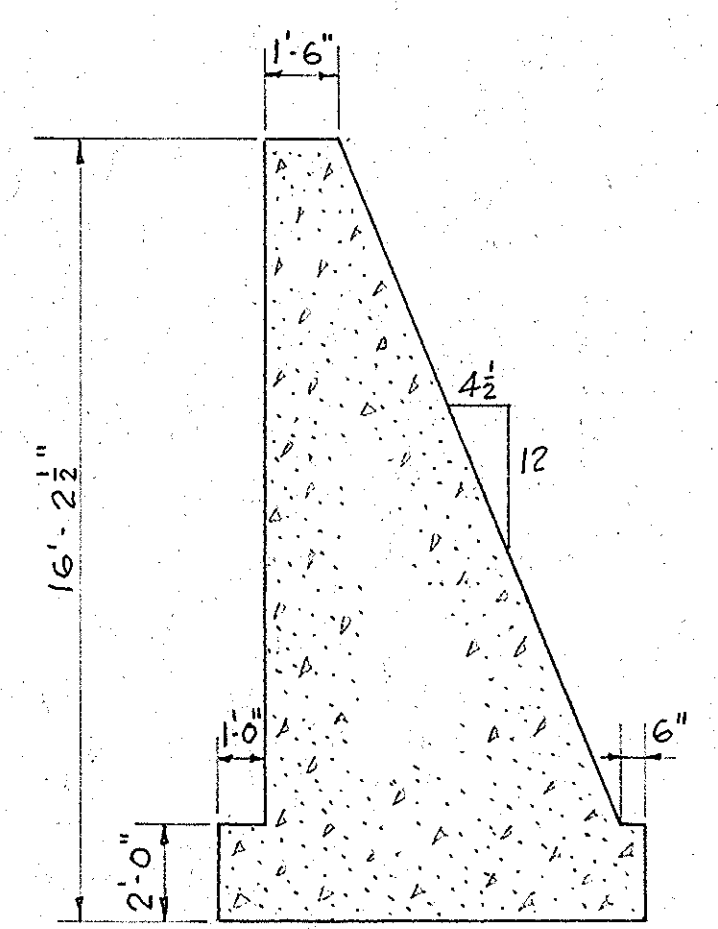
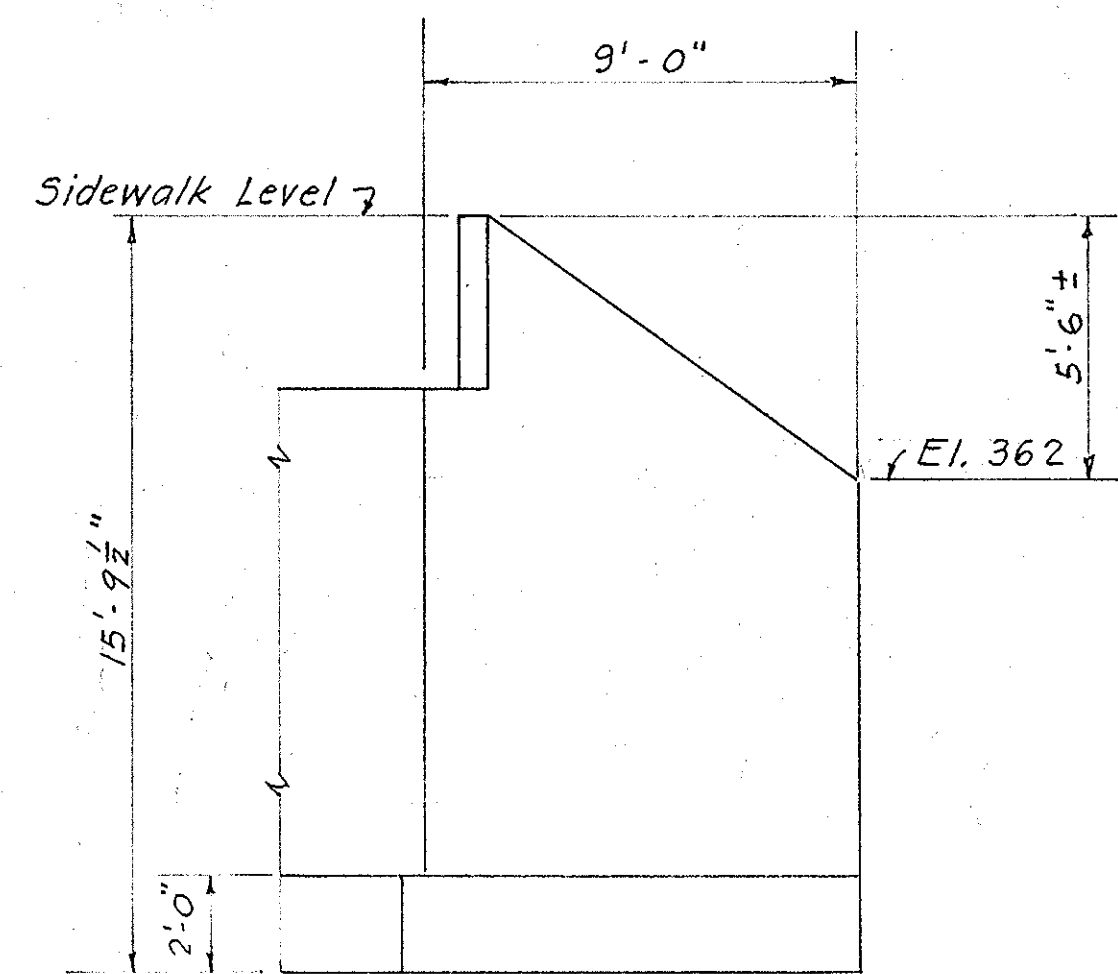
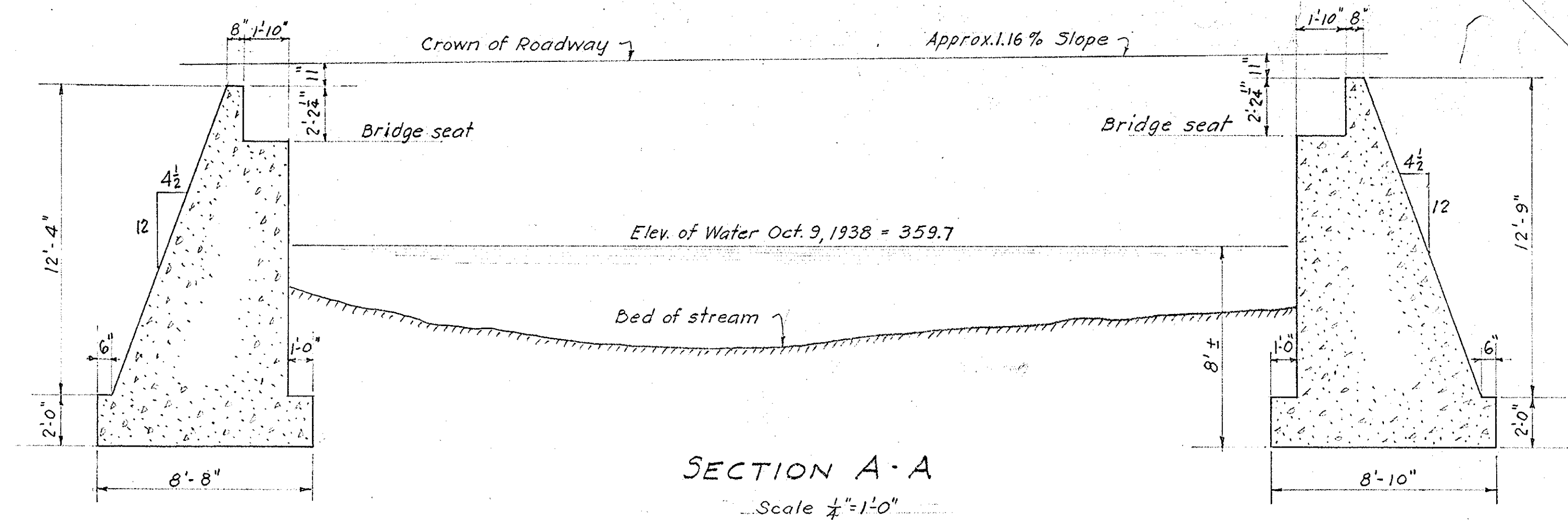
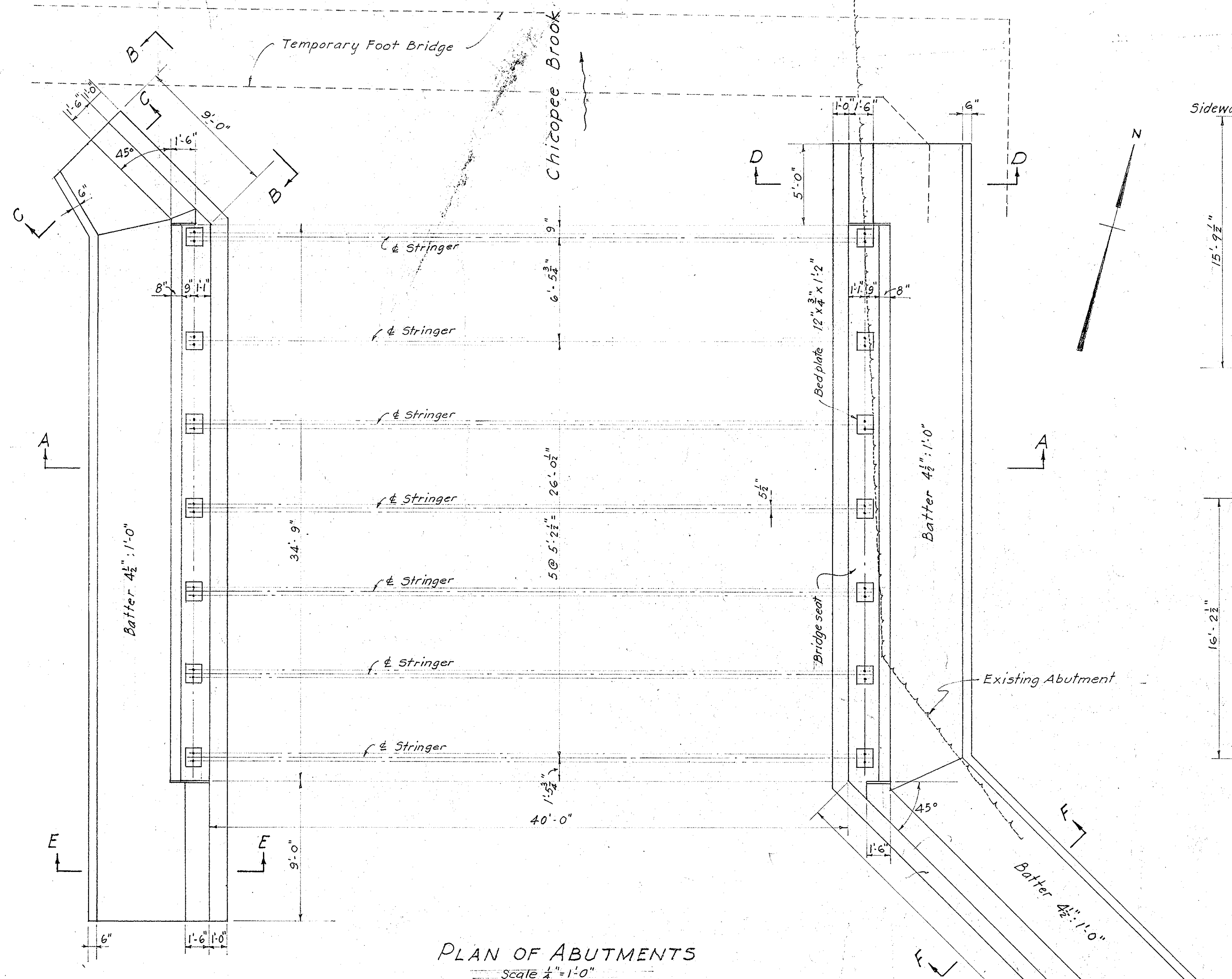
PILE PLAN EAST ABUTMENT
73 PILES 25'-0" LONG
SYMMETRICAL ABOUT & BRIDGE
SCALE: 1/2" = 1'-0"



PILE PLAN WEST ABUTMENT
73 PILES 25'-0" LONG
SYMMETRICAL ABOUT & BRIDGE
SCALE: 1/2" = 1'-0"

NOTE
PILES SHALL BE DRIVEN TO A BEARING
CAPACITY OF 20 TONS EACH AS DETERMINED
BY THE APPLICABLE PROVISIONS OF PARAGRAPH
C3.32 OF THE STANDARD SPECIFICATIONS.

DEC 21, 1958	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
	USE ONLY PRINTS OF LATEST DATE



ESTIMATED QUANTITIES

BRIDGE EXCAVATION	470 C.Y.
TRENCH LEDGE EXCAVATION	100 C.Y.
CHANNEL EXCAVATION	300 C.Y.
LEDGE EXCAVATION	50 C.Y.
GRAVEL BORROW	150 C.Y.
CONCRETE CLASS A	46 C.Y.
CONCRETE CLASS C	322 C.Y.
REINFORCING STEEL	9,800 Lbs.
STRUCTURAL STEEL	31,800 Lbs.
2 RAIL STEEL FENCE	88 L.F.
RIP RAP	40 C.Y.
REMOVAL OF SUPERSTRUCTURE	L.S.
MAINTENANCE AND REMOVAL OF TEMPORARY BRIDGE	L.S.

GENERAL NOTES

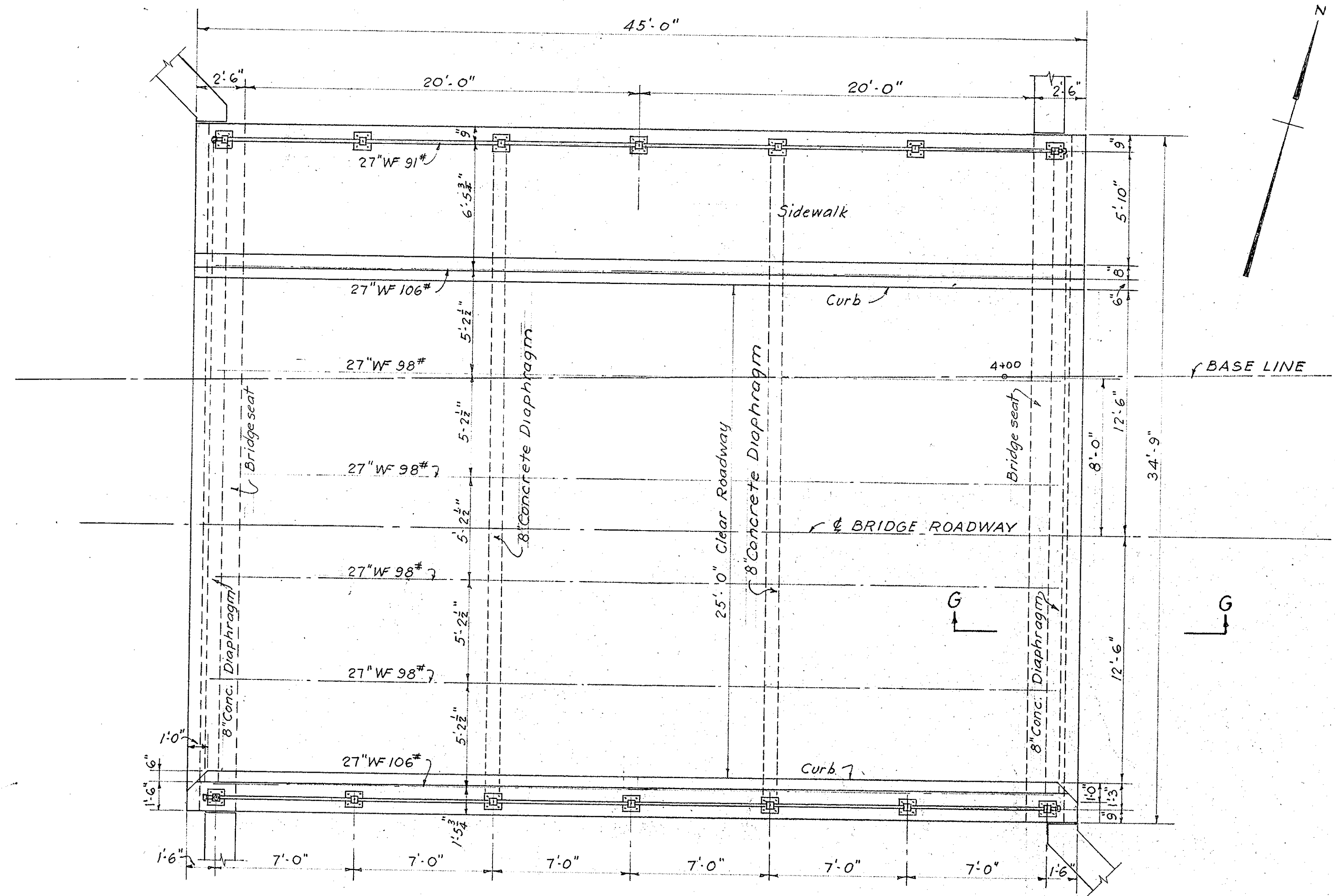
- FINISH:** All exposed concrete surfaces to be rubbed smooth with corundum brick and left free from all form marks and imperfections.
- FOUNDATIONS:** May be altered if necessary to suit conditions of construction.
- DESIGN:** According to specifications of American Association of State Highway Officials (1935 Edition) for H-15 Loading.
- WEEP HOLES:** To be provided in wing walls and abutments as directed by the Engineer.
- CONCRETE:** All concrete in superstructure Class A. All concrete in wings and abutments Class C.
- RIP RAP:** As directed by the Engineer.

FOR
CONSTRUCTION
DATE 11/19/38

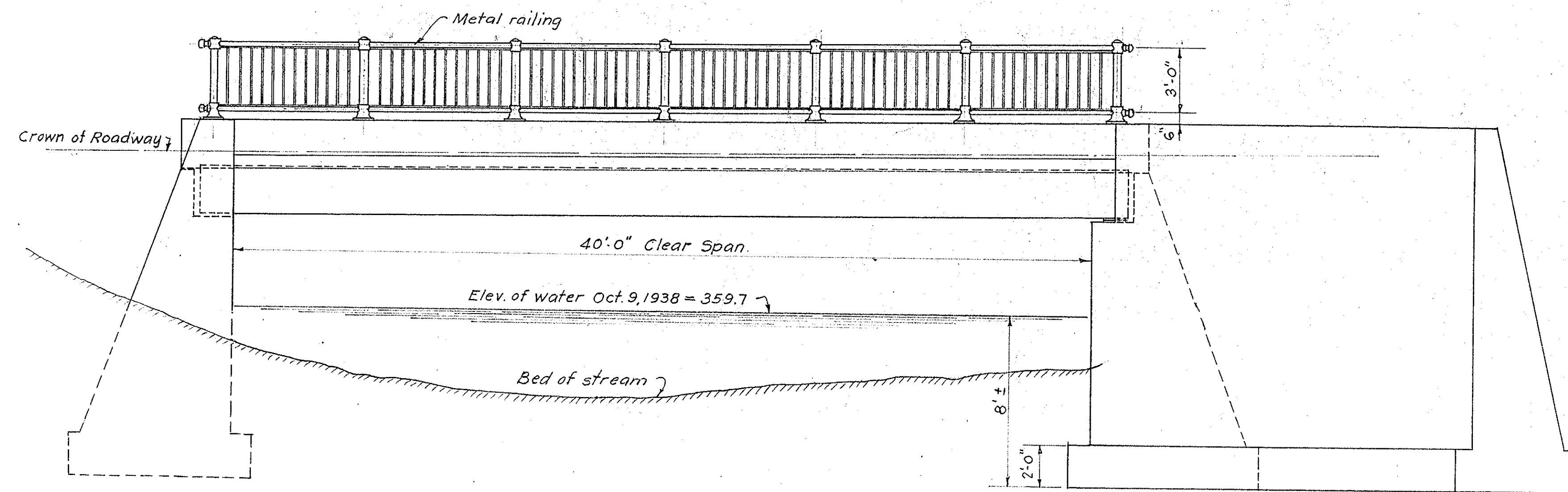
FAY, SPOFFORD & THORNDIKE
ENGINEERS
BOSTON, MASS.

THE COMMONWEALTH OF MASSACHUSETTS
PROPOSED BRIDGE
MONSON
CUSHMAN ROAD BRIDGE
OVER CHICOPEE BROOK
SCALE: $\frac{1}{4}'' = 1'-0''$
OFFICE OF
DEPARTMENT OF PUBLIC WORKS
100 NASHUA ST., BOSTON, MASS.
OCTOBER 1938

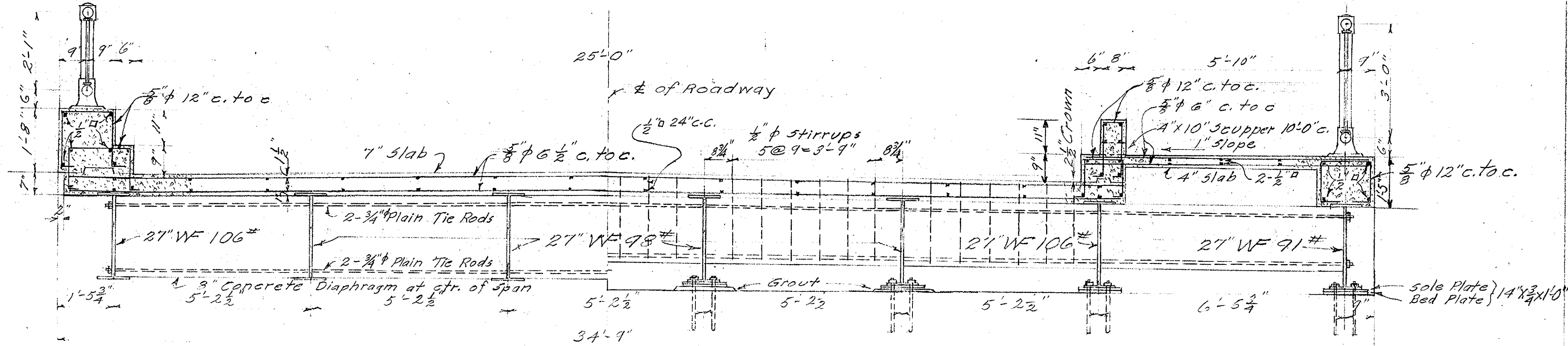
BRIDGE ENGINEER
DESIGNED BY
CHIEF ENGINEER
CHECKED BY



PLAN OF BRIDGE
SCALE $\frac{1}{4}$ " = 1'-0"



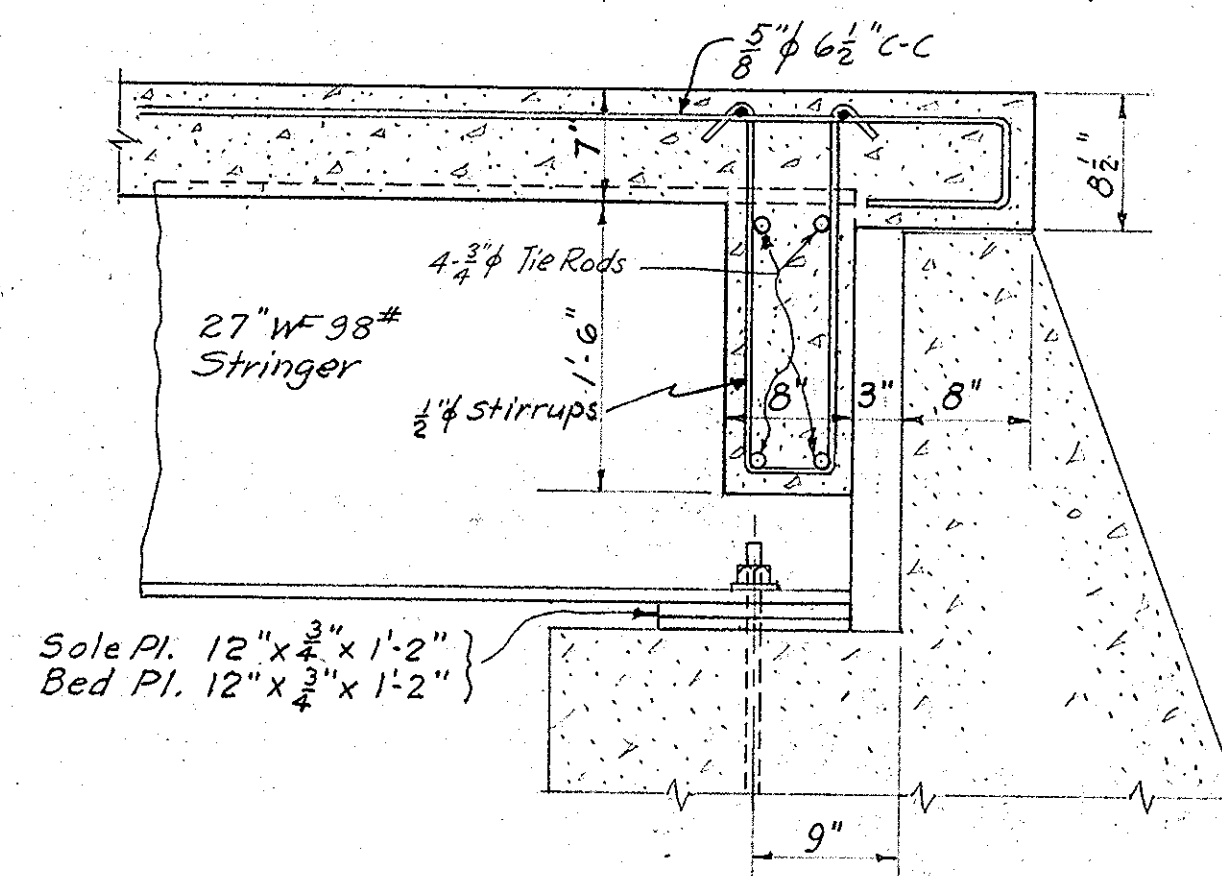
ELEVATION
SCALE $\frac{1}{4}$ " = 1'-0"



HALF SECTION AT MID SPAN

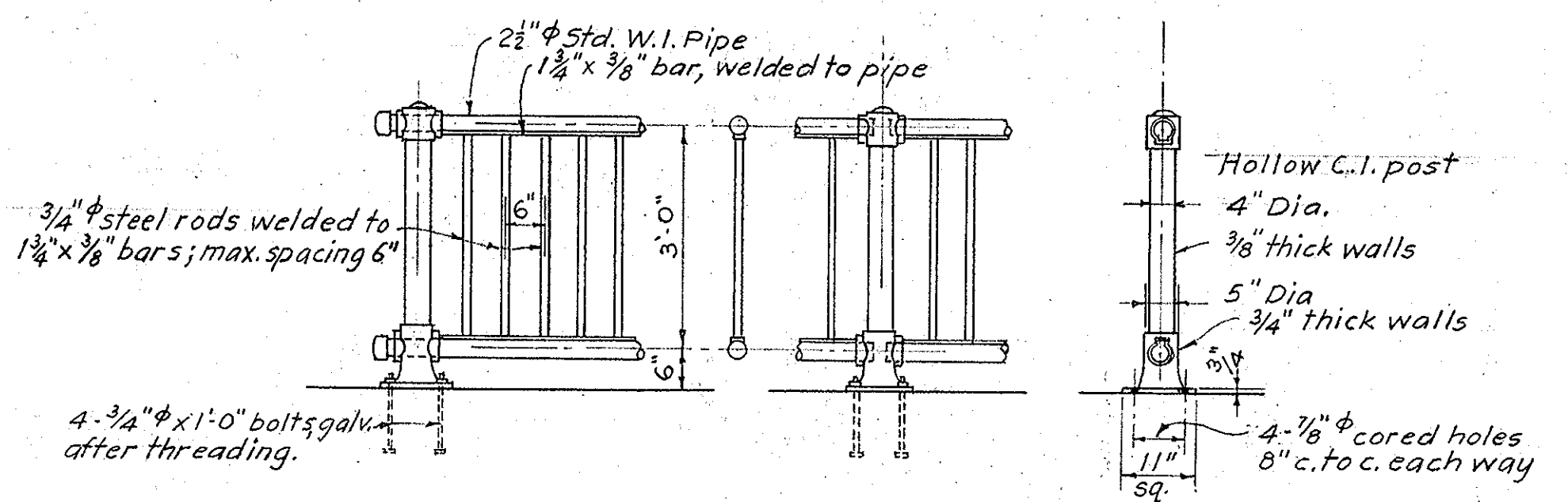
HALF SECTION AT ABUTMENT

Scale $\frac{1}{2}$ " = 1'-0"



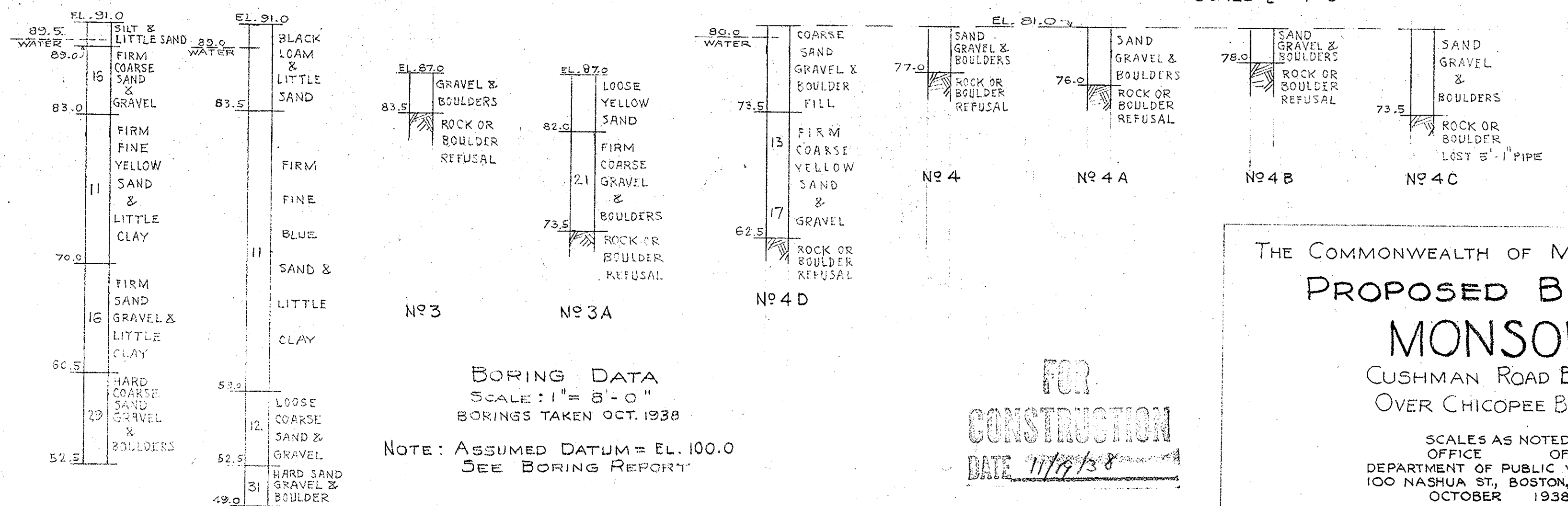
SECTION G-G

SCALE $1\frac{1}{2}$ " = 1'-0"



DETAIL OF METAL RAILING

SCALE $\frac{1}{2}$ " = 1'-0"



BORING DATA
SCALE: 1" = 5'-0"
BORINGS TAKEN OCT. 1938

NOTE: ASSUMED DATUM = EL. 100.0
SEE BORING REPORT

FOR
CONSTRUCTION
DATE 11/18/38

FAY, SPOFFORD & THORNDIKE
ENGINEERS
BOSTON, MASS.

THE COMMONWEALTH OF MASSACHUSETTS
PROPOSED BRIDGE
MONSON
CUSHMAN ROAD BRIDGE
OVER CHICOPEE BROOK
SCALES AS NOTED
OFFICE OF
DEPARTMENT OF PUBLIC WORKS
100 NASHUA ST., BOSTON, MASS.
OCTOBER 1938

DESIGNED BY: TRACED BY: CHECKED BY:

GENERAL NOTES

FOUNDATIONS:

MAY BE ALTERED, IF NECESSARY, TO SUIT CONDITIONS OF CONSTRUCTION.

DESIGN:

ACCORDING TO SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS (1944 ED.) FOR H-15 LOADING.

BENCH MARK:

STATION 11+33, 28.5 LEFT, SOUTHWEST CORNER OF CONCRETE FOUNDATION POST, ELECTRIC SUBSTATION FENCE, EL. 167.51 (SEA LEVEL DATUM OF 1929)

ESTIMATED QUANTITIES (NOT GUARANTEED)

BRIDGE EXCAVATION.....	200	CU.YDS.
CHANNEL EXCAVATION.....	10	CU.YDS.
CLASS B ROCK EXCAVATION.....	5	CU.YDS.
TREES REMOVED (UNDER 24").....	1	EACH
GRAVEL BORROW.....	400	CU.YDS.
STRIPPING GRAVEL PITS.....	40	CU.YDS.
CLASS B CEM. CONC. MASONRY.....	175	CU.YDS.
STEEL REINF. FOR STRUCTURES.....	600	POUNDS
RIPRAP.....	25	CU.YDS.
GRANITE CURB TYPE VA. STR. (6'x12").....	44	LIN. FT.
CORRUGATED IRON ARCH.....		LUMPSUM
STONE FENCES.....		LUMPSUM

KEY PLAN

SCALE 1" = 40'-0"

PLAN

SCALE 1/4" = 1'-0"

PROFILE

HORIZ. SCALE 1" = 40'-0" VERT. SCALE 1" = 8'-0"

ADVERTISING 13 AUG. 1949 CONSTRUCTION 13 AUG. 1949

THE COMMONWEALTH OF MASSACHUSETTS

PROPOSED BRIDGE EXTENSION

SOUTH HADLEY

MORGAN STREET, STATION 12+06.85

OVER STONY BROOK

SCALES AS NOTED

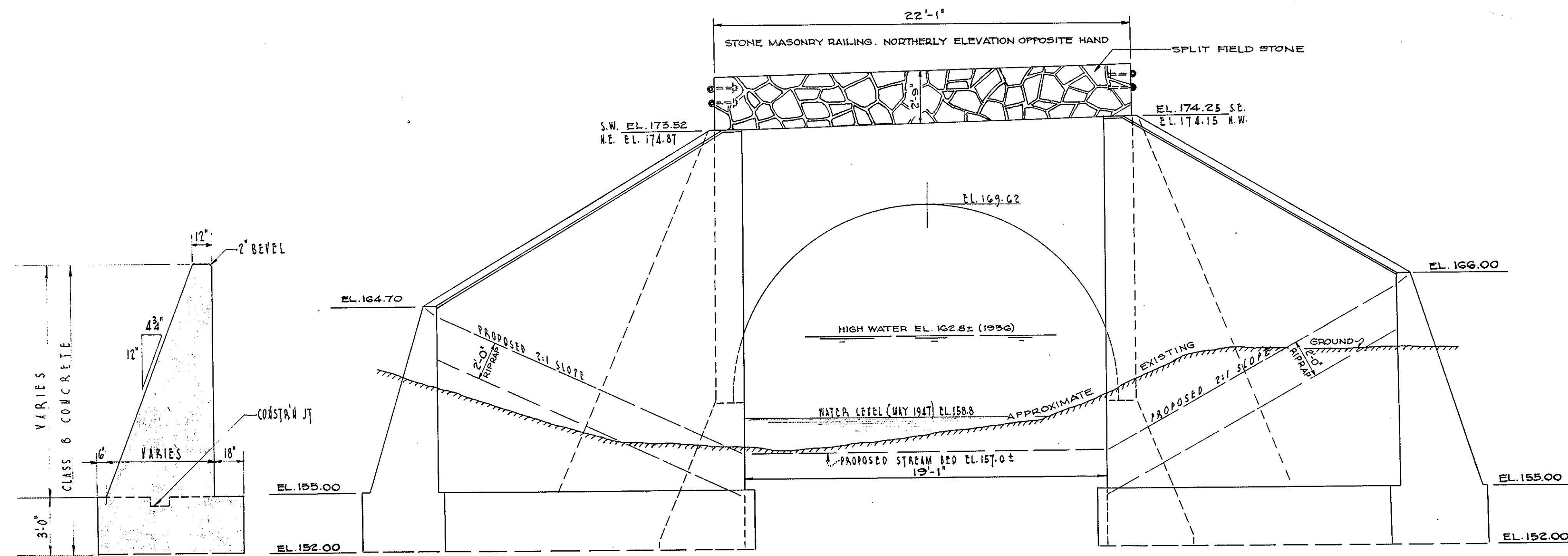
OFFICE OF
DEPARTMENT OF PUBLIC WORKS
100 NASSAU ST. BOSTON, MASS.
JULY 1949

R.O. Hoffman
BRIDGE ENGINEER

M. J. M. Talbot
CHIEF ENGINEER

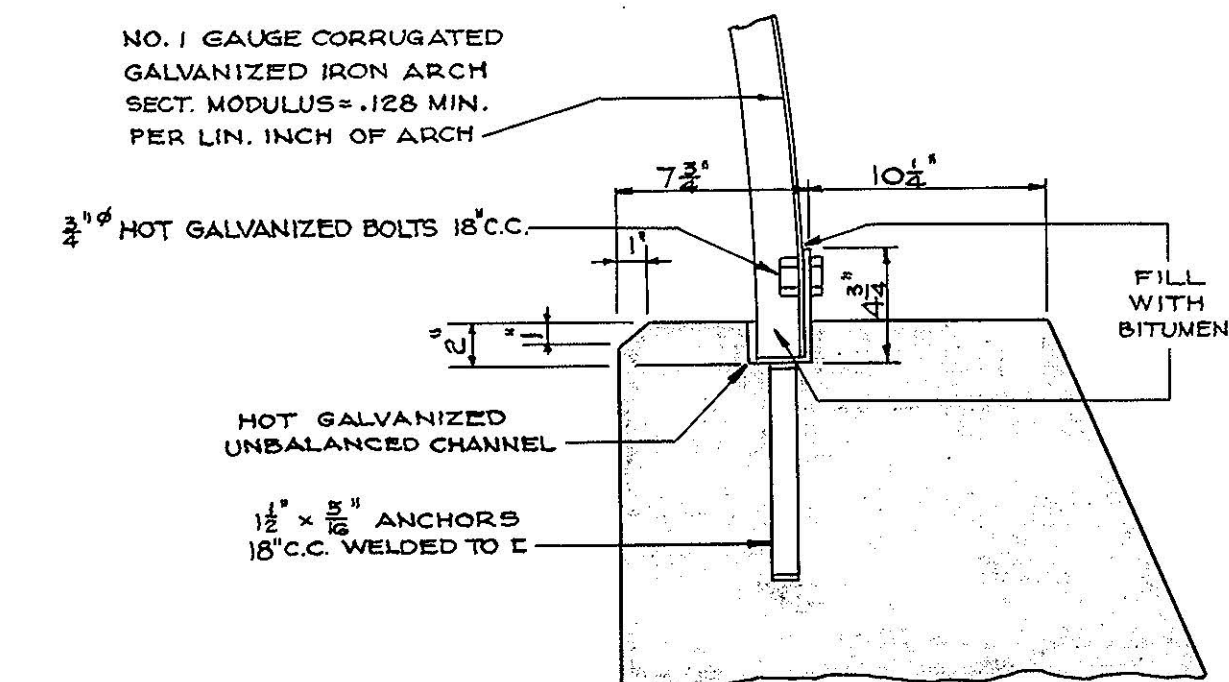
DESIGNED BY M.J.M. TRACED BY R.A.M. CHECKED BY P.C.M.

SHEET 1 OF 2 SHEETS BRIDGE NO. S-18-10

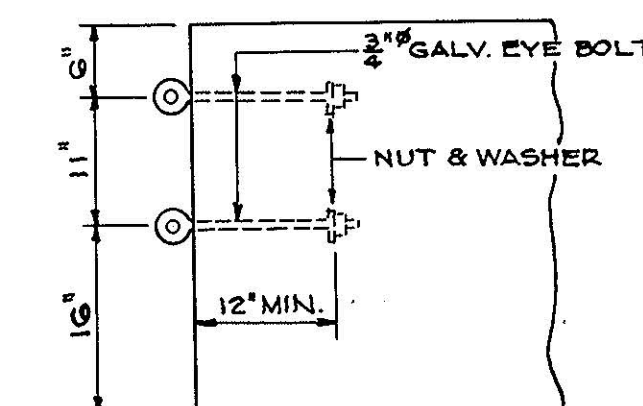


TYPICAL WING SECTION
SCALE: $\frac{1}{4}'' = 1'-0''$

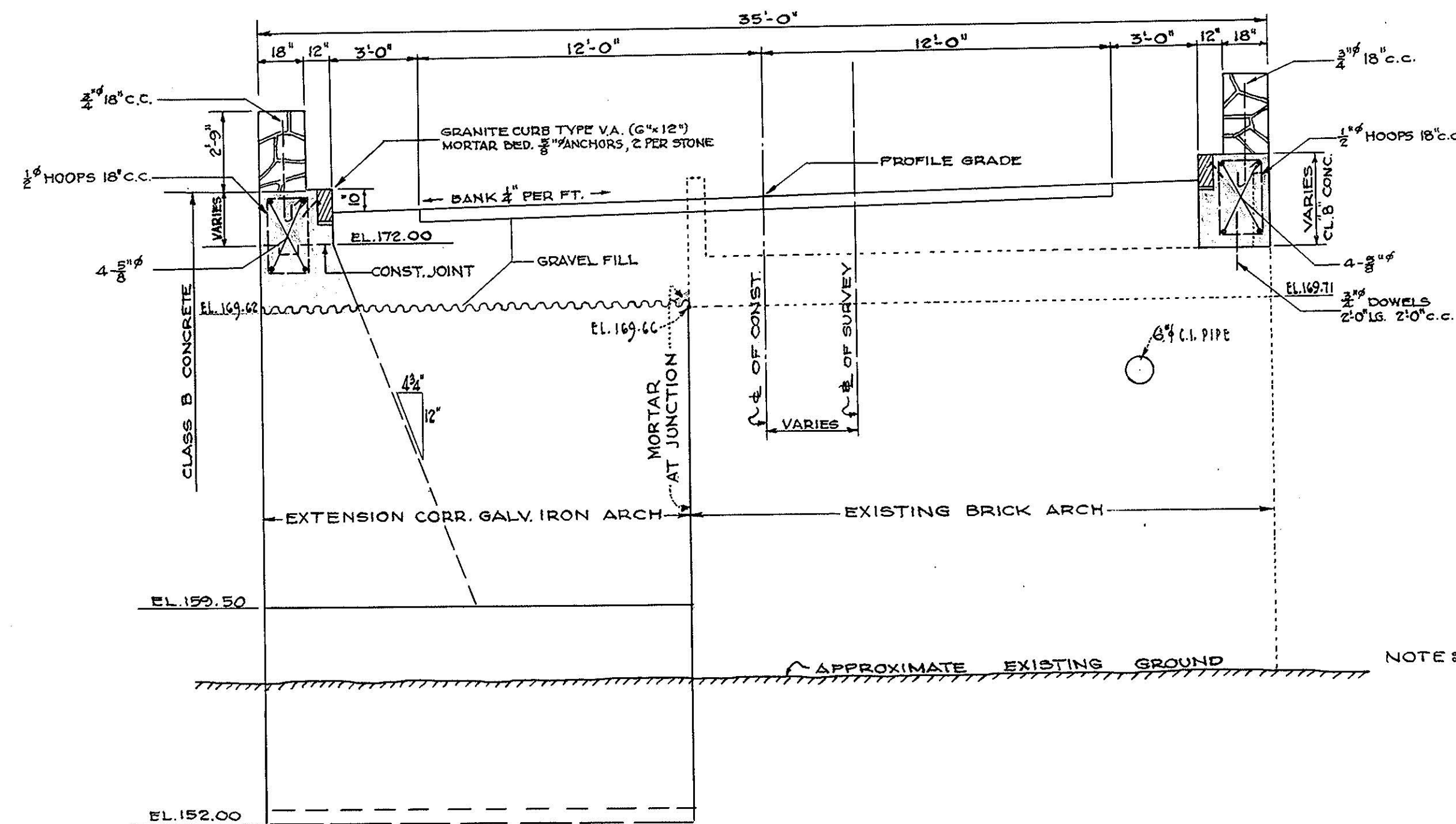
SOUTHERLY ELEVATION
SCALE: $\frac{1}{4}'' = 1'-0''$



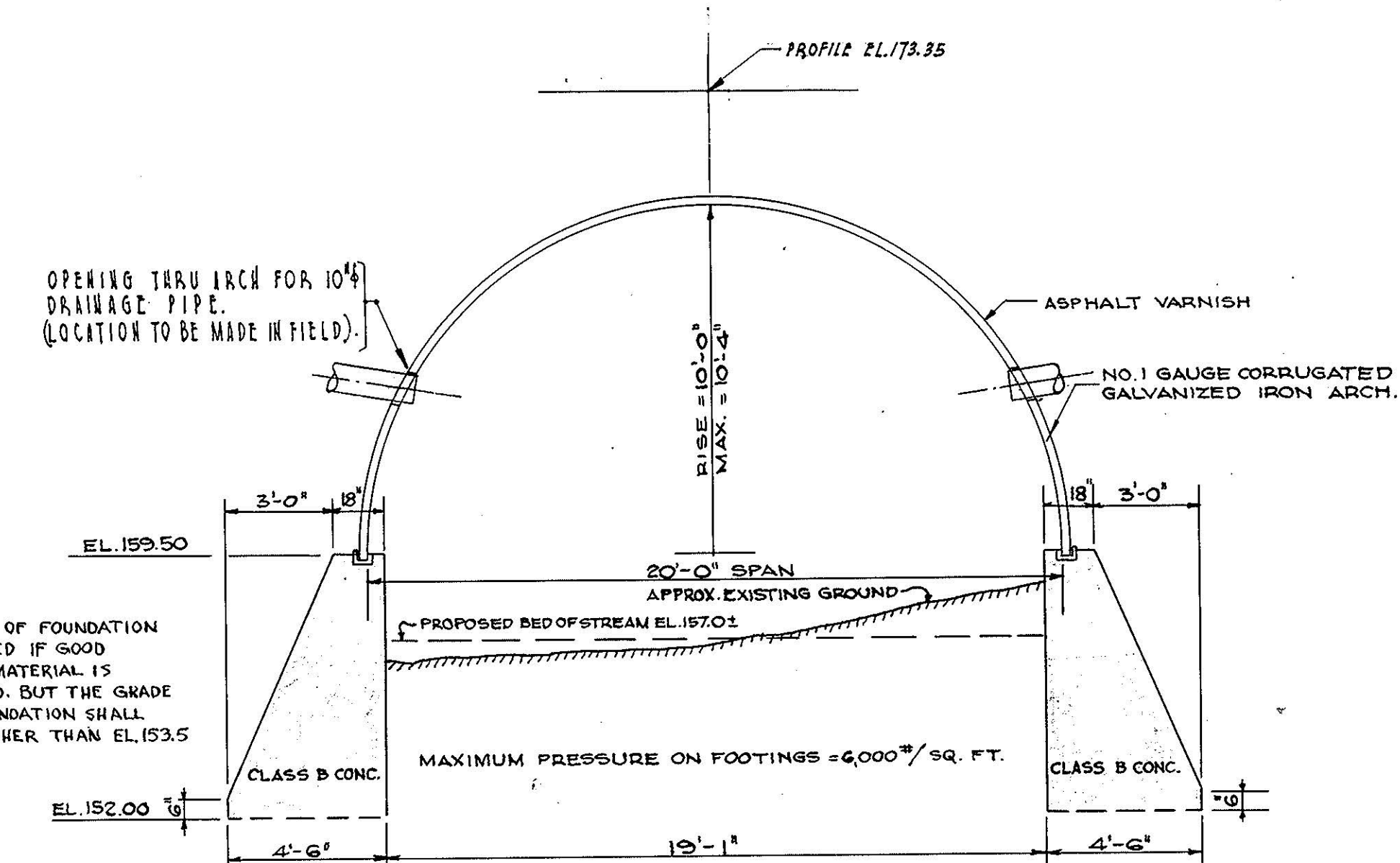
ARCH SEAT DETAIL
SCALE: $\frac{1}{2}'' = 1'-0''$



DETAIL OF
GUARD CABLE ANCHORS
SCALE: $\frac{3}{4}'' = 1'-0''$



CROSS SECTION
SCALE: $\frac{1}{2}'' = 1'-0''$



LONGITUDINAL SQUARE SECTION OF IRON ARCH
SCALE: $\frac{1}{4}'' = 1'-0''$

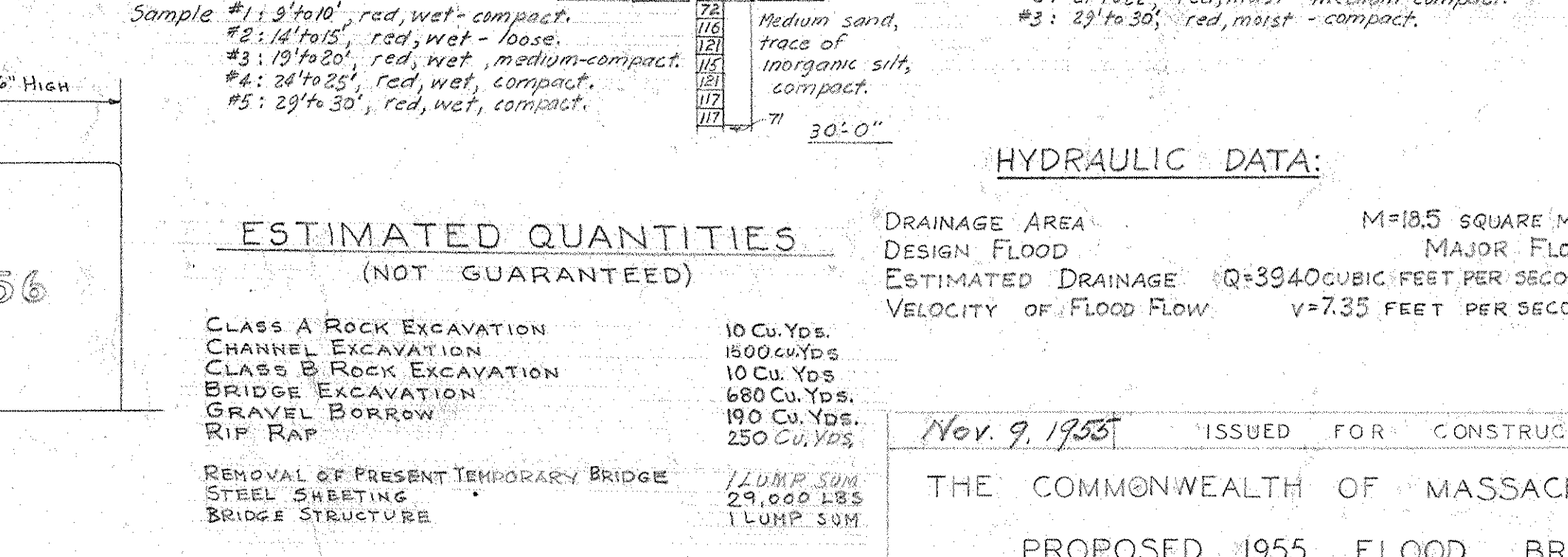
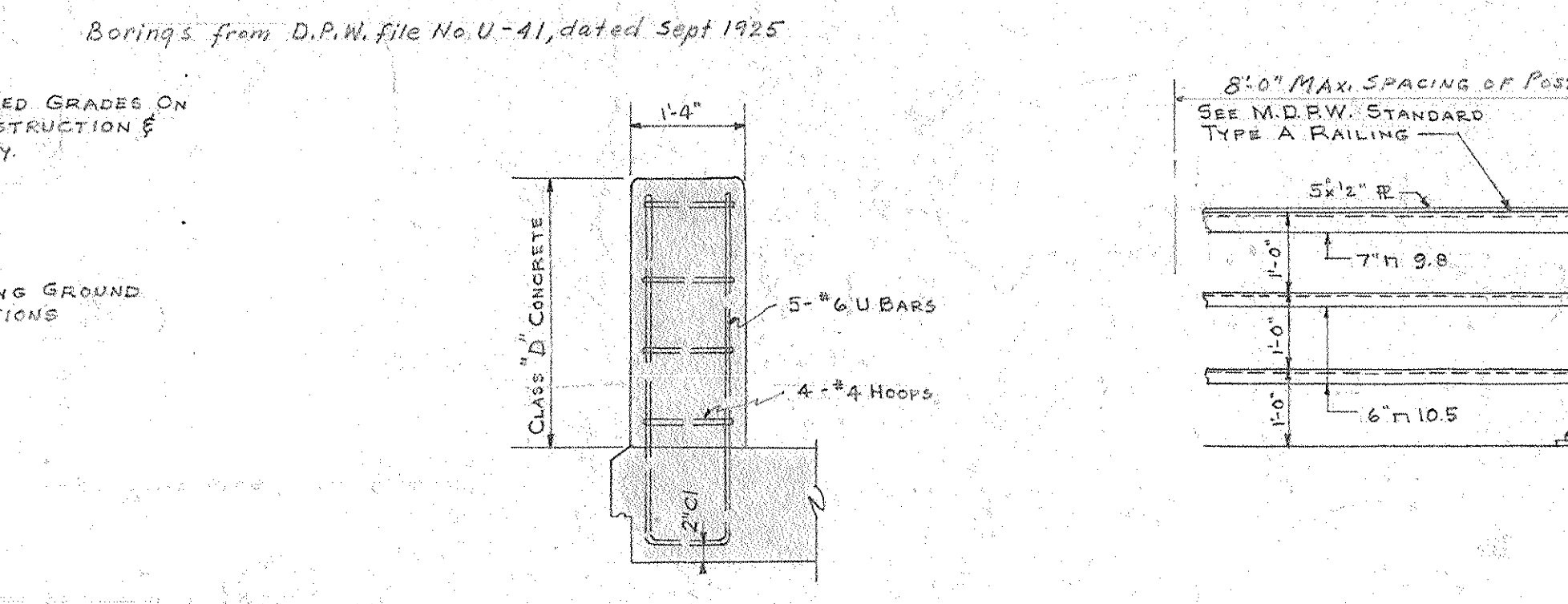
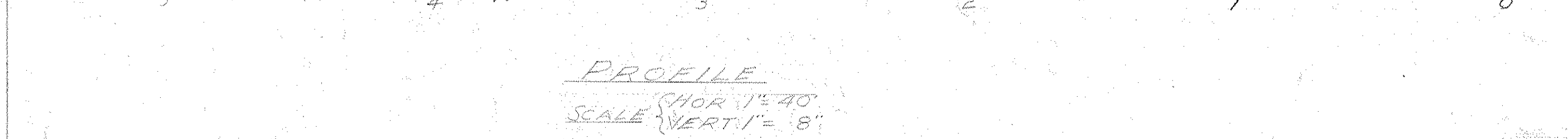
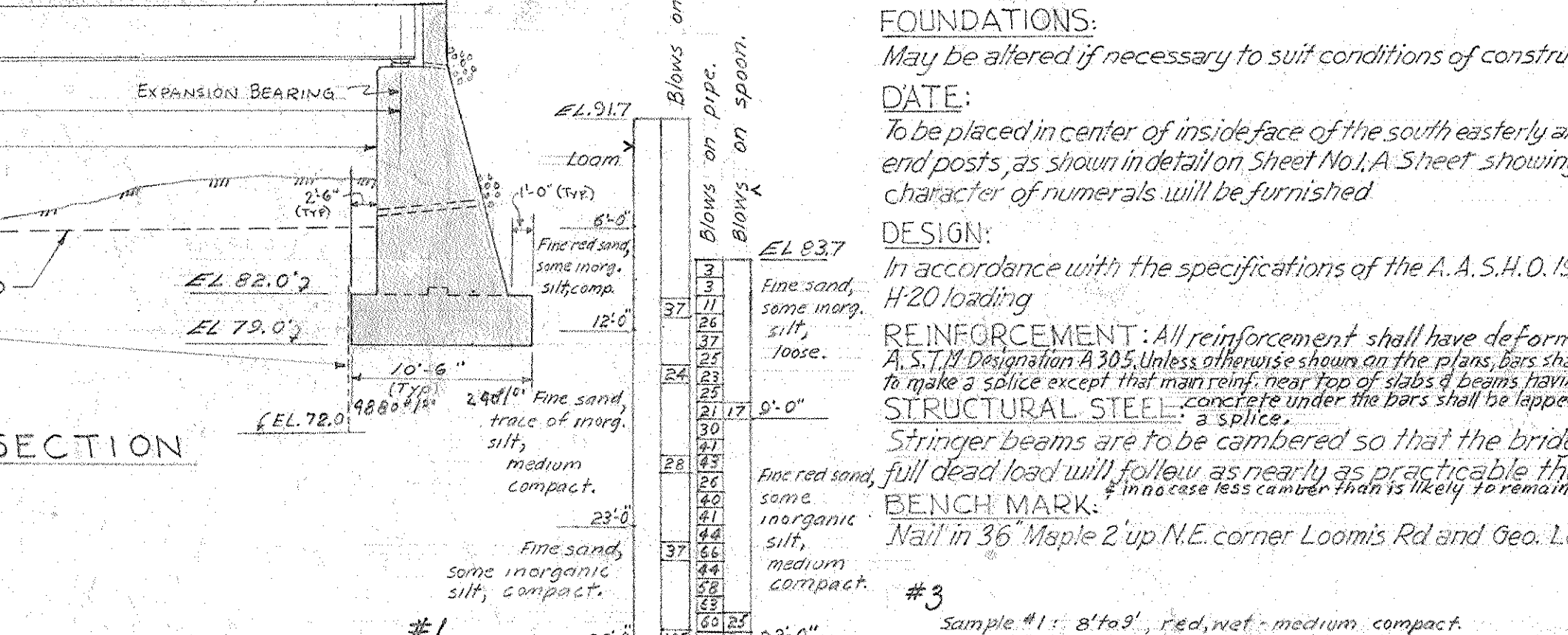
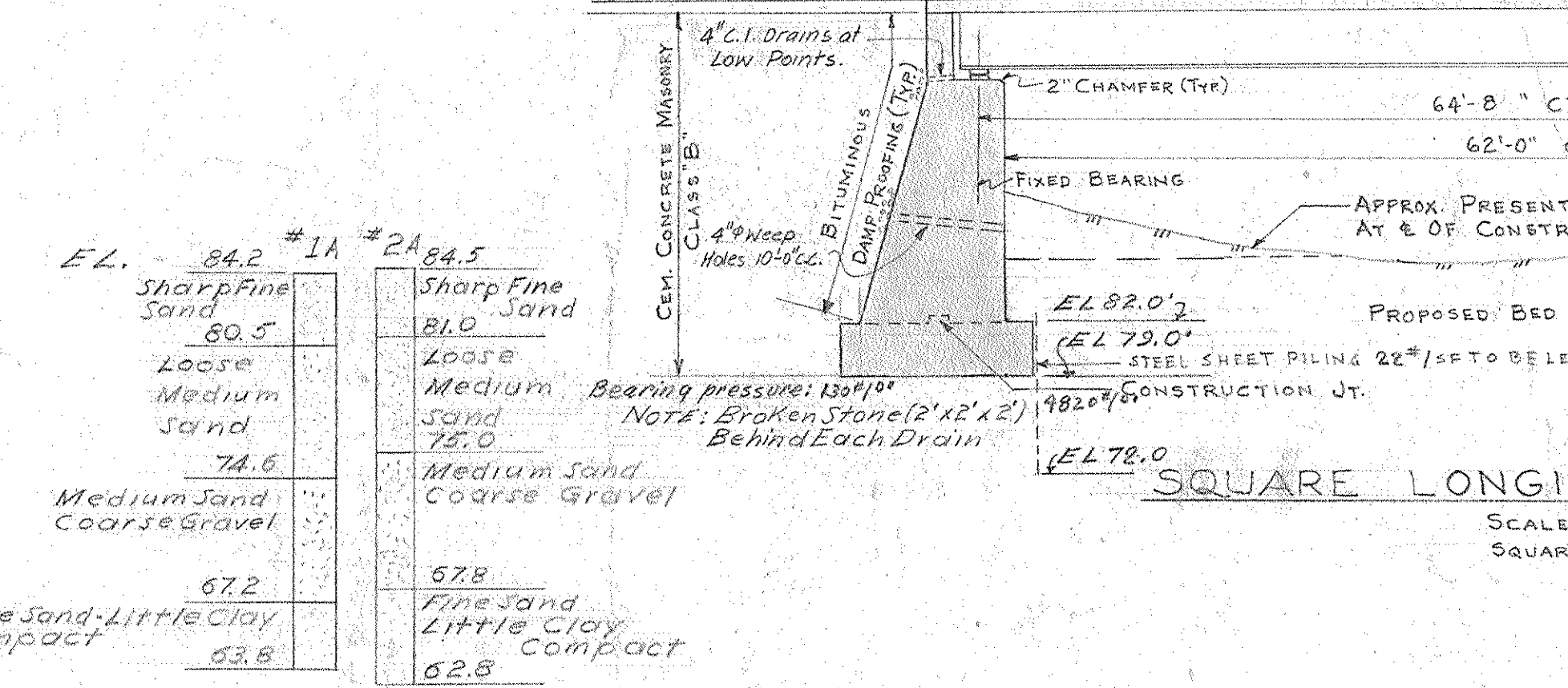
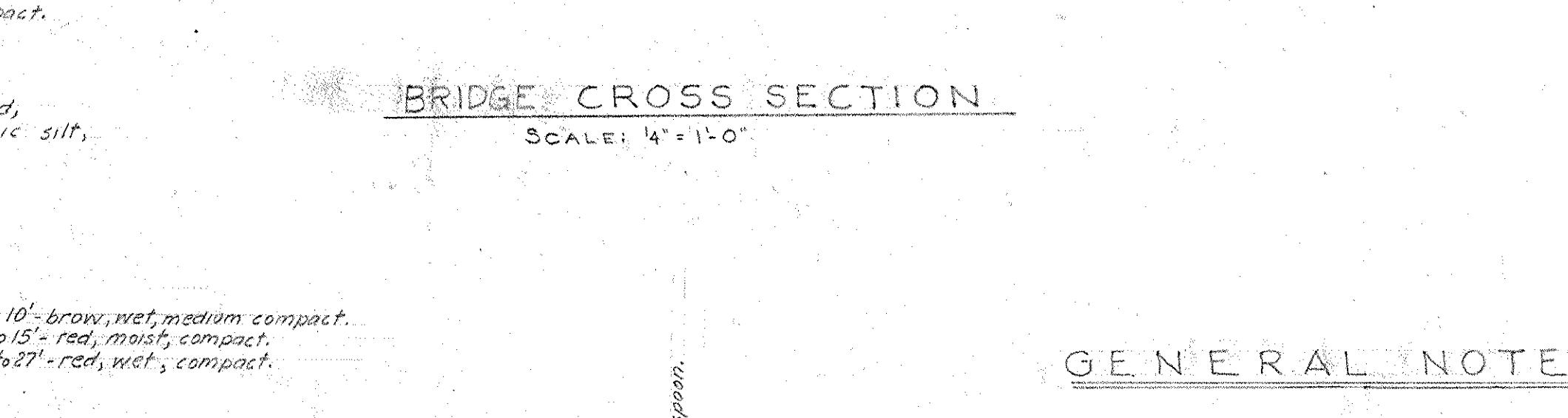
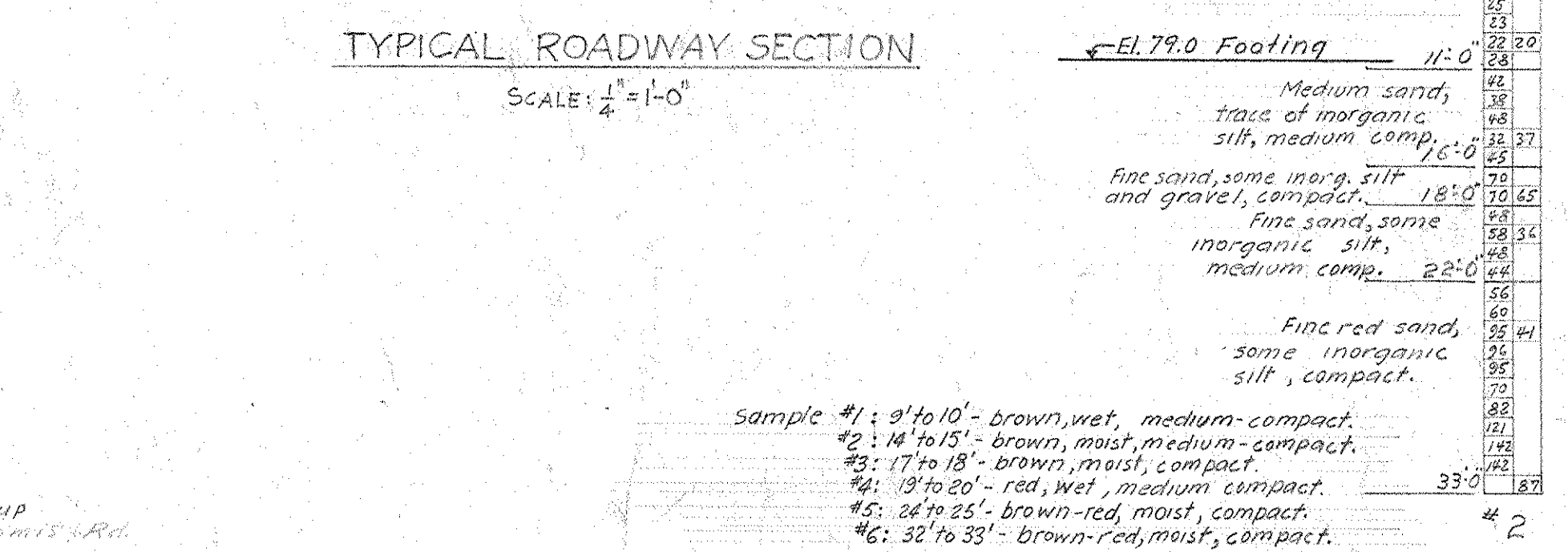
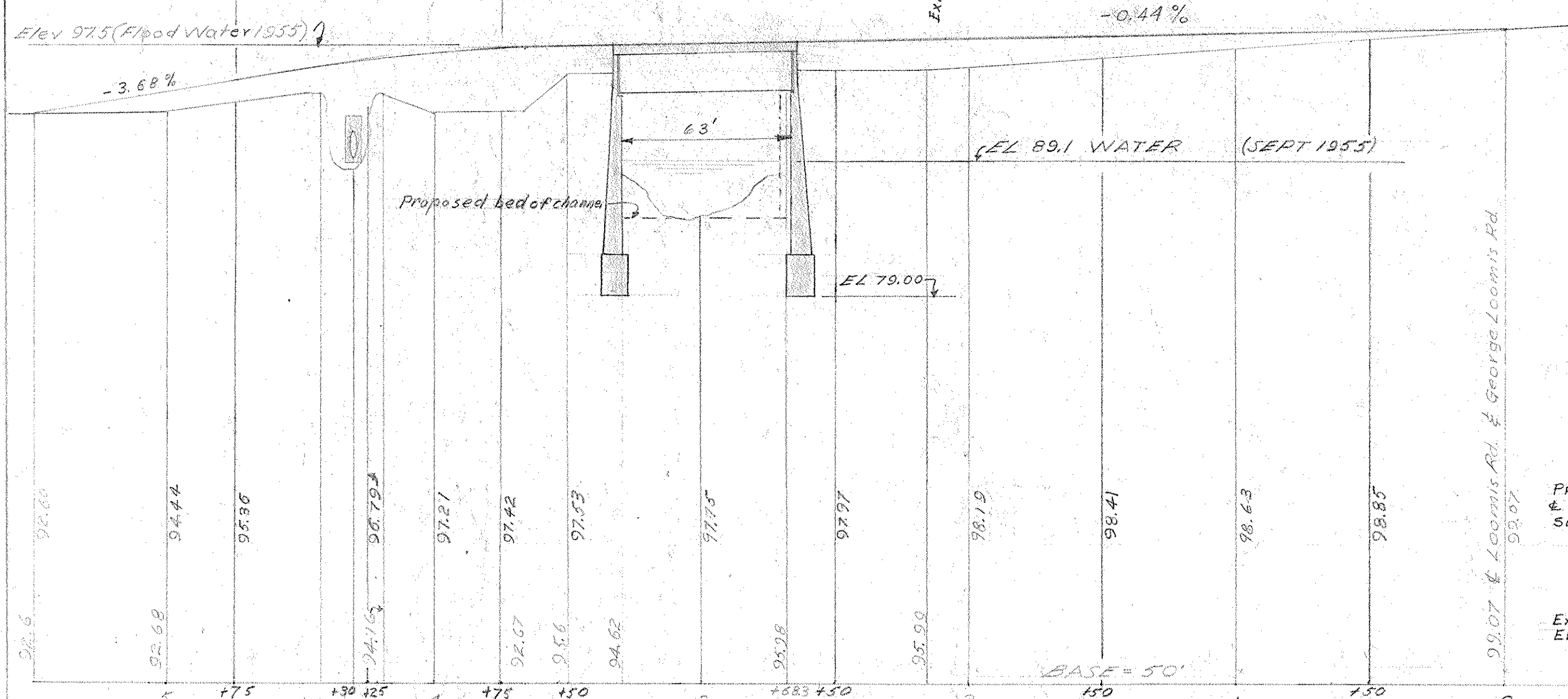
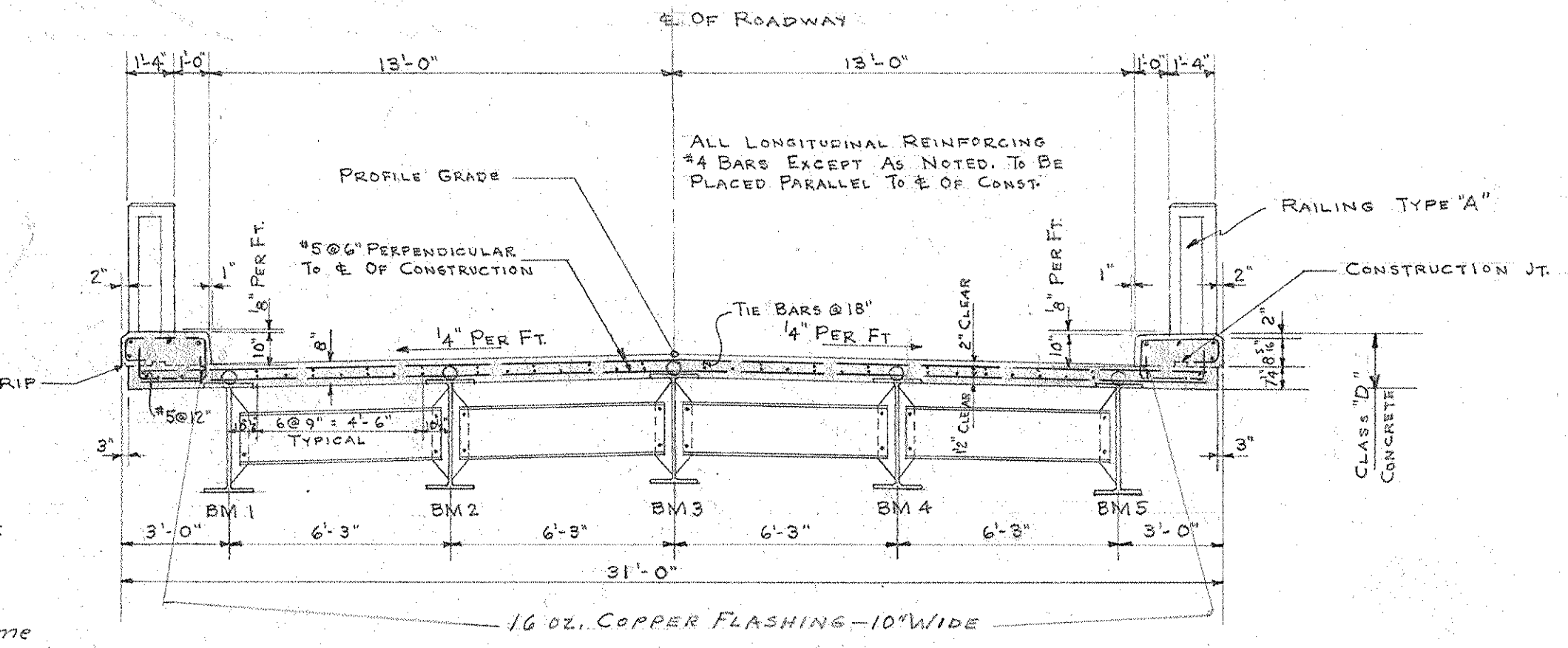
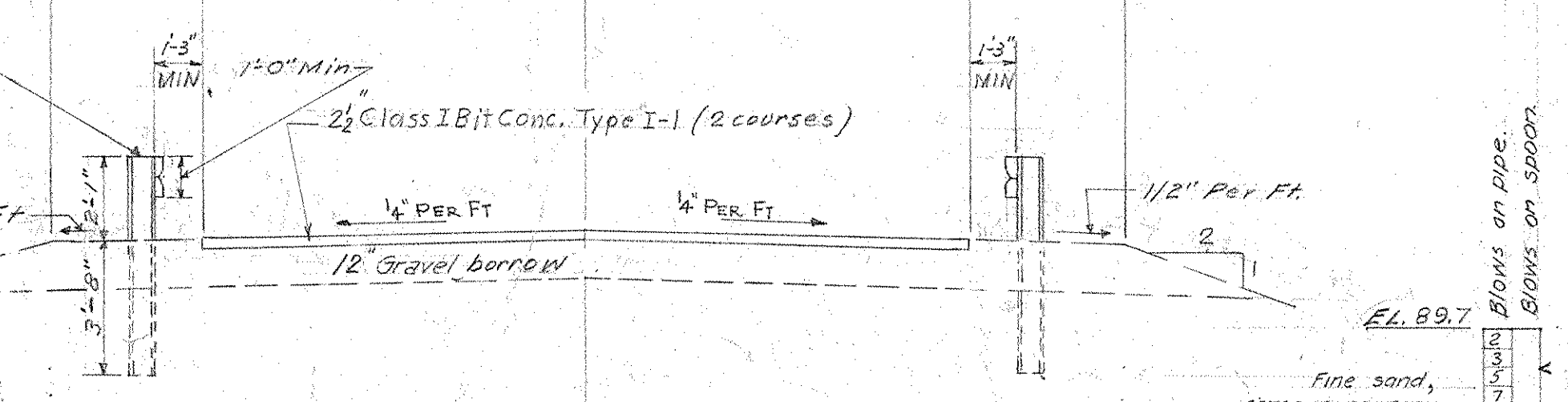
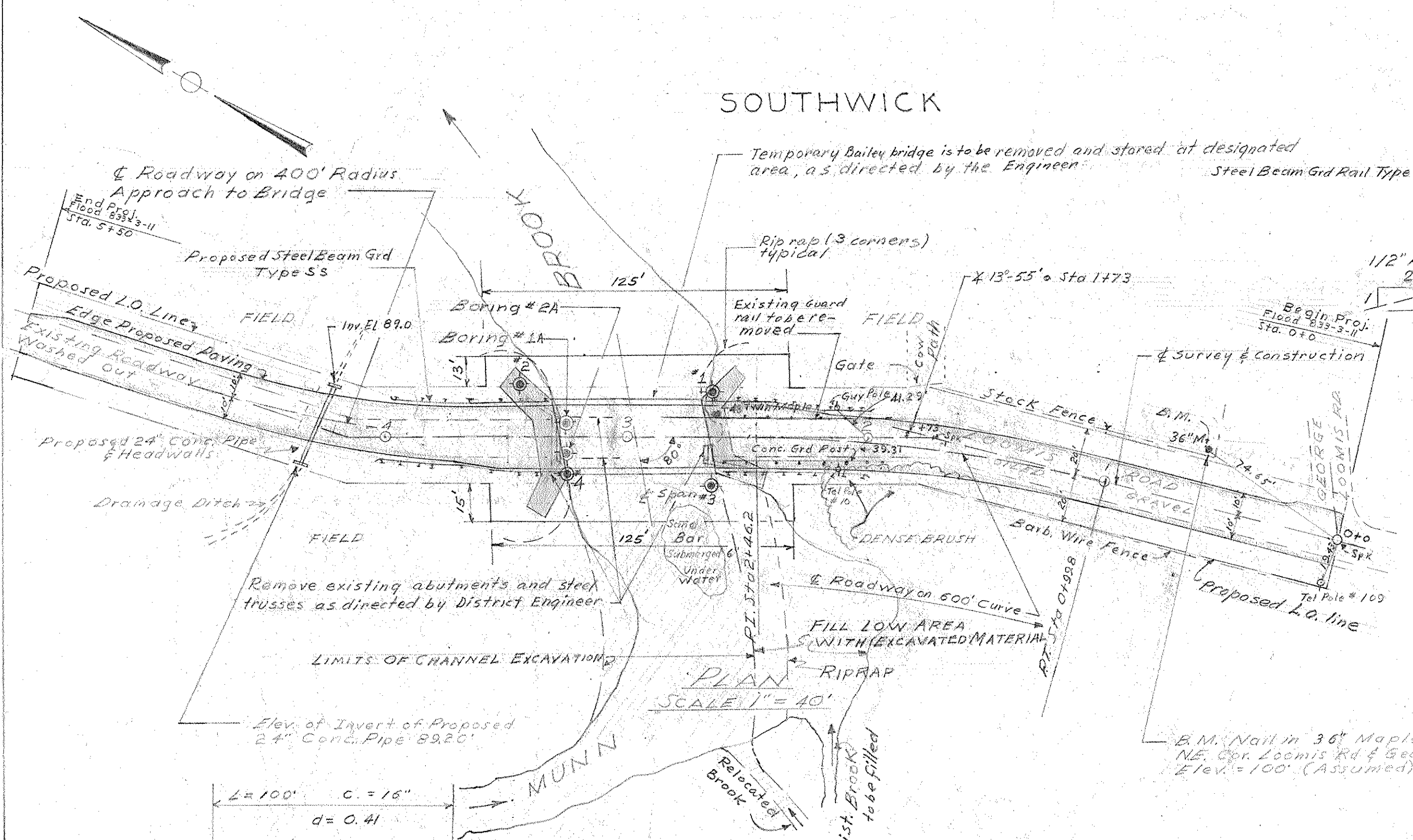
18 Aug. 1949	CONSTRUCTION
19 Aug. 1949	ADVERTISING
DATE	DESCRIPTION
USE ONLY PRINTS OF LATEST DATE	



THE COMMONWEALTH OF MASSACHUSETTS
PROPOSED BRIDGE REPAIRS
SOUTHWICK
STATION 1+79.25
OVER MUNN BROOK
SCALE FOUR FEET TO THE INCH UNLESS OTHERWISE NOTED
OFFICE OF
DEPARTMENT OF PUBLIC WORKS
STATE HOUSE, BOSTON, MASS.
DECEMBER 1927
J. E. Harkness
BRIDGE ENGINEER
DESIGNED BY L.M.H. DRAWN BY L.M.H. CHECKED BY A.C.S.
1 SHEET No. S-22-1

STEEL GUARD RAIL TYPE SS
Sta 210 to 2+65 Right & Left
3+27 to 4+0 " " "

Width of Surface	Width of Shoulders
Sta 0+0 to 1+60	20' to 26'
1+60 to 2+49	20' to 26'
2+49 to 2+65	26'
2+65 to 3+27	26'
3+27 to 4+15	26' to 20'
4+15 to 5+55	20'
VARIES 10'-0" to 13'-0"	VARIES 10'-0" to 13'-0"
VARIES	VARIES



BORING NOTES.

1. Location of borings shown on PLAN thus @ #1.
2. Borings taken for purpose of design and show conditions at boring points only, but do not necessarily show the nature of materials to be encountered during the construction of the bridge.

BORING DATA.

Size: 1" Open Pipe.
Weight of Hammer - Casing 250# - Hammer Drop 18".
Weight of Hammer - Spoon 140# - Hammer Drop 30".
Water Elevation.

Borings made by American Drilling Co., Inc. Oct. 1955

ESTIMATED QUANTITIES (NOT GUARANTEED)

CLASS A ROCK EXCAVATION	10 Cu. Yds.
CHANNEL EXCAVATION	1500 Cu. Yds.
CLASS B ROCK EXCAVATION	10 Cu. Yds.
BRIDGE EXCAVATION	680 Cu. Yds.
GRAVEL BORROW	190 Cu. Yds.
RIP RAP	250 Cu. Yds.
REMOVAL OF PRESENT TEMPORARY BRIDGE	1 LUMP SUM
STEEL SHEETING	29,000 LBS
BRIDGE STRUCTURE	1 LUMP SUM

HYDRAULIC DATA:

DRAINAGE AREA M=18.5 SQUARE MILES
DESIGN FLOOD MAJOR FLOOD
ESTIMATED DRAINAGE Q=3940 CUBIC FEET PER SECOND
VELOCITY OF FLOOD FLOW V=7.35 FEET PER SECOND

Nov. 9, 1955 ISSUED FOR CONSTRUCTION

THE COMMONWEALTH OF MASSACHUSETTS
PROPOSED 1955 FLOOD BRIDGE
SOUTHWICK
LOOMIS RD.
OVER MUNN BROOK
SCALE AS NOTED

OFFICE OF
DEPARTMENT OF PUBLIC WORKS
100 NASHUA STREET - BOSTON, MASS.
NOVEMBER 1955

C. J. KRAY ENGINEER
294 WASHINGTON ST.
BOSTON 6, MASS.

J. B. Brann
CHIEF ENGINEER

SHEET 1 OF 2 SHEETS - BRIDGE NO. S-22-1

TABLE OF BRIDGE SEAT
ELEVATIONS AT BOTTOM
OF BEARING R's

