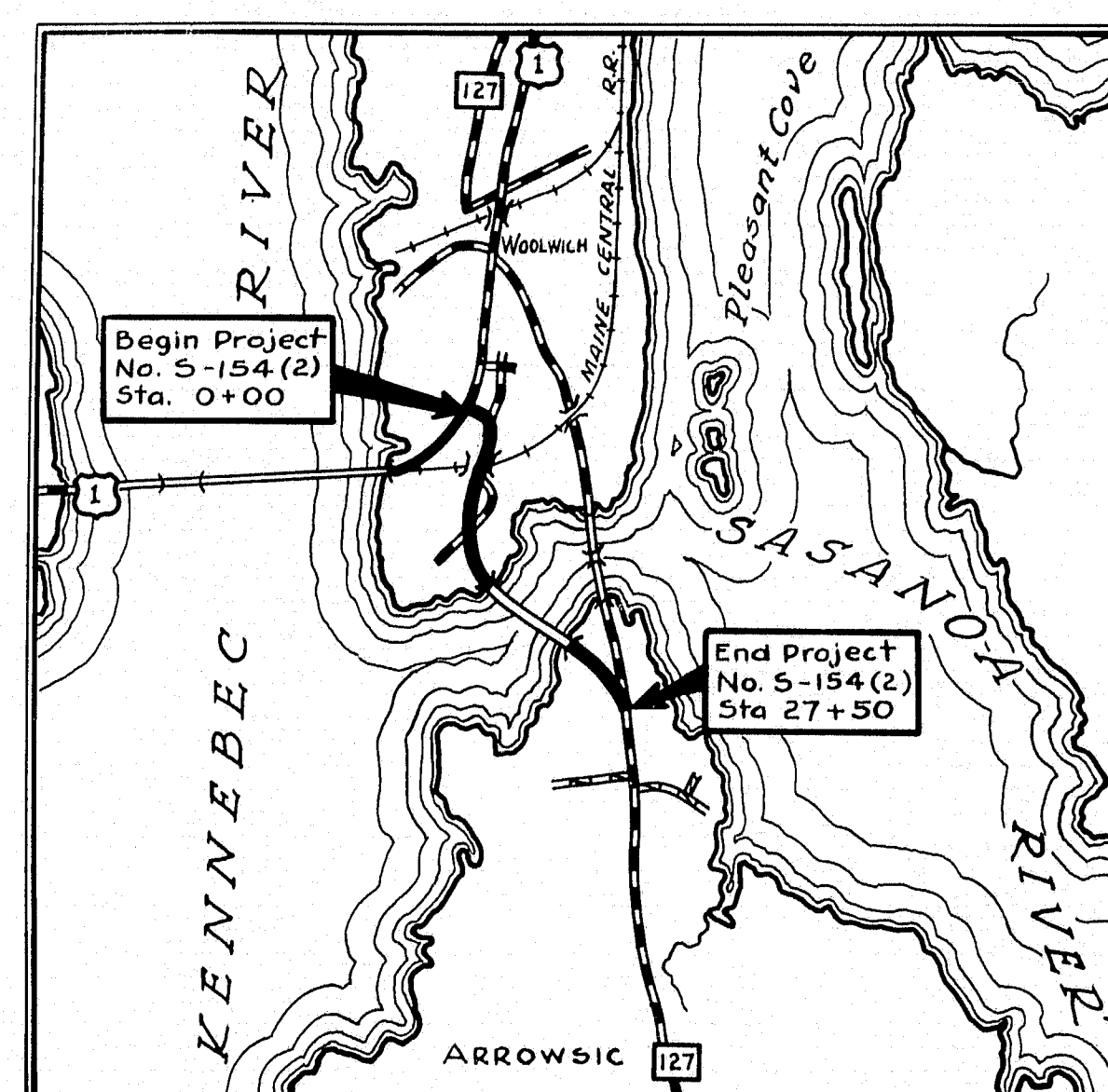


STATE OF MAINE
STATE HIGHWAY COMMISSION



ARROWSIC BRIDGE
OVER THE
SASANOA RIVER
BETWEEN THE TOWNS OF
ARROWSIC AND WOOLWICH
SAGadahoc COUNTY
FEDERAL AID SECONDARY PROJECT
NO. S-154(2)
TOTAL LENGTH 0.521 MILES



LOCATION MAP
SCALE 1/15,000

General Specifications

Payment for any necessary unwatering of foundation pits shall be included in the contract unit price for excavation, except piers 3 and 4 of the bridge where cofferdams are covered under items 4A and 4B.

Concrete Classification

Overpass abutment No.1 class B, piers 1 & 2 and abutment No.2 class A. Bridge abutment No.1 and piers 1 & 6 class A. Piers 2 & 5 and abutment No.2 class B. In piers 3 and 4 the seal concrete is class S and the remainder is class B. All superstructure concrete and rail on abutment No.2 is class A.

Loading - H 20-44

INDEX OF SHEETS

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| <u>APPROACHES</u> | |
| 1A-1B | SPECIAL DETAILS |
| 2 | TYPICAL SECTIONS |
| 3-4 | PLAN AND PROFILE |
| 5-11 | CROSS SECTIONS |
| <u>OVERPASS</u> | |
| 12 | SURVEY PLAN |
| 13 | ABUTMENTS 1 & 2 |
| 14 | PIERS 1 & 2 |
| 15 | STRUCTURAL STEEL |
| 16 | SUPERSTRUCTURE |
| <u>BRIDGE</u> | |
| 17 | SURVEY PLAN |
| 18 | GENERAL ELEVATION & BORINGS |
| 19 | SPANS 1,2,6,& 7 |
| 20 | STRESSES |
| 21 | PEDESTALS & MAKE-UP OF MEMBERS |
| 22-25 | TRUSS DETAILS |
| 26 | EXPANSION DETAILS |
| 27 | RAIL DETAILS |
| 28 | ABUTMENT NO. 1 |
| 29 | PIERS 1 & 6 |
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| 31 | PIER 3 |
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| 33 | ABUTMENT NO. 2 |
| 34 | FLOOR PLAN - SPANS 1 & 2 |
| 35 | FLOOR PLAN - SPANS 3,4,& 5 |
| 36 | FLOOR PLAN - SPANS 6 & 7 |
| 36A | NAVIGATION LIGHTING |

APPROVED:
MAINE STATE HIGHWAY COMMISSION

Harley B. Martin
CHAIRMAN

Harley B. Martin
CHIEF ENGINEER

RECOMMENDED FOR APPROVAL DATE

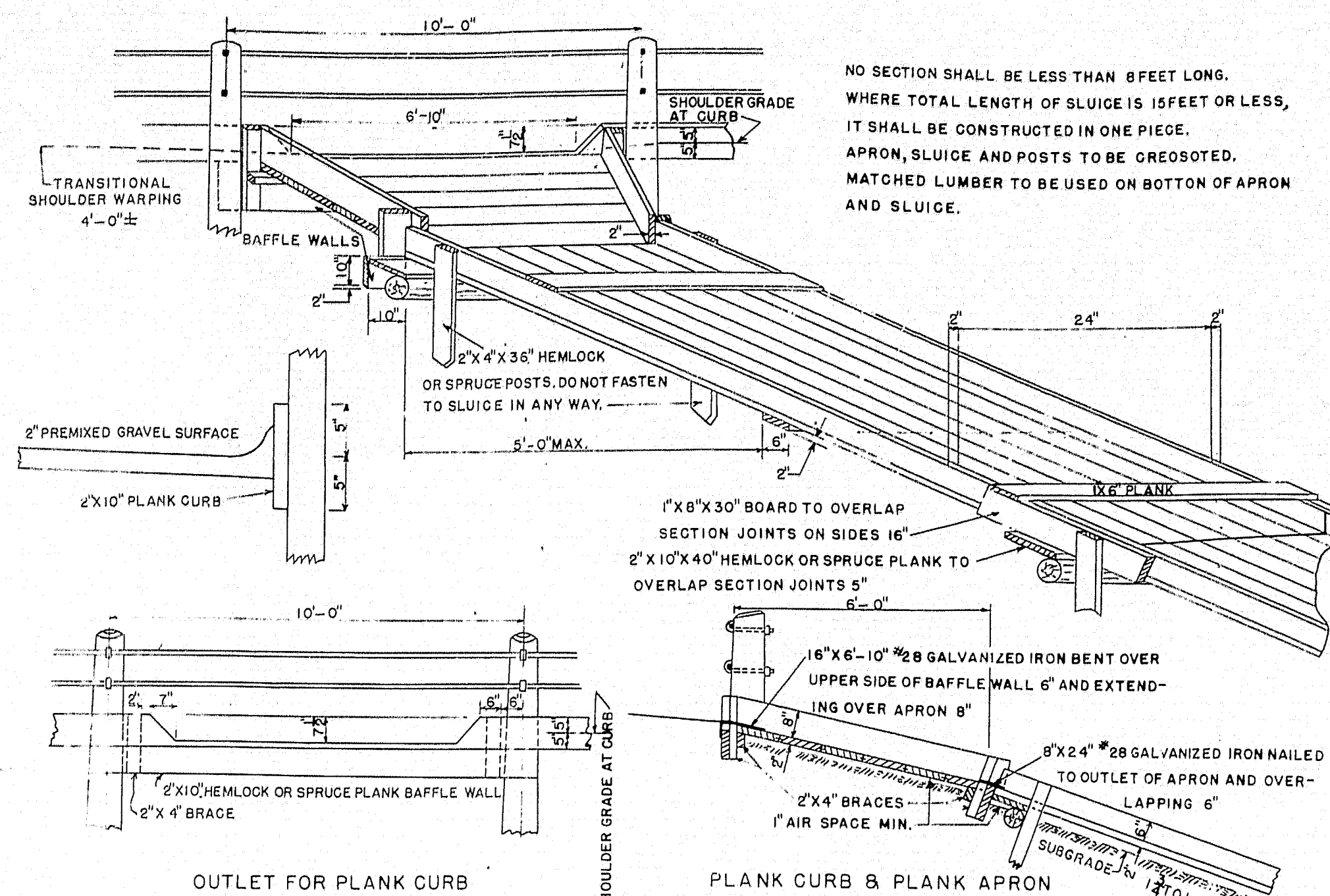
DISTRICT ENGINEER
BUREAU OF PUBLIC ROADS
GENERAL SERVICES ADMINISTRATION

APPROVED DATE

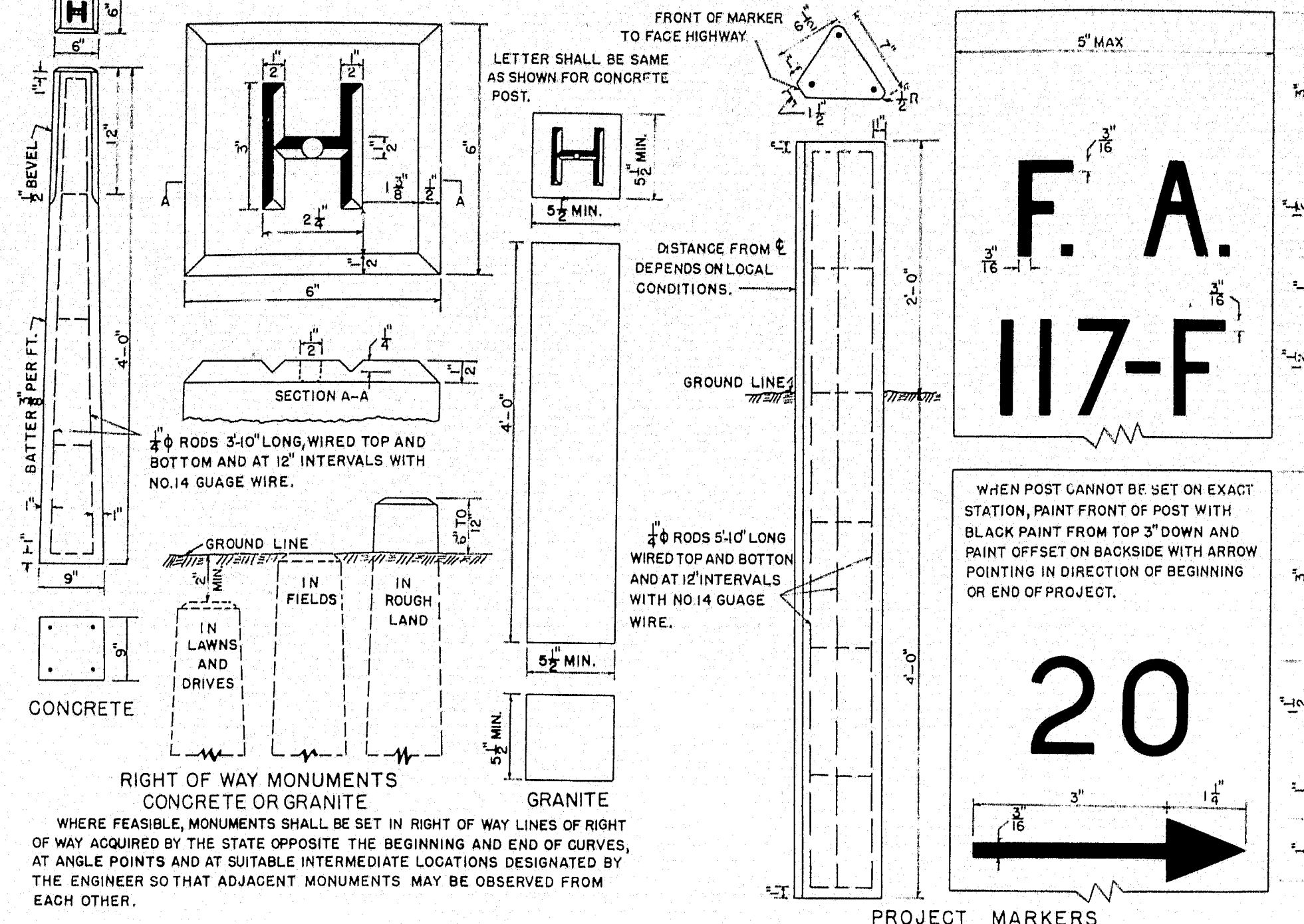
DIVISION ENGINEER
BUREAU OF PUBLIC ROADS
GENERAL SERVICES ADMINISTRATION

48-60

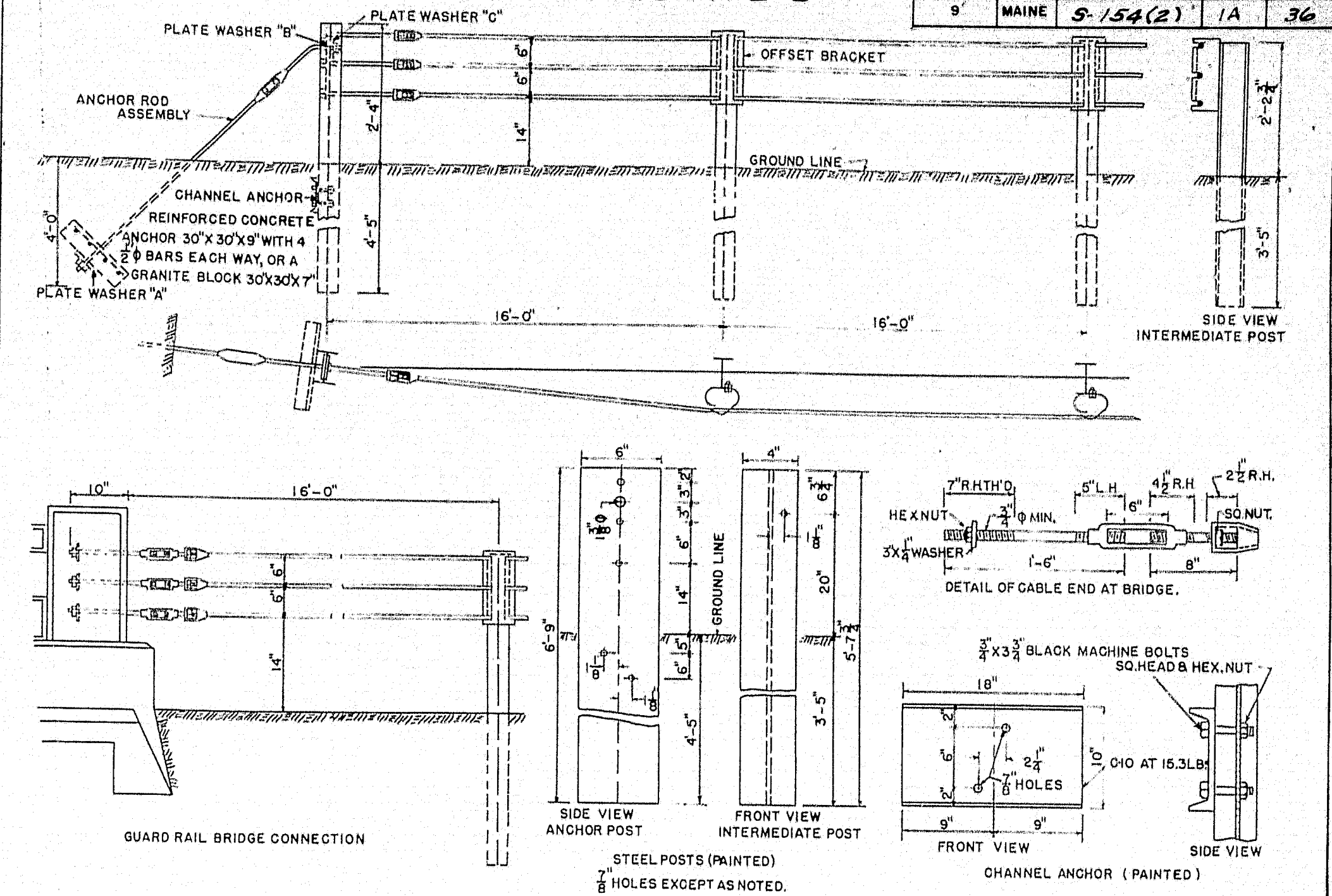
PLANK APRON & PLANK SLUICE



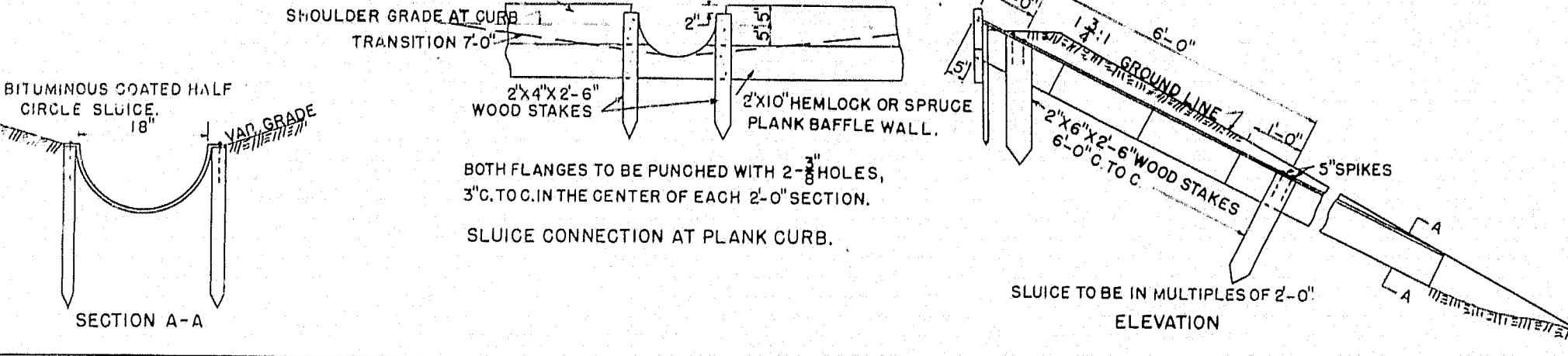
RIGHT OF WAY MONUMENTS & PROJECT MARKERS



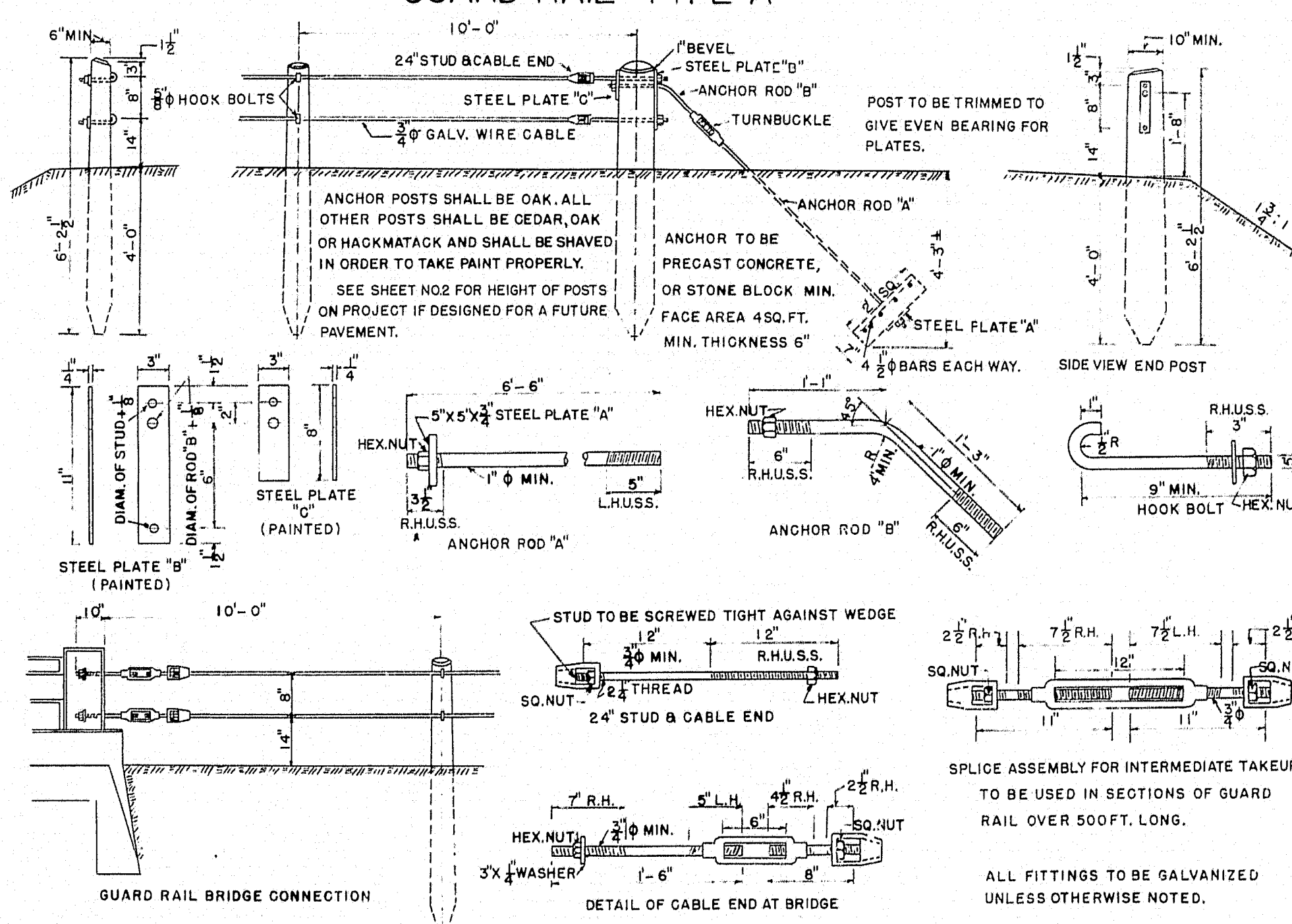
GUARD RAIL TYPE "B"



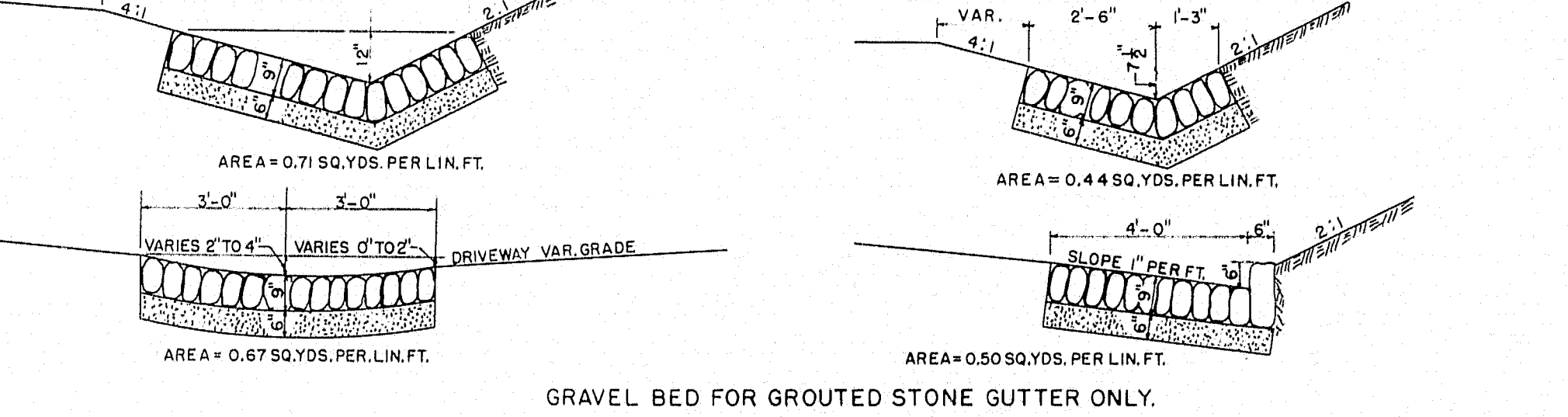
METAL SLUICE



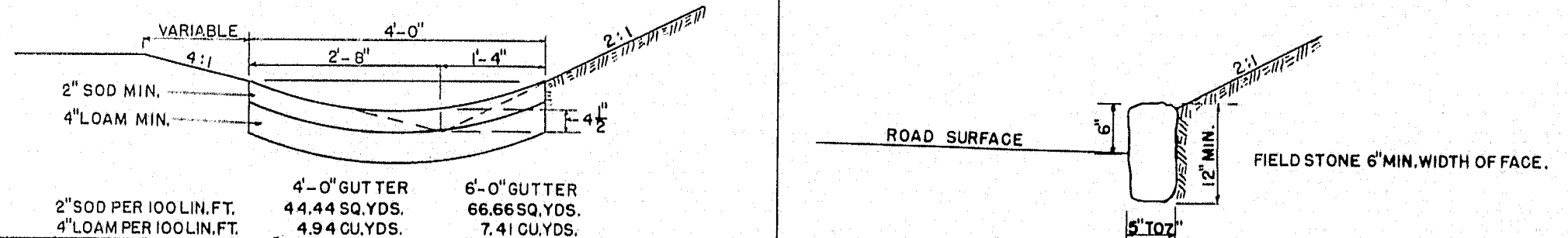
GUARD RAIL TYPE "A"



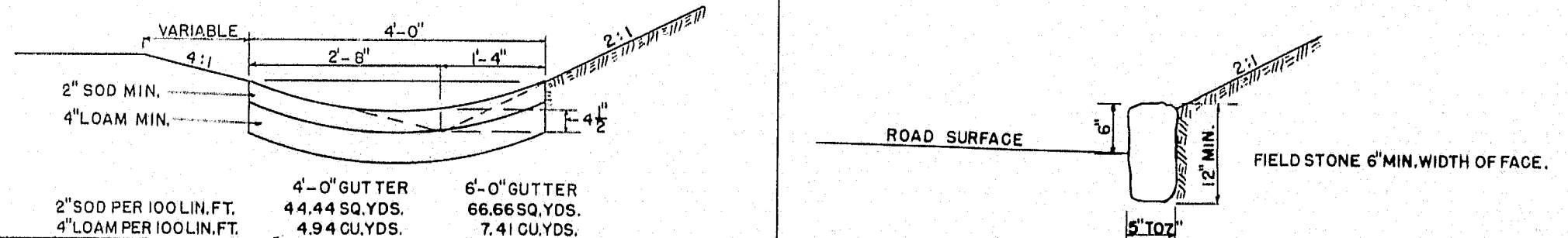
STONE GUTTER



SODDED GUTTER



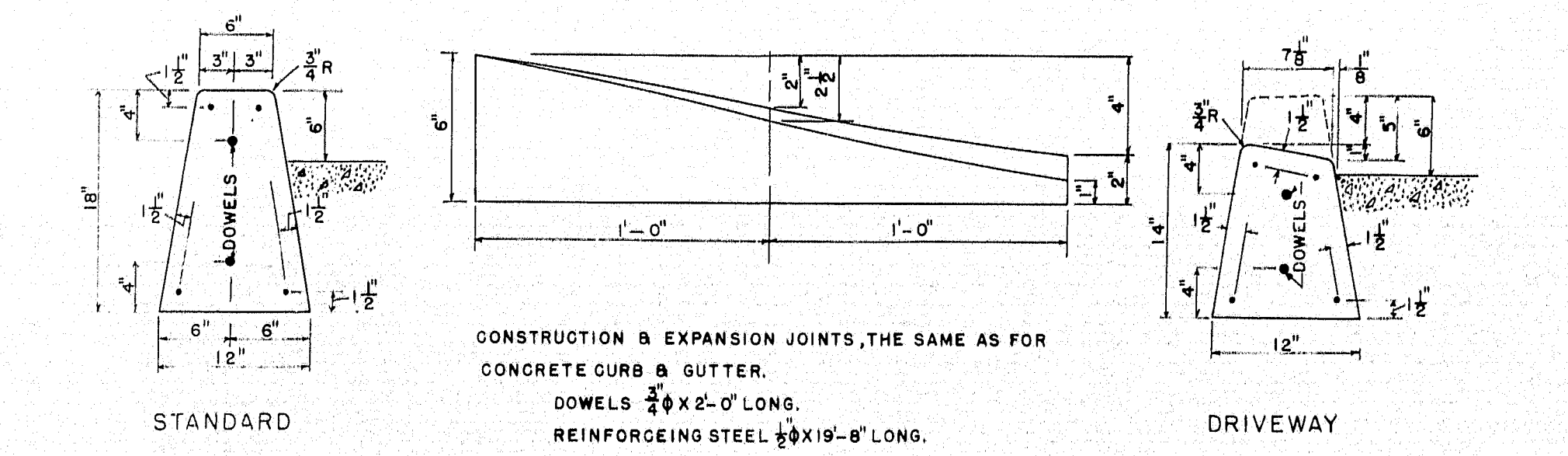
FIELD STONE CURB



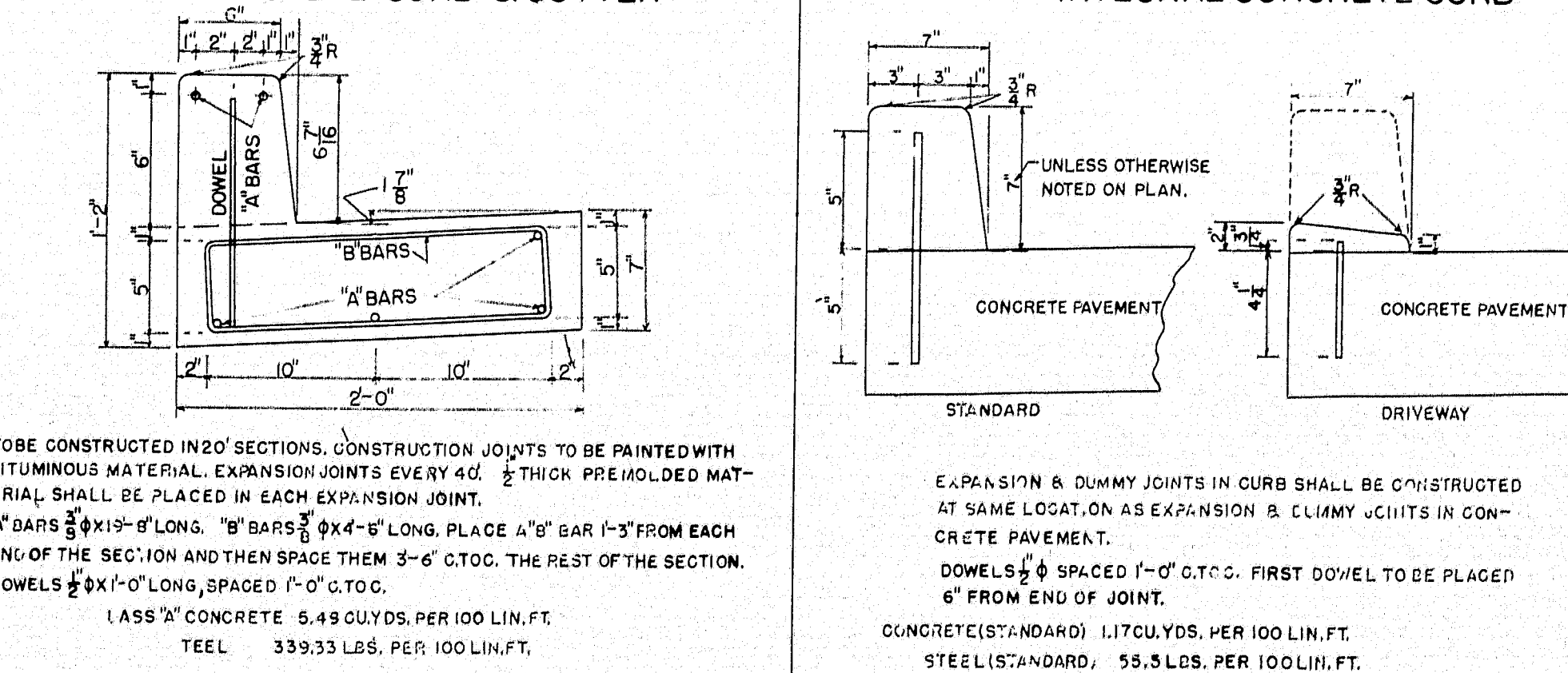
CONCRETE CURB

(See Special Detail Sheet)

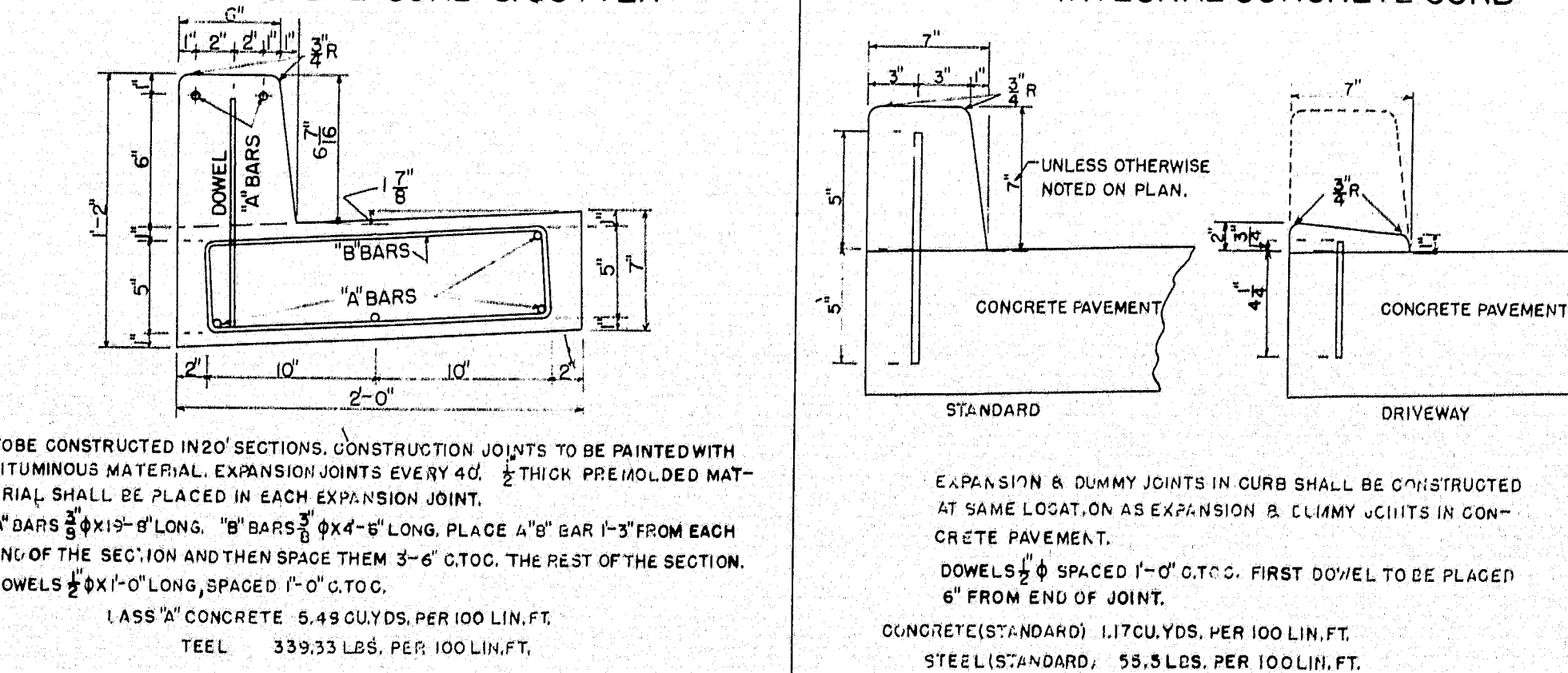
TRANSITION FOR DRIVEWAY APPROACH FOR 6" CURB



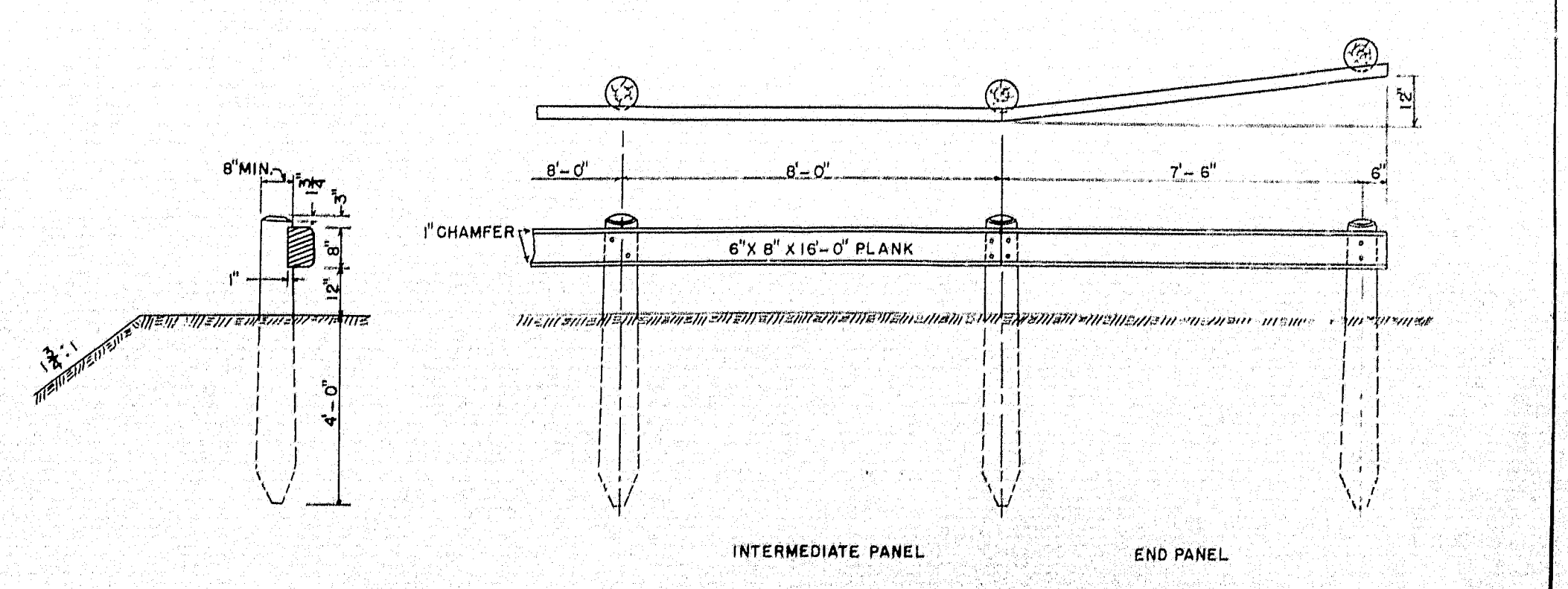
CONCRETE CURB & GUTTER

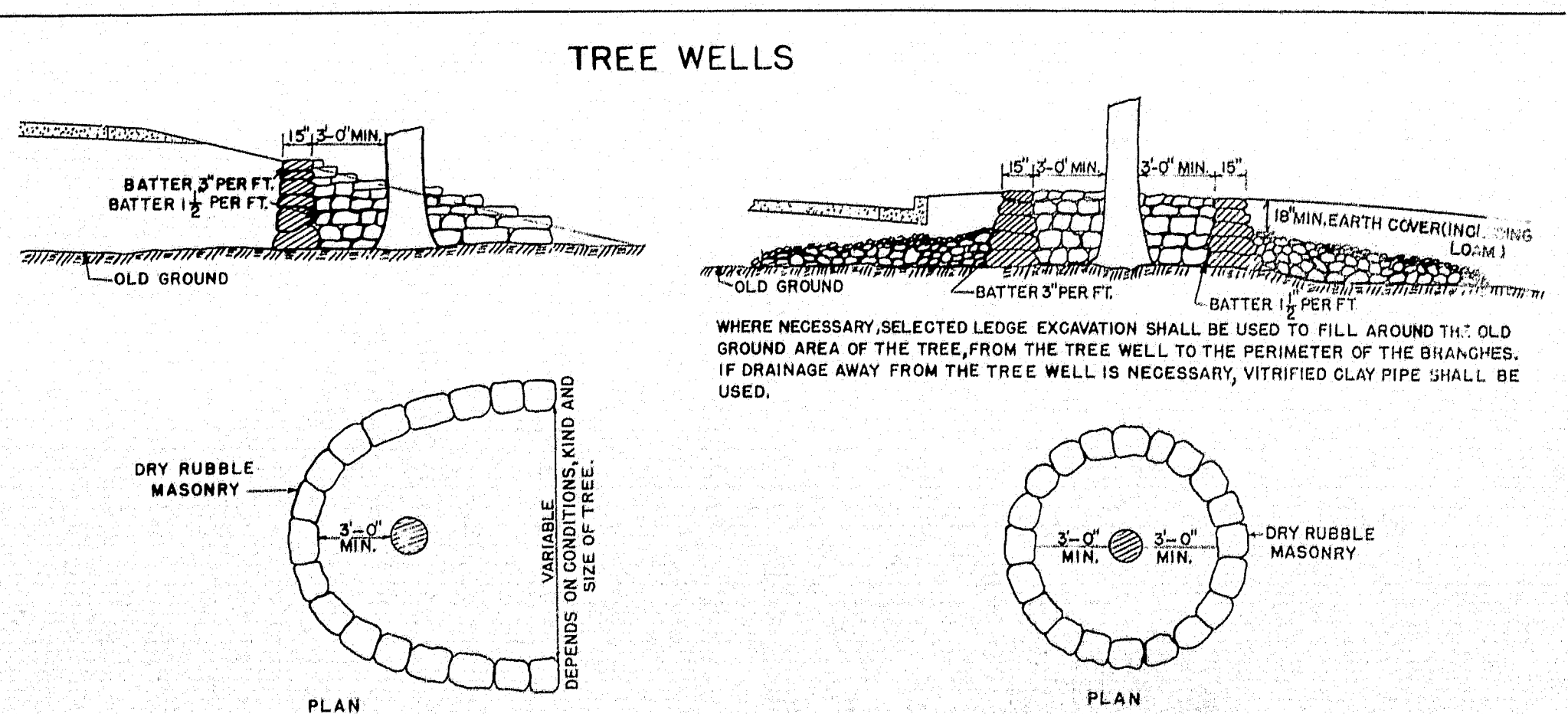
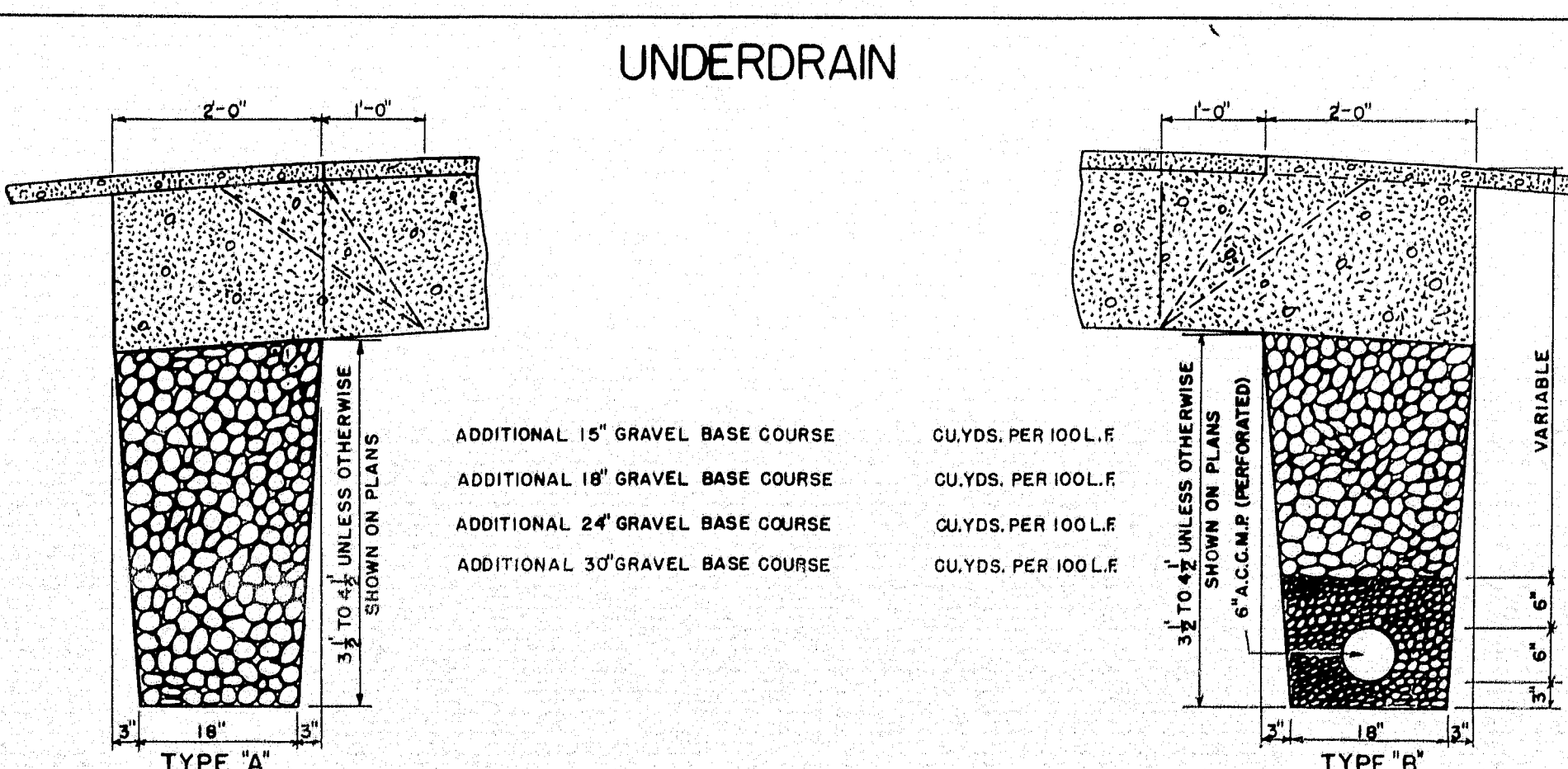
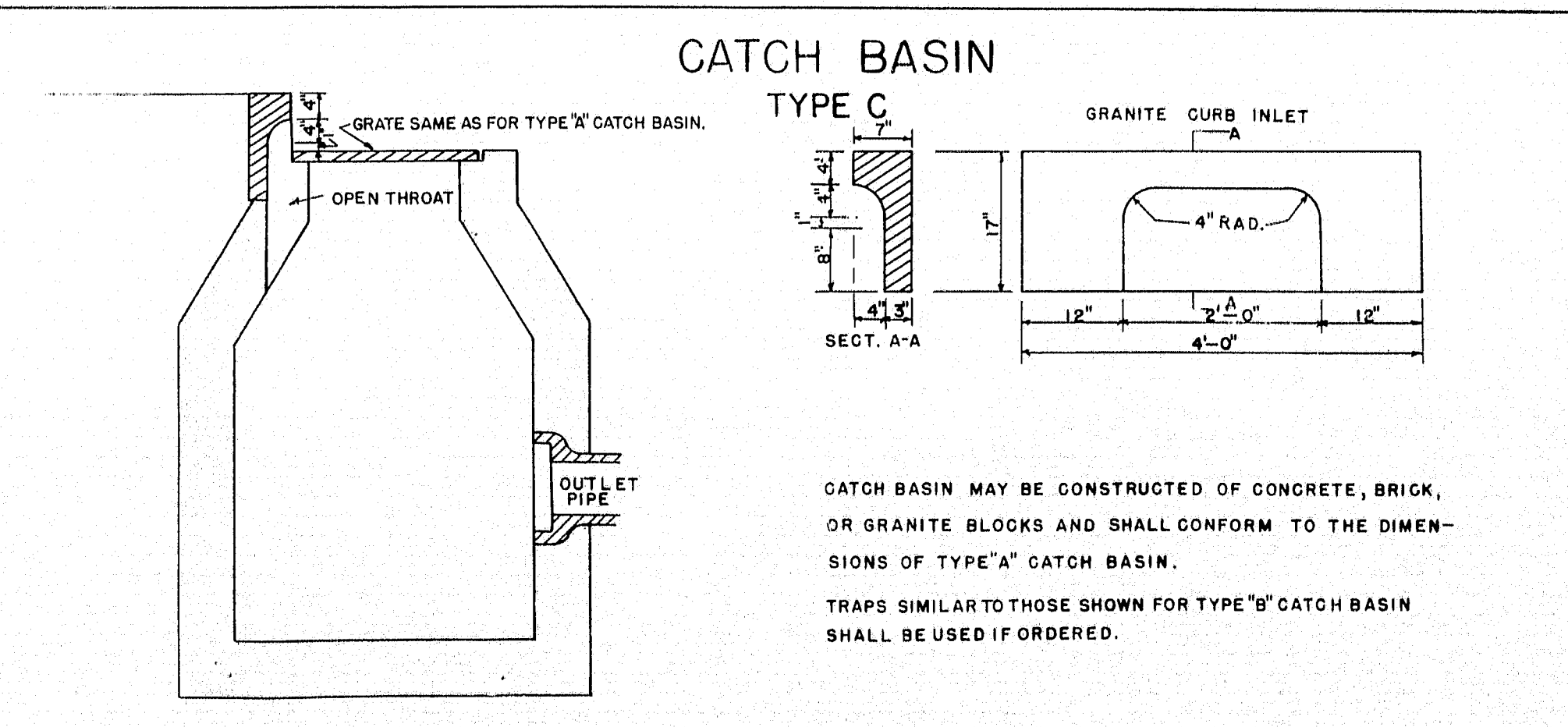
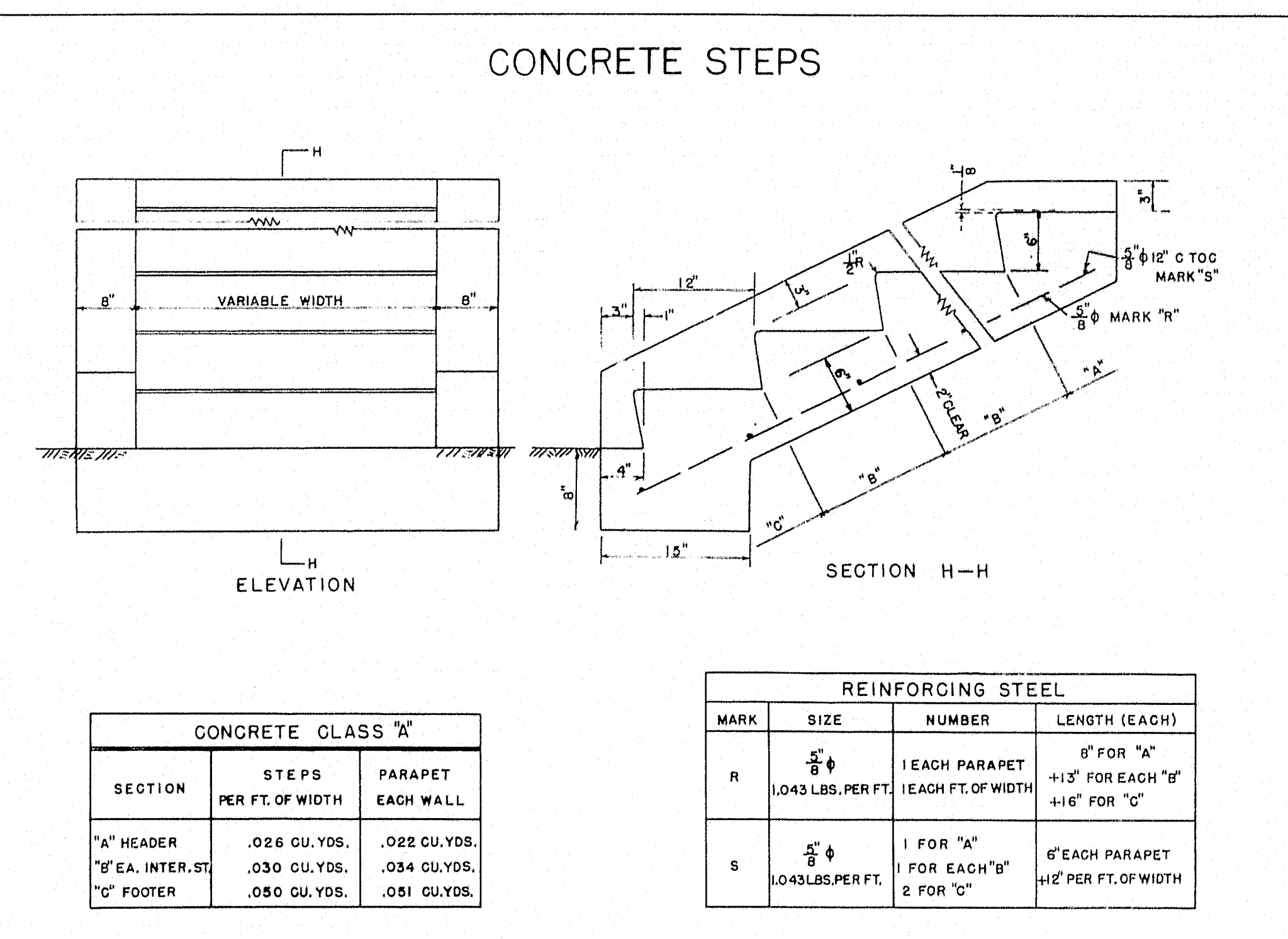
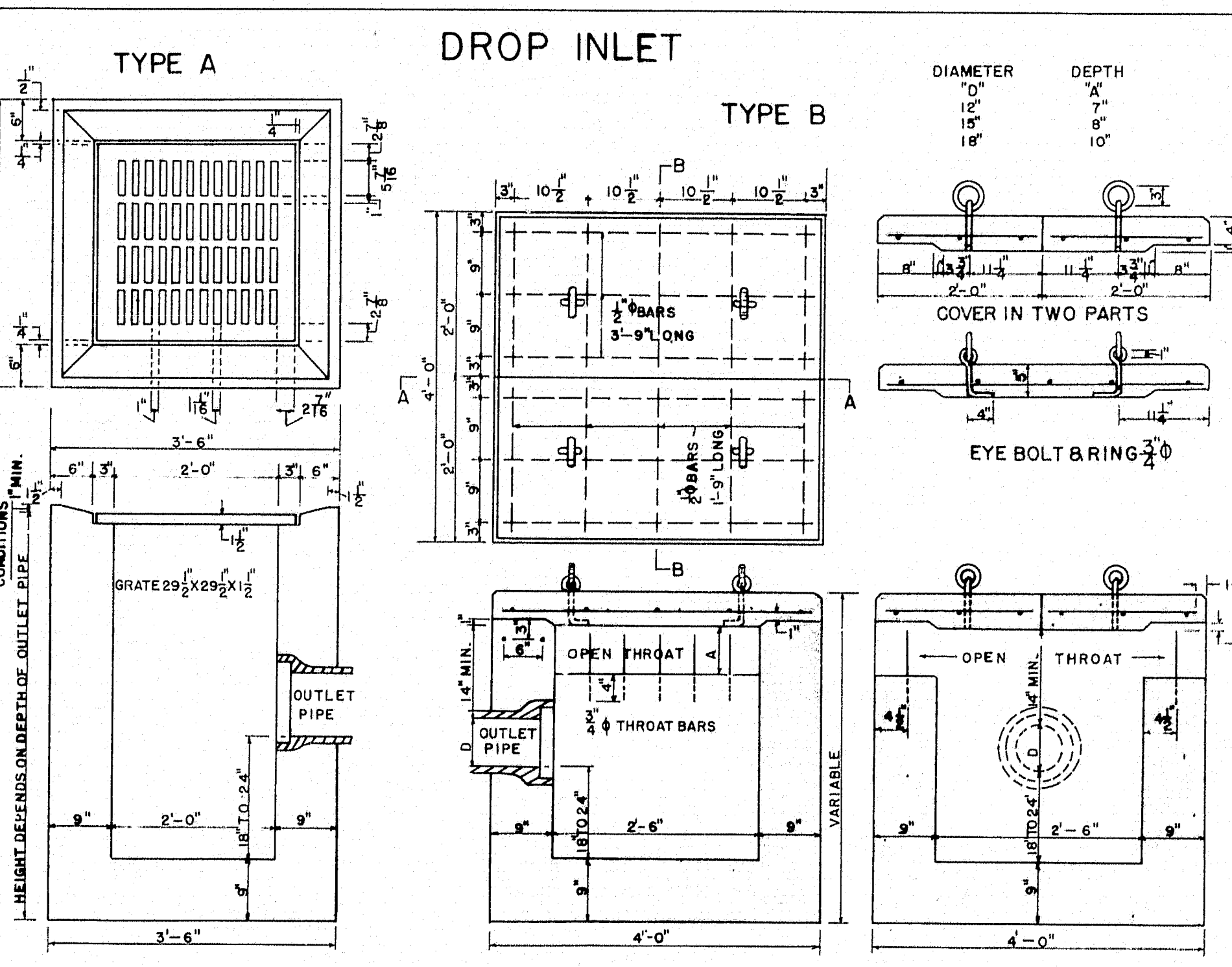
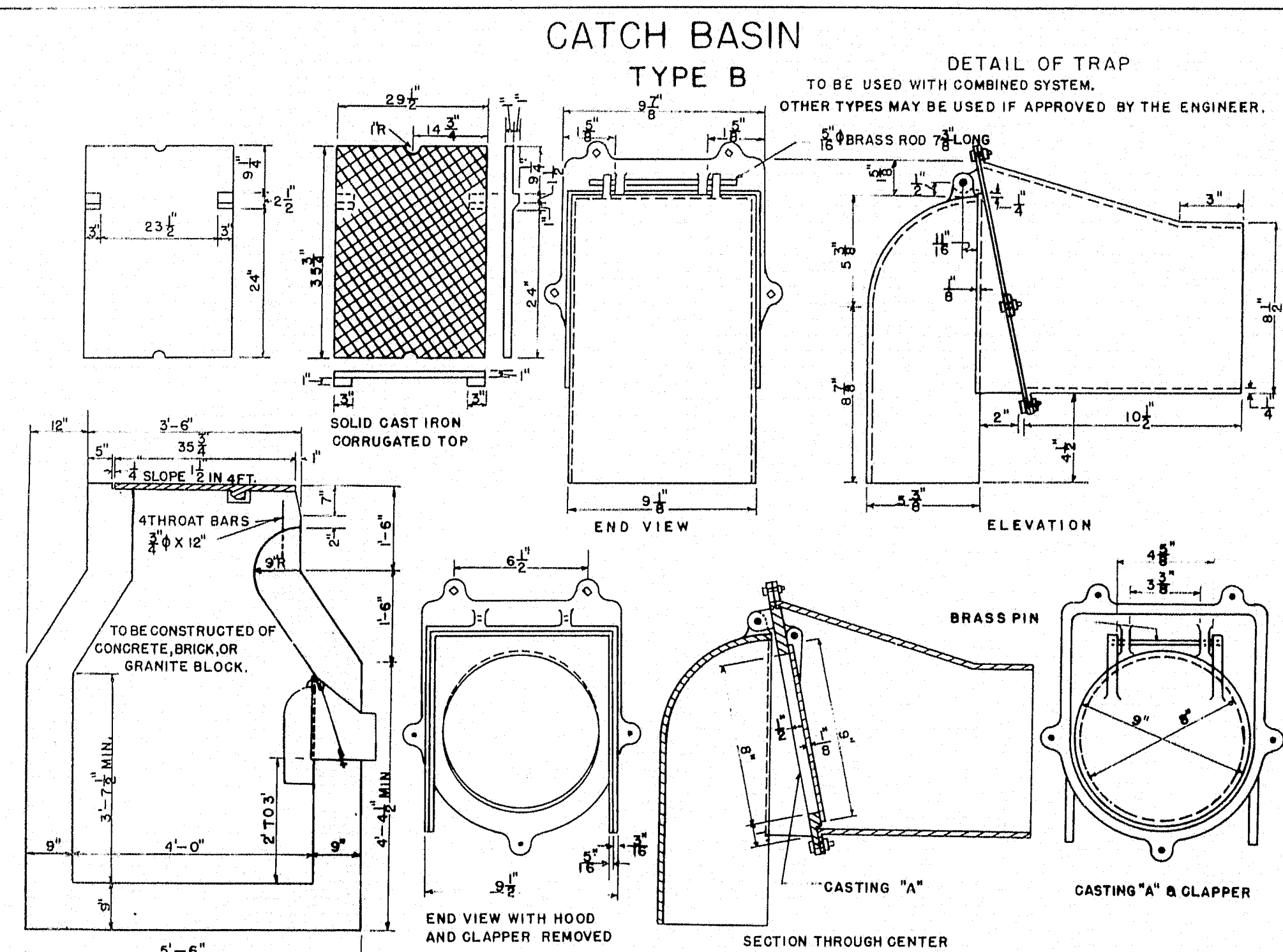
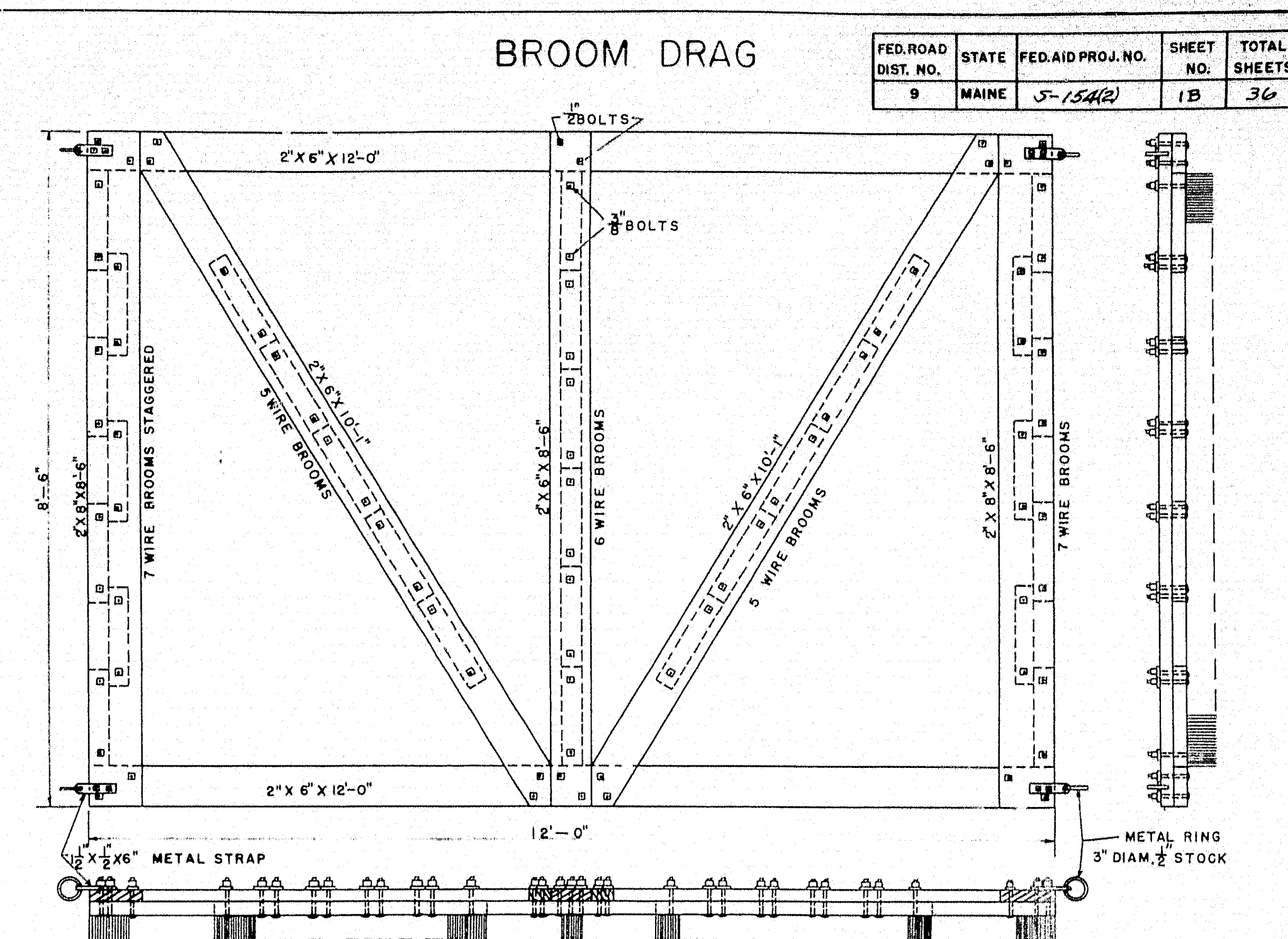
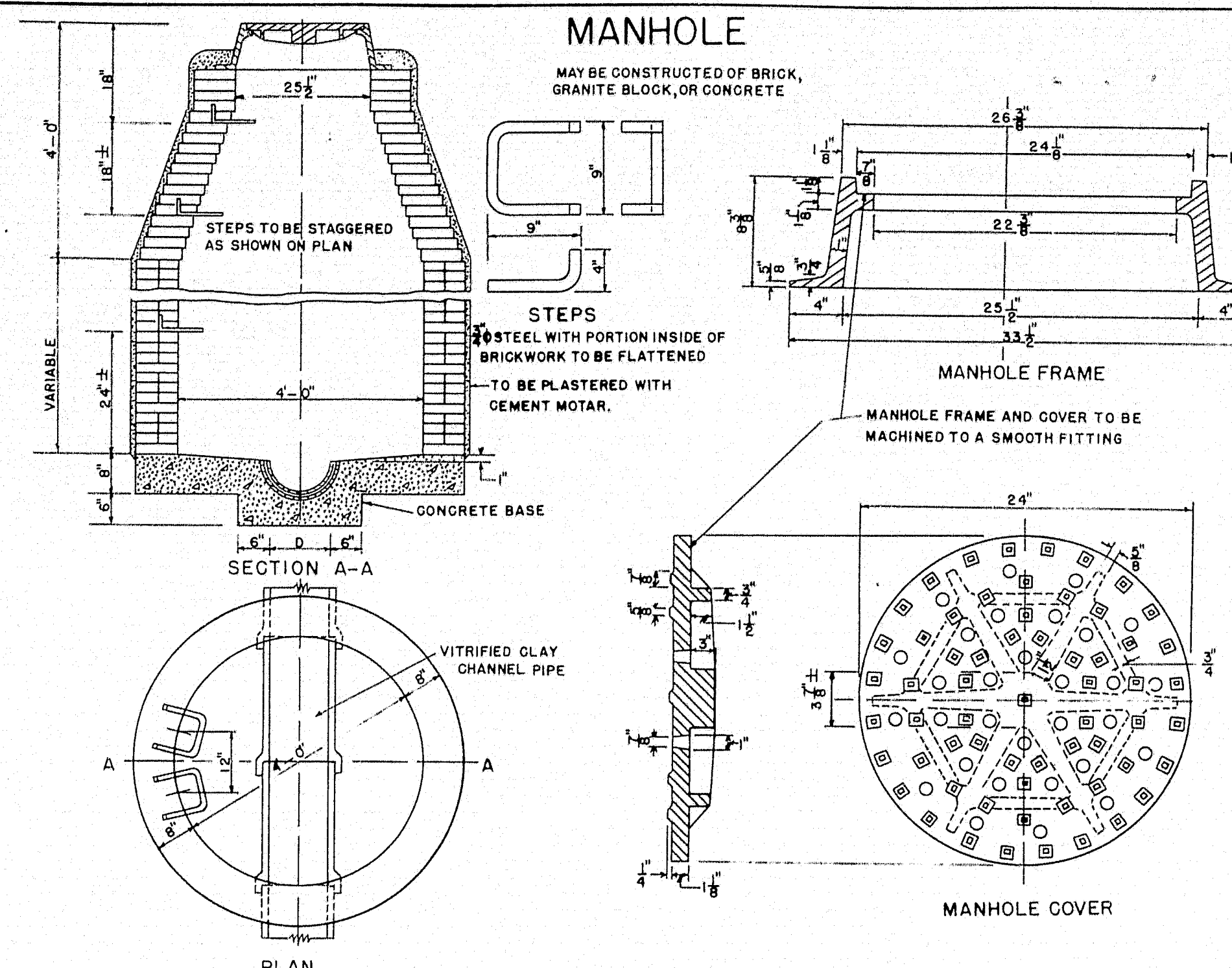
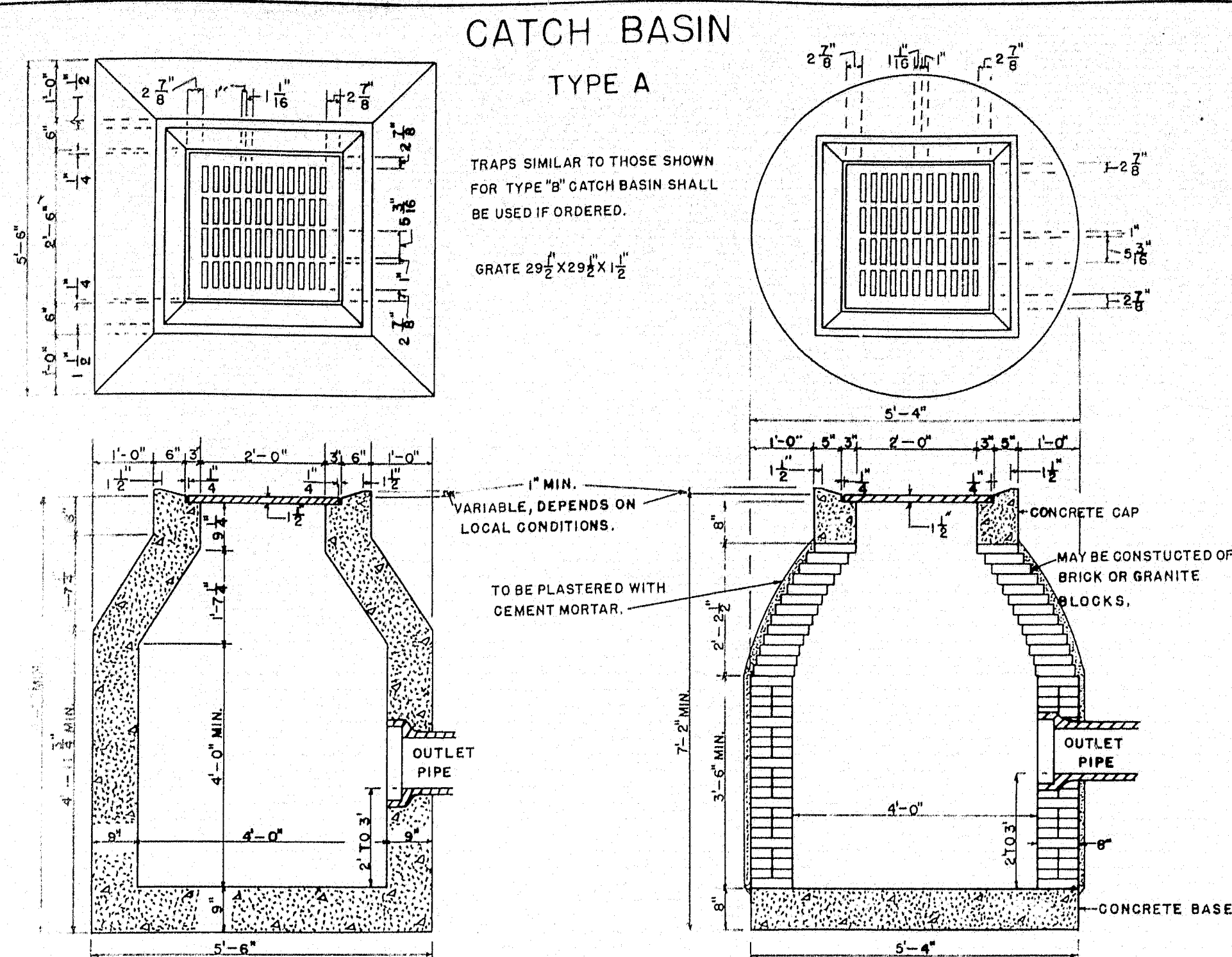


INTEGRAL CONCRETE CURB

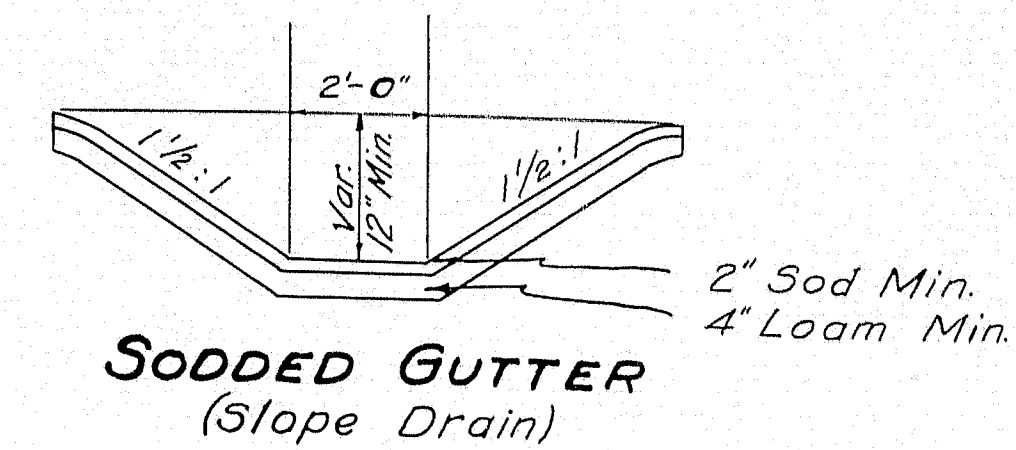


WOOD GUARD RAIL

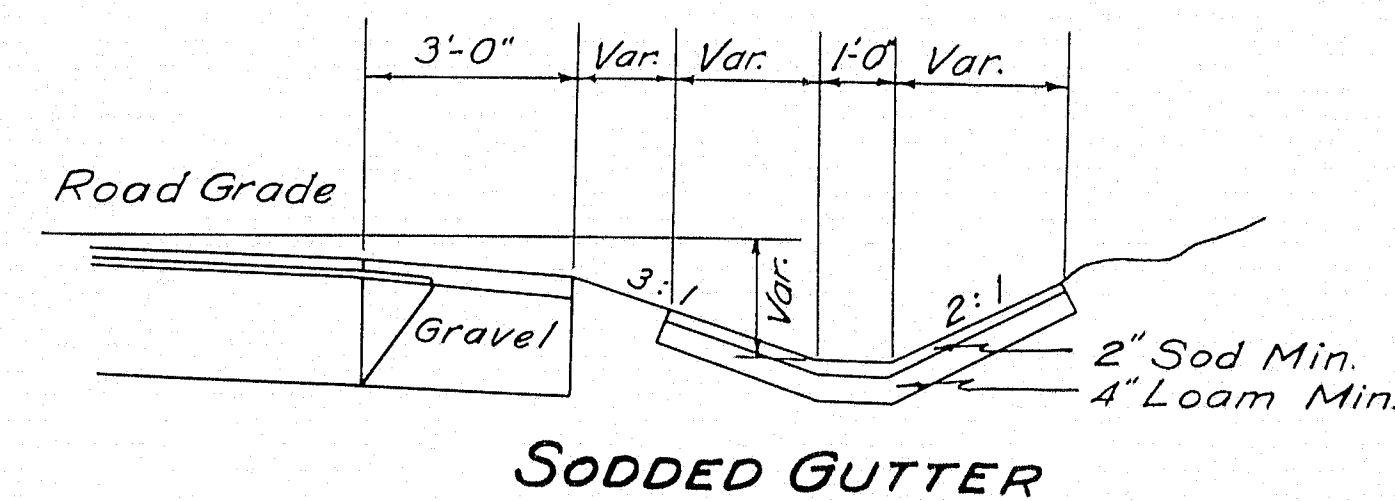




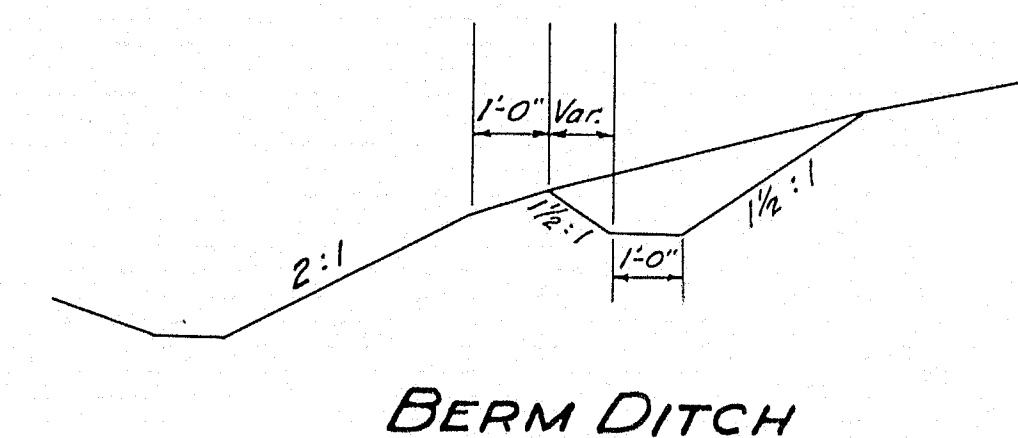
P. R. A. DIV. NO.	STATE	PROD. NO.	WARRANT NO.	INVEST NO.
1	MAINE	S-154(2)	2	36



PAVEMENT BASE			
2" Bituminous Gravel Surface Course	20' Wide Mixed-in-place Method	12.35	C.Y. PER 100 L.F.
1" Surface Treated Gravel leveling Course	22' Wide	6.79	C.Y. PER 100 L.F.
15" Gravel Base Course		102.06	C.Y. PER 100 L.F.
18" Gravel Base Course		121.50	C.Y. PER 100 L.F.
24" Gravel Base Course		160.39	C.Y. PER 100 L.F.
1-3" Gravel Surface Shoulder		2.47	C.Y. PER 100 L.F.

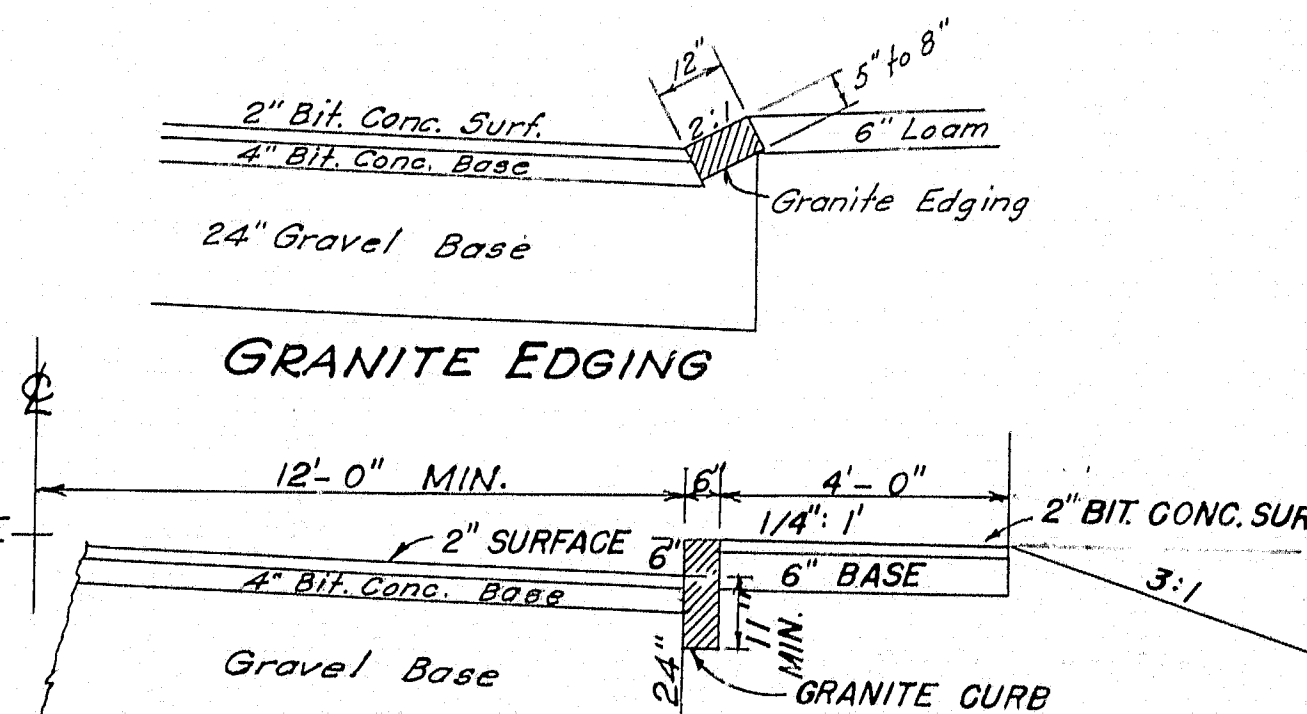


24" GRAVEL BASE		VARIABLE GRAVEL BASE	
15" Gravel Shoulder	One Side	26.31	C.Y. PER 100 L.F.
18" Gravel Shoulder	One Side	29.73	C.Y. PER 100 L.F.
24" Gravel Shoulder	One Side	47.84	C.Y. PER 100 L.F.



GUARD RAIL

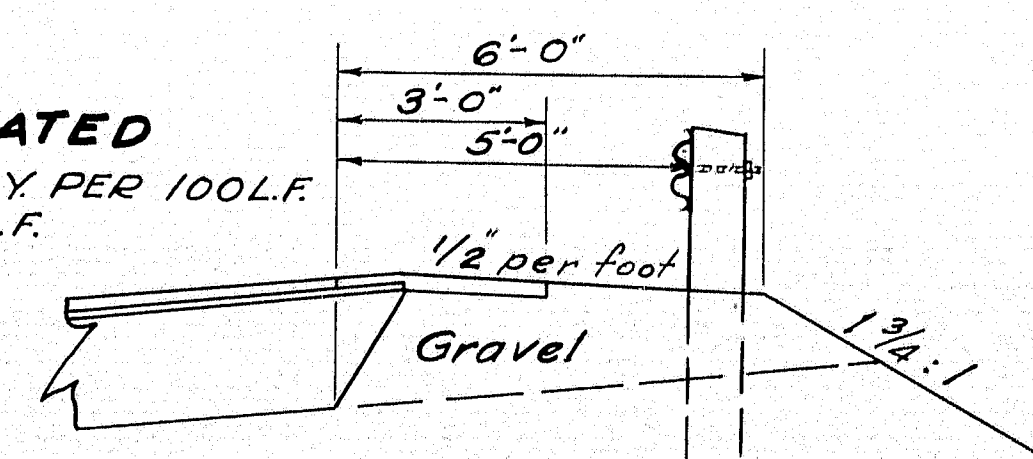
18" Gravel Shoulder Guard Rail One Side 38.50 C.Y. PER 100 L.F.



SIDEWALK & GRANITE CURB
6" BASE COURSE 4' WIDE = 7.41 C.Y. PER. 100 L.F.
2" BIT. CONC 4' WIDE = 4.52 TONS PER. 100 L.F.

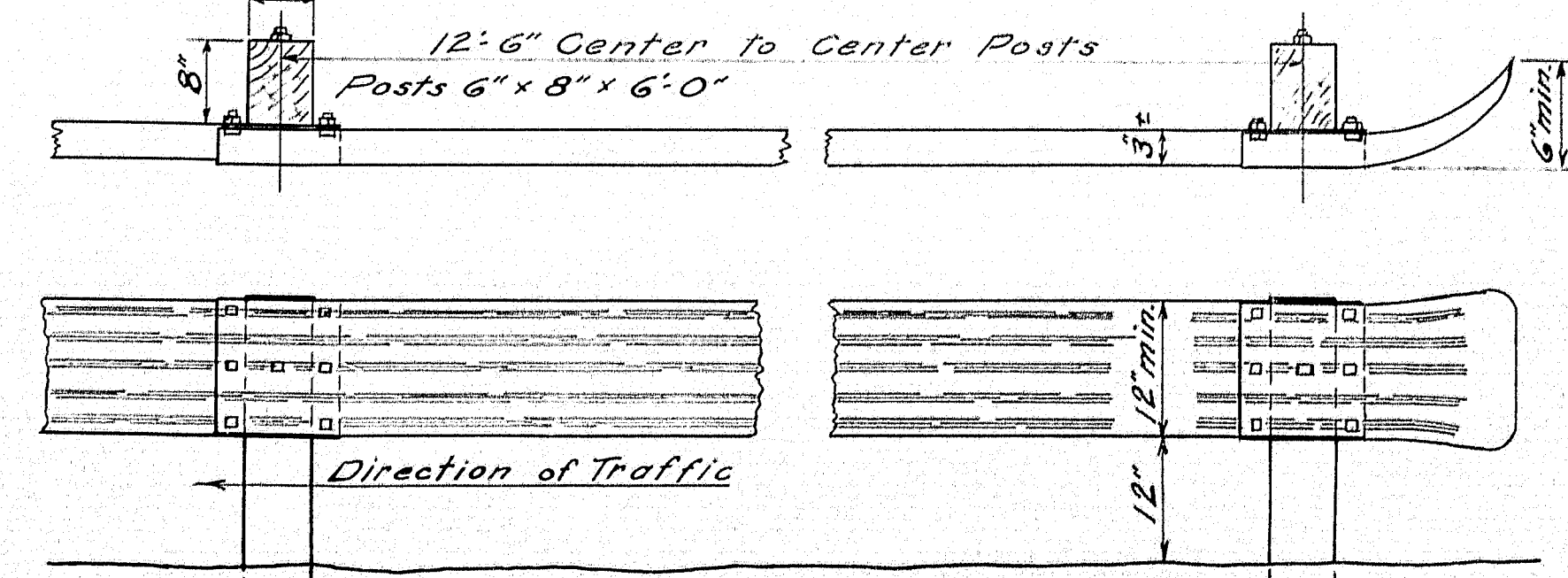
ROADWAY
STA. 0+00 to 1+00
2" BIT. CONCRETE SURFACE
4" BIT. CONCRETE BASE

WIDENED		and		SUPERELEVATED	
2" Bituminous Gravel Surface Course	18' Wide	Mixed-in-place Method	-1235 C.Y. PER 100 L.F.		
1" Surface Treated Gravel leveling Course	20' Wide	- 6.79	C.Y. PER 100 L.F.		
15" Gravel Base Course	—	97.22	C.Y. PER 100 L.F.		
18" Gravel Base Course	—	116.67	C.Y. PER 100 L.F.		
24" Gravel Base Course	—	156.56	C.Y. PER 100 L.F.		
1-3" Gravel Surface Shoulder	—	2.47	C.Y. PER 100 L.F.		



GUARD RAIL ON OUTSIDE OF
SUPERELEVATED CURVE

GRAVEL BASE		
Station to	Station	Type
0+0	2+50	24"
2+50	3+30	18"
4+40	9+35	18"
18+40	24+25	18"
24+25	27+50	24"

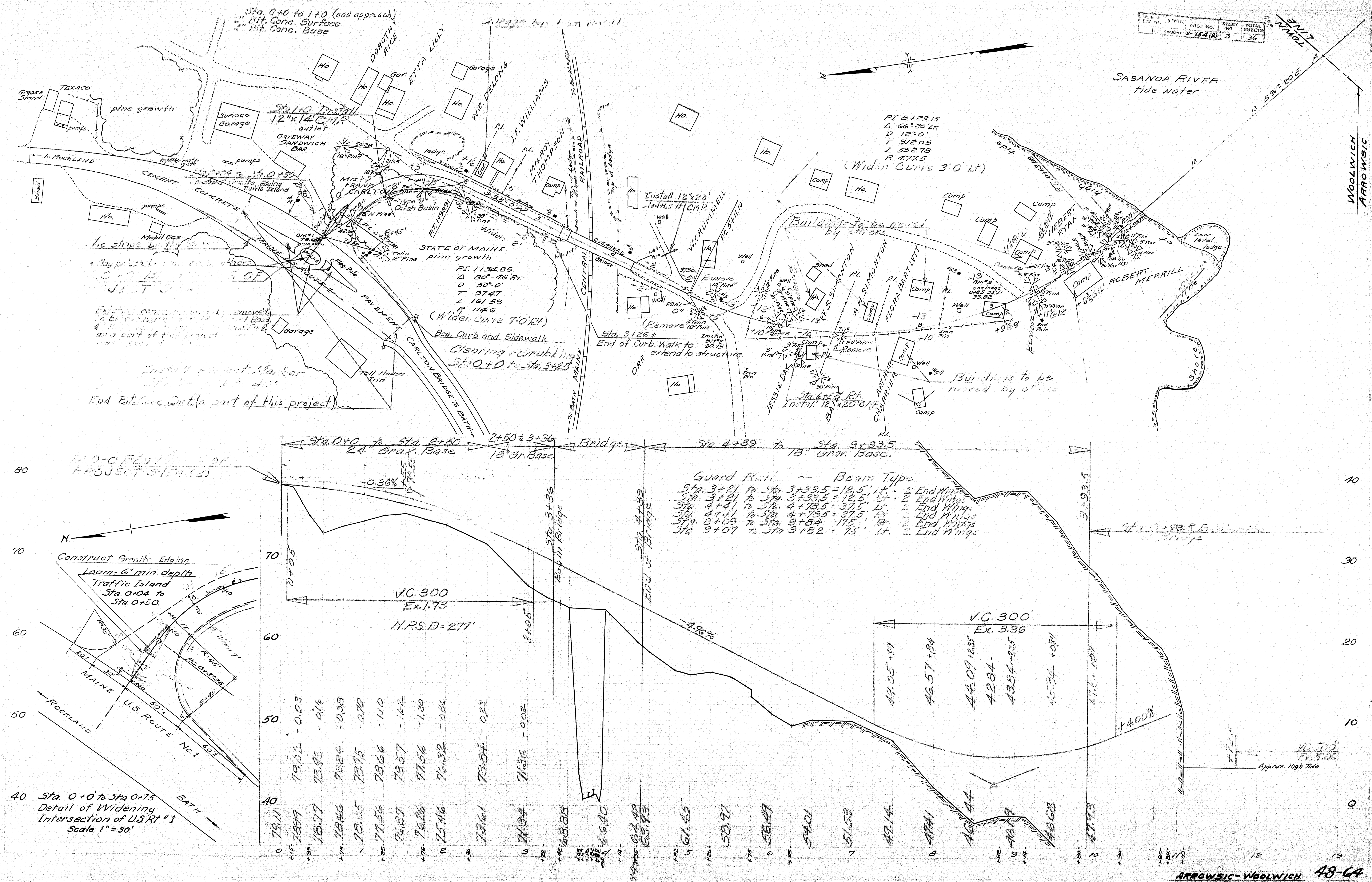


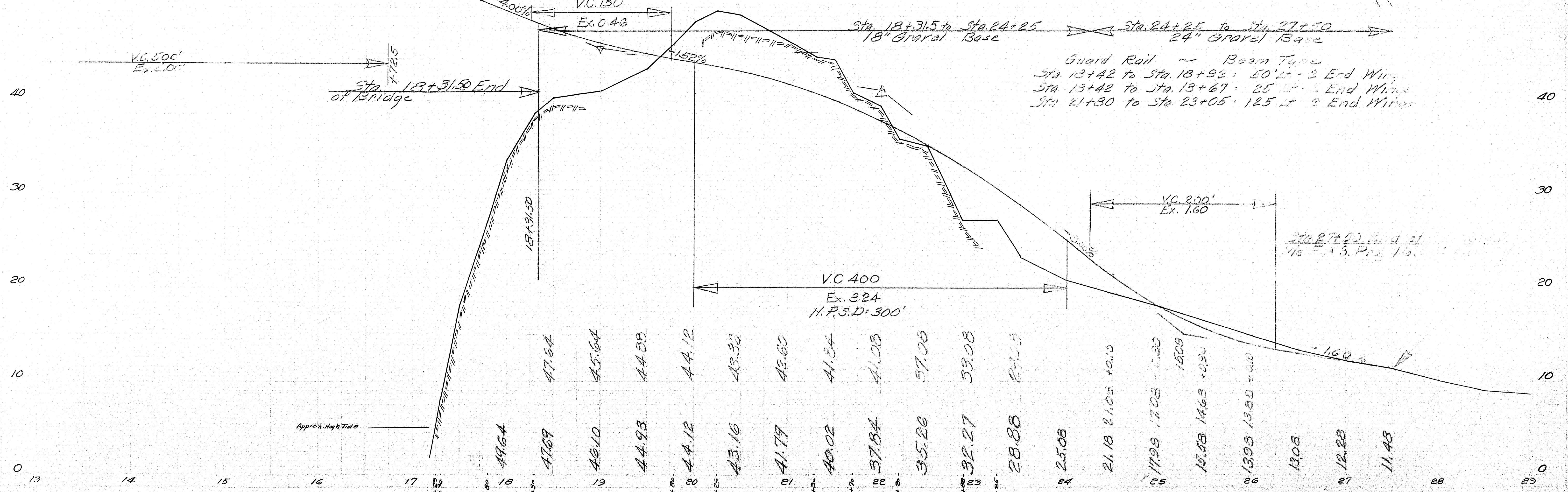
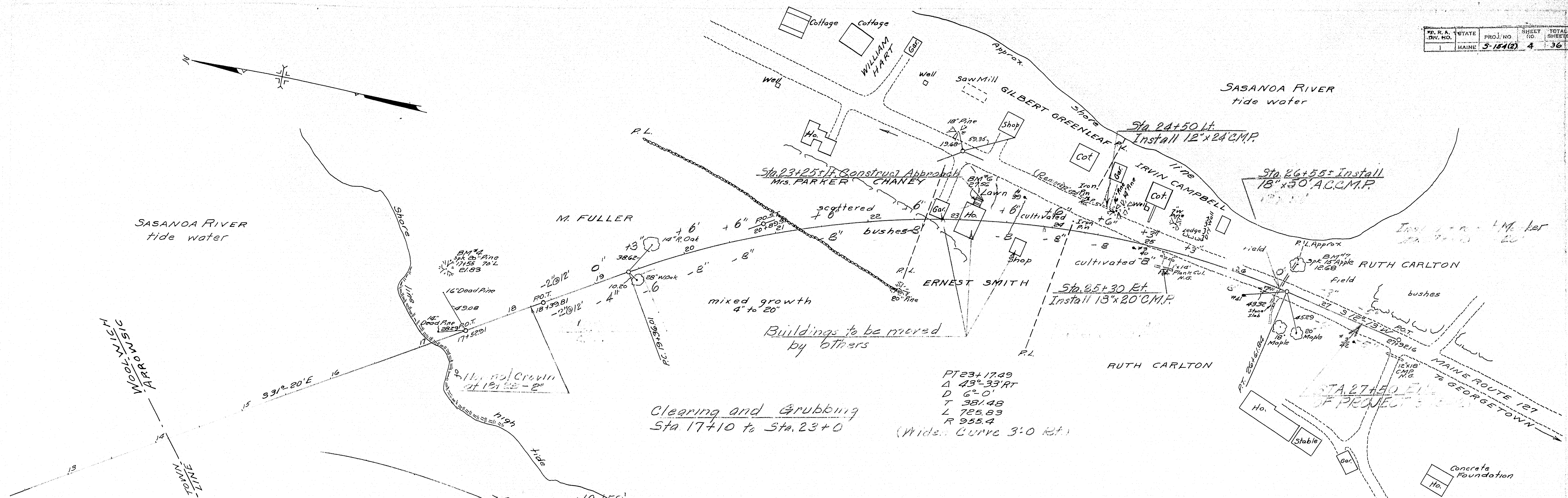
BEAM TYPE GUARD RAIL WITH END WINGS

ESTIMATED HIGHWAY QUANTITIES			
ITEM	DESCRIPTION	QUANTITY	UNIT
11	Clearing and Grubbing	1	Acre
12-A	Earth Excavation	3000	C.Y.
12-B	Rock Excavation	3700	C.Y.
12-E	Trees Removed	12	Each
13	Excavation for Structures	40	C.Y.
	Rock Excav. for Structure	10	C.Y.
17-A	Concrete Borrow	385	C.Y.
17-B	Gravel Borrow	3,000	C.Y.
27	Bit.Conc. Base Cs.	120	Tons
28-A	Levelling Mixture	15	Tons
33-A	Surface Treated Gravel	250	C.Y.
33-B	Bituminous Material	200	Gals.
34-A	Bit Gravel Surface	250	C.Y.
34-B	Bituminous Material	200	Gals.
37-A	Bituminous Conc. Surf.	25	Tons
47-C	12" Conc. Base	73	S.F.
47-E	12" Conc. Metal Pipe	50	L.F.
48-E	12" Conc. Pipe	50	L.F.
52-D	12" Conc. Pipe - Type 2	50	L.F.
61-A	12" Conc. Pipe	50	L.F.
61-B	12" Conc. Pipe	50	L.F.
67-B	12" Conc. Pipe	50	L.F.
68	12" Conc. Pipe	50	L.F.
69	12" Conc. Pipe	50	L.F.
70	12" Conc. Pipe	50	L.F.
71	12" Conc. Pipe	50	L.F.
75	12" Conc. Pipe	50	L.F.
76	12" Conc. Pipe	50	L.F.
77-A	12" Conc. Pipe	50	L.F.
77-E	12" Conc. Pipe	50	L.F.
79	12" Conc. Pipe	50	L.F.

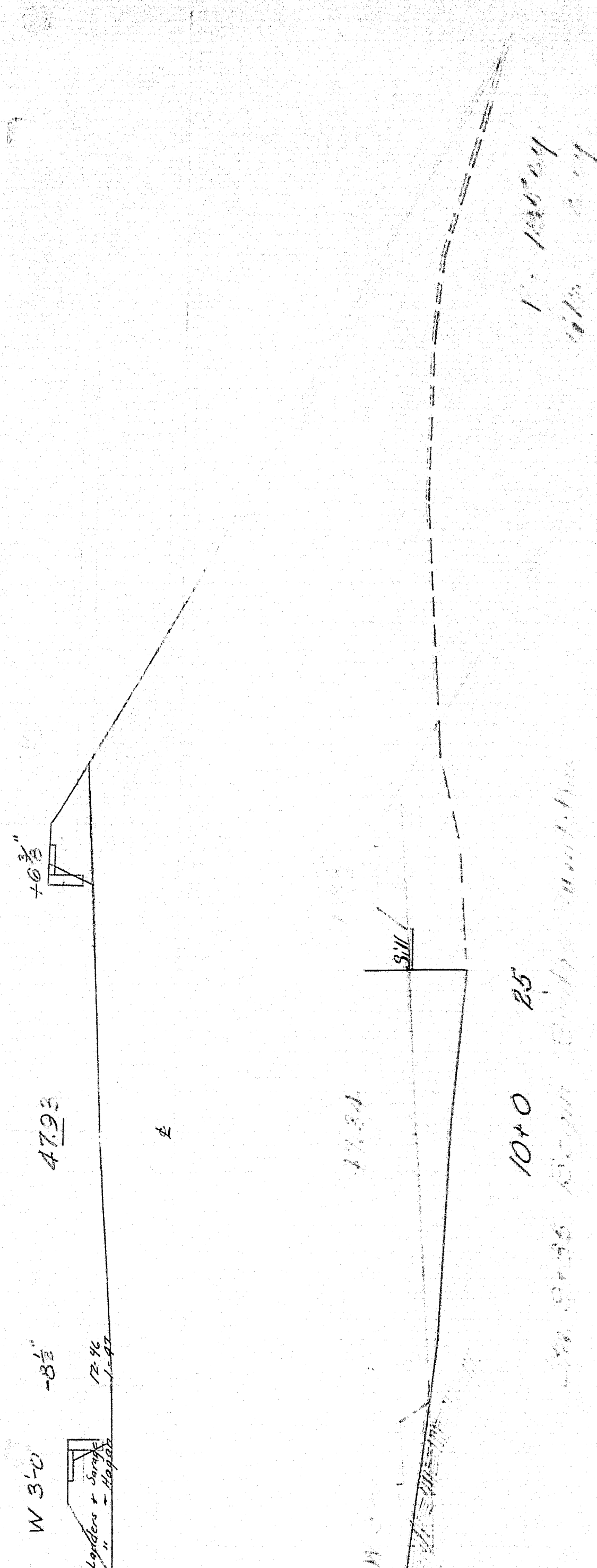
CULVERT SCHEDULE			
STATION	SIZE	TYPE	REMARKS
1			
2			
3	20'	CONCRETE	
4+00	12" x 14"	C.M.P.	CONCRETE
4+65	12" x 20"	C.M.P.	CONCRETE
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1. 12'0" 25'

Sta. 9+82 Lt. End
Guard Rail - Beam Type

Sta. 9+84 Rt. End
Guard Rail - Beam Type

F: 836 cy
G.B.: 17 cy.

F: 611 cy.
G.B.: 20 cy.

F: 353 cy.
G.B.: 18 cy.

F: 356 cy.
G.B.: 18 cy.

Sta. 8+09 Rt. Begin
Guard Rail - Beam Type

F: 456 cy.
G.B.: 26 cy.

LC: 20 cy.
F: 178 cy.
G.B.: 28 cy.

LC: 62 cy.
F: 25 cy.
G.B.: 29 cy.

LC: 21 cy.
F: 84 cy.
G.B.: 27 cy.

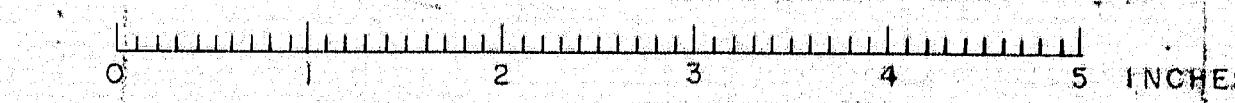
LC: 118 cy.
G.B.: 13 cy.

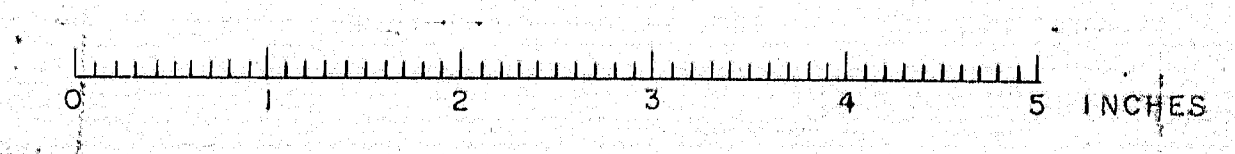
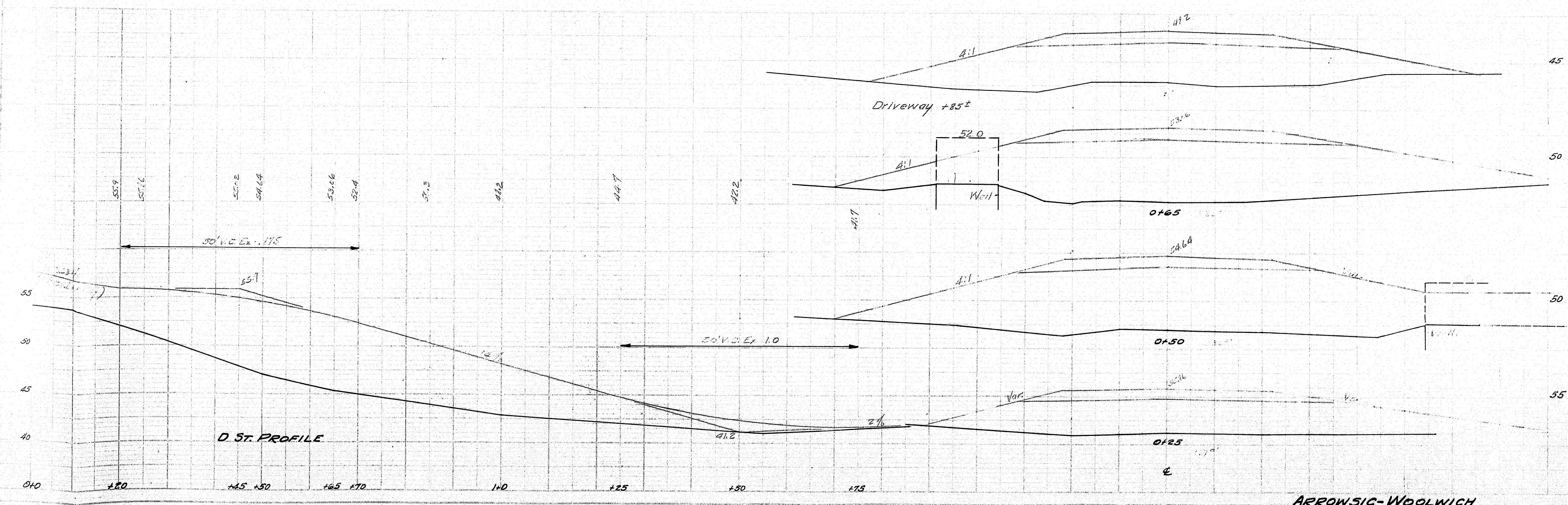
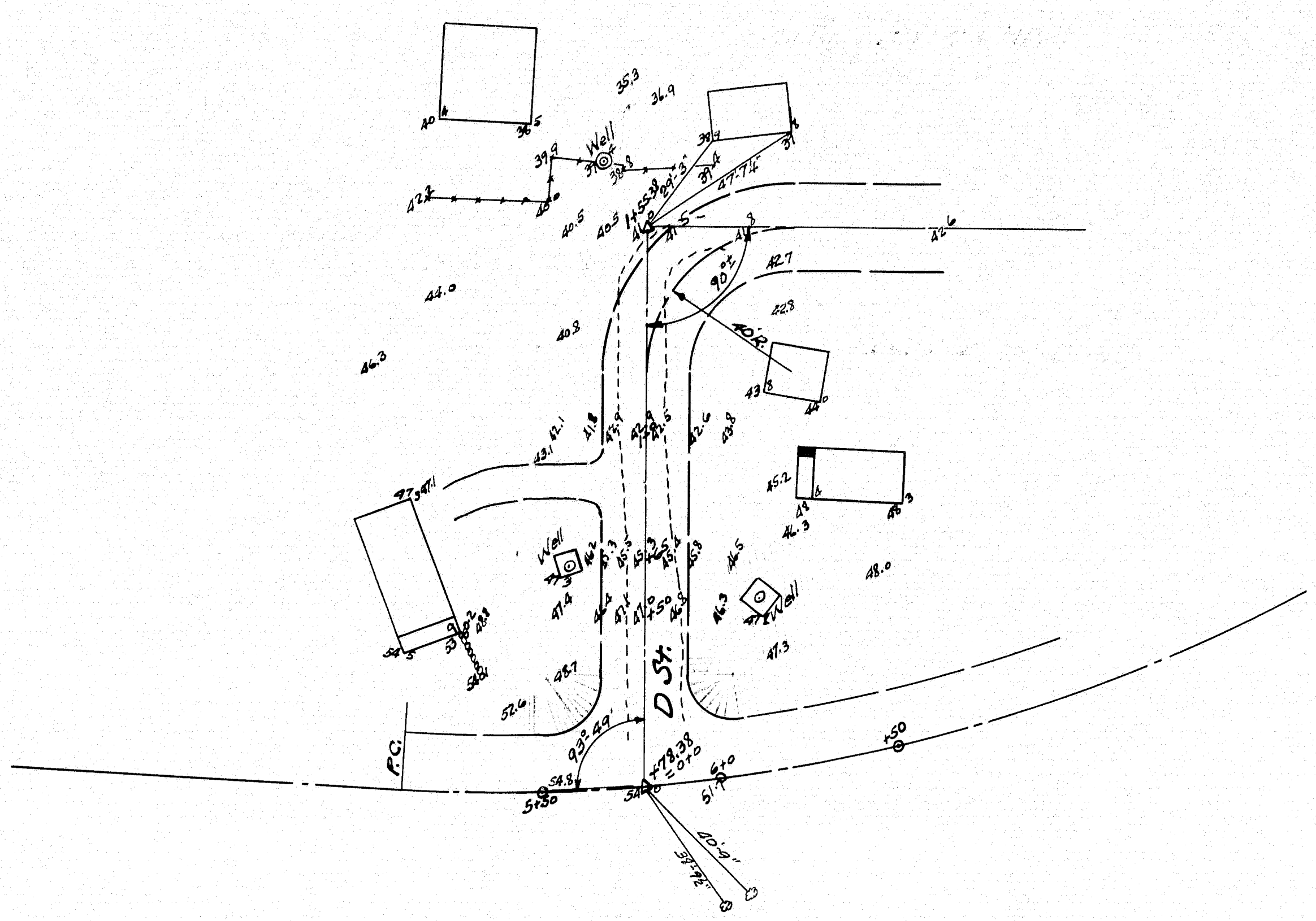
F: 113 cy.
G.B.: 13 cy.

F: 142 cy.
G.B.: 13 cy.

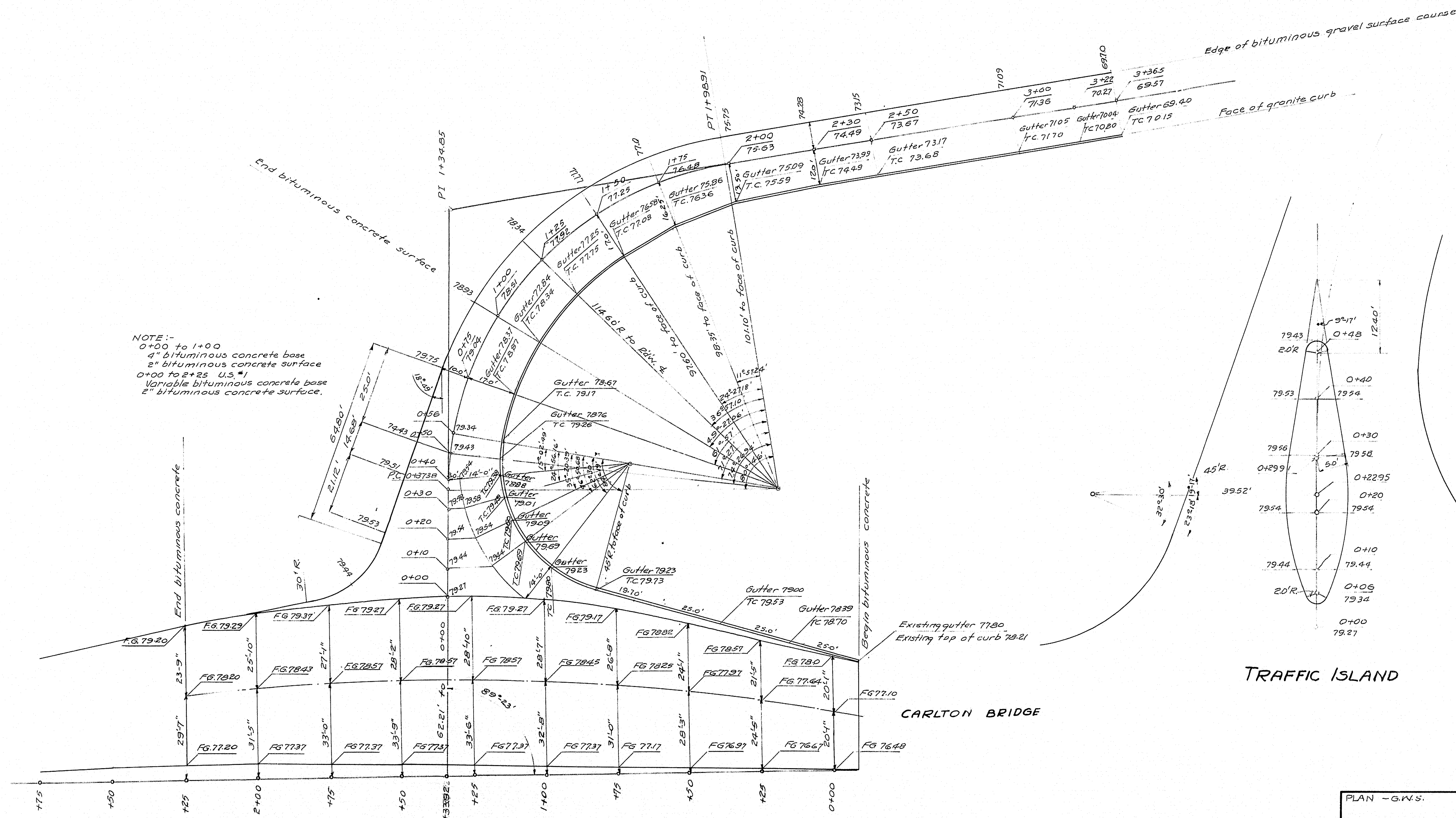
F: 121 cy.
G.B.: 13 cy.

F: 113 cy.
G.B.: 14 cy.





U.S. 1 TO WISCASSET



TRAFFIC ISLAND

PLAN - G.K.S.
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
ARROWSIC BRIDGE
OVER
SASANOA RIVER
BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGadahoc COUNTY
FIELD PLAN OF INTERSECTION 0+00
SHEET 78 OF 36 AUGUSTA, MAINE SEPT. 1950.

48-70

London - 8 days 12-45
London - 8 days 1-45

P. R. A.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	5-1546	8	36

11+0 10

10+88 15

10+80 15

10+50 20

10+30 20

Arrowsic - Woolwich 48-71

0 1 2 3 4 5 INCHES

London & Spang 10-46
Hogon 1-57

4

47.59

47.59

Sta. 13+42 Begin Lt
Guard Rail - Beam Type

-2" walk of
bridge

18+50 35 -2"
43.44

Sta. 13+42 Rt 139917
Guard Rail - Beam Type

F. 132 C.Y.
G. 130 6 cy

Sta. 18+40 End Bridge Quantities

18+30 35

18+0 30

17+80 25

17+50 13

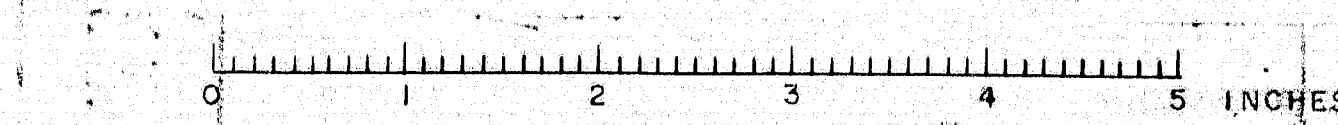
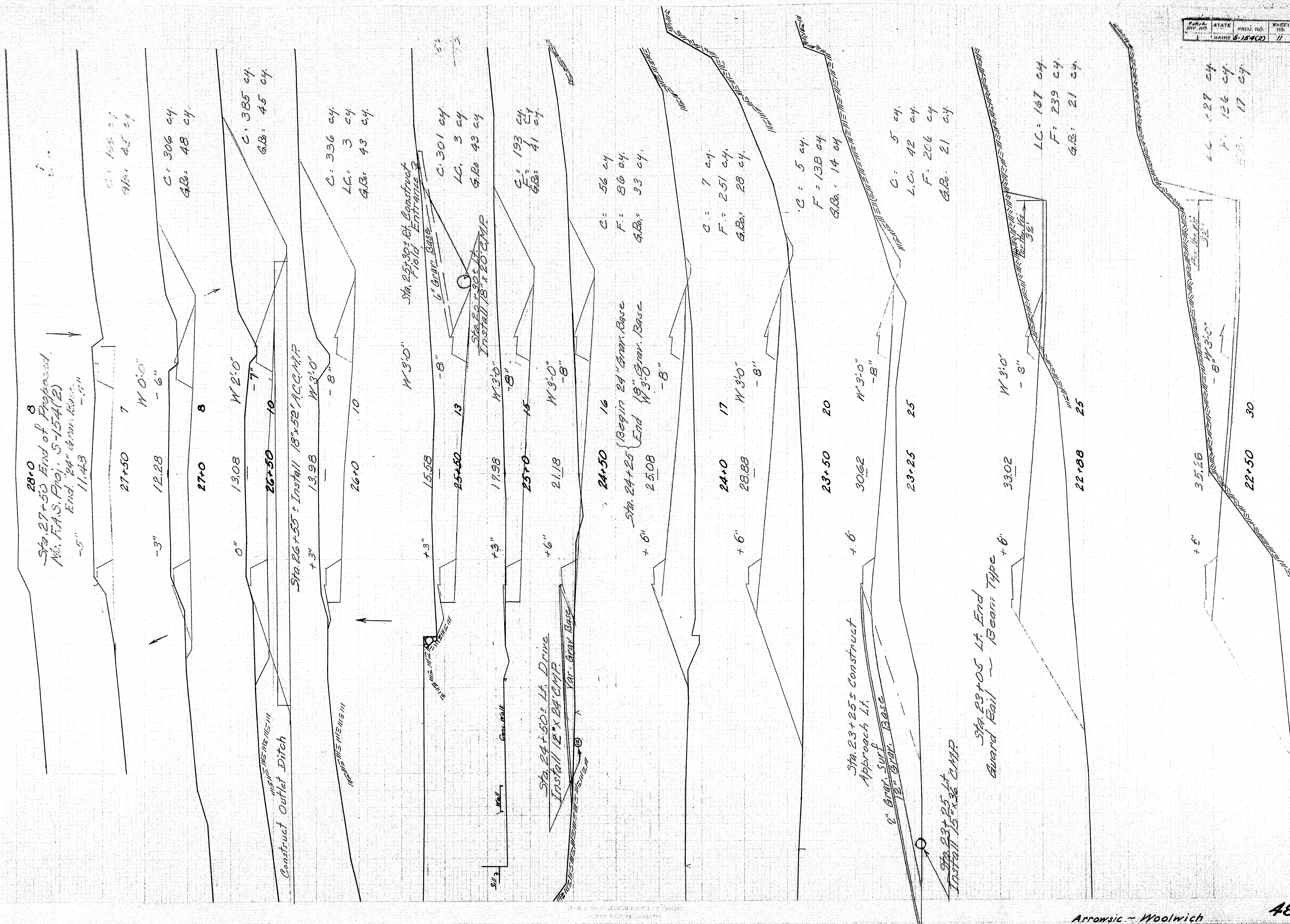
17+30 5

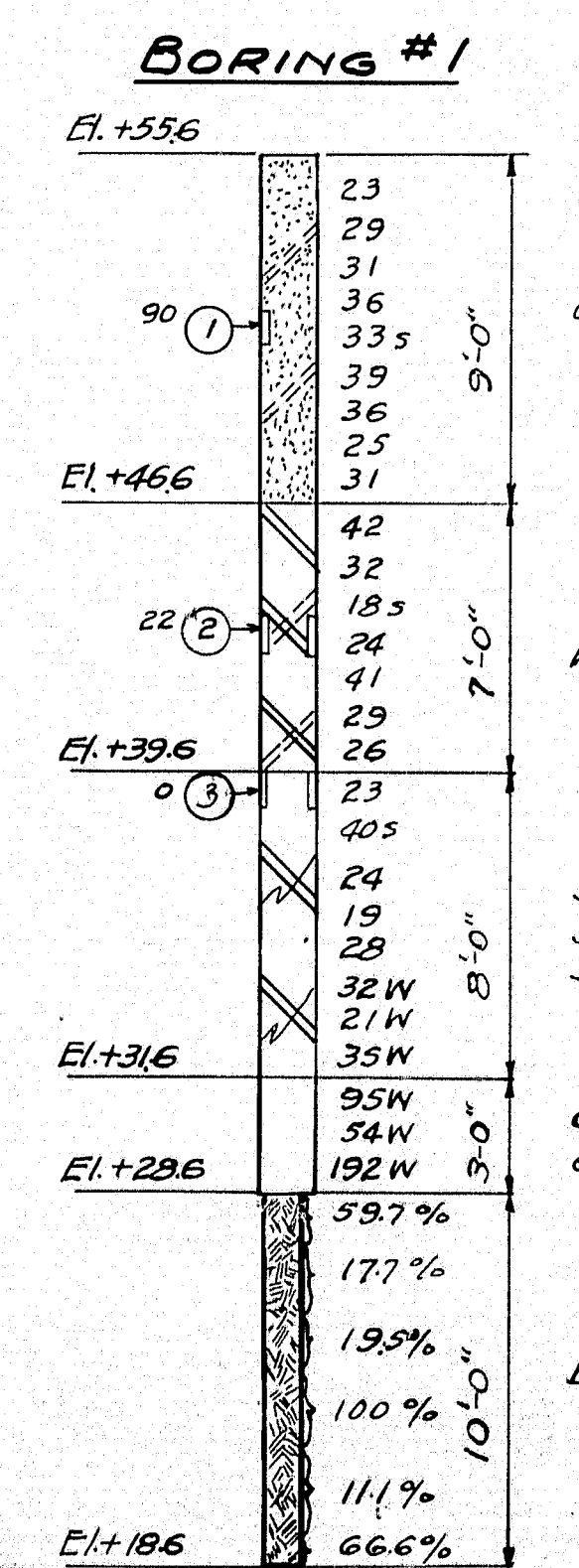
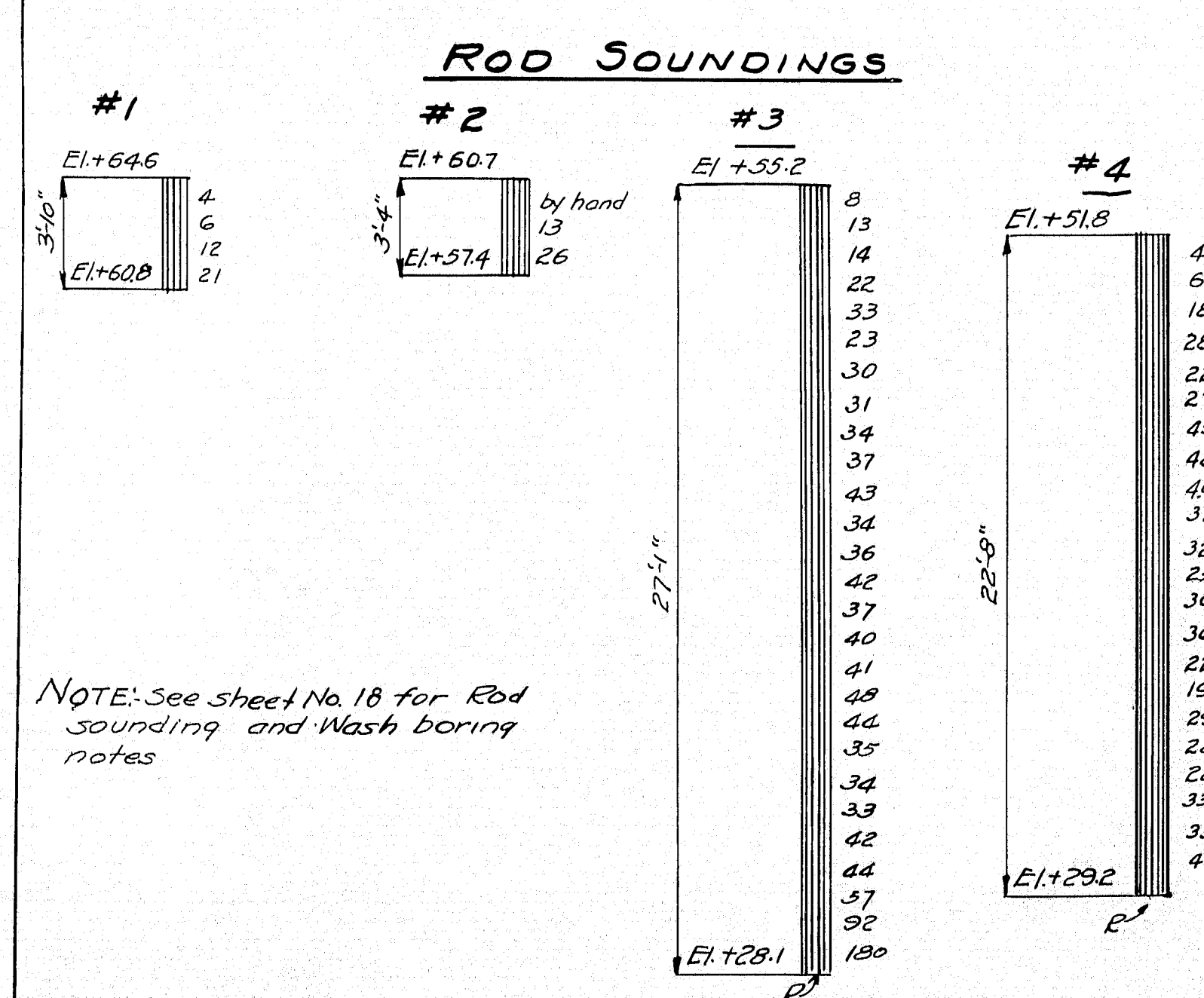
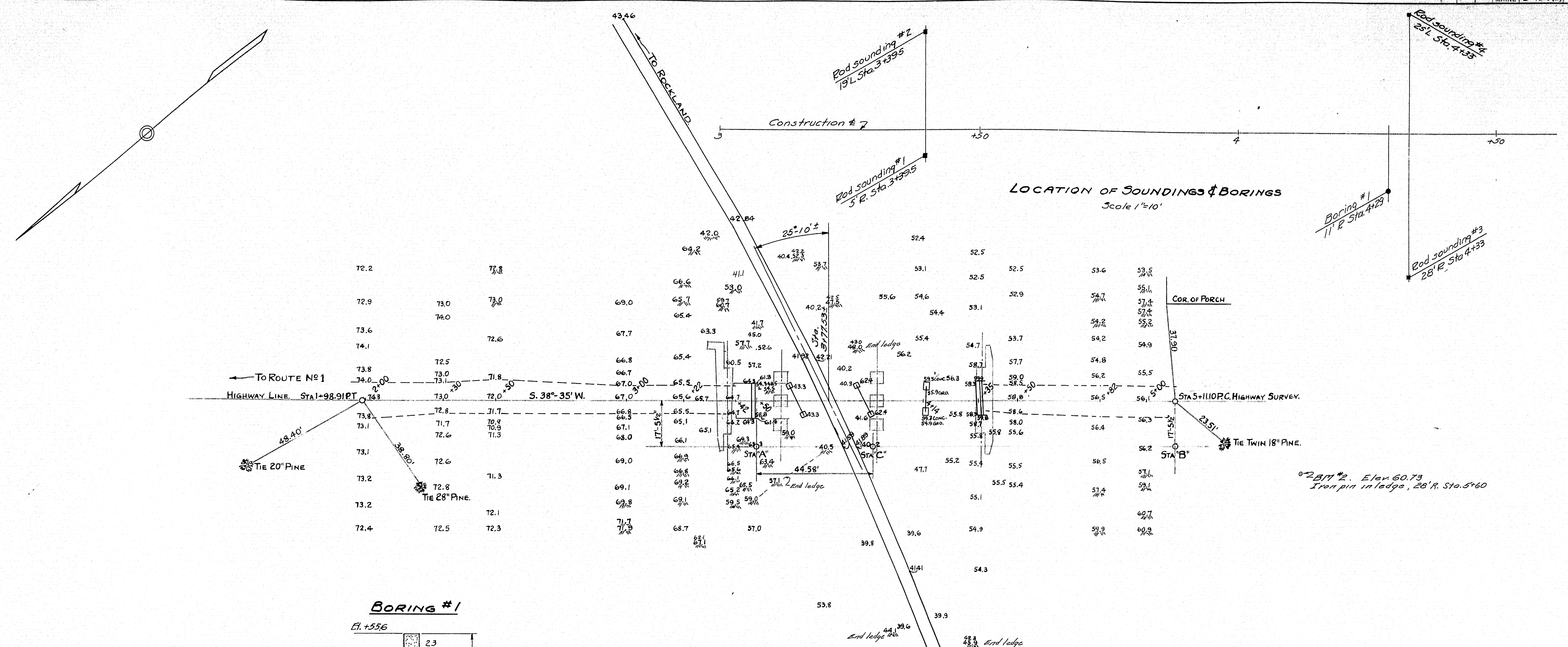
P. & A. DIV. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
MAINE		5-1418	9	36

Arrowsic - Wadwich

48-72

0 1 2 3 4 5 INCHES





PLAN.
SCALE: 1" = 20 FEET.

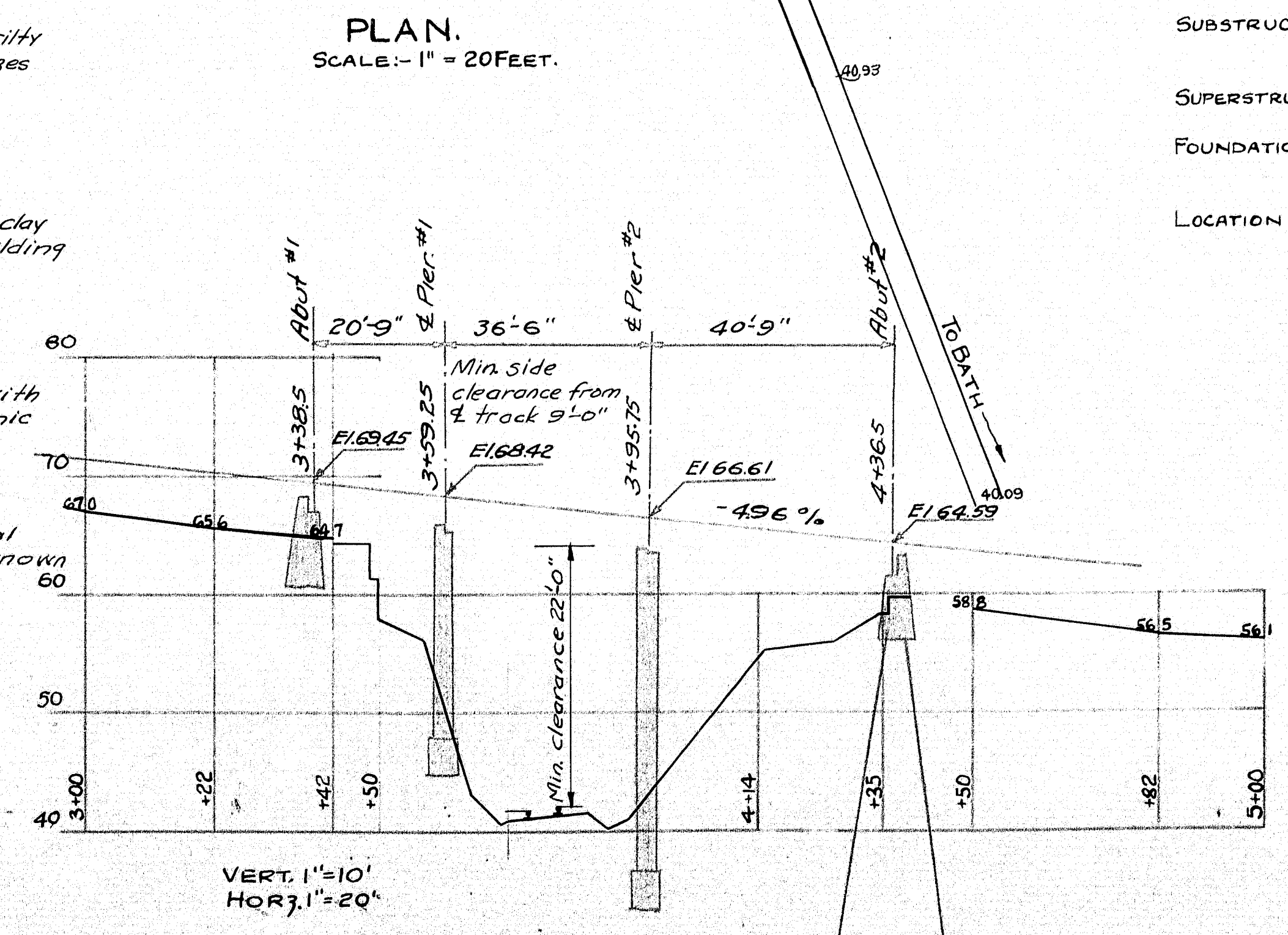
Compact slightly silty brown sand, all sizes

Firm brown silty clay weakened by moulding

Soft gray clay with some dark organic streaks

Compact material exact nature unknown

Biotite Gneiss



— NOTES —

SUBSTRUCTURE:— ABUTMENT NO. 1. CONCRETE IN POOR CONDITION. PIERS NO. 1 AND NO. 2. STEEL BENTS IN POOR CONDITION. PIER NO. 3. CONCRETE PEDESTALS WITH 2-12" X 12" CAPS. CONCRETE IN POOR CONDITION. ABUTMENT NO. 2. OF SQUARED TIMBERS.

SUPERSTRUCTURE:— THREE TOP CHORD TRUSS MEMBERS AS STRINGERS IN ALL SPANS. GOOD CONDITION. 3" TRANSVERSE PLANKING. FAIR CONDITION. 11'-0" CLEAR ROADWAY BETWEEN CURBS.

FOUNDATION:— APPROACH NO. 1, SEAMY LEDGE. APPROACH NO. 2, SEE SOUNDING.

— SOUNDING —

LOCATION IN PLAN ABOVE. ① GROUND ELEVATION 55.8. LEDGE ELEVATION 36.1. AVE. PENETRATION 1/2" / BLOW.

PLOTTED. FERGUSON. BRIDGE.

STATE HIGHWAY COMMISSION.

BRIDGE DIVISION.

ARROWSIC ROAD OVERPASS.

OVER

MAINE CENTRAL RAILROAD TRACKS.

IN THE TOWN OF

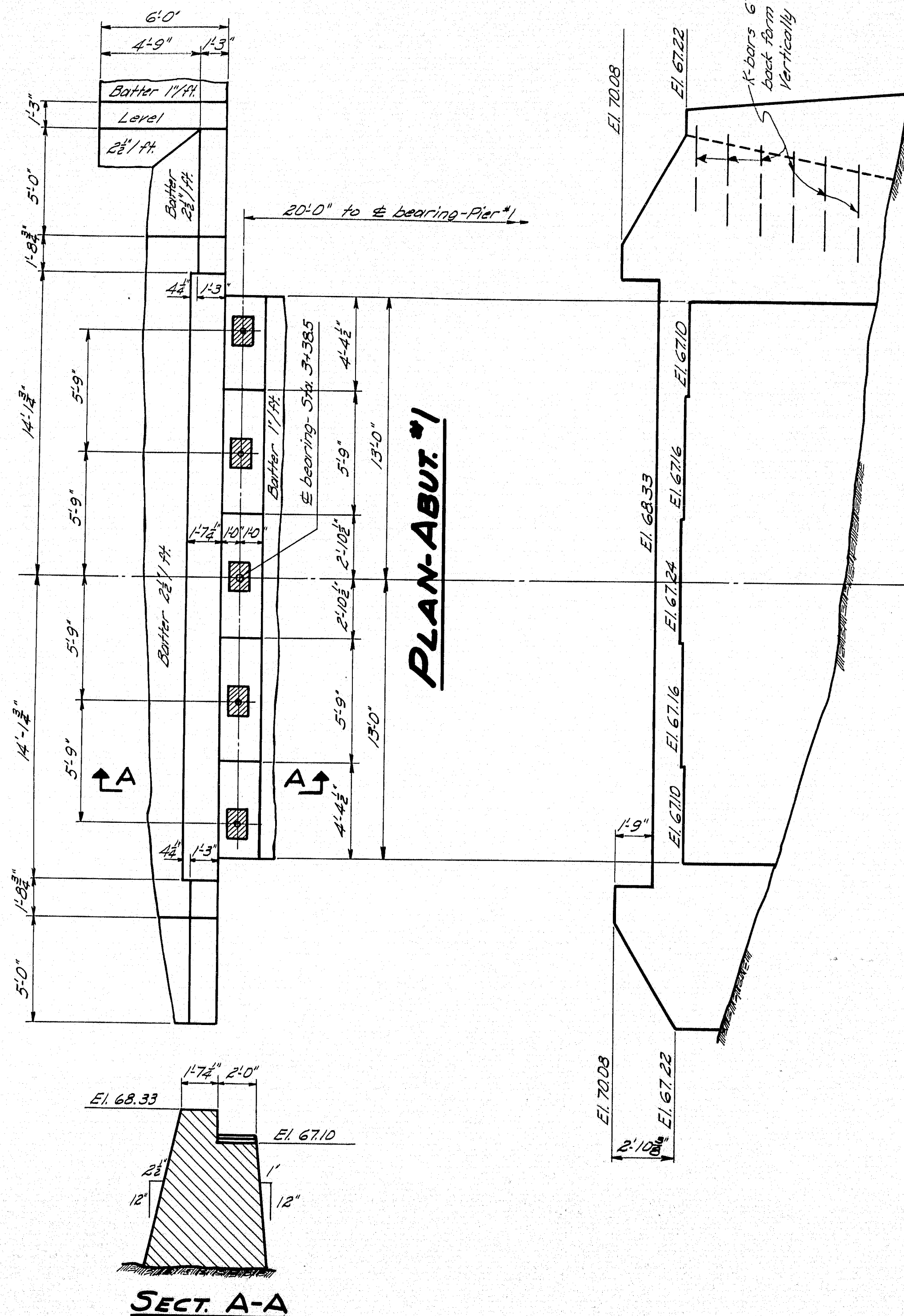
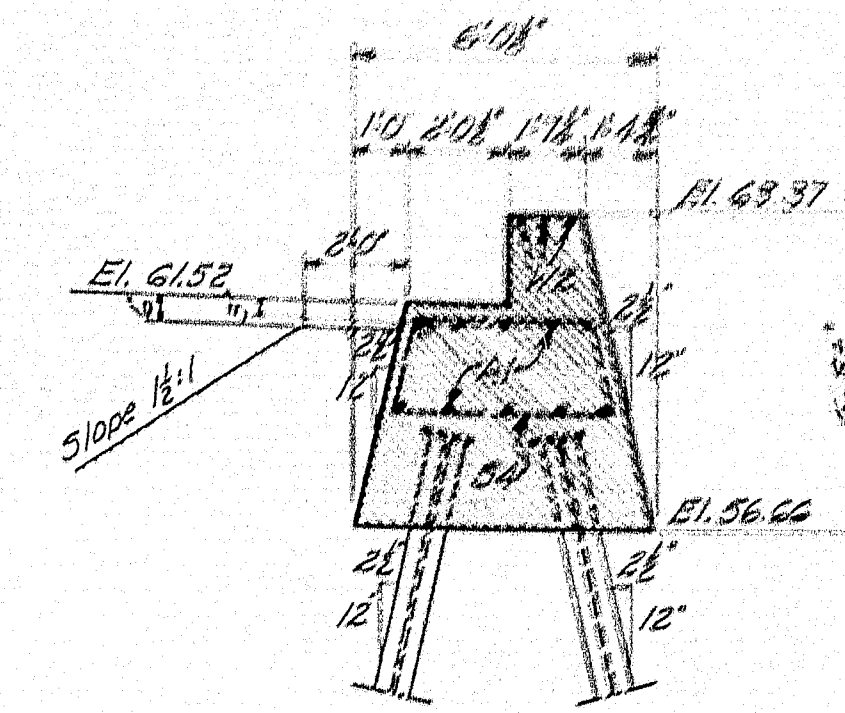
WOOLWICH. SAGADAHOC CO.

SURVEY

SHEET 12 OF 36 AUGUSTA, ME. JANUARY 1947.

NOTE: Dress shaded bearing areas, plus 1" larger all around than bearing plates, to exact elevations shown.

Place reinforcing steel in the bridge seats to clear Anchor Bolts.

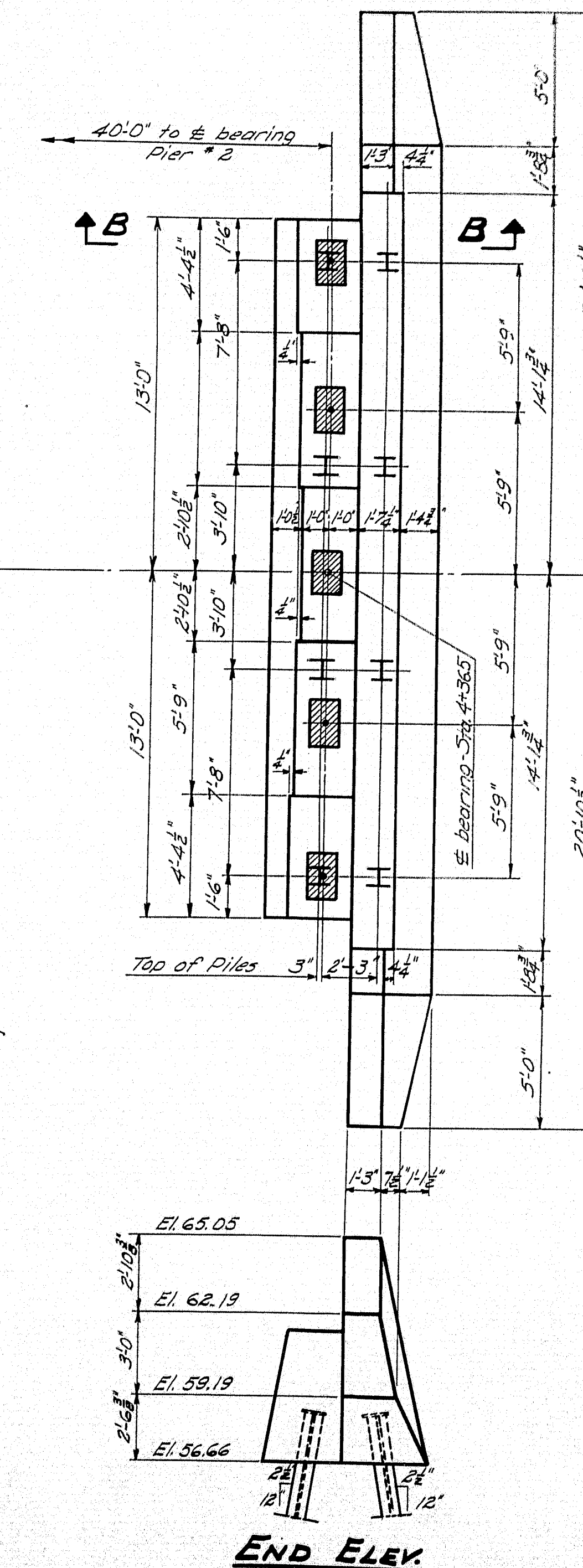
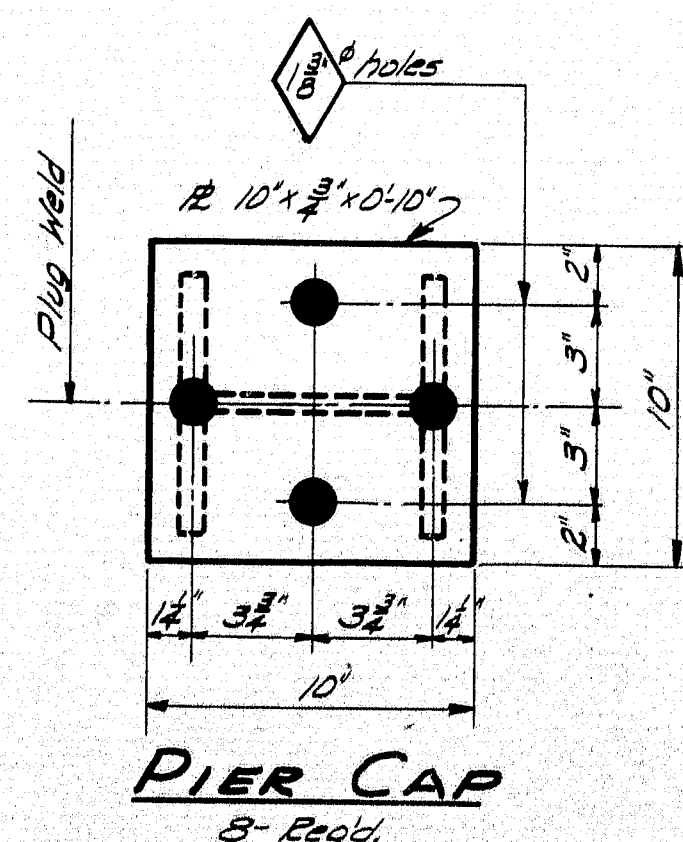
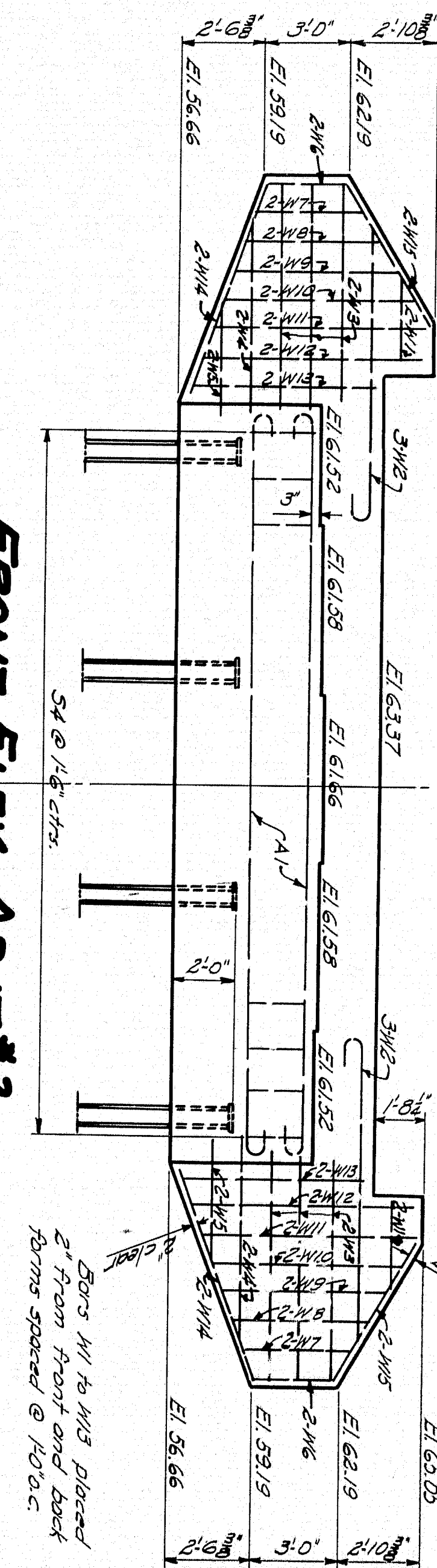


FRONT ELEV. ABUT. #1

FRONT ELEV. ABUT. #2

Fig. 8 Piles 8' H. 36" dia. shown. Estimated length 30'.

Construction #2



PLAN-ABUT. #2

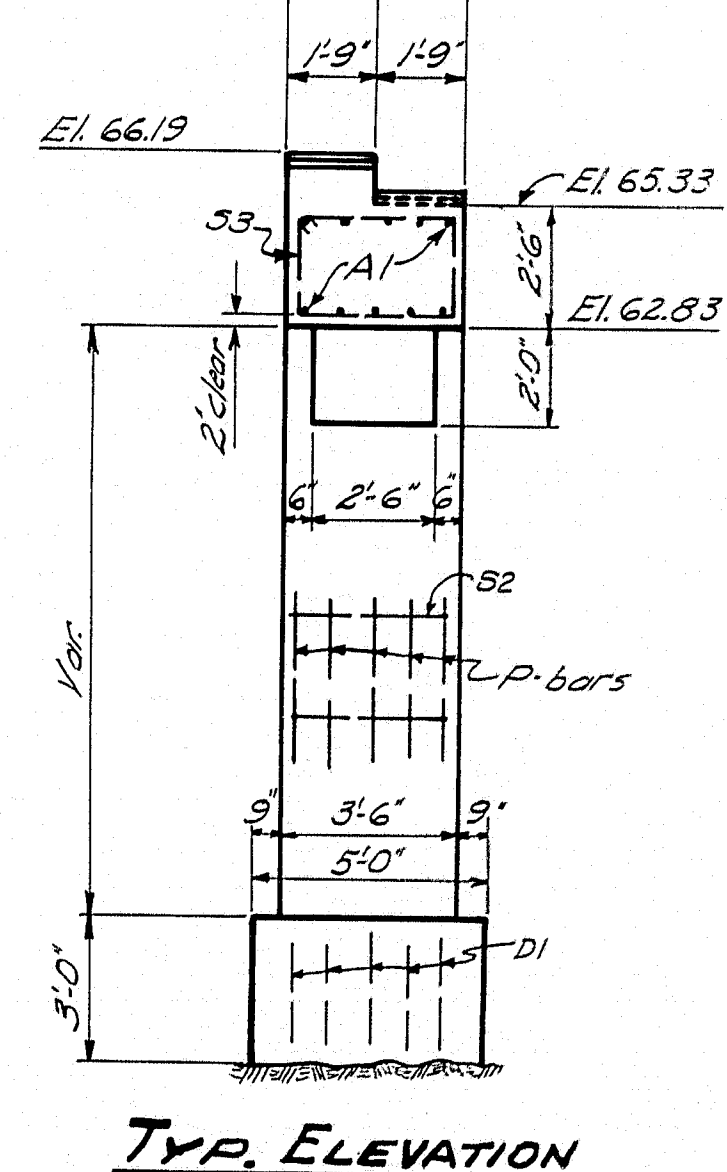
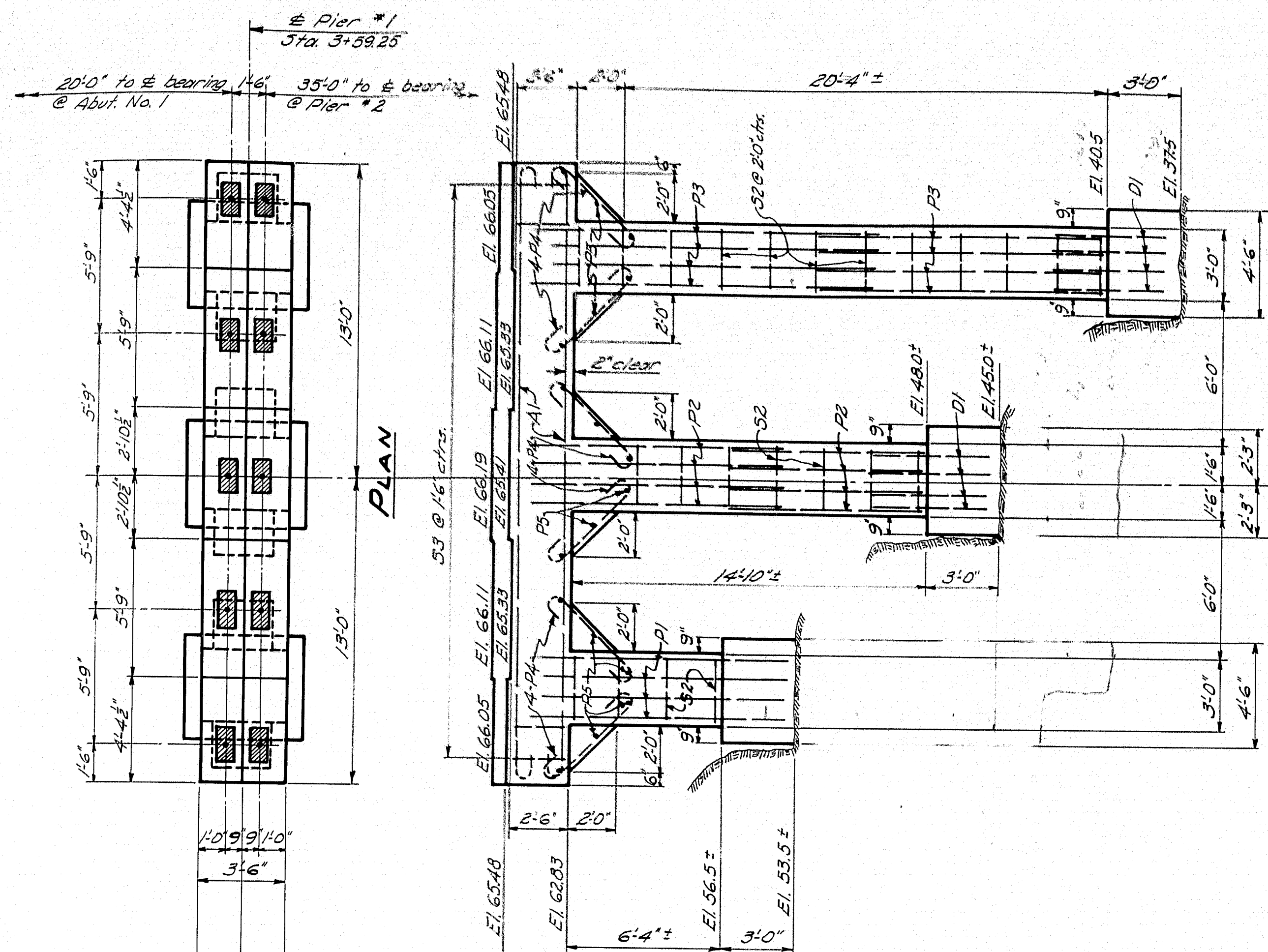
NOTE: Holes through backwalls and/or ends of floor slabs for water pipes shall be made at the direction of the Engineer.

DESIGN - STANGEL
TRACE - CLARK
CHECK - C.J.C.

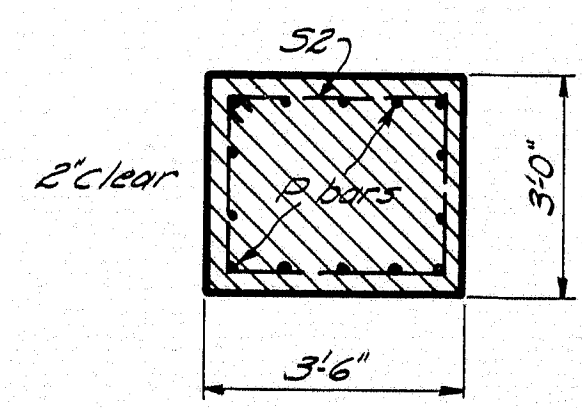
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ARROWSIC ROAD OVERPASS
OVER
MAINE CENTRAL RAILROAD TRACKS
IN THE TOWN OF
WOOLWICH
SAGadahoc COUNTY
ABUTMENTS NO. 1 & 2

SHEET 13 OF 36 AUGUSTA, MAINE MAR. 1949

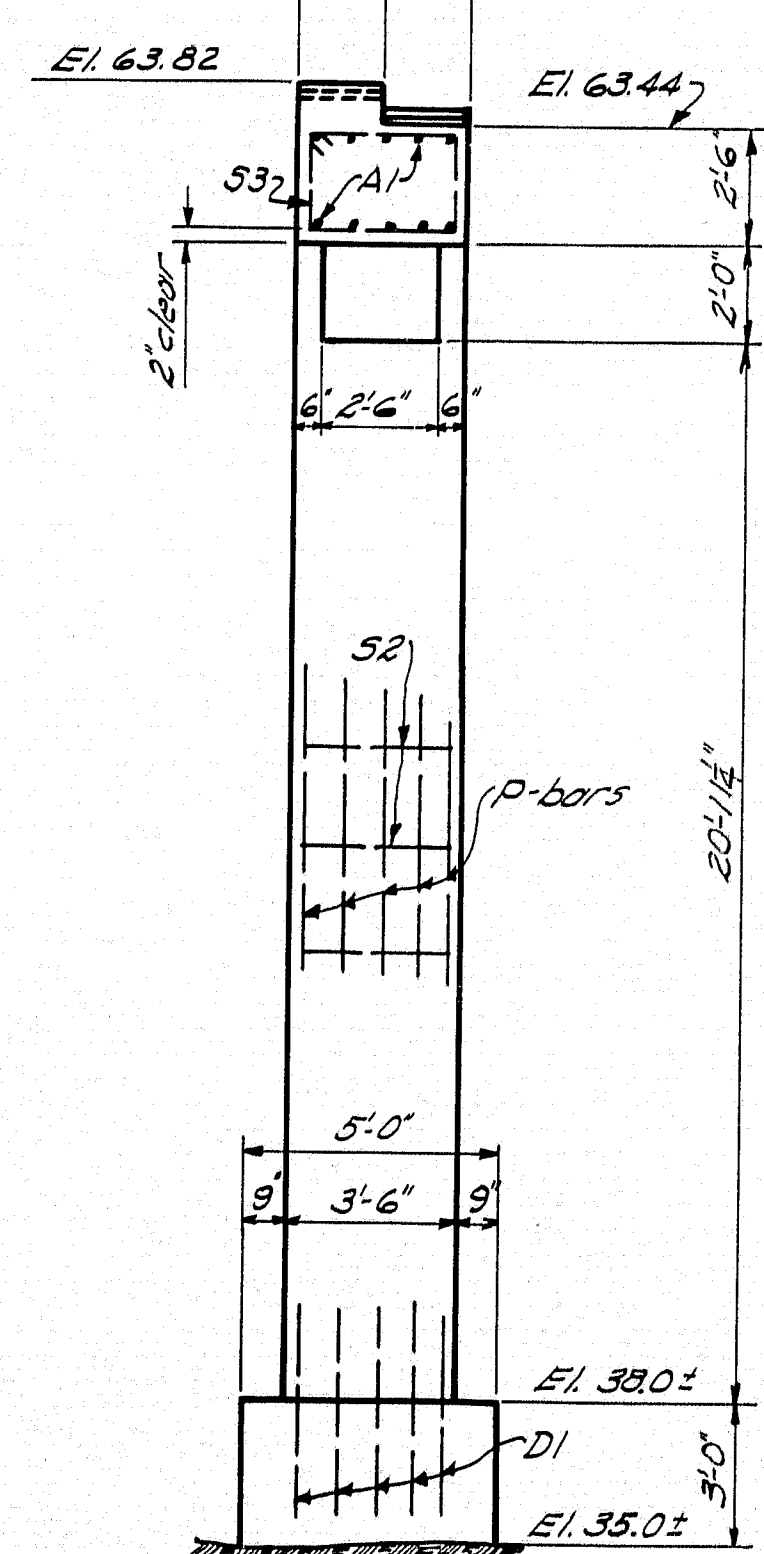
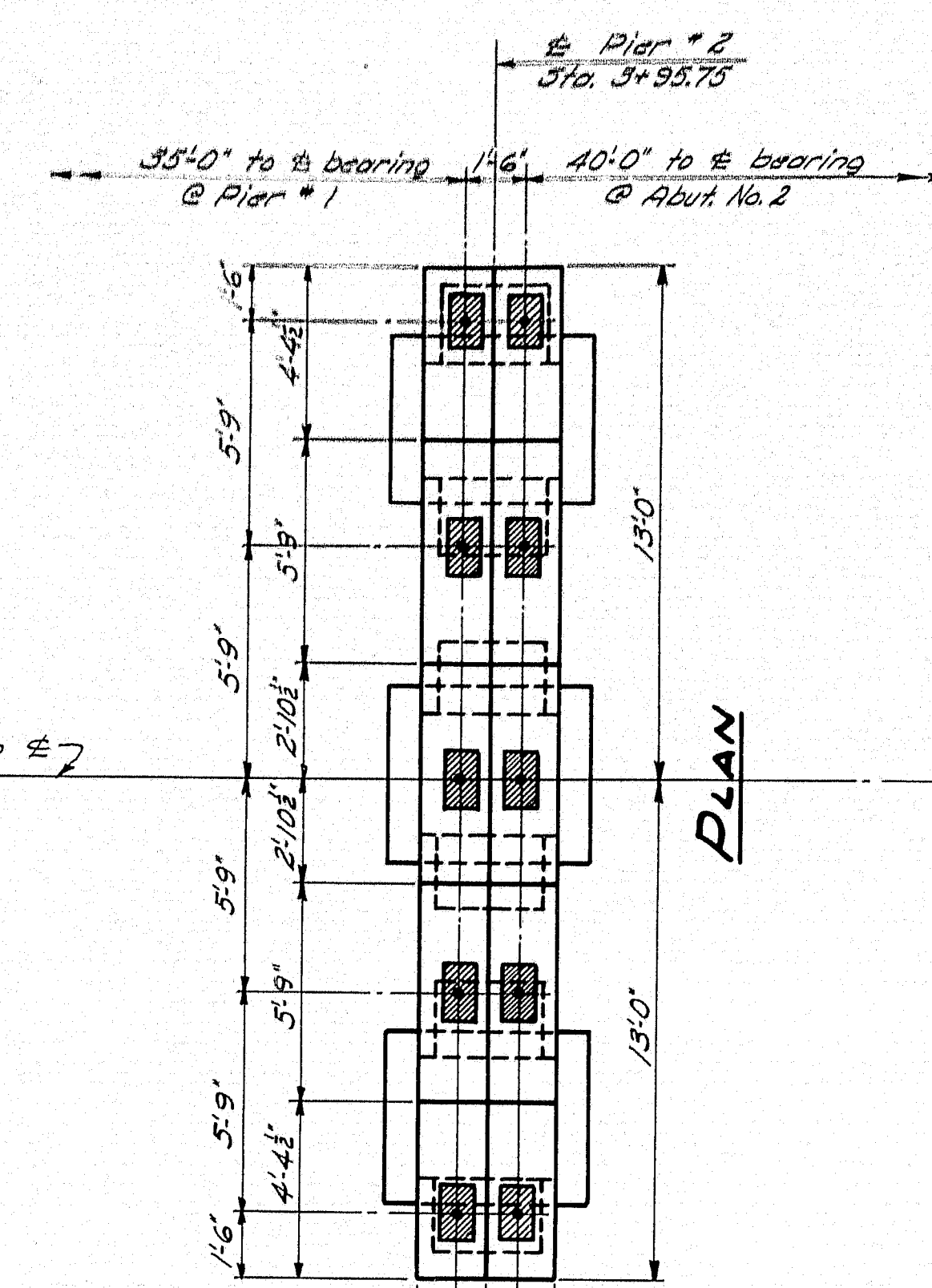


PIER No. 1

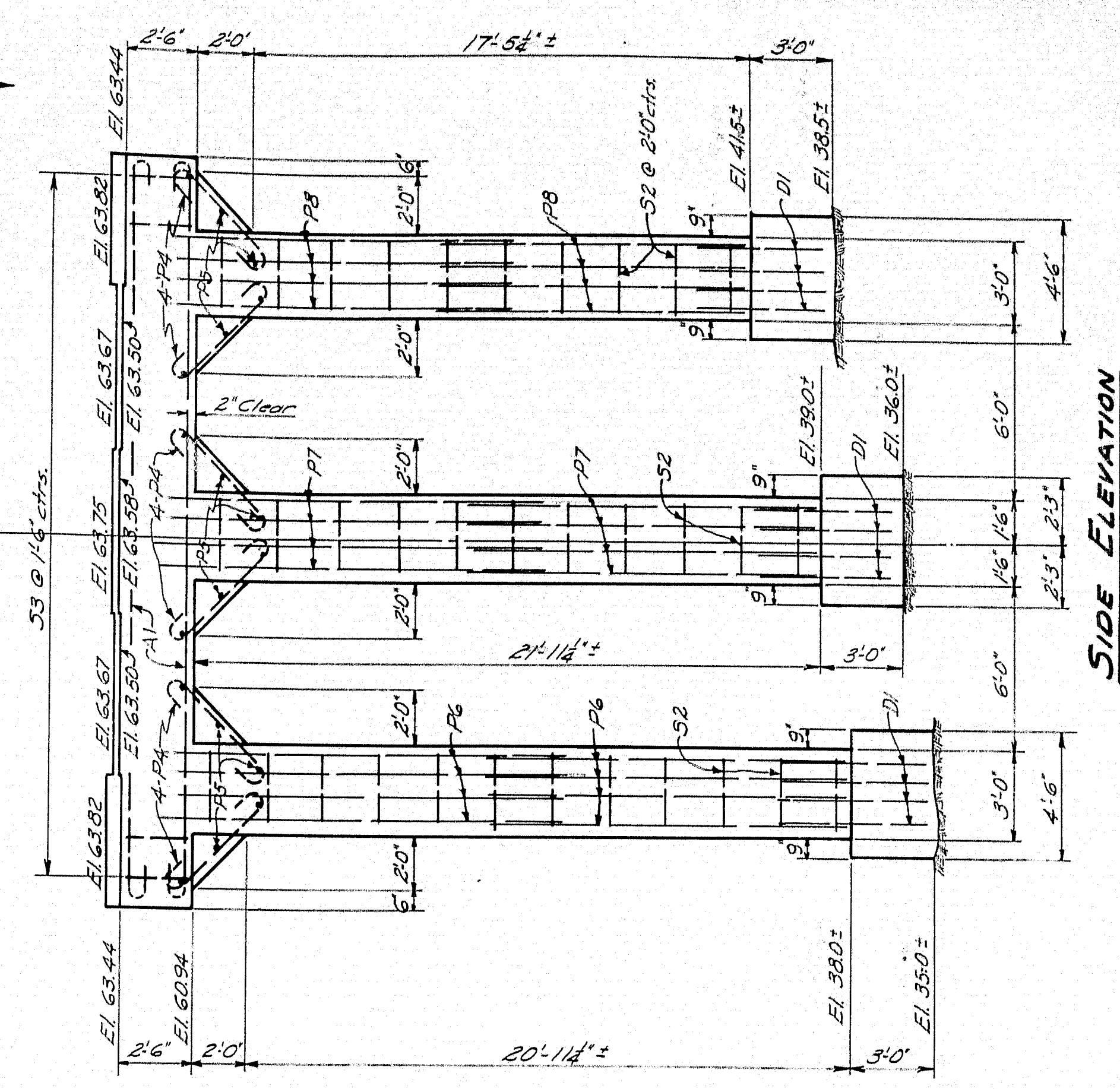


COLUMN SECT
Piers No. 1 & No. 2

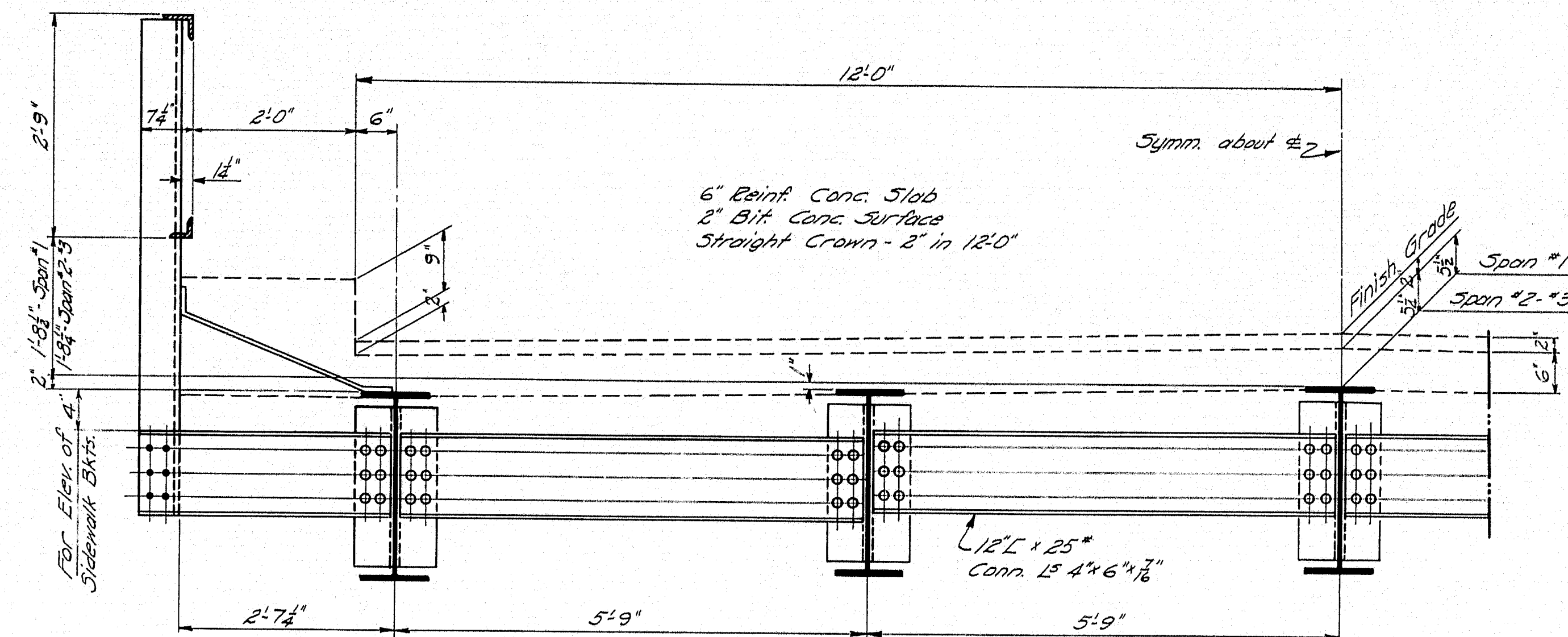
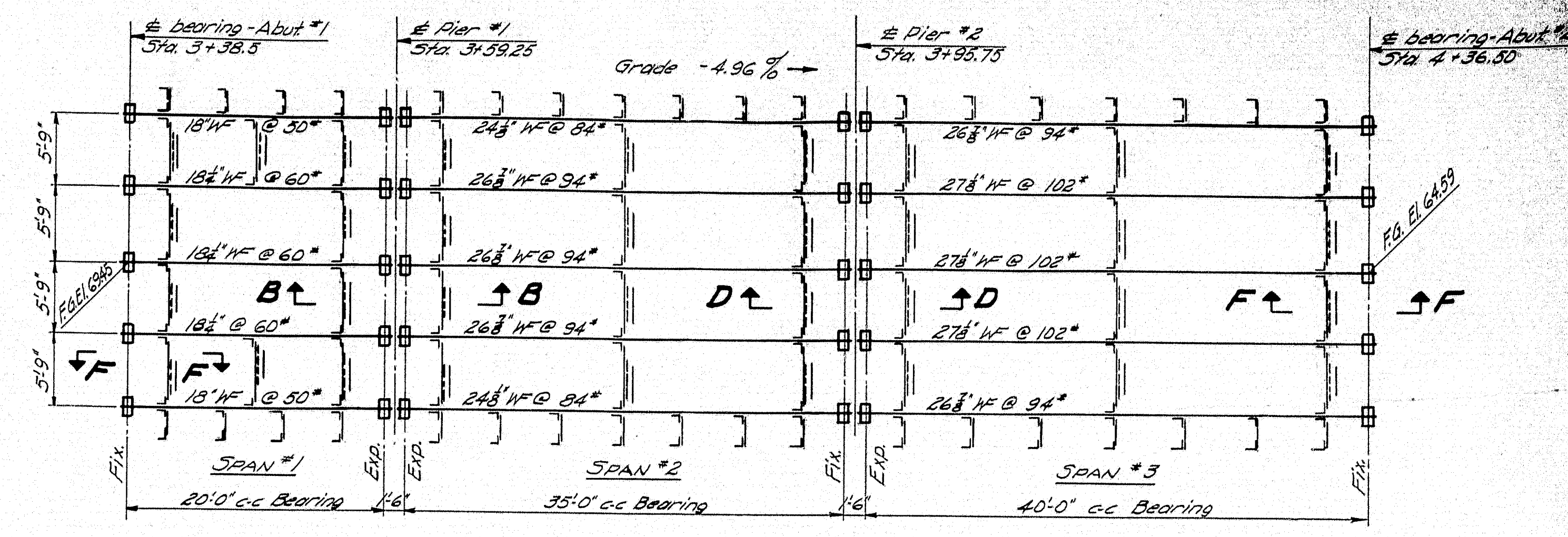
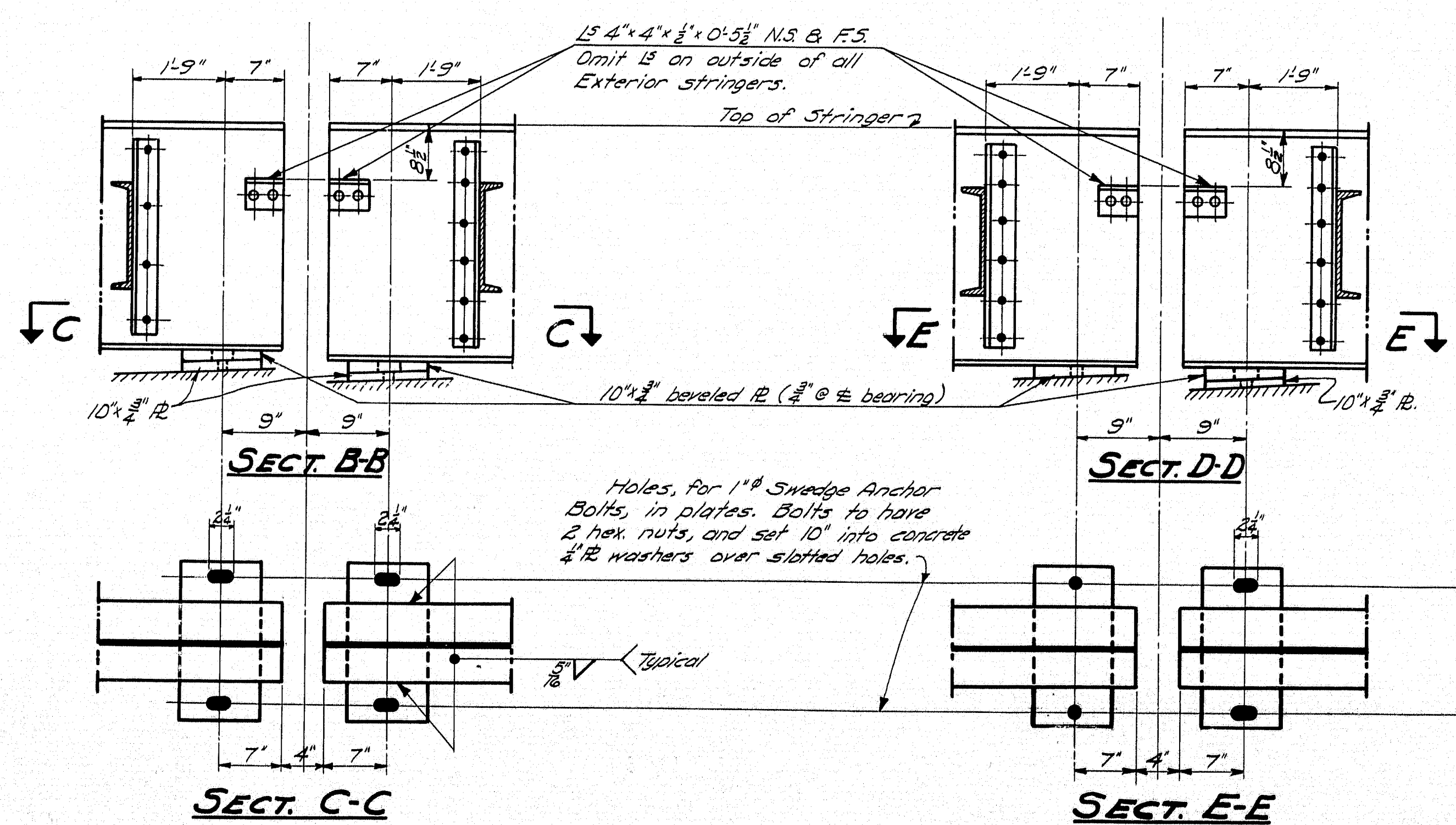
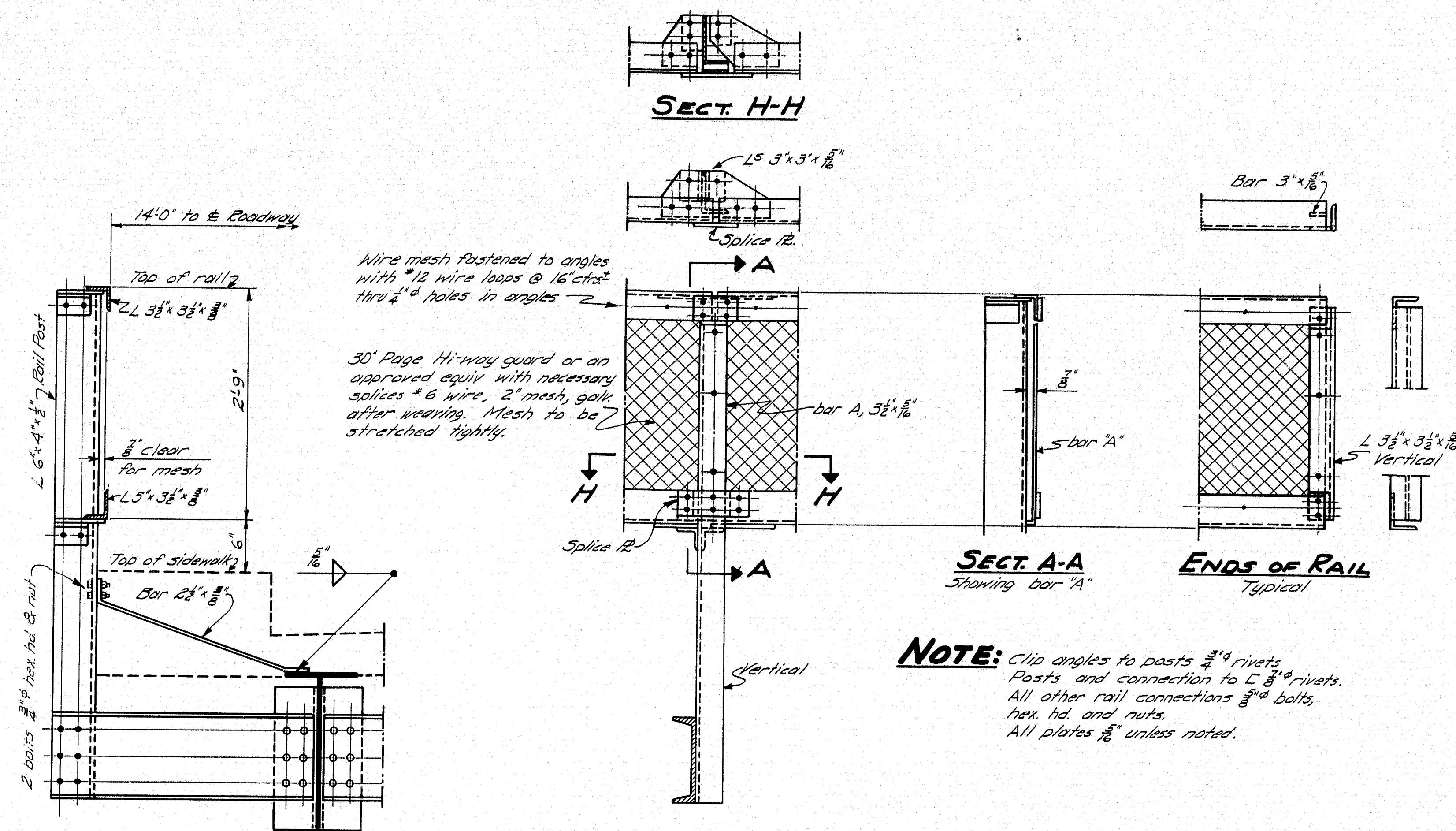
NOTE: Dress shaded bearing areas, plus 1" larger all around than bearing plates, to exact elevations shown.
Place reinforcing steel in the bridge seats to clear Anchor Bolts.



PIER No. 2



DESIGN - STANGEL
TRACE - CLARK
CHECK - [Signature]
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
ARROWSIC ROAD OVERPASS
OVER
MAINE CENTRAL RAILROAD TRACKS
IN THE TOWN OF
WOOLWICH
SAGadahoc COUNTY
PIERS NO. 1 & 2
SHEET 14 OF 36 AUGUSTA, MAINE MAR. 1949



SPECIFICATIONS

State of Maine, State Highway Commission, Bridge Division, Specifications Steel Highway Bridges, November 1945.

Structural carbon steel shall conform to A.A.S.H.O. Specifications for Highway Materials, designation M 94, and ASTM designation A 7.

Rivets $\frac{7}{8}$ " open holes $\frac{15}{16}$ " unless noted. See Rail Details.

Holes for field connections and field splices of main members shall be sub-punched and reamed to a steel template, or reamed while assembled.

Loading H20-44.

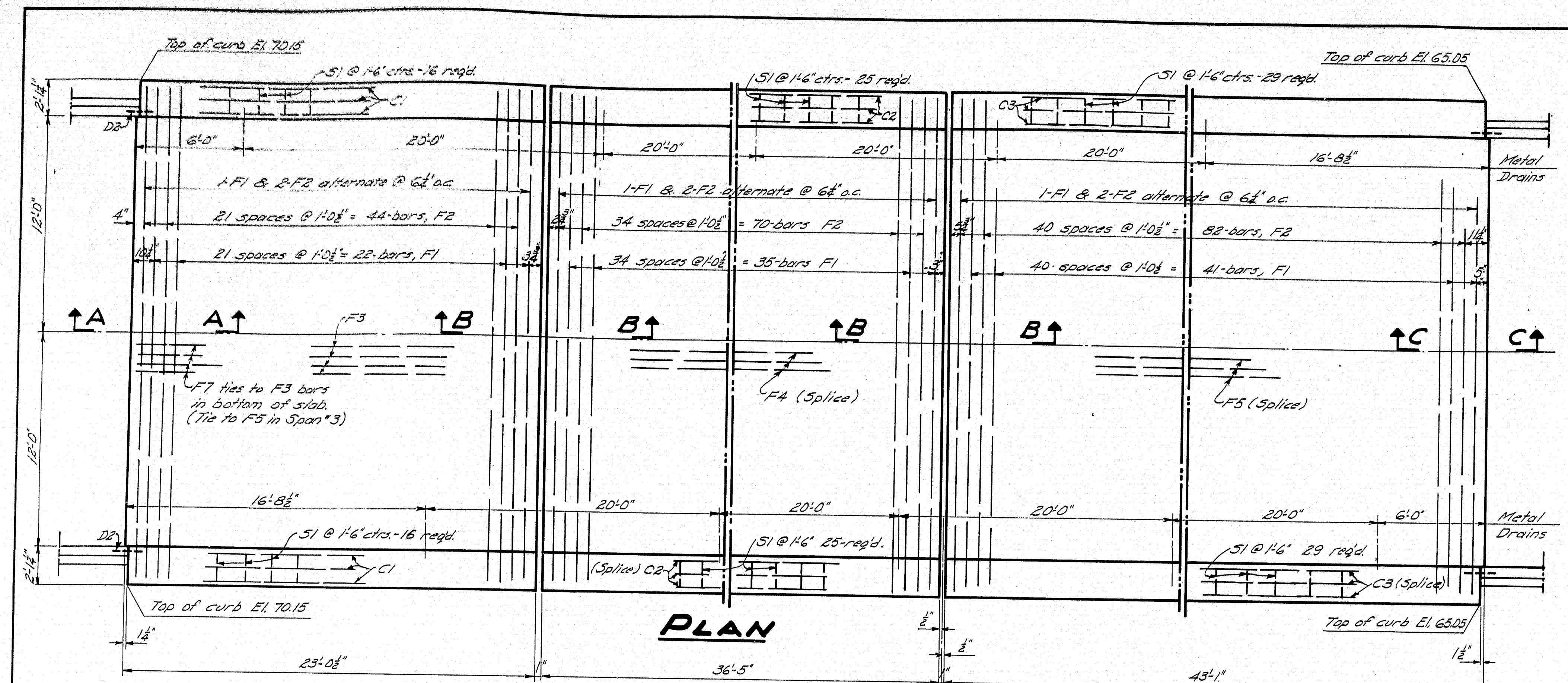
DESIGN - STANGEL
 TRACE - CLARK
 CHECK - [Signature]

PLAN - BAILEY

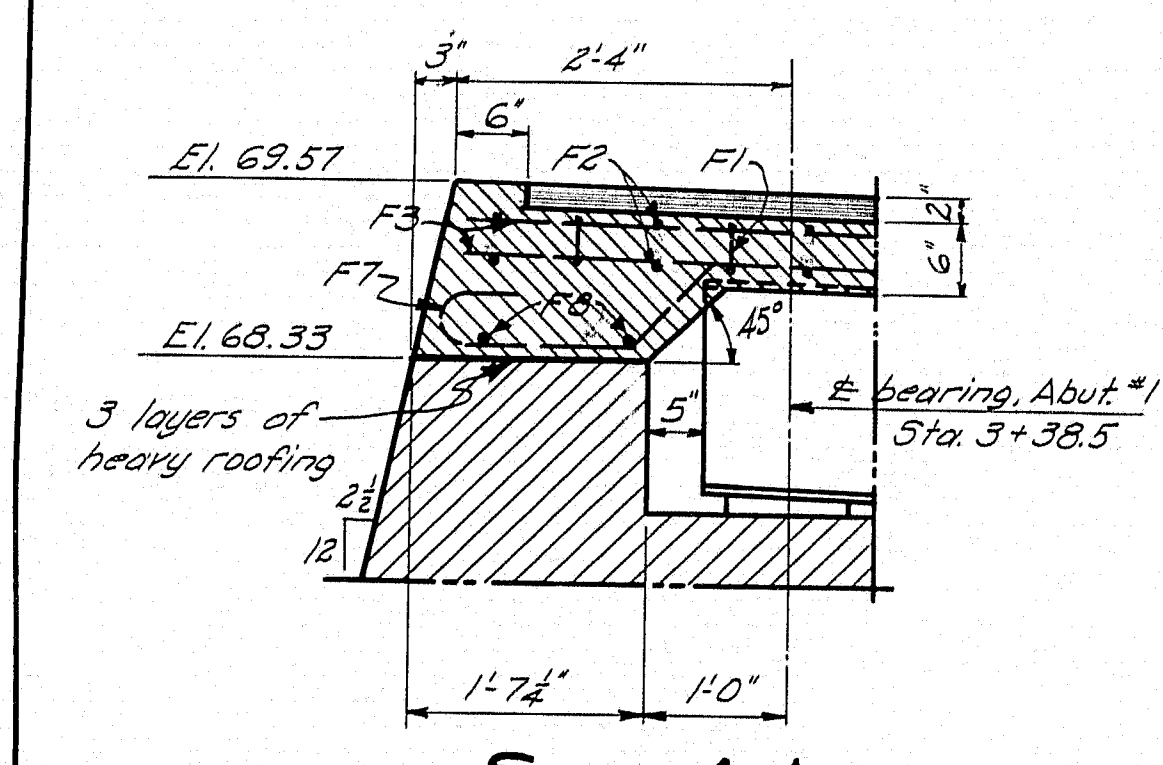
STATE HIGHWAY COMMISSION
 BRIDGE DIVISION

ARROWSIC ROAD OVERPASS
 OVER
MAINE CENTRAL RAILROAD TRACKS
 IN THE TOWN OF
WOOLWICH
SAGadahoc COUNTY
 STRUCTURAL STEEL

SHEET 15 OF 36 AUGUSTA, MAINE MAR. 1949

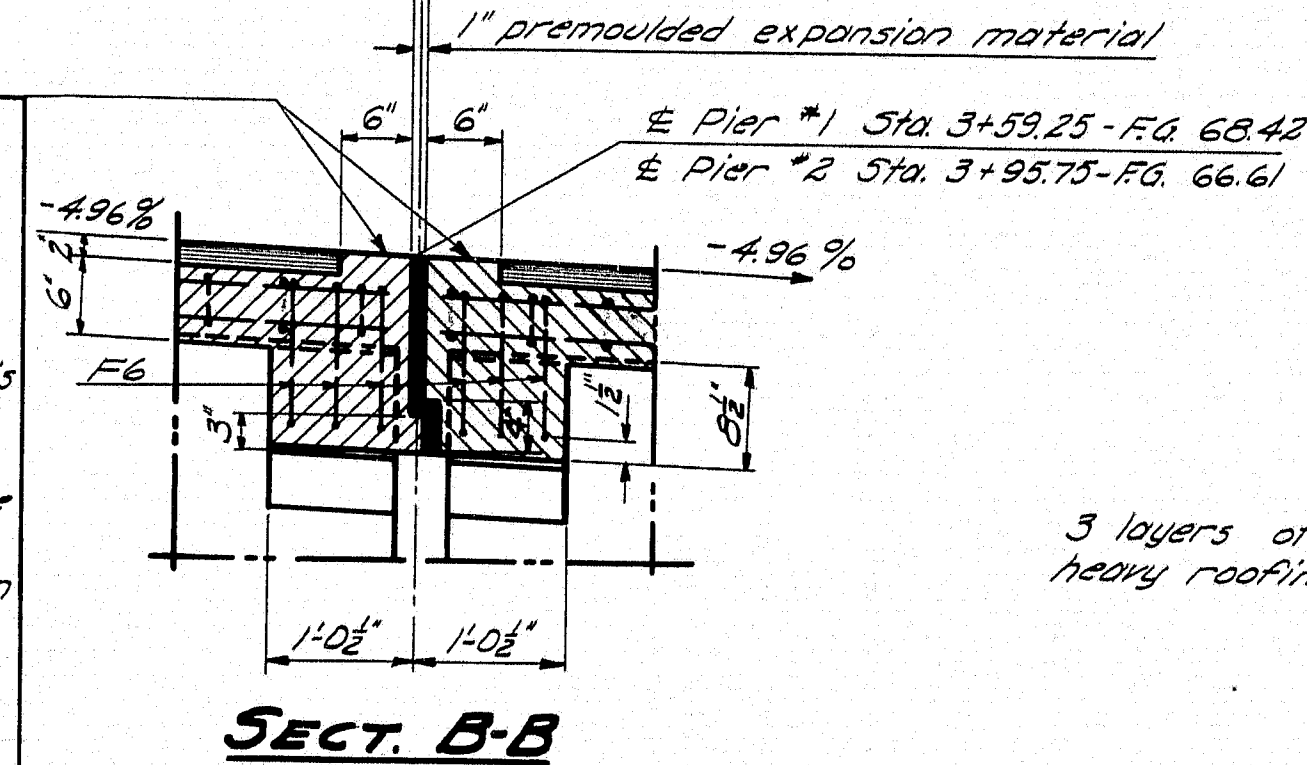


PLAN

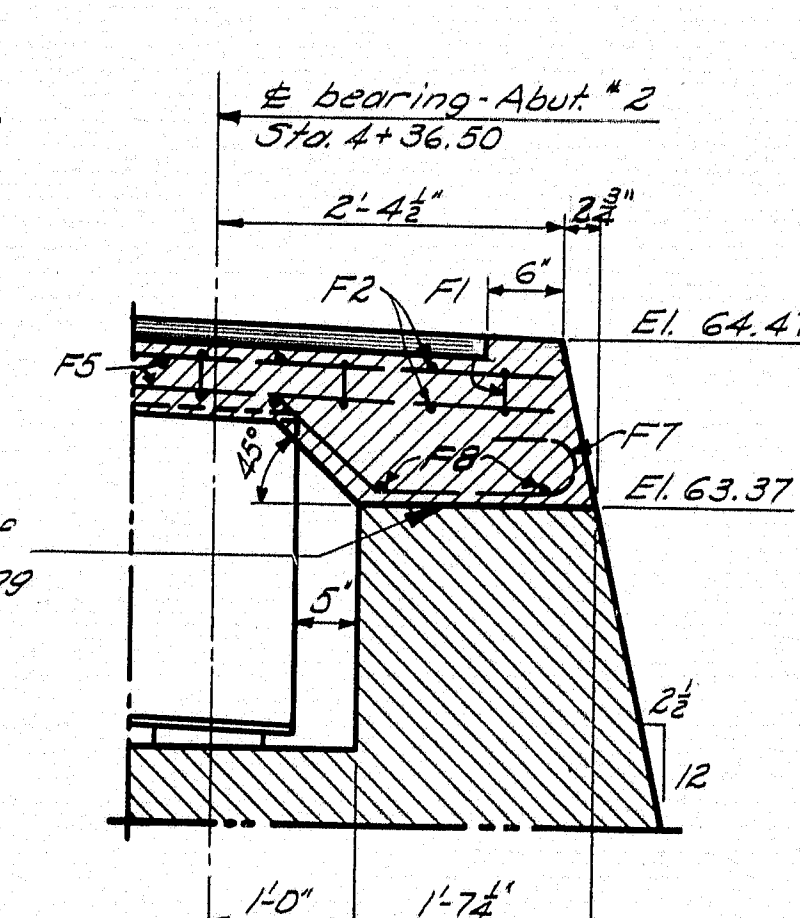


SECT. A-A

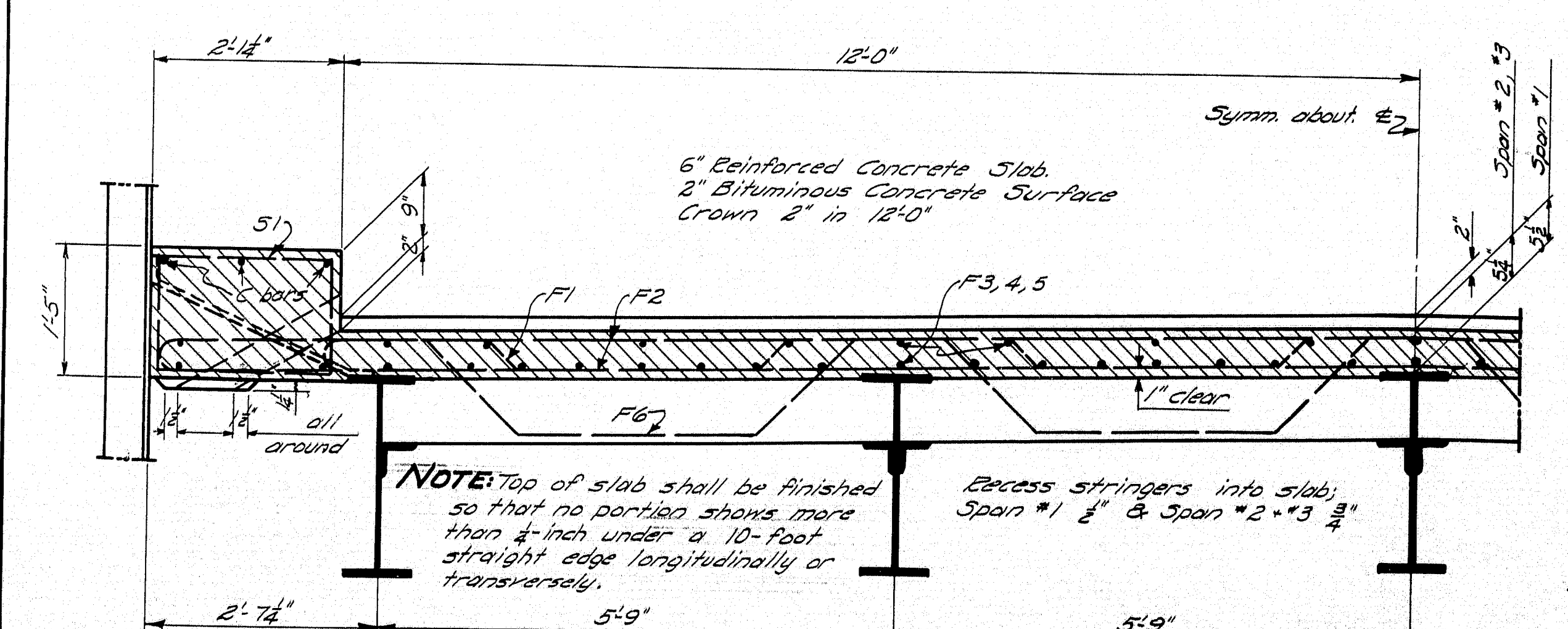
It is important that work at these points shall be carefully done; the following method is suggested.
That portion of the concrete (6"x12") may be omitted when slab is placed, provided the top surface is left rough, and said portion is placed as soon as it is possible to work on the slab without damage to it, and further provided that small dowels, 3/4"x3" min. @ 2'-0" centers, are placed before the slab concrete takes its initial set; also the (6"x2") concrete portion shall be in position before the slab concrete takes final set.
(Payment for dowels, if used, to be included in the contract unit price of slab concrete.)



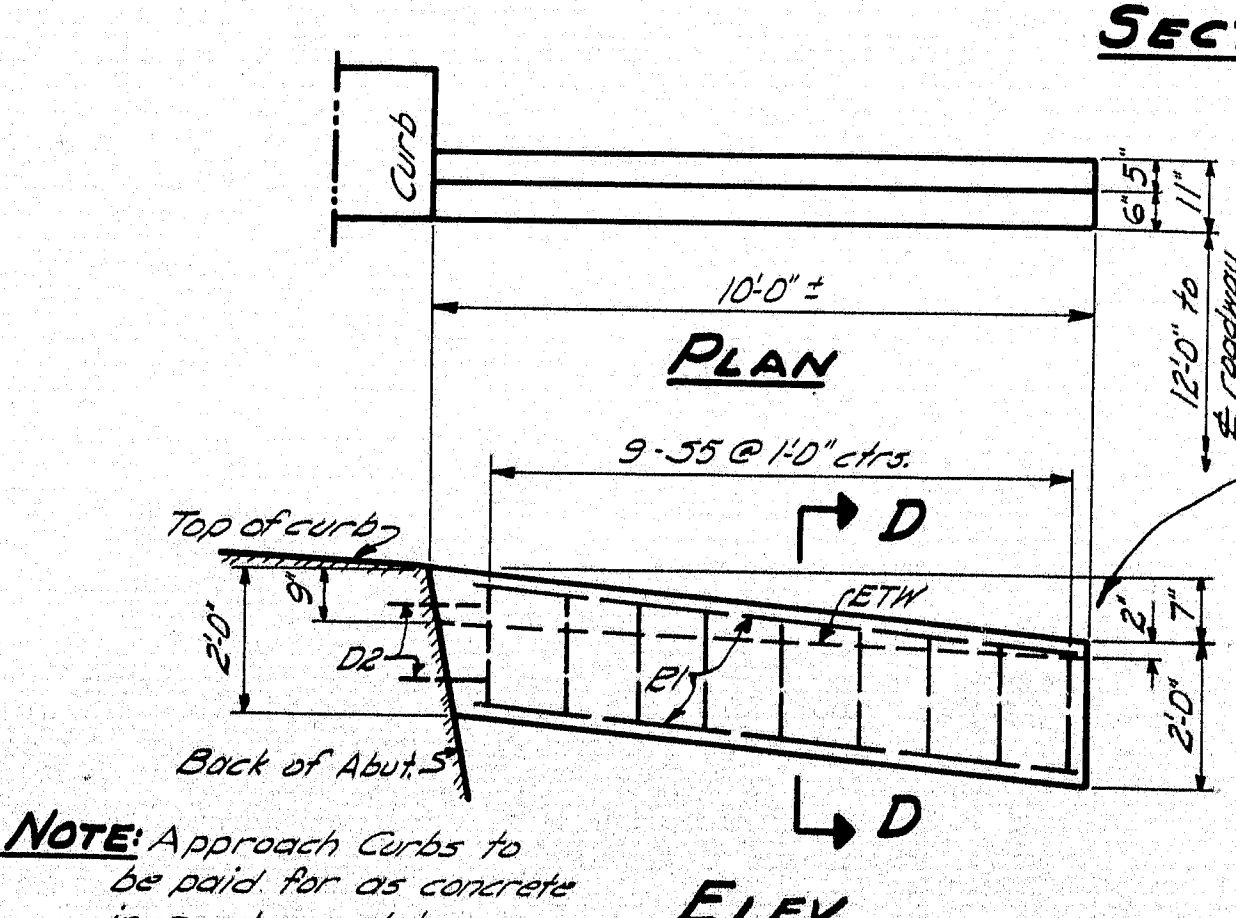
SECT. B-B



SECT. C-C

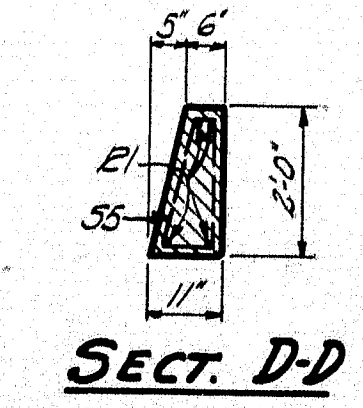


HALF TRANSVERSE SECT.

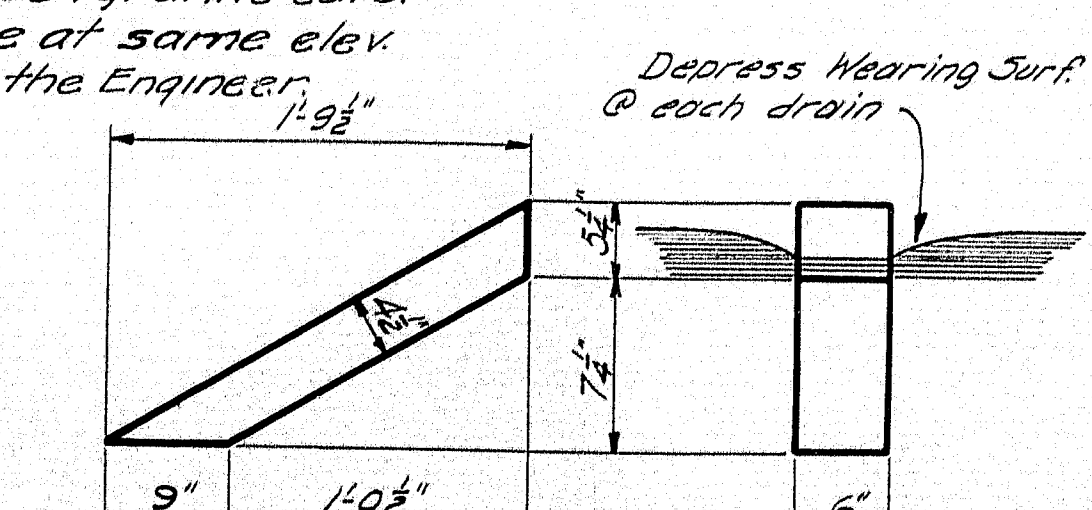


APPROACH CURB

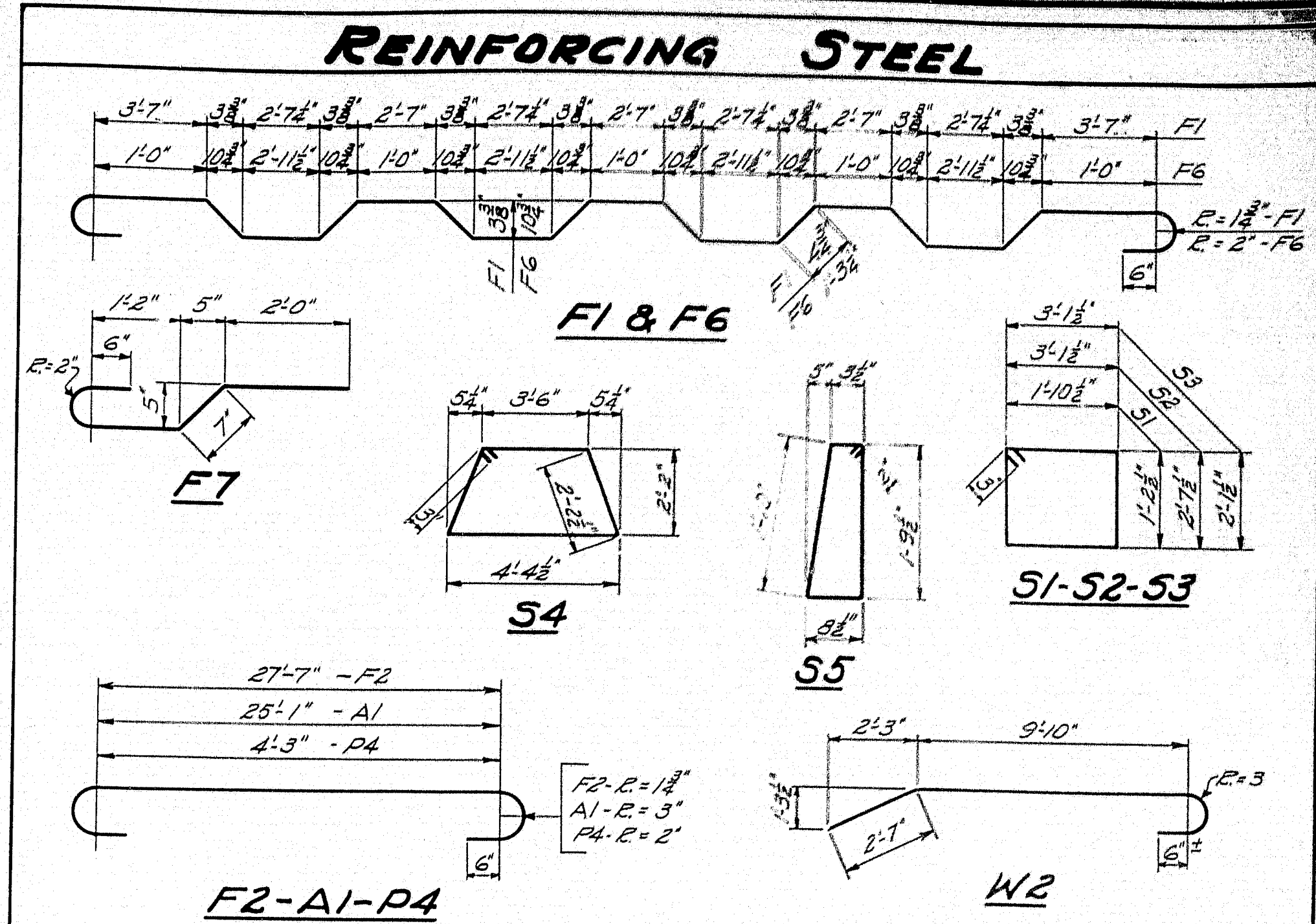
Note: At N.W. corner of abut. #1 the end of the approach curb is to meet the approach granite curb. Tops of curbs to be at same elev. as determined by the Engineer.



SECT. D-D



METAL DRAIN

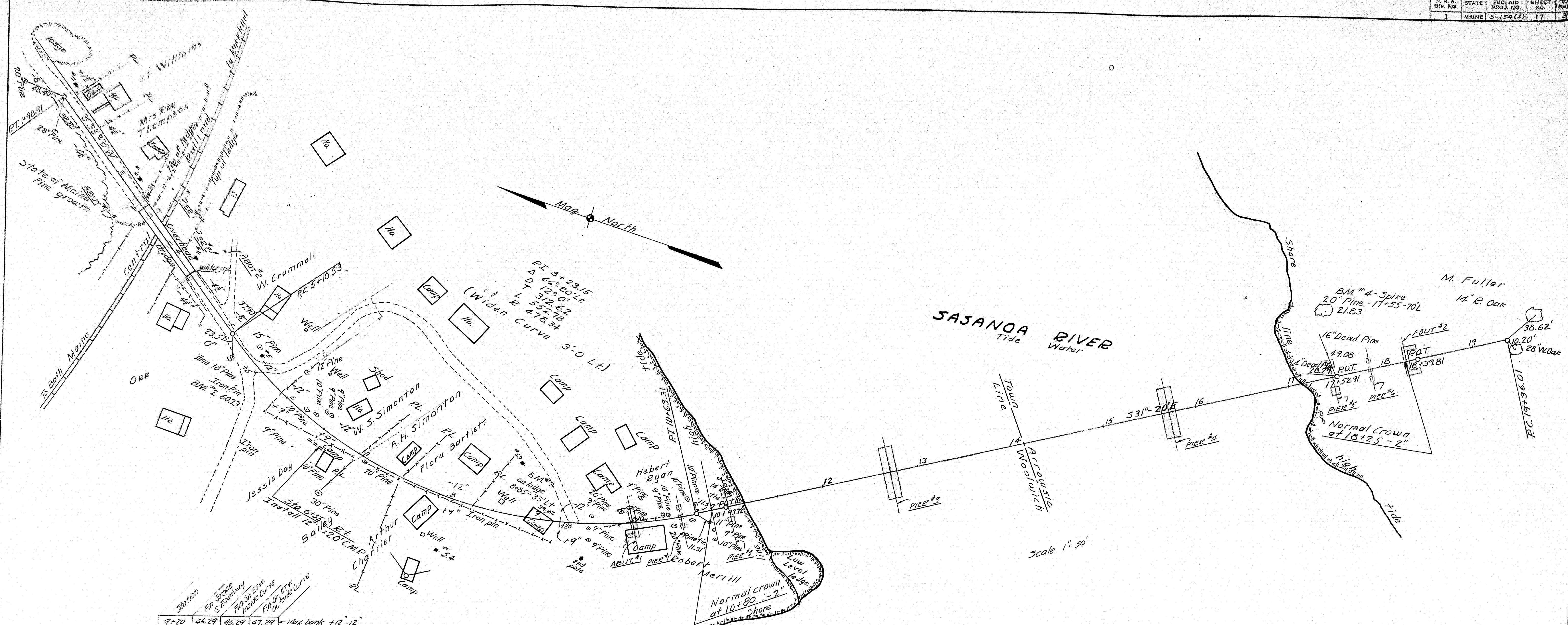


NOTE: Dimensions are to center of bars. * denotes bent bars.

MARK	SIZE	NO.	LENGTH	LOCATION	MARK	SIZE	NO.	LENGTH	LOCATION
*F1	3/4"	98	30'-5"	Slab	P1	3/4"	14	10'-7"	Pier #1 - Shaft
*F2	3/4"	196	29'-6"	"	P2	3/4"	28	9'-6 1/2"	" " "
F3	3/4"	56	22'-9"	" - Span #1	P3	3/4"	28	13'-3 1/2"	" " "
F4	3/4"	112	18'-11"	" - Span #2 (Splice)	*P4	3/4"	48	6'-3 1/2"	Pier haunches
F5	3/4"	112	22'-0"	" - Span #3 (")	P5	3/4"	36	2'-2"	" " "
*F6	3/4"	12	29'-0"	" @ Piers	P6	3/4"	28	13'-1"	Pier #2 - Shaft
*F7	3/4"	74	4'-9"	" @ Abuts.	P7	3/4"	28	12'-6"	" " "
F8	3/4"	4	28'-0"	" @ Abuts.	W1	3/4"	4	2'-10"	Abut. #2 - Wings
C1	1/2"	6	22'-9"	Curb - Span #1	*W2	3/4"	6	13'-8"	" " "
C2	1/2"	12	18'-11"	" - Span #2 (Splice)	W3	3/4"	12	9'-4"	" " "
C3	1/2"	12	22'-0"	" - Span #3 (")	W4	3/4"	4	8'-7"	" " "
*S1	1/2"	140	6'-8"	Curbs	W5	3/4"	4	5'-9"	" " "
*S2	3/4"	57	12'-0"	Pier shafts	W6	3/4"	4	2'-9"	" " "
*S3	3/4"	34	11'-0"	Pier caps	W7	3/4"	4	3'-5"	" " "
*S4	3/4"	17	12'-9"	Abut. #2, Br. seat	W8	3/4"	4	4'-7"	" " "
*S5	3/4"	36	4'-11 1/2"	Approach curbs	W9	3/4"	4	5'-6"	" " "
A1	3/4"	30	27'-7"	Abut. #1, Pier #1 & 2 - Caps	W10	3/4"	4	6'-5"	" " "
D1	3/4"	70	5'-0"	Pier footings	W11	3/4"	4	7'-4"	" " "
D2	3/4"	8	2'-0"	Approach curbs	W12	3/4"	4	7'-8"	" " "
P8	3/4"	28	11'-0"	Pier #2 shaft	W13	3/4"	4	6'-2"	" " "
					W14	3/4"	4	8'-0"	" " "
					W15	3/4"	4	5'-9"	" " "
					K	3/4"	6	8'-0"	" #1 Ret. wall

Loading - H20-44
Fs = 18,000 psi
Fc = 10,000 psi
n = 10

DESIGN - STANGEL
TRACE - CLARK
CHECK - [Signature]
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
ARROWSIC ROAD OVERPASS
OVER
MAINE CENTRAL RAILROAD TRACKS
IN THE TOWN OF
WOOLWICH
SAGADHOC COUNTY
SUPERSTRUCTURE
SHEET 16 OF 36 AUGUSTA, MAINE MAR. 1949



Station	Fin. Grade & Roadway	Fin. Grade & Roadway	Fin. Grade & Roadway	Notes
9+20	46.29	45.29	47.29	Max bank +12'-12"
+30	46.39	45.40	47.39	
+40	46.39	45.39	47.39	
+50	46.69	45.72	47.60	
+60	46.87	45.93	47.74	
+70	47.09	46.19	47.99	
+80	47.34	46.50	48.06	
+90	47.62	46.85	48.25	
10+0	47.93	47.23	48.46	
+10	48.27	47.64	48.63	
+20	48.64	48.06	48.72	
+30	49.04	48.53	49.10	
+40	49.40	49.01	49.48	
+50	49.84	49.51	49.78	
+60	50.24	49.93	50.13	
+70	50.64	50.23	50.48	
+80	51.04	50.87	50.87	Normal Crown -2'-2"

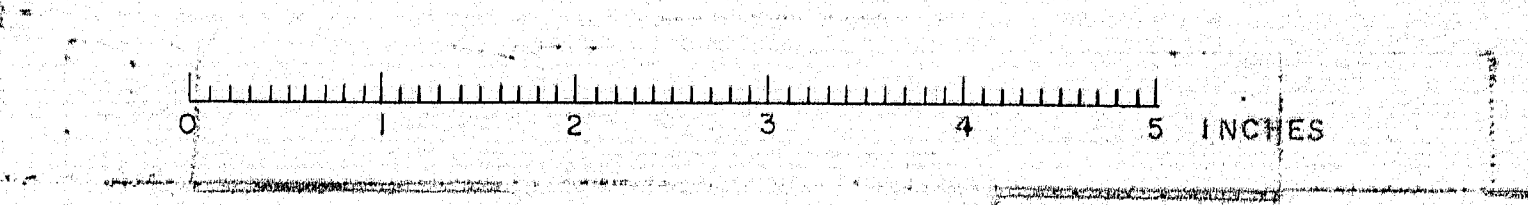
FINISH GRADE ELEVATIONS
AT E ROADWAY AND FACE OF CURBS
ROADWAY WIDTH 24'0"

TRACED FROM HIGHWAY SURVEY
DANFORTH ✓

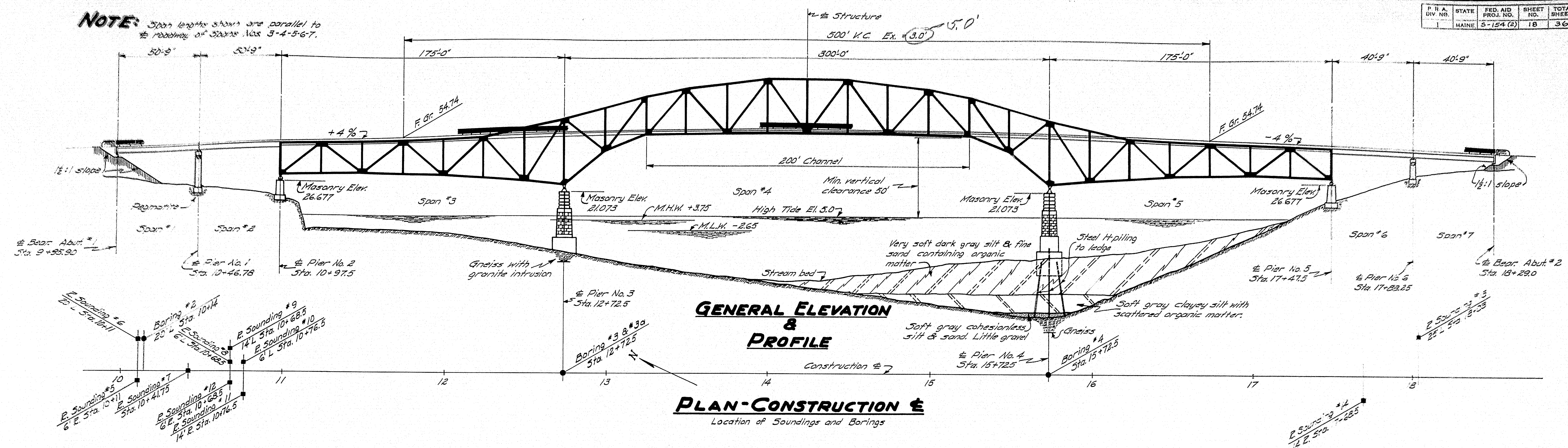
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ARROWSIC BRIDGE
OVER
SASANOA RIVER
BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGadahoc COUNTY
SURVEY

SHEET 17 OF 36 AUGUSTA, MAINE. JAN. 1949



NOTE: Span lengths shown are parallel to roadway of spans Nos 3-4-5-6-7.

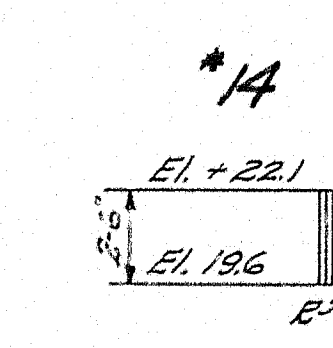
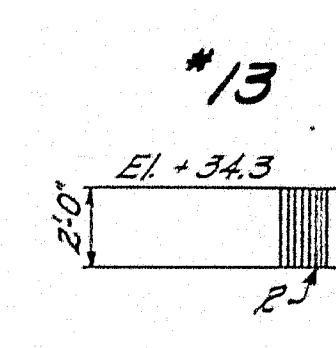
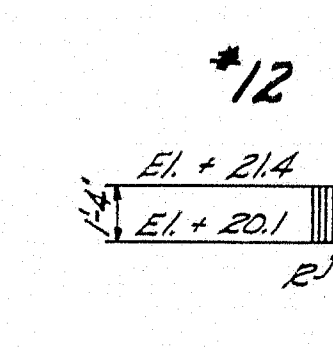
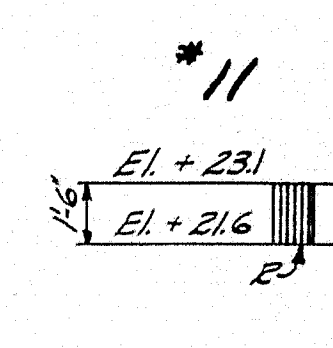
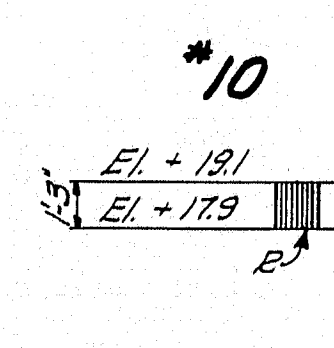
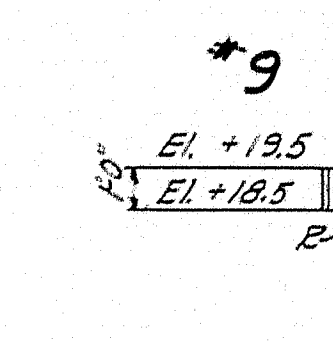
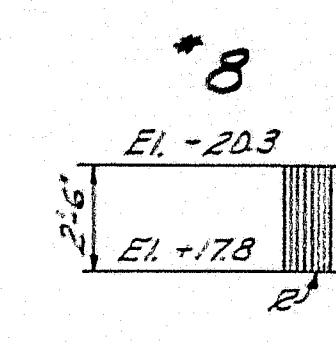
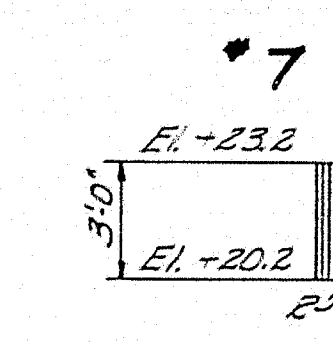
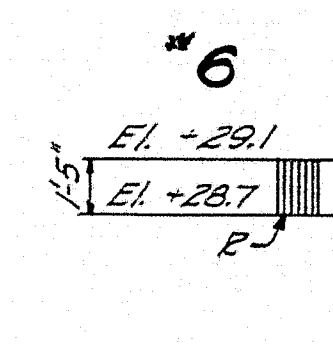
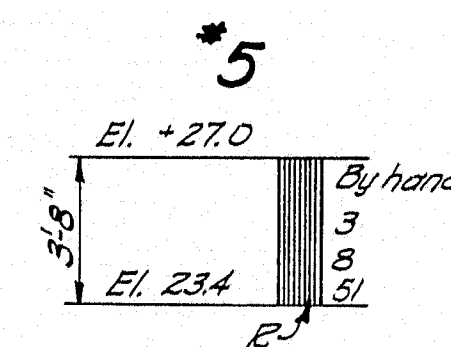
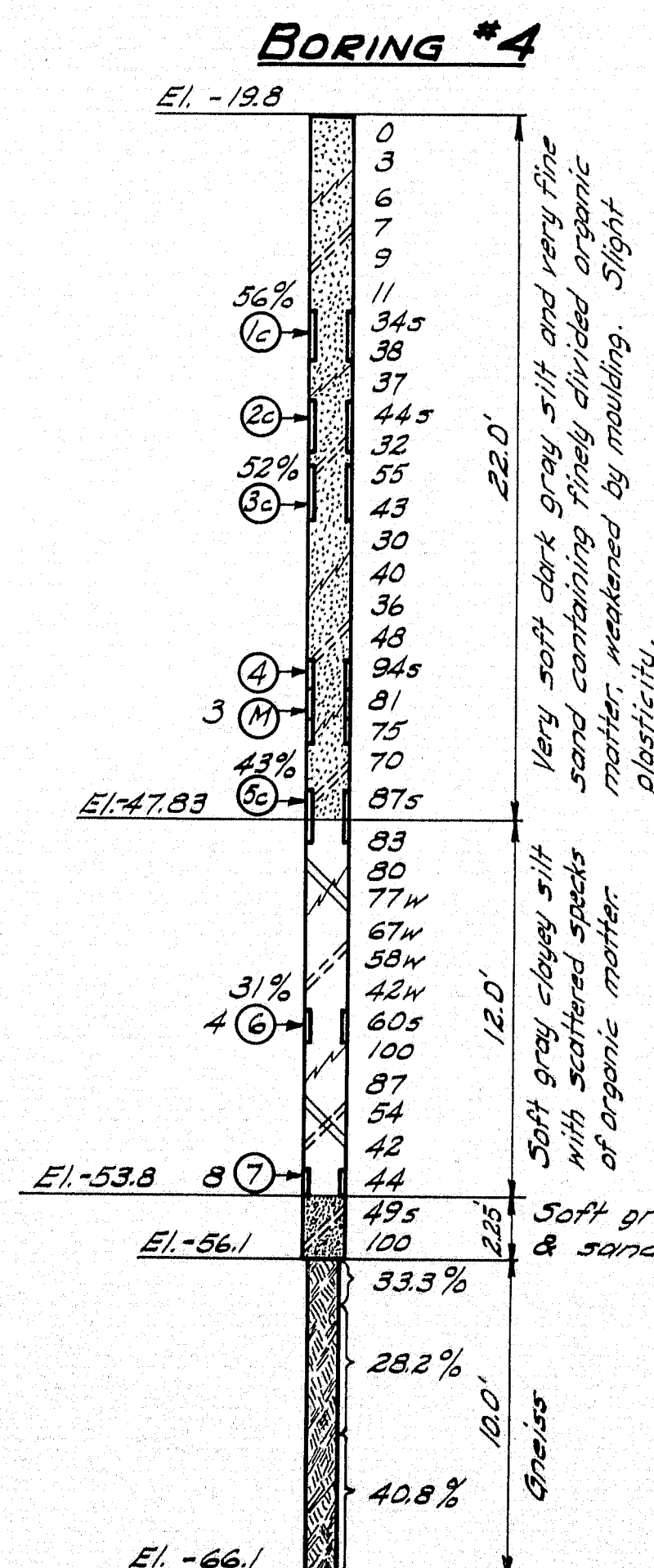
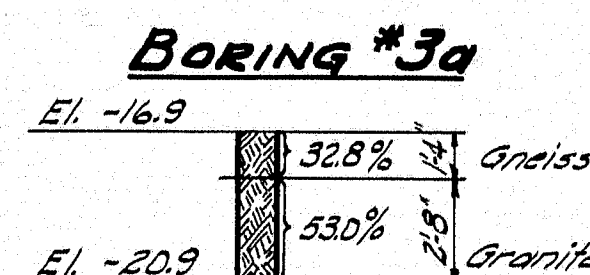
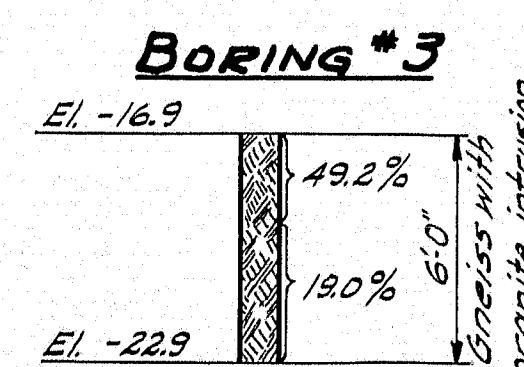
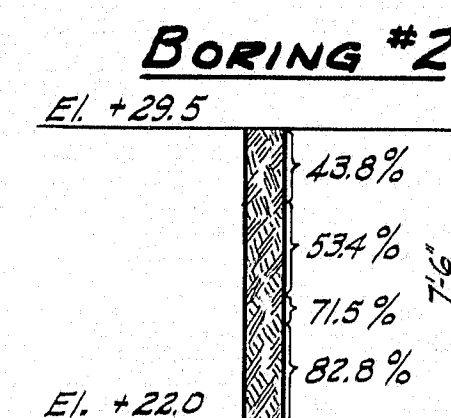


WASH BORING NOTES

- Scale: 1" = 5.0'
- Location & Designation of Dry Samples indicated thusly: (1)
- Location & Designation of 2" Shelby Tube Sample indicated thusly: (2)
- Unsuccessful attempt to secure Dry Sample indicated thusly: (M)
- Figures to left of Sample Markers number of 6' drops of 275 lb. hammer required to drive S & H Split Barrel Sampling Spoon, or 2" 18-gauge tubing, one foot.
- When no figure appears to left of marker, penetration was produced by static weight of rods and drive head.
- "H" to the left of Sample Markers indicate that penetration was produced by static weight of rods, drive head and 275 lb hammer.
- Number of 6' drops of 275 lb. hammer required to drive 3" extra heavy casing one foot indicated thusly: (3)
- "W" or "S" indicate that hole washed or sampled ahead of casing.
- Natural water contents, express as % of dry weight, are given above Sample Markers.
- Ground water table indicated thusly: (4)
- Recovery of rock core by diamond bit indicated thusly: (5) 32%
- "R" denotes refusal of casing or rod.

ROD SOUNDING NOTES

- Refusal of casing or rod indicated thusly: R
- Figures to right of ruled columns indicate number of 2.0 drops of 50 lb. hammer required to drive rods one foot.
- Sounding Rods are 1" diameter solid.
- Scale: 1" = 5.0'

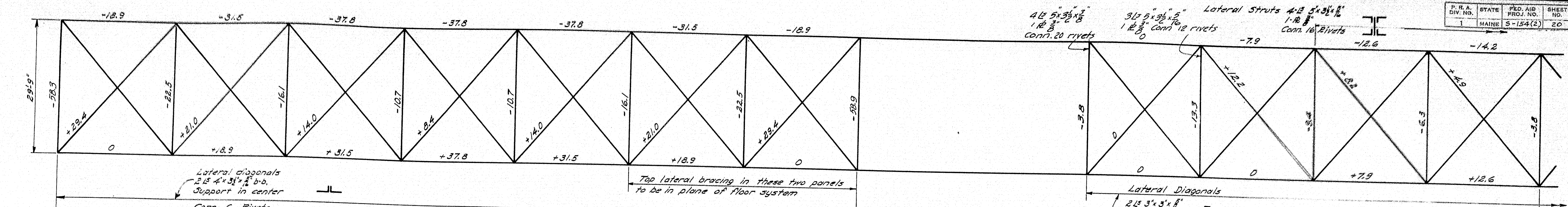


DESIGN - EVERETT
TRACE - CLARK
CHECK - CLARK

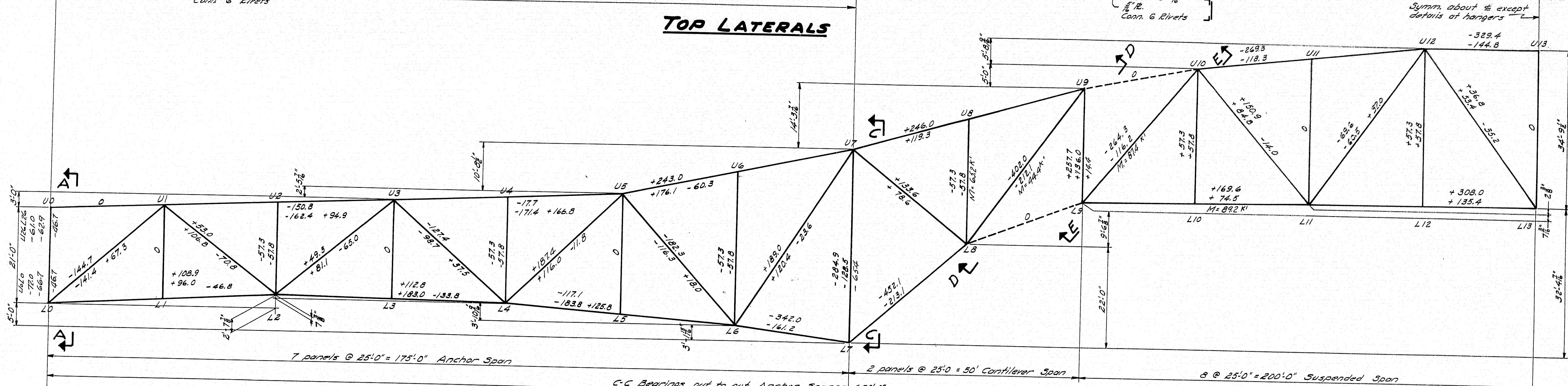
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ARROWSIC BRIDGE
OVER
SASANO RIVER
BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGadahoc COUNTY
GENERAL ELEVATION AND BORINGS

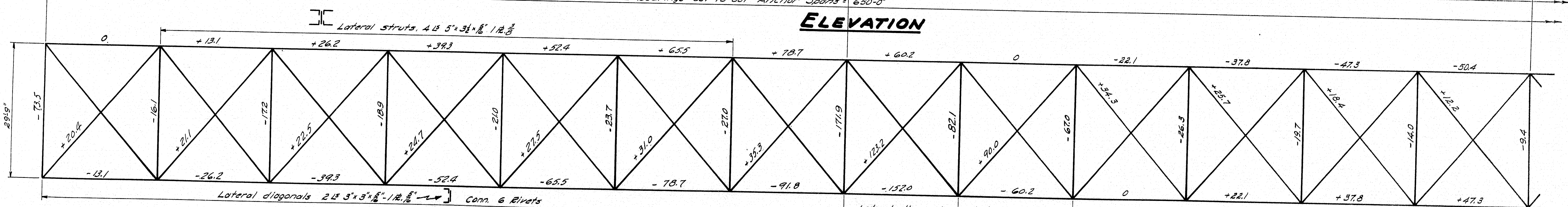
SHEET 18 OF 36 AUGUSTA, MAINE FEB. 1949



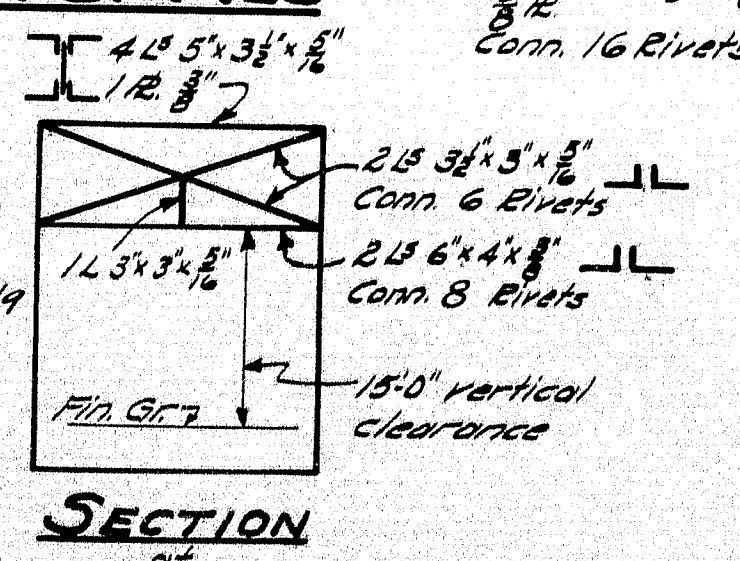
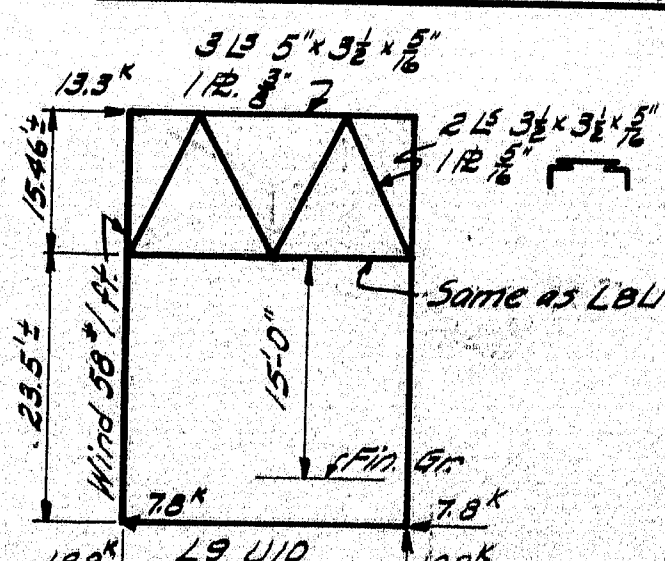
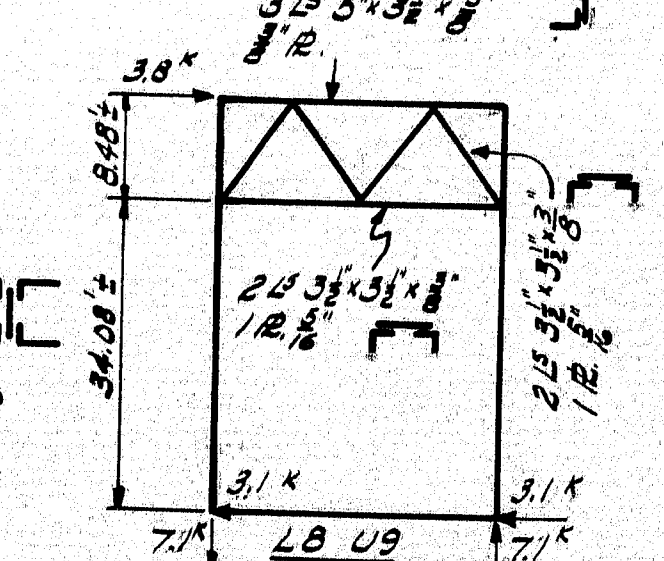
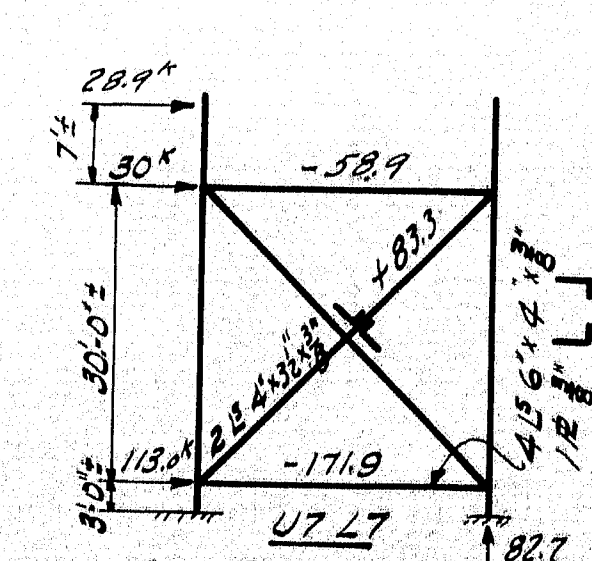
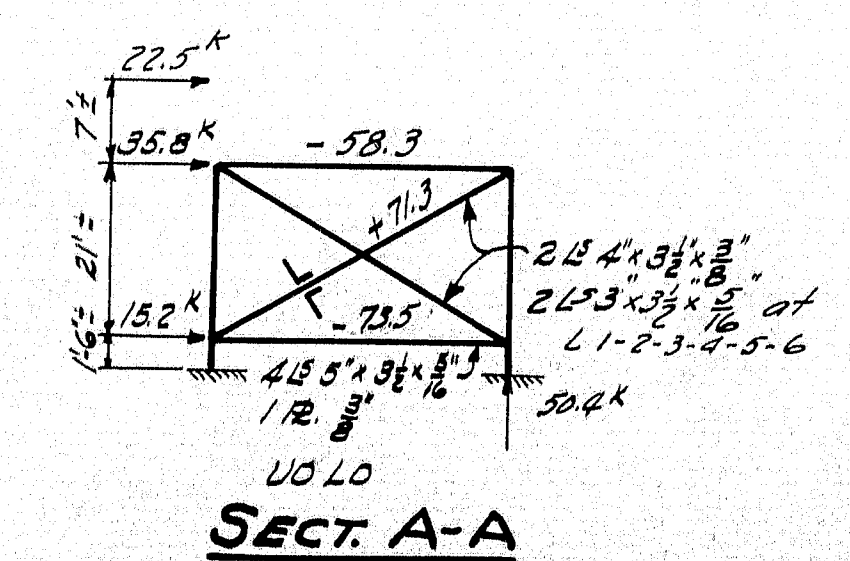
TOP LATERALS



ELEVATION



BOTTOM LATERALS



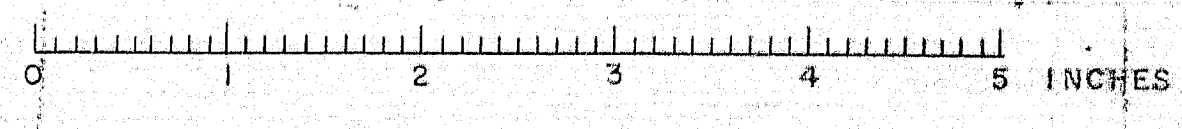
NOTE:
 Stresses shown in kips in following sequence: 1. Dead Load
 2. Live Load + Impact
 3. Wind
 Lateral stresses shown on lateral diagrams.
 Tension = (+)
 Compression = (-)
 Vertical truss members to be vertical in final position.

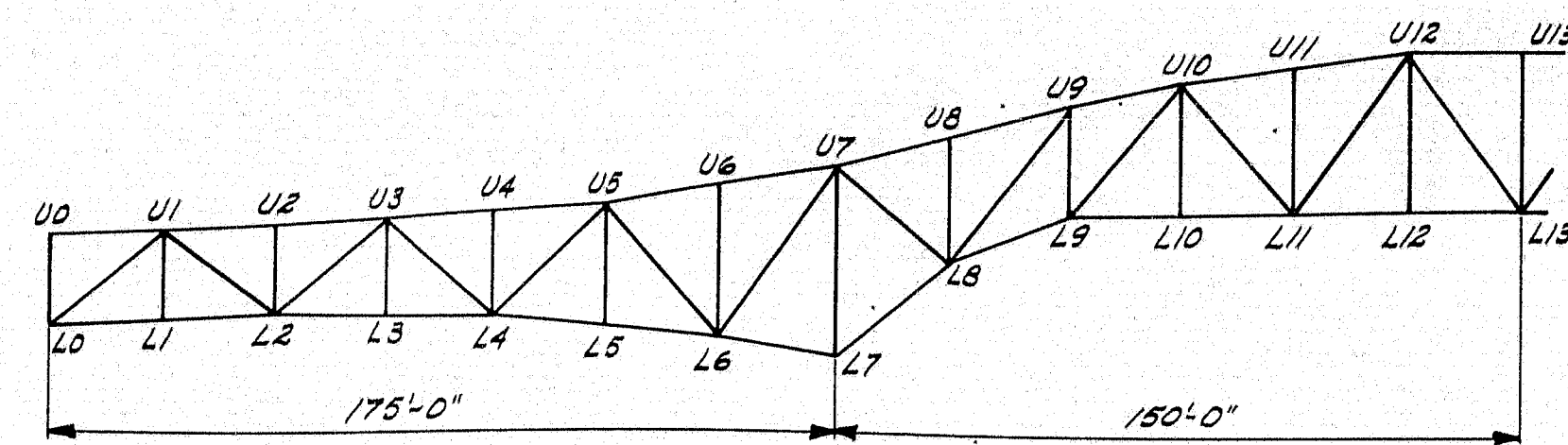
DESIGN - EVERETT
 TRADE - CLARK
 CHECK - ABP-CPS

STATE HIGHWAY COMMISSION
 BRIDGE DIVISION

ARROWSIC BRIDGE
 OVER
SASANOA RIVER
 BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGadahoc COUNTY
 STRESSES

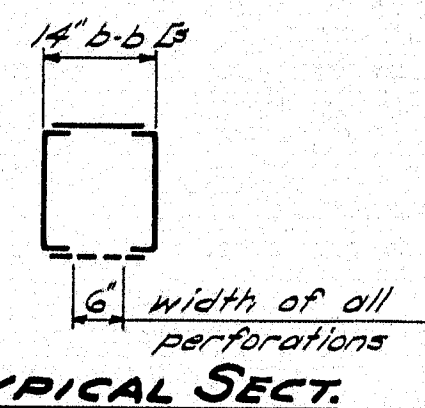
SHEET 20 OF 36 AUGUSTA, MAINE FEB. 1949





HALF ELEV.

MAKE-UP OF MEMBERS		
U0U1 0 Gross regd. = 21.62" Gross = 26.05" 2 L 15" x 33.9" - 1/2" x 13" x 1/8" 1 p. 12" x 13" x 1/8"	L0L1 +204.9 Net regd. = 11.38" Net = 17.76" 2 L 15" x 33.9" - 2 p. 12" x 13" x 1/8"	L0U1 -206.1 Gross regd. = 21.13" Gross = 21.96" 2 L 12" x 30" - 2 p. 12" x 13" x 1/8"
U1U2 -313.2 Gross regd. = 21.62" Gross = 26.05" 2 L 15" x 33.9" - 1/2" x 13" x 1/8" 1 p. 12" x 13" x 1/8"	L1L2 +323.2 -82.2 Net regd. = 17.95" Net = 18.37" 2 L 15" x 33.9" - 2 p. 12" x 13" x 1/8"	U1L2 +176.7 -50.6 Net regd. = 9.82" Net = 11.91" 2 L 12" x 20.7" - 2 p. 12" x 13" x 1/8"
U2U3 -266.3 +231.6 Gross regd. = 18.38" Gross = 26.05" Net regd. = 12.87" 2 L 15" x 33.9" Net = 13.62 1/2" x 13" x 1/8" 1 p. 12" x 13" x 1/8"	L1L3 -322.8 +65.7 Gross regd. = 22.30" Gross = 24.18" 2 L 15" x 33.9" - 2 p. 12" x 13" x 1/8"	L2U3 +143.7 -45.8 Gross regd. = 8.09" Net = 11.91" 2 L 12" x 20.7" - 2 p. 12" x 13" x 1/8"
U3U4 +419.1 Net regd. = 23.28" Net = 24.39" 2 L 15" x 40" - 1/2" x 13" x 1/8" 1 p. 12" x 13" x 1/8"	L2L3 -503.2 Gross regd. = 34.55" Gross = 34.53" 2 L 15" x 50" - 2 p. 12" x 13" x 1/8"	U3L4 -226.1 Gross regd. = 16.57" Gross = 19.02" 2 L 12" x 25" - 2 p. 12" x 13" x 1/8"
U4U5 +365.3 Net regd. = 20.29" Net = 22.39" 2 L 15" x 40" - 1/2" x 13" x 1/8" 1 p. 12" x 13" x 1/8"	L3L4 -665.2 Gross regd. = 47.63" Gross = 47.91" 2 L 15" x 50" - 2 p. 12" x 13" x 1/8"	L4U5 +303.4 Net regd. = 16.86" Net = 17.76" 2 L 15" x 33.9" - 2 p. 12" x 13" x 1/8"
U5U6 0 2 L 15" x 33.9" - 1/2" x 13" x 1/8" 1 p. 12" x 13" x 1/8"	L3L5 0 2 L 15" x 33.9" - 2 p. 12" x 13" x 1/8"	U5L6 -298.3 Gross regd. = 22.82" Gross = 22.88" 2 L 12" x 30" - 2 p. 12" x 13" x 1/8"
U6U7 -387.6 Gross regd. = 21.02" Gross = 22.65" 2 L 15" x 40" - 1/2" x 13" x 1/8" 1 p. 12" x 13" x 1/8"	L4L5 +244.1 M = 892" Net = 25.02" 2 L 15" x 50" - 2 p. 12" x 13" x 1/8"	L6U7 +309.4 Net regd. = 17.19" Net = 17.76" 2 L 15" x 33.9" - 2 p. 12" x 13" x 1/8"
U7U8 -474.2 Gross regd. = 33.13" Gross = 35.53" 2 L 15" x 50" - 1/2" x 13" x 1/8" 1 p. 12" x 13" x 1/8"	L5L6 +443.4 Net regd. = 34.63" Net = 25.02" 2 L 15" x 50" - 2 p. 12" x 13" x 1/8"	U7L8 +212.2 Net regd. = 11.79" Net = 11.91" 2 L 12" x 20.7" - 2 p. 12" x 13" x 1/8"
L8U9 -614.1 M = 44.4" Gross = 48.78" 2 L 15" x 50" - 2 p. 12" x 13" x 1/8" 2 p. 12" x 13" x 1/8"	L9U10 -580.5 M = 87.4" Gross = 38.03" 2 L 15" x 50" - 2 p. 12" x 13" x 1/8"	U8L9 +235.7 Net regd. = 13.09" Net = 13.95" 2 L 12" x 25" - 2 p. 12" x 13" x 1/8"
L11U12 -130.1 Gross regd. = 10.49" Gross = 16.44" 2 L 12" x 20.7" - 2 p. 12" x 13" x 1/8"	U12L13 +94.9 -1/4" Net regd. = 5.27" Net = 11.91" 2 L 12" x 20.7" - 2 p. 12" x 13" x 1/8"	
U9L10 -188.3 Gross regd. = 13.17" Gross = 15.59" 14" x 4" x 43"	U5L5 0 14" x 4" x 43"	U10L11 +15.1 Net regd. = 6.39" Net = 10.54" 14" x 4" x 43"
U1L1 0 14" x 4" x 43"	U6L6 -115.1 Gross regd. = 9.54" Gross = 12.86" 14" x 4" x 61"	U11L12 0 14" x 4" x 43"
U2L2 -115.1 Gross regd. = 9.52" Gross = 12.66" 14" x 4" x 43"	U7L7 -413.4 Gross regd. = 24.45" Gross = 33.66" 2 L 15" x 50" - 2 p. 12" x 13" x 1/8"	U12L13 +115.1 Net regd. = 6.39" Net = 10.54" 14" x 4" x 43"
U3L3 0 14" x 4" x 43"	U8L8 -115.1 M = 65.2" Gross = 15.59" 14" x 4" x 53"	U13L14 0 14" x 4" x 43"
U4L4 -115.1 Gross regd. = 9.36" Gross = 9.52" 14" x 4" x 45"	U9L9 +393.9 Net regd. = 21.88" Net = 25.64" 2 L 15" x 50" - 2 p. 12" x 13" x 1/8"	



TYPICAL SECT.

NOTE:

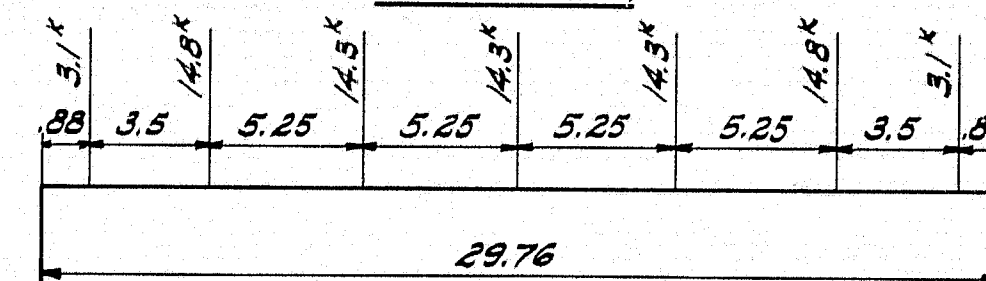
Members figured for the following allowable unit stresses: Tension - 18,000 psi
Compression - 15,000 psi (L₂/r₂)
Gross areas include area of perforated plates less area of perforation. (p = Perforated)
Minimum stagger 1 1/2" for net section.
Stresses shown in Kips.

DESIGN DATA

TRUSS SPANS

INT. STEINERS	EXT. STEINERS	S.W. STEINERS
M = 181" Regd. S = 120.7 21" x 62" S = 126.4	M = 163.8" Regd. S = 109.1 21" x 62" S = 126.4	M = 9.8" Regd. S = 6.5 10" x 20" S = 15.7

FLOOR BEAM



M = 789.9"
Regd. S = 526.9
36" x 160" S = 541.0

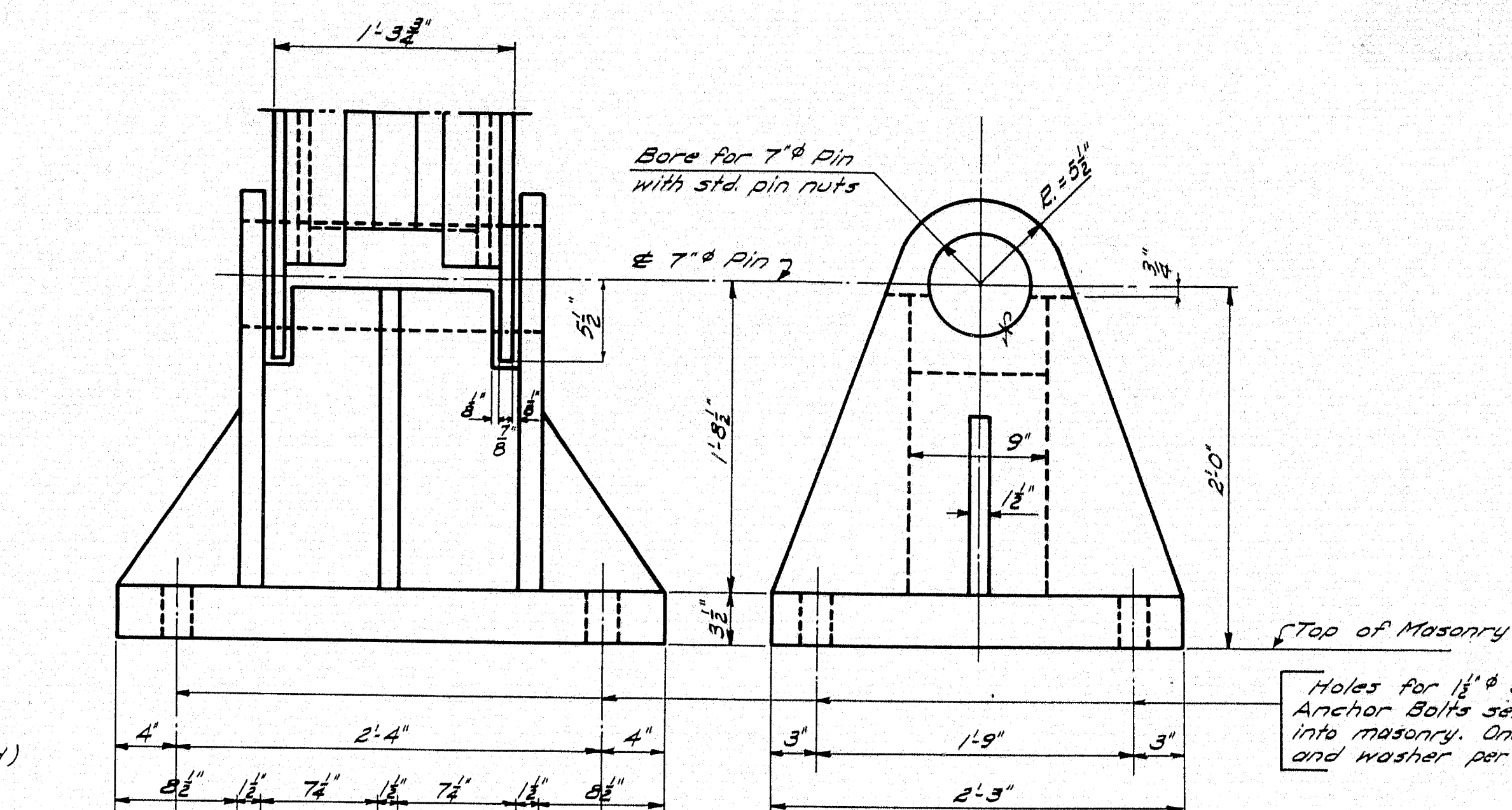
SPANS 1-2

INT. STEINERS	EXT. STEINERS
M = 345.4" Regd. S = 363.8 33" x 130" S = 404.8	M = 498.7" Regd. S = 332.6 30" x 124" S = 354.6

SPANS 6-7

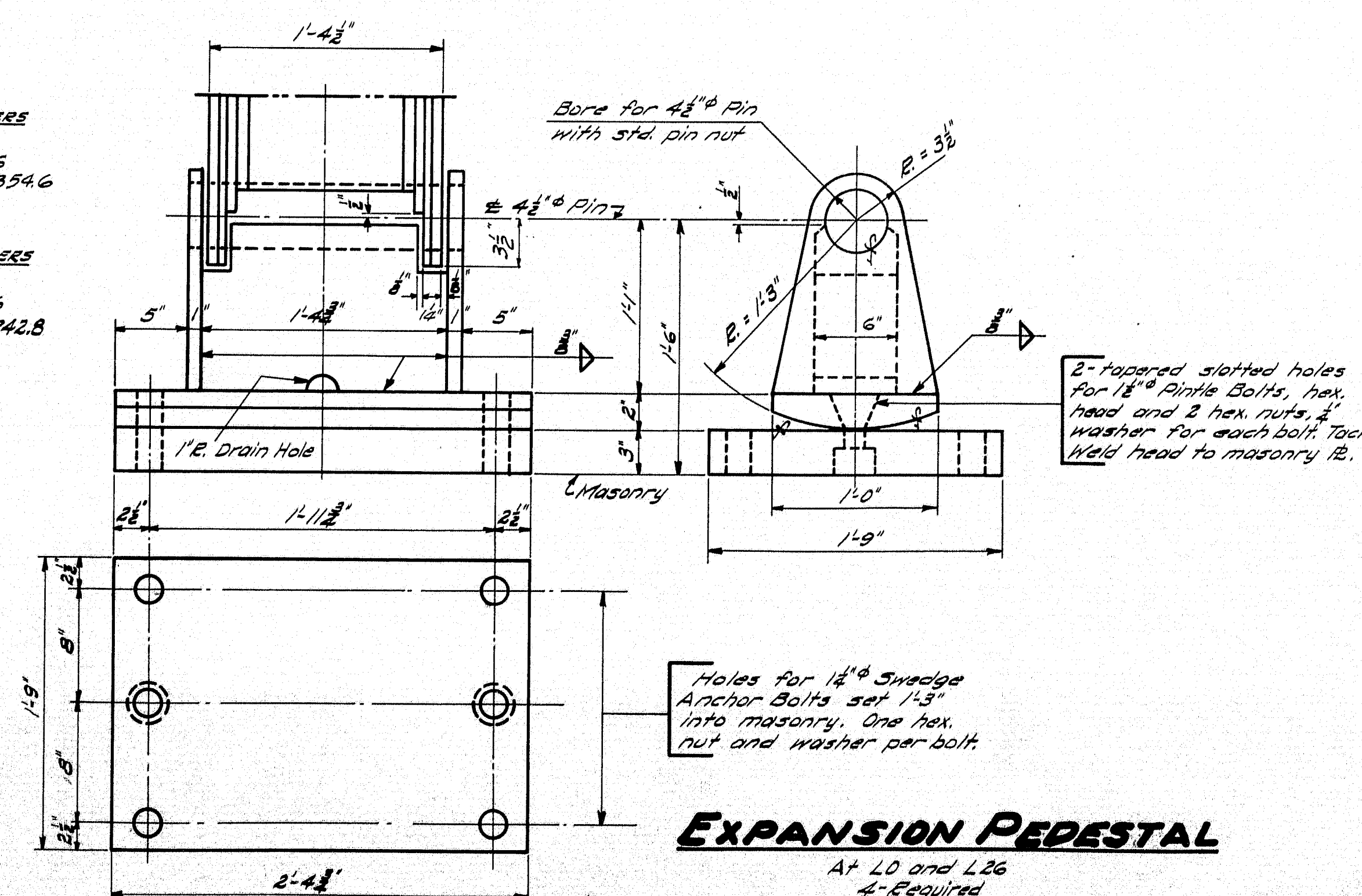
INT. STEINERS	EXT. STEINERS
M = 394.9" Regd. S = 263.4 27" x 102" S = 266.3	M = 345.8" Regd. S = 230.6 27" x 94" S = 242.8

Wgt. of trusses per foot 625'



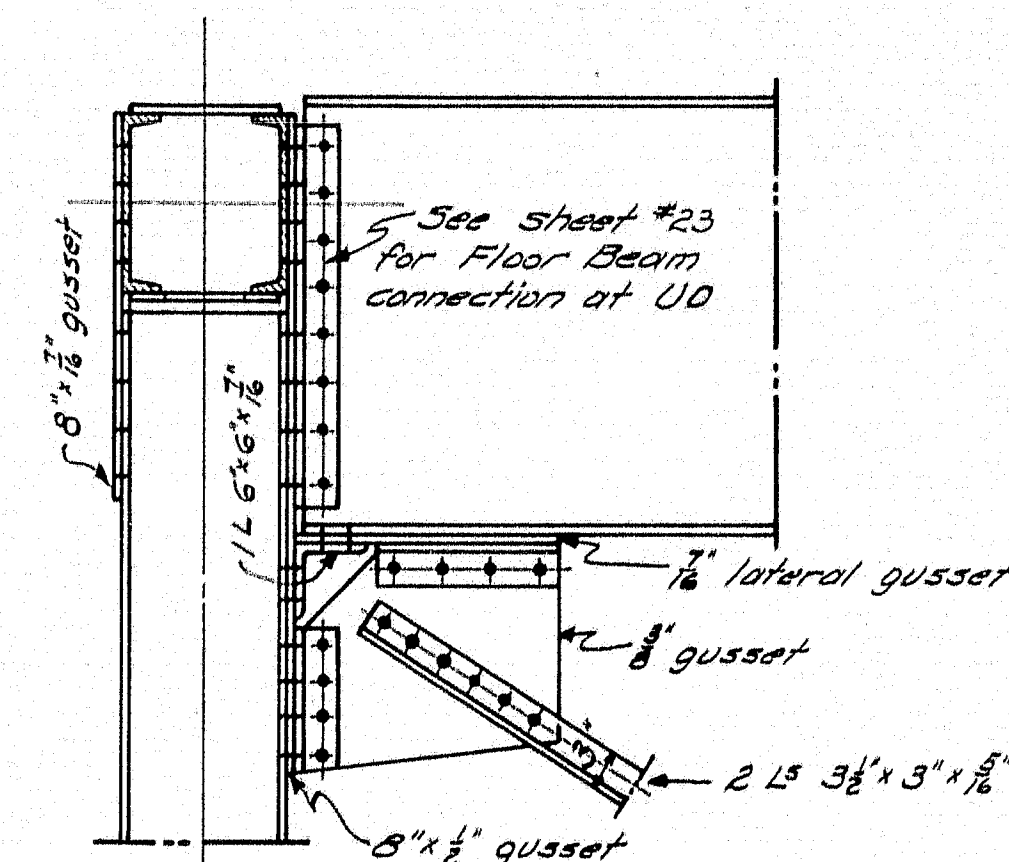
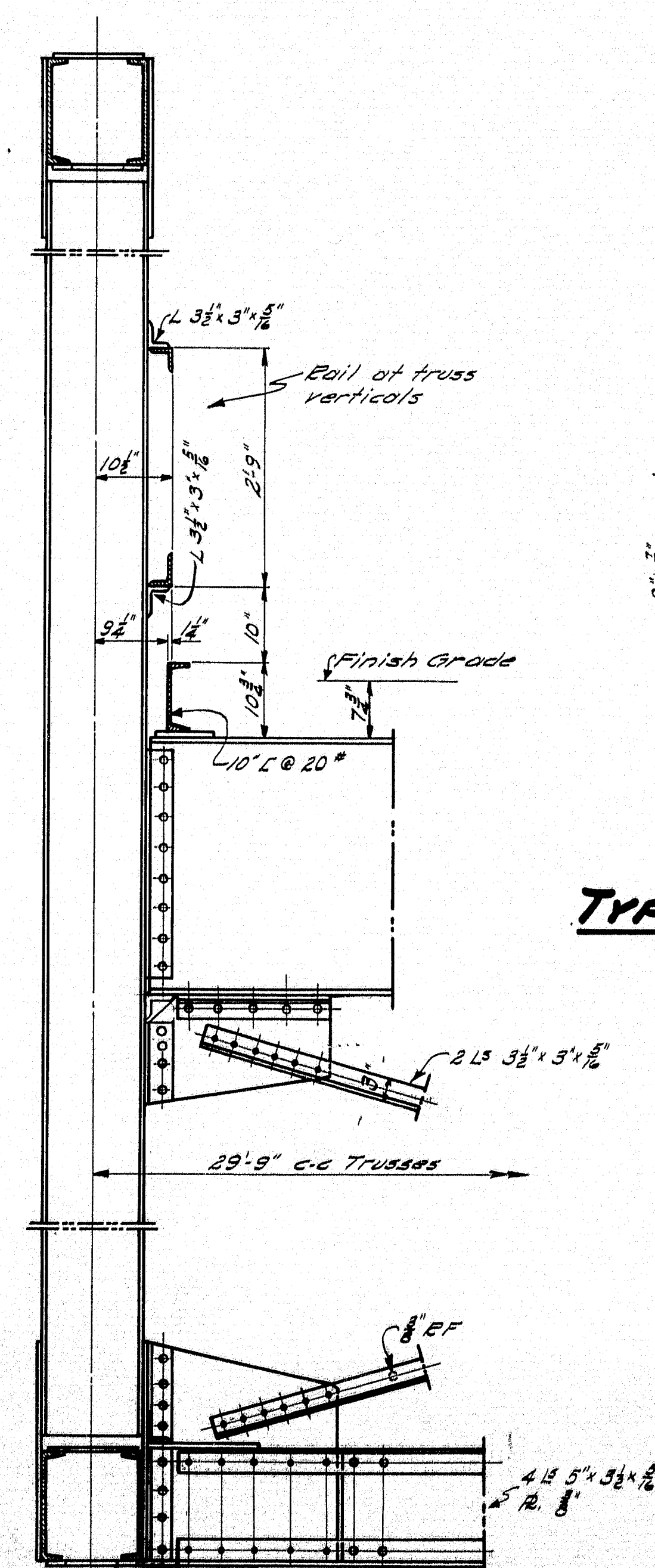
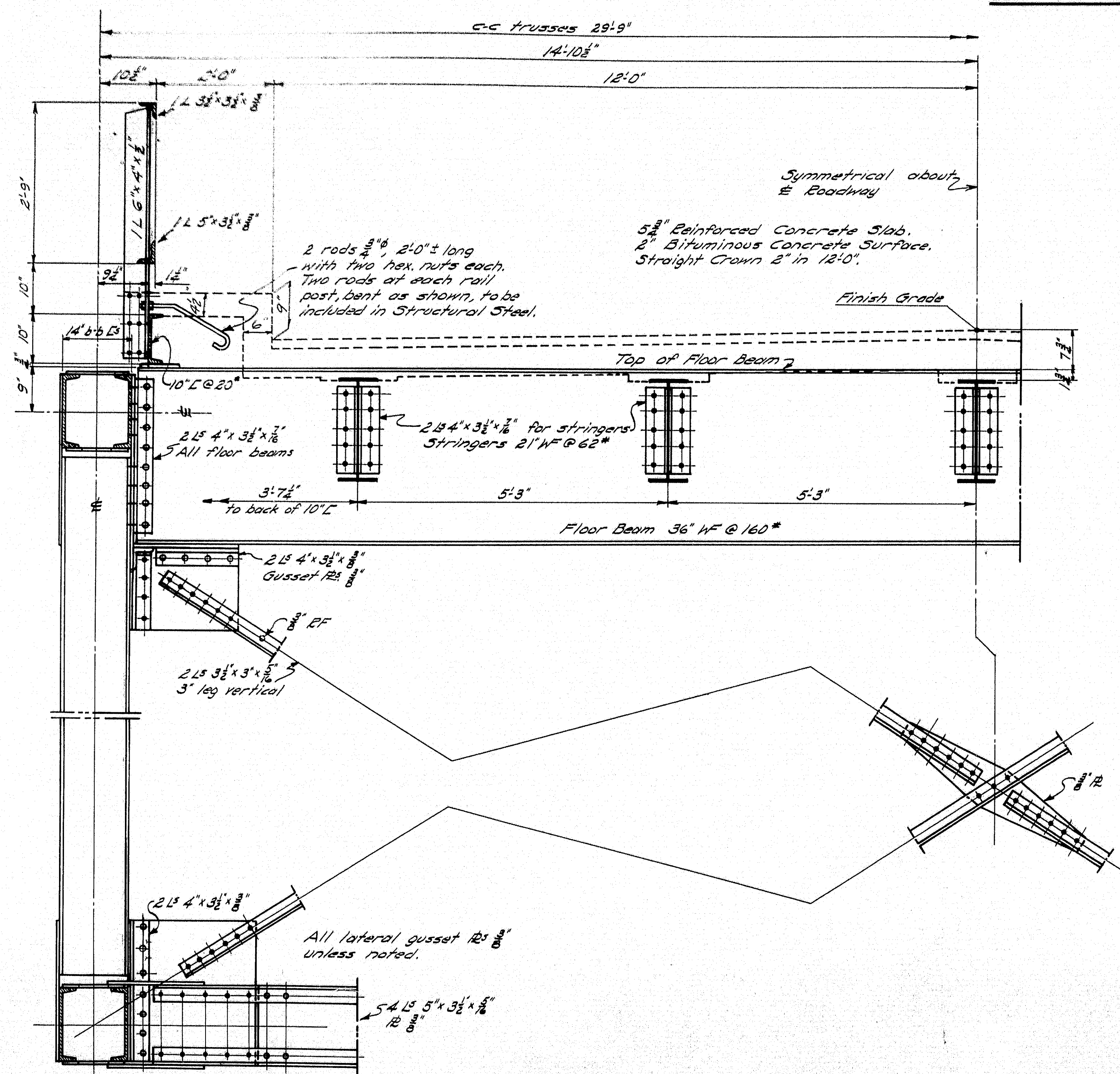
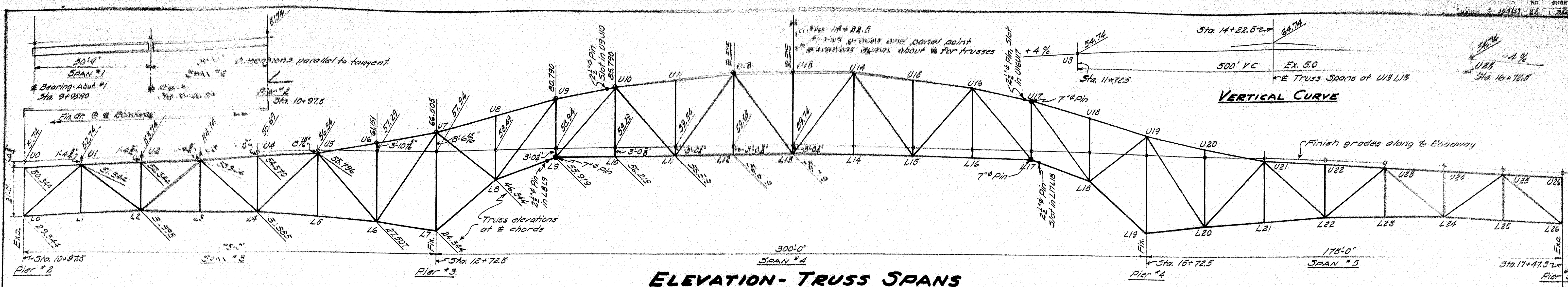
FIXED PEDESTAL

At L7 and L13 - 4 regd.
Material Cast Steel



EXPANSION PEDESTAL

DESIGN - EVERETT
TRACE - CLARK
CHECK - A.B.P.
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
ARROWSIC BRIDGE
OVER
SASANO RIVER
BETWEEN THE TOWNS OF
ARROWSIC & WOLWICH
SAGadahoc COUNTY
PEDESTALS & MAKE-UP OF MEMBERS
SHEET 21 OF 36 AUGUSTA, MAINE FEB. 1949



SPECIFICATIONS

State of Maine, State Highway Commission,
Bridge Division, Specifications Steel Highway
Bridges, November 1945.

Structural carbon steel shall conform to A.A.S.H.O. Specifications for Highway Materials, designation M94, and ASTM designation A7.

Rivets $\frac{7}{8}" \phi$, open holes $\frac{15}{16}" \phi$ unless noted.
See End Details.

Holes for field connections and field splices of main members shall be sub-punched and reamed to a steel template, or reamed while assembled.

Loading H2O-44.

DESIGN - EVERETT
TRACE - CLARK
CHECK - A.B.P. - CAG

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ARROWSIC BRIDGE

OVER

SASANOA RIVER

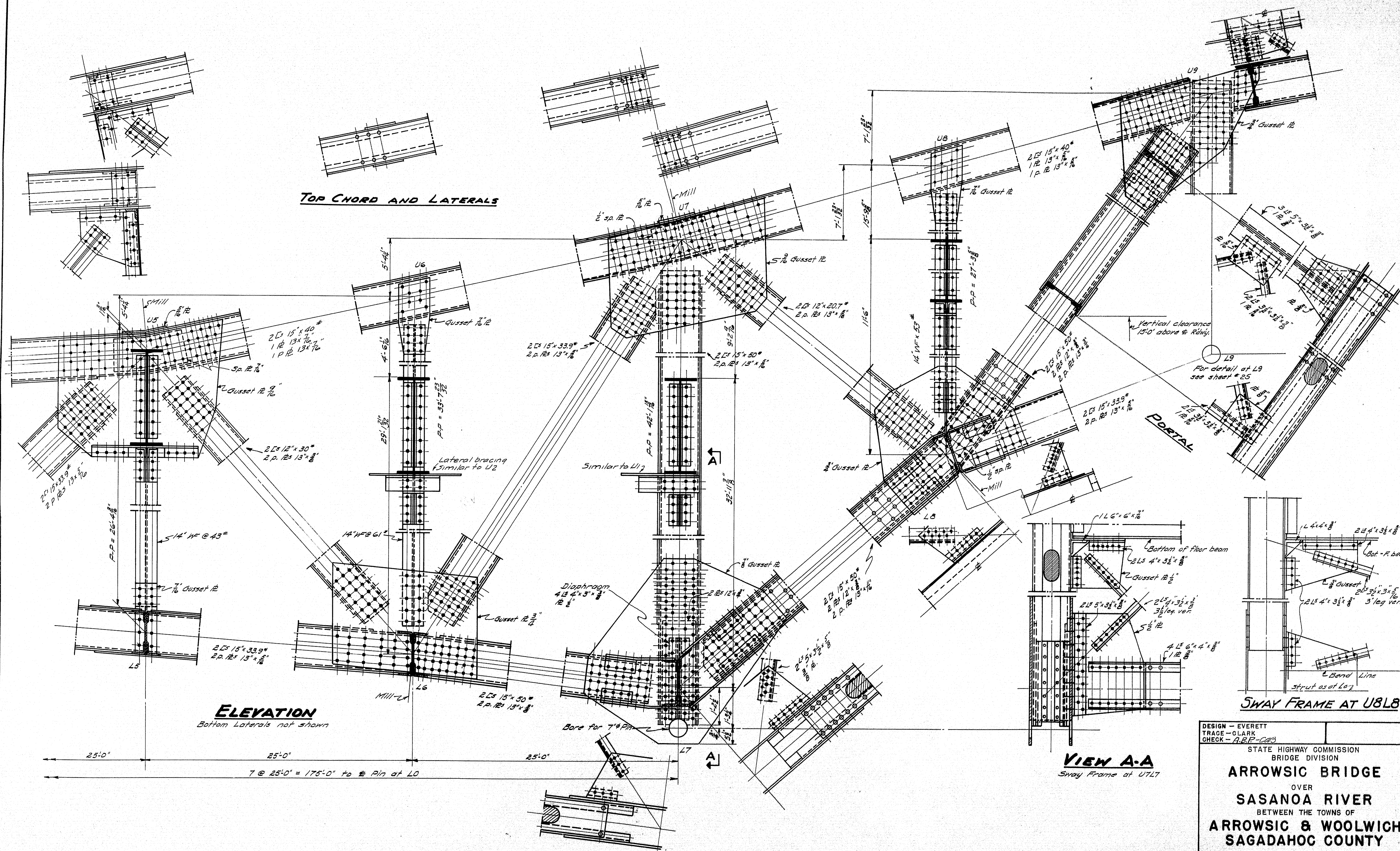
BETWEEN THE TOWNS OF

ARROWSIC & WOOLWICH
SAGadahoc COUNTY

TRUSS DETAILS

SHEET 22 OF 36 AUGUSTA, MAINE FEB. 1945

48-85



ELEVATION
Bottom Laterals not shown

VIEW A-A
Sway Frame at U7L7

DESIGN - EVERETT
TRACE - CLARK
CHECK - *A.B.P. - Cal.*

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

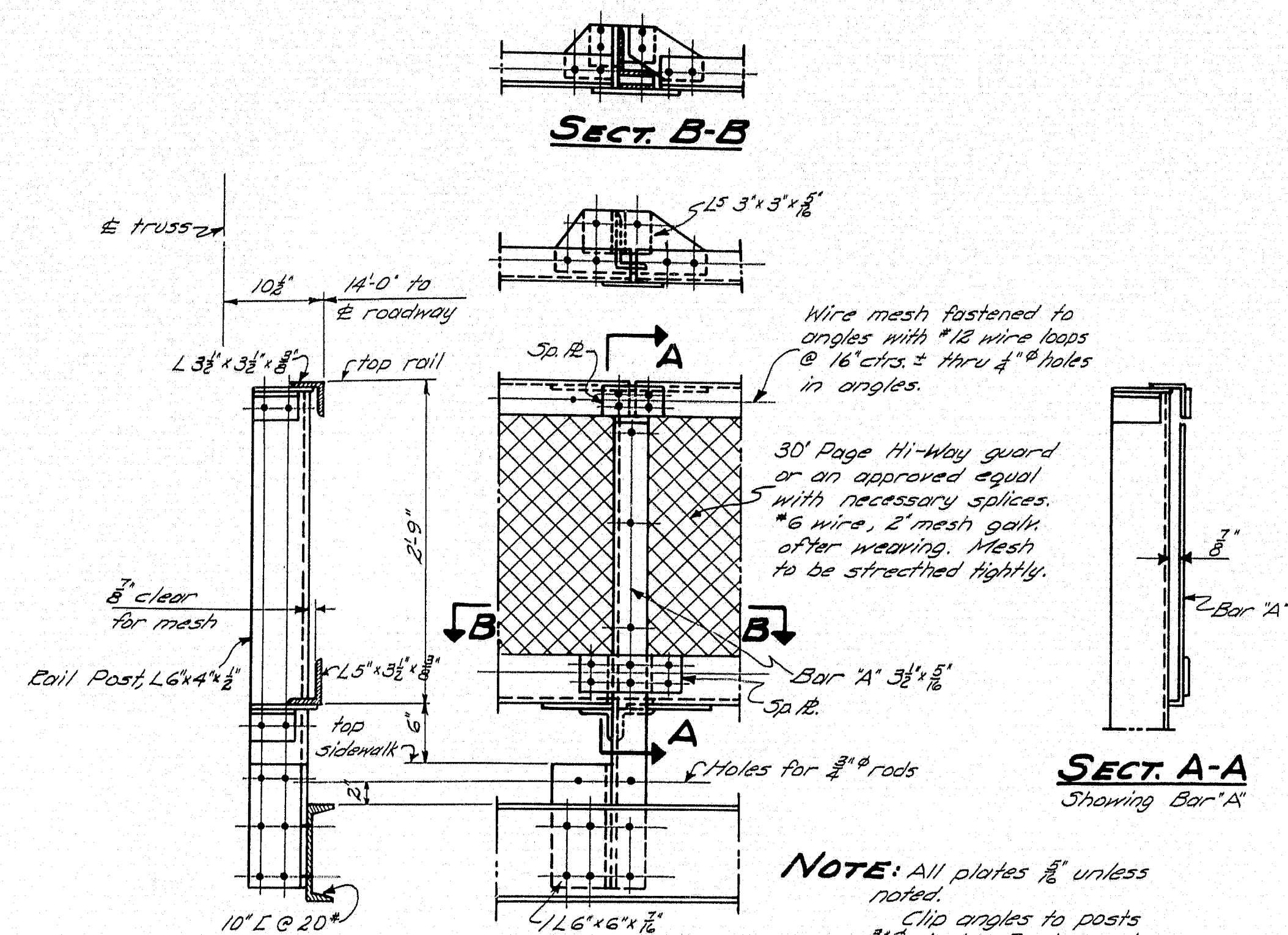
ARROWSIC BRIDGE

OVER
SASANOA RIVER
BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGADAHOC COUNTY

TRUSS DETAILS
SHEET 24 OF 36 AUGUSTA, MAINE FEB. 1941

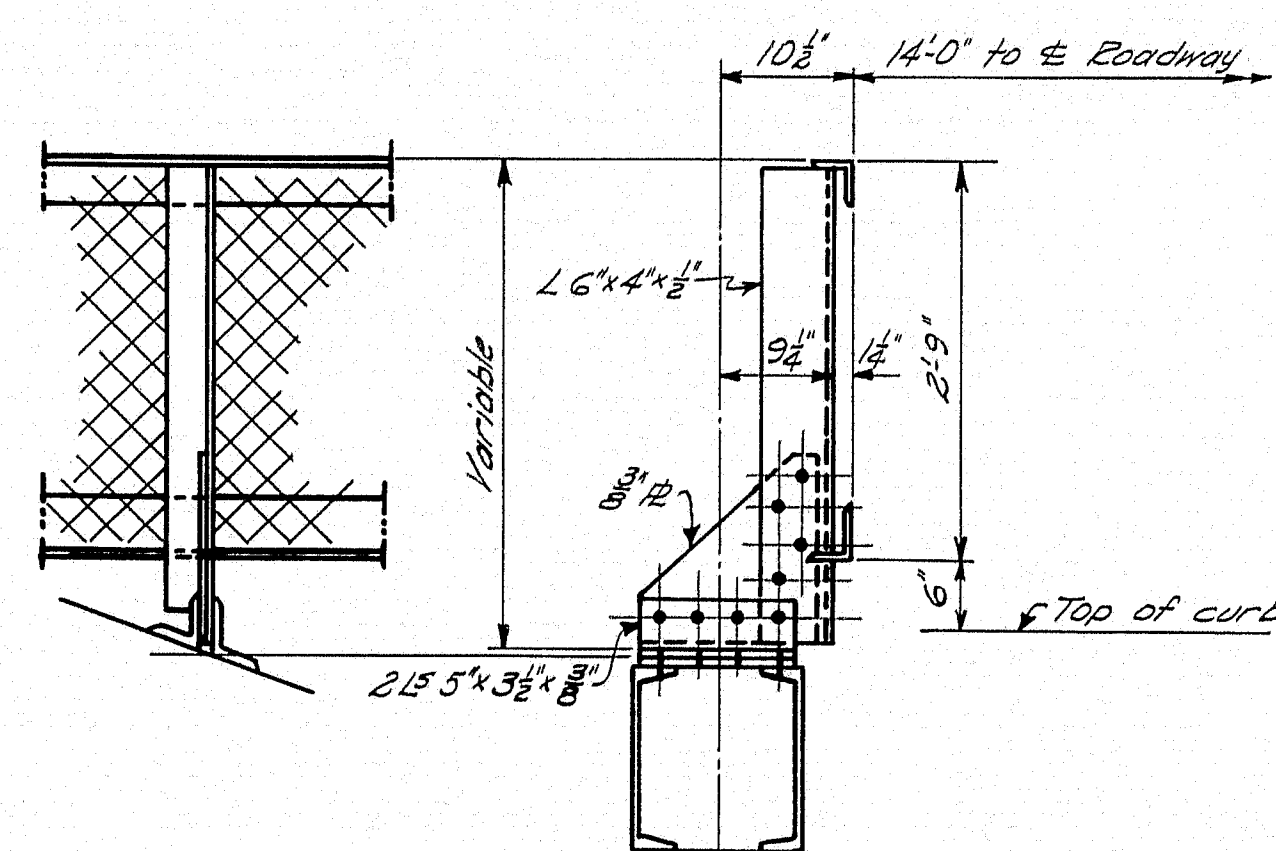
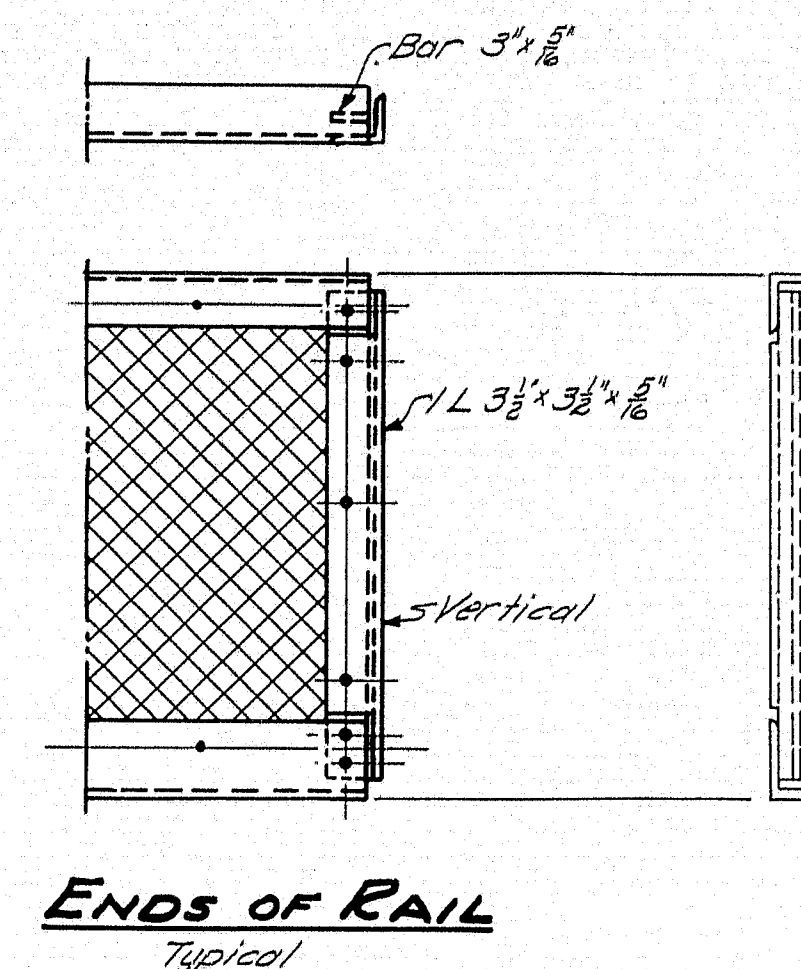
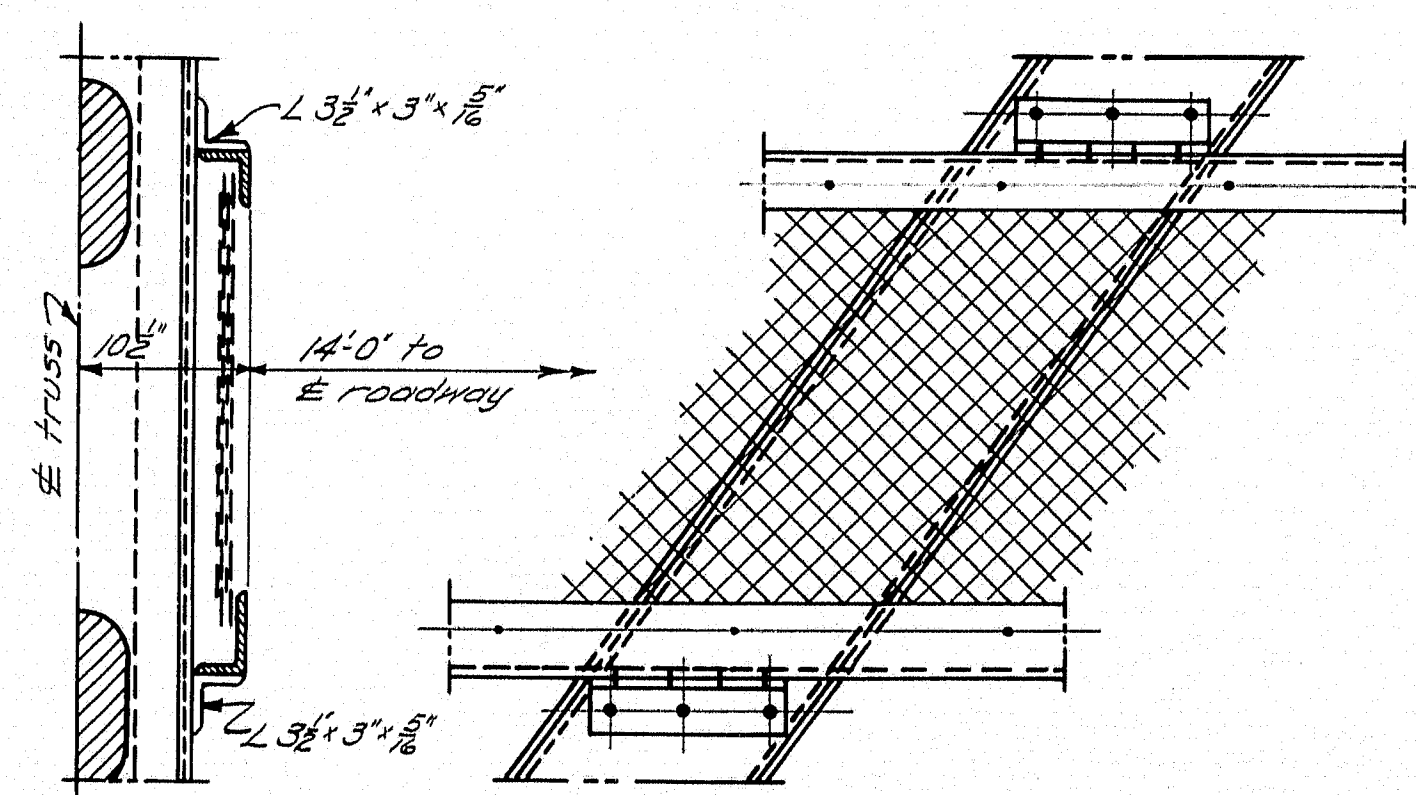
48-87





RAIL - STANDARD POST - TRUSS SPANS

Max. post spacing or support for rail angles is 6'-3". Joint in rail at L9 and between spans 2-3 & 5-6. Min. of 4" open joint in rail at all floor expansion plates. All posts to be vertical.



RAIL DETAILS

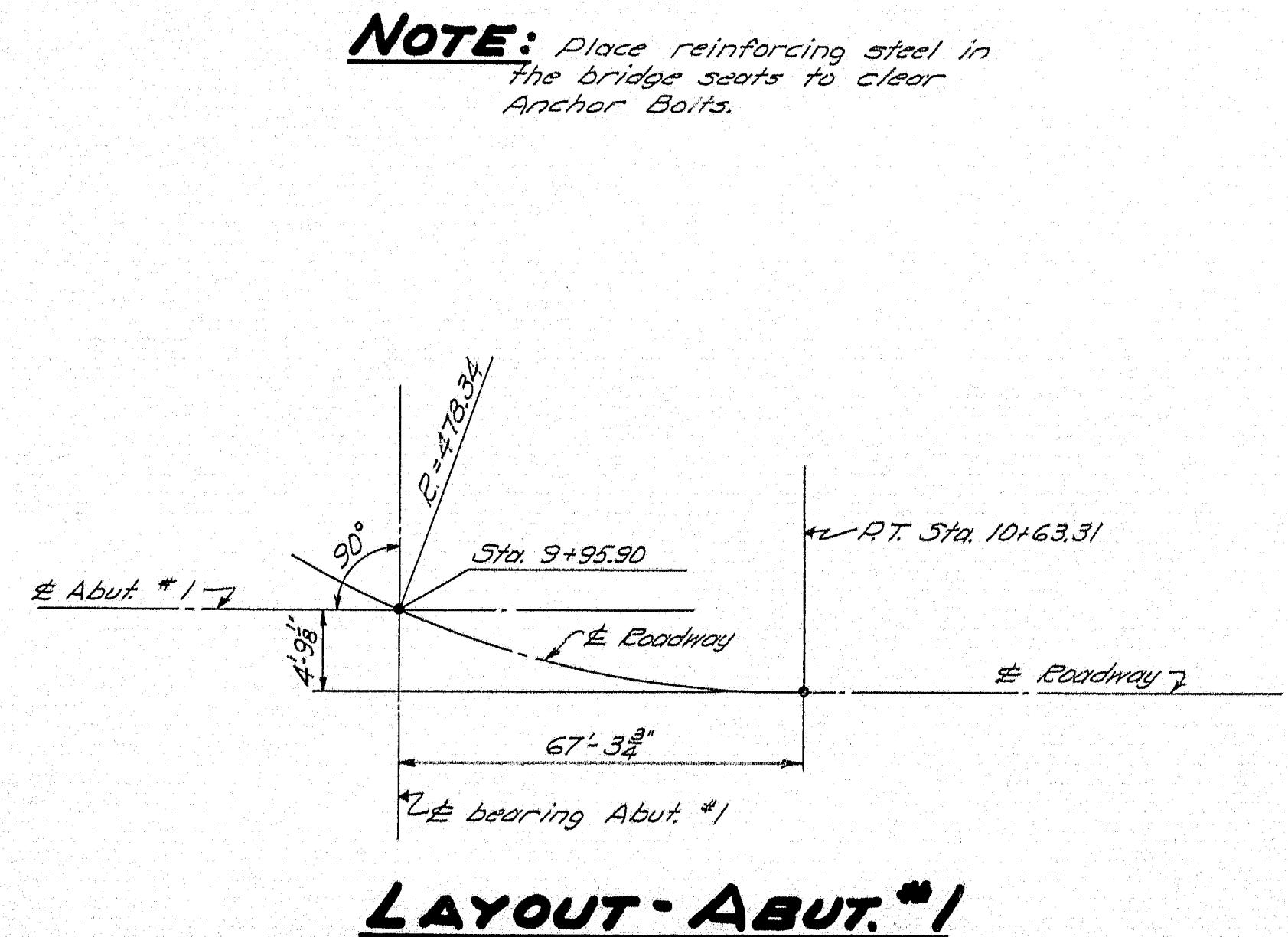
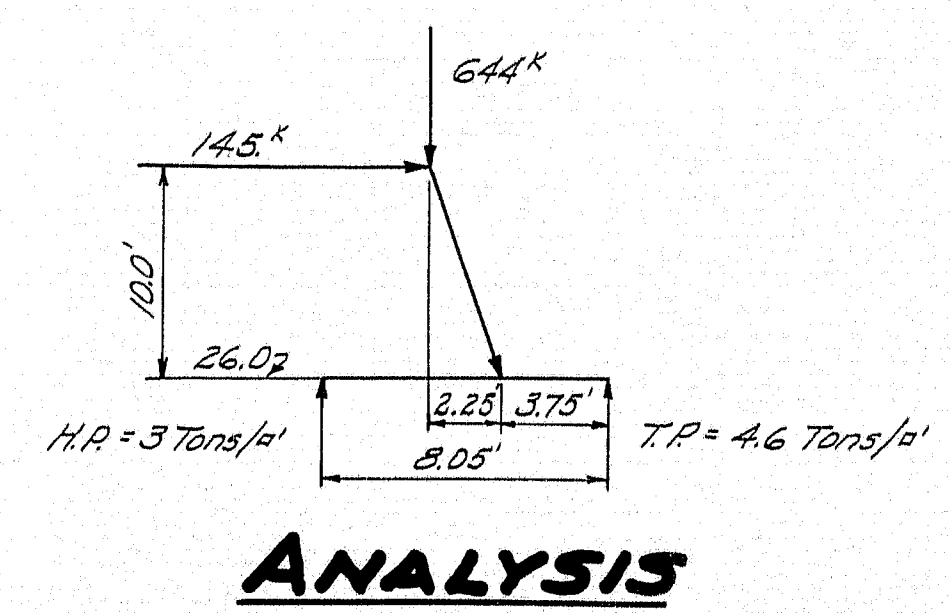
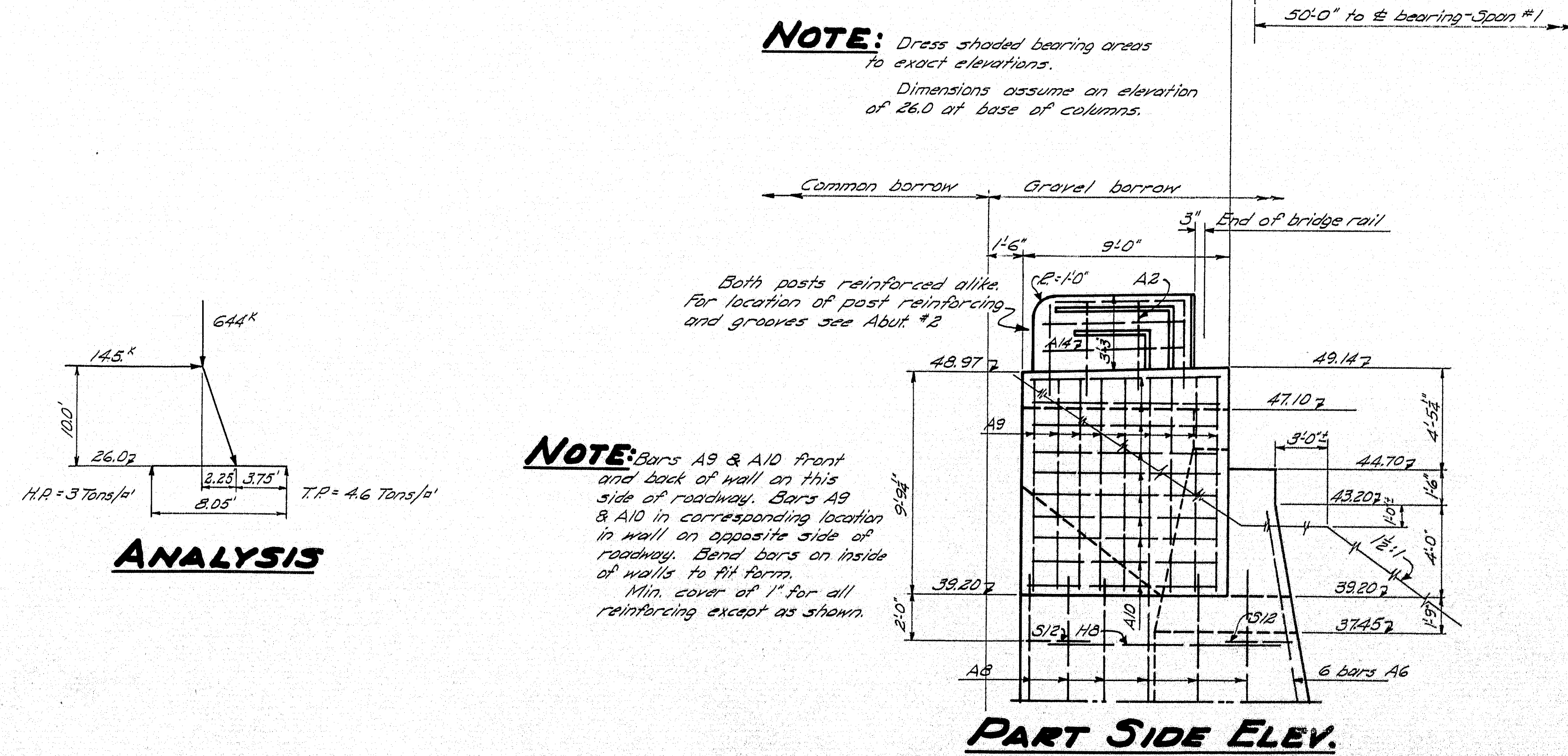
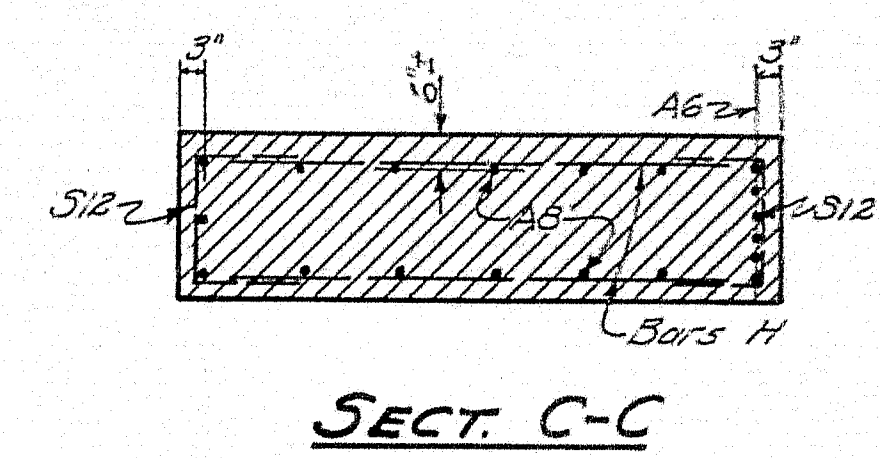
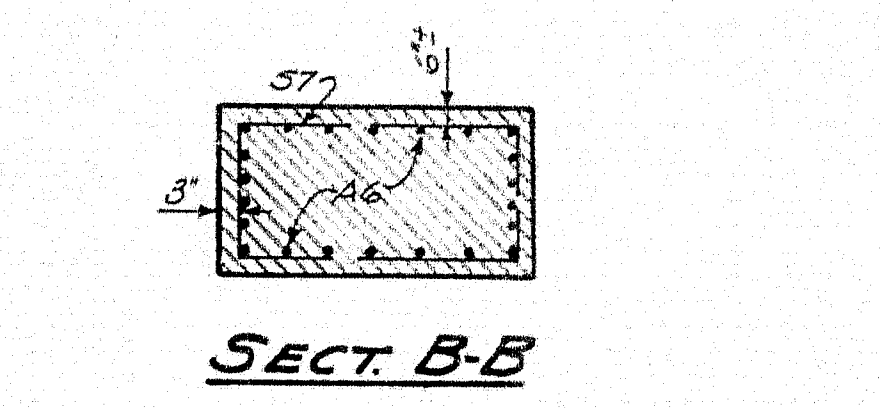
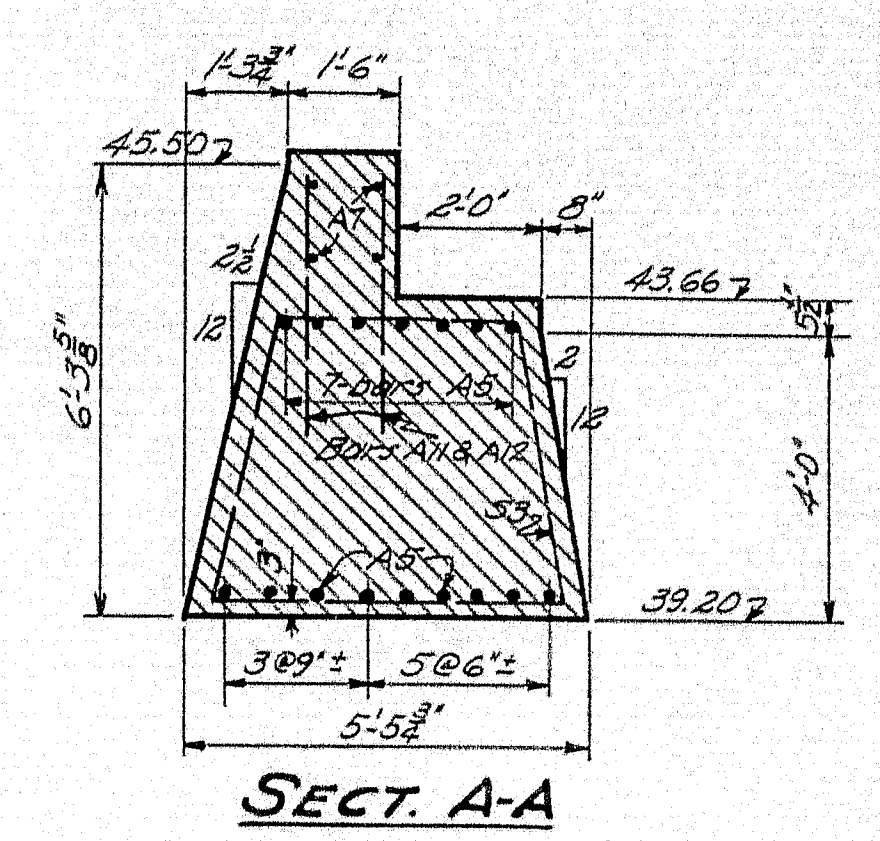
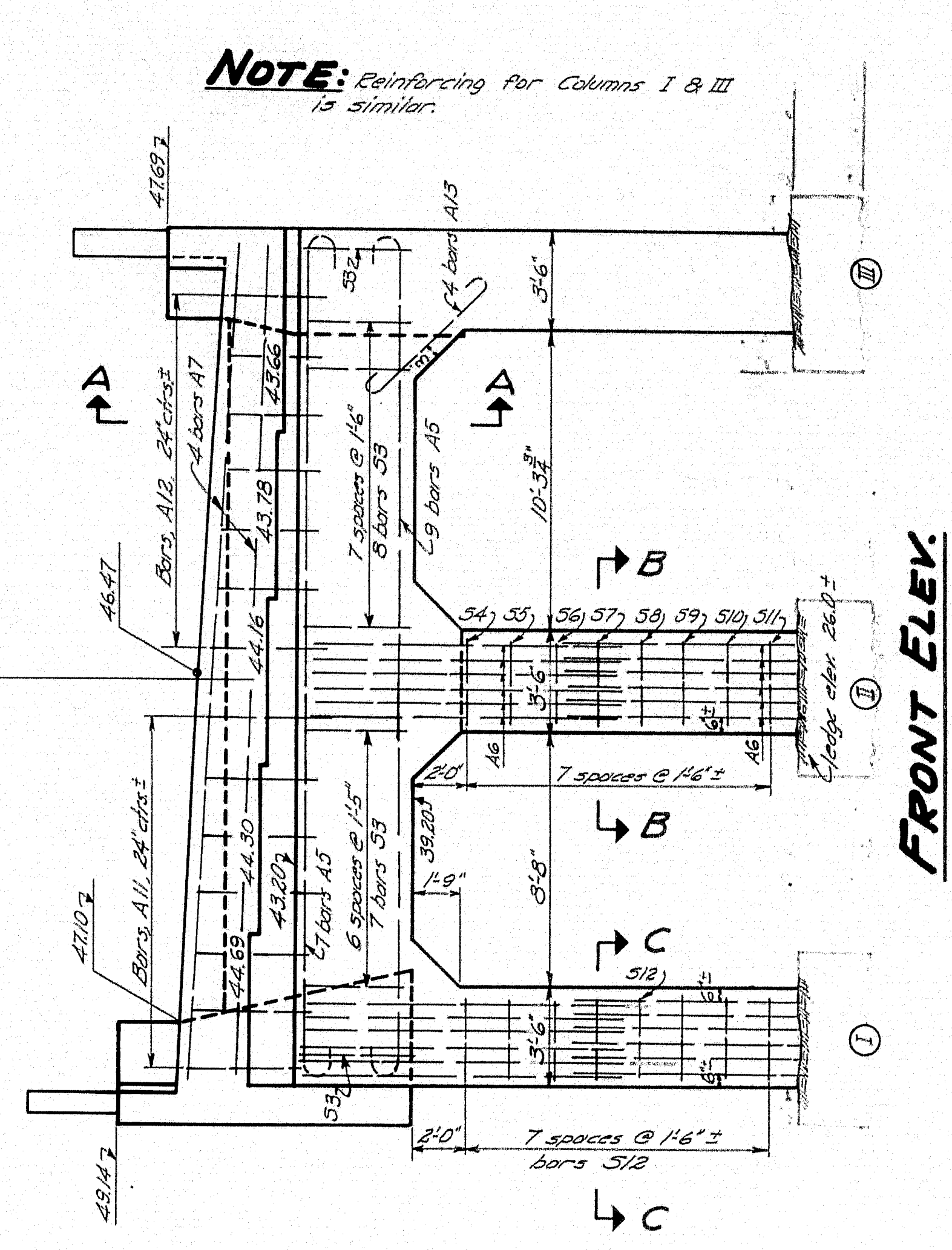
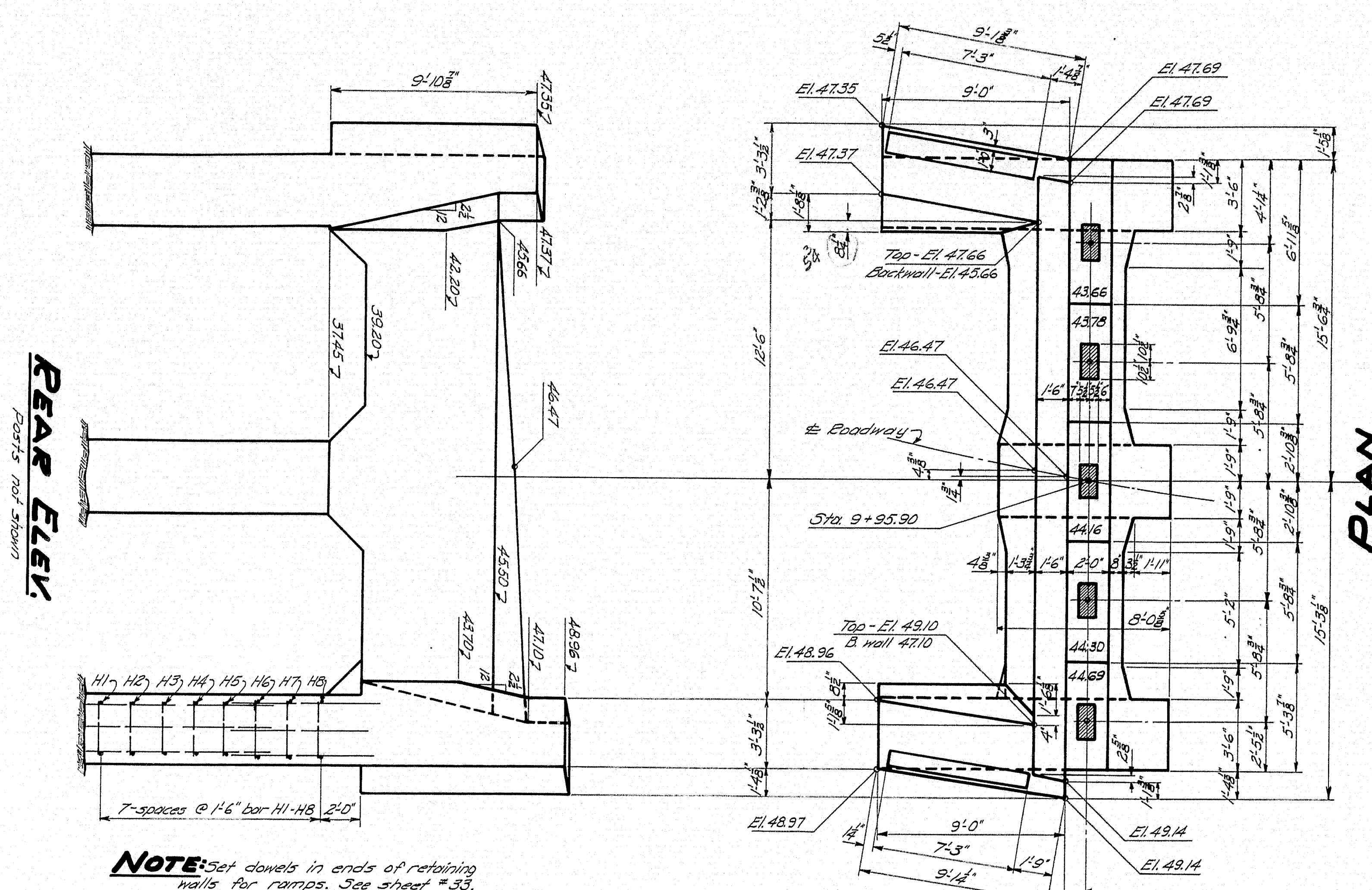
DESIGN - EVERETT
TRACE - OLARK
CHECK - *W. J. B.*

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ARROWSIC BRIDGE
OVER
SASANOVA RIVER
BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGadahoc COUNTY

RAIL DETAILS
SHEET 27 OF 36 AUGUSTA MAINE FEB. 1949

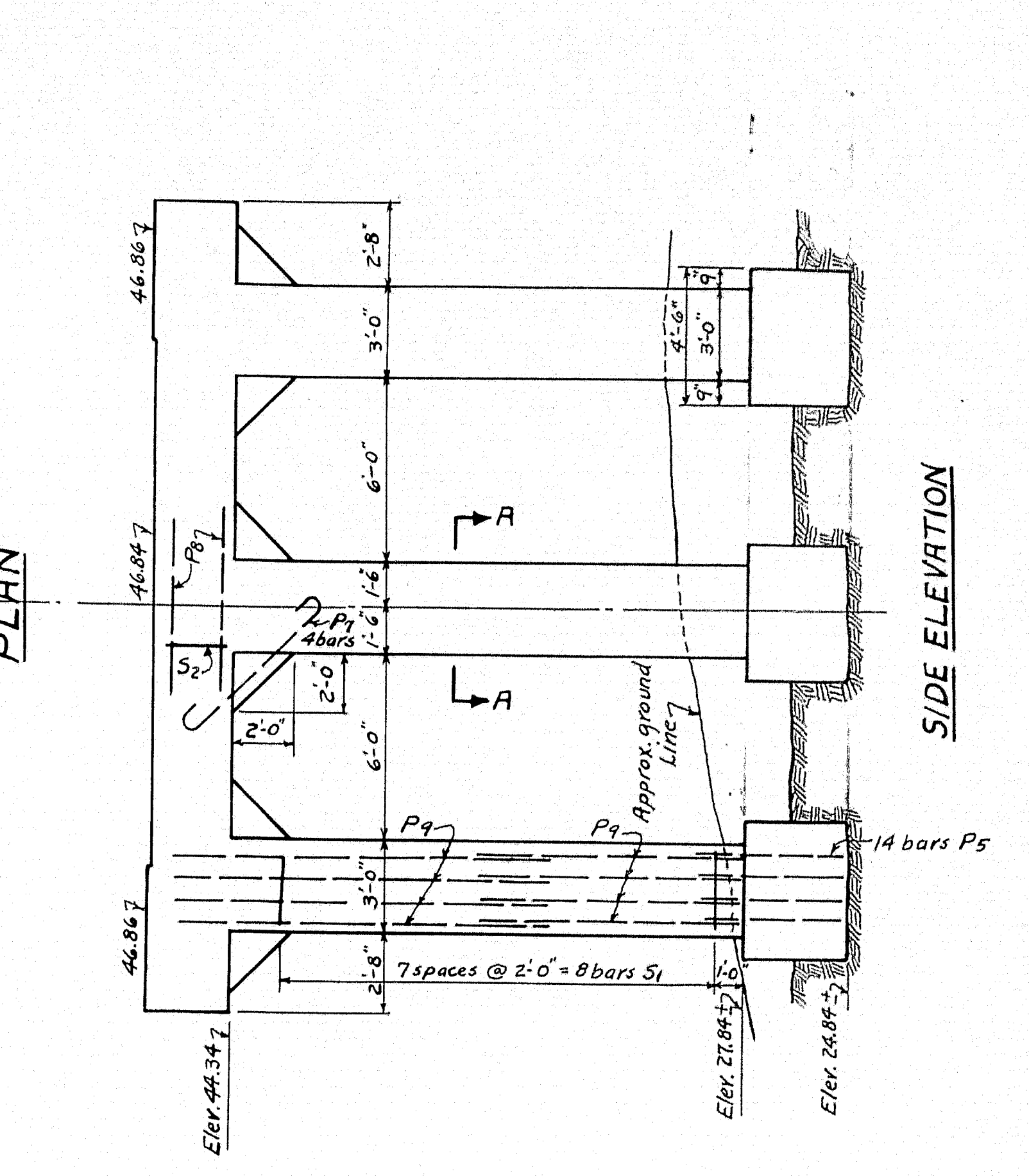
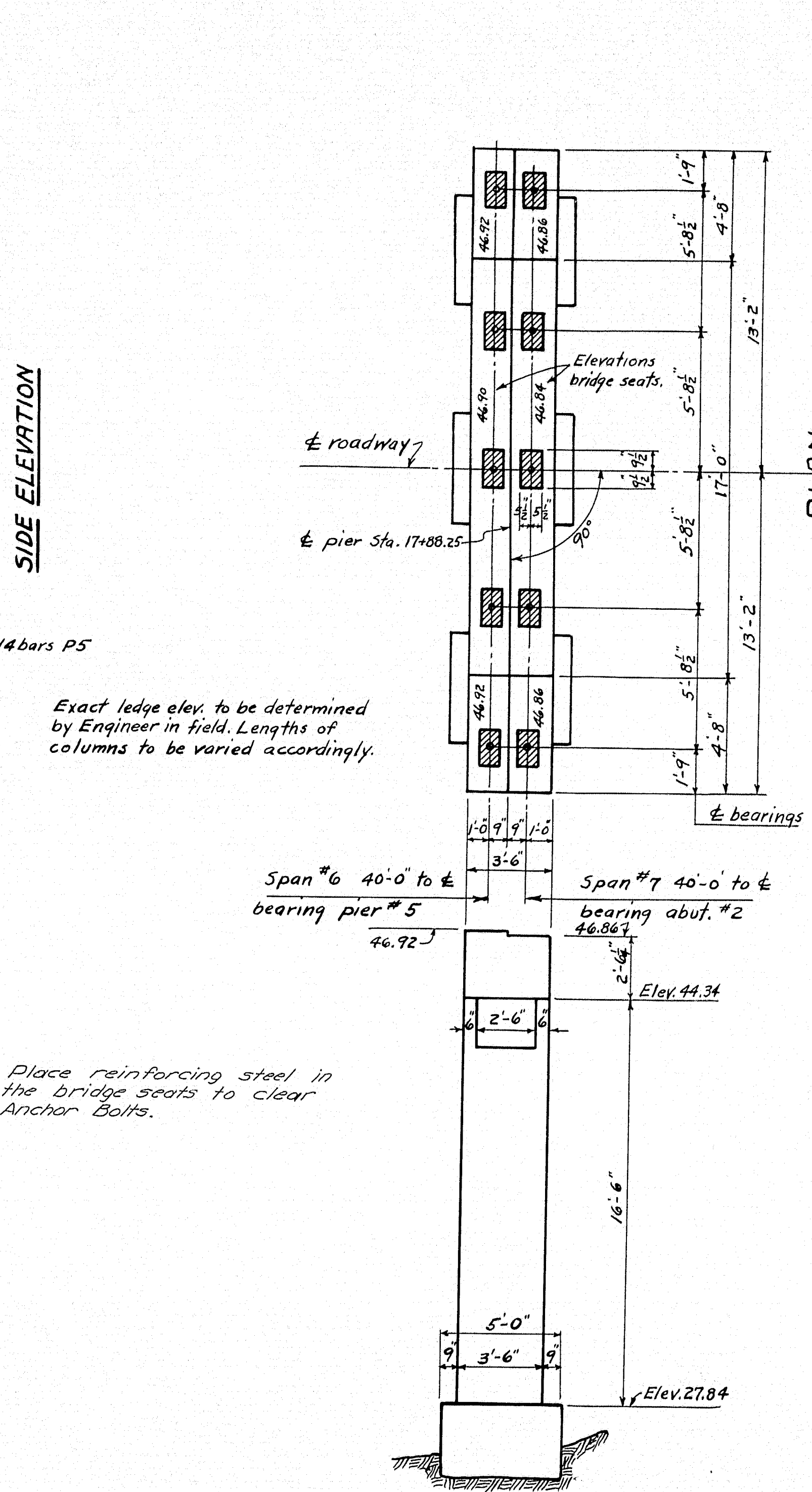
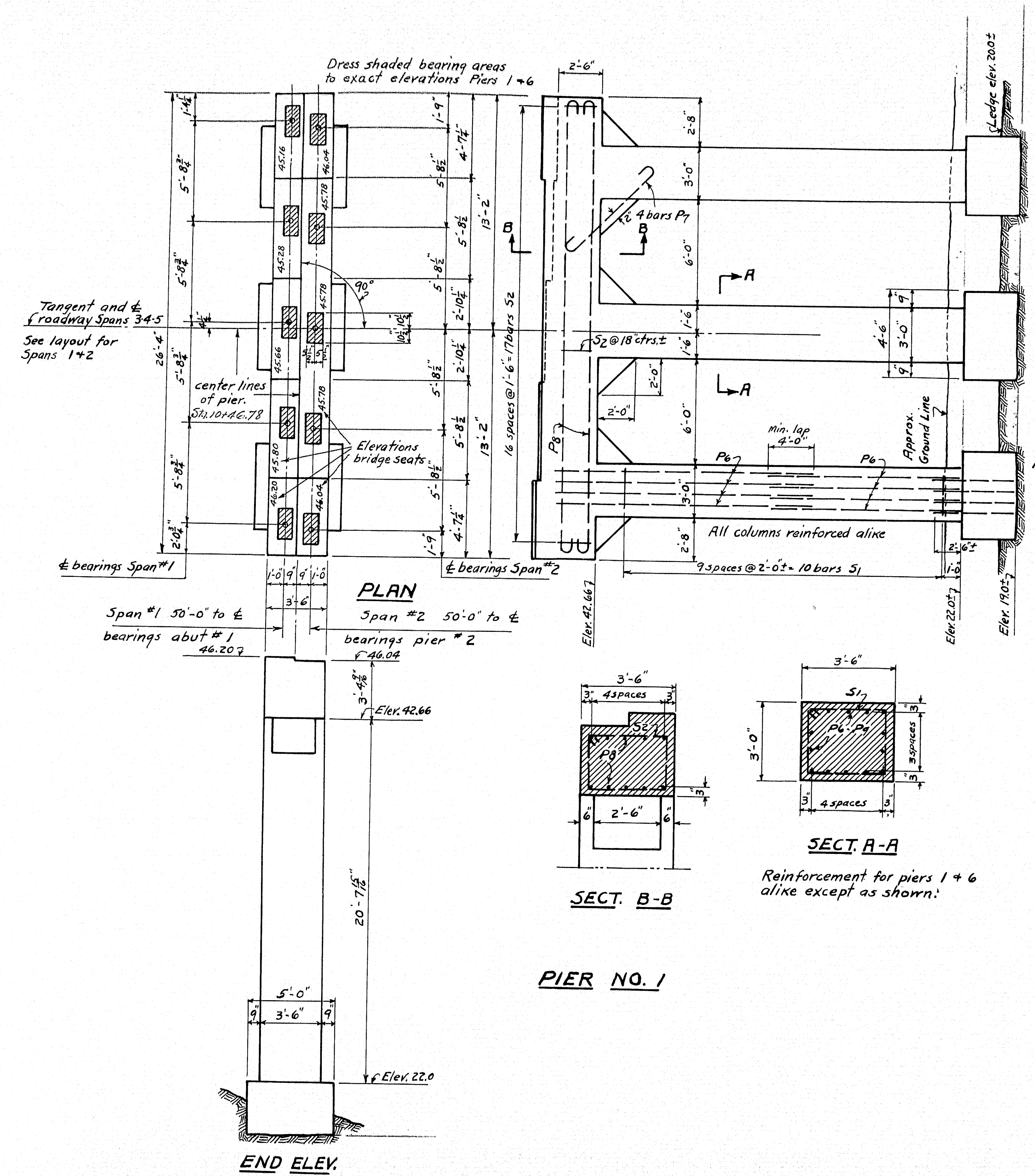
48-90



DESIGN - EVERETT
TRACE - CLARK
CHECK - [Signature]

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ARROWSIC BRIDGE
OVER
SASANOVA RIVER
BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGadahoc COUNTY
ABUTMENT NO. 1

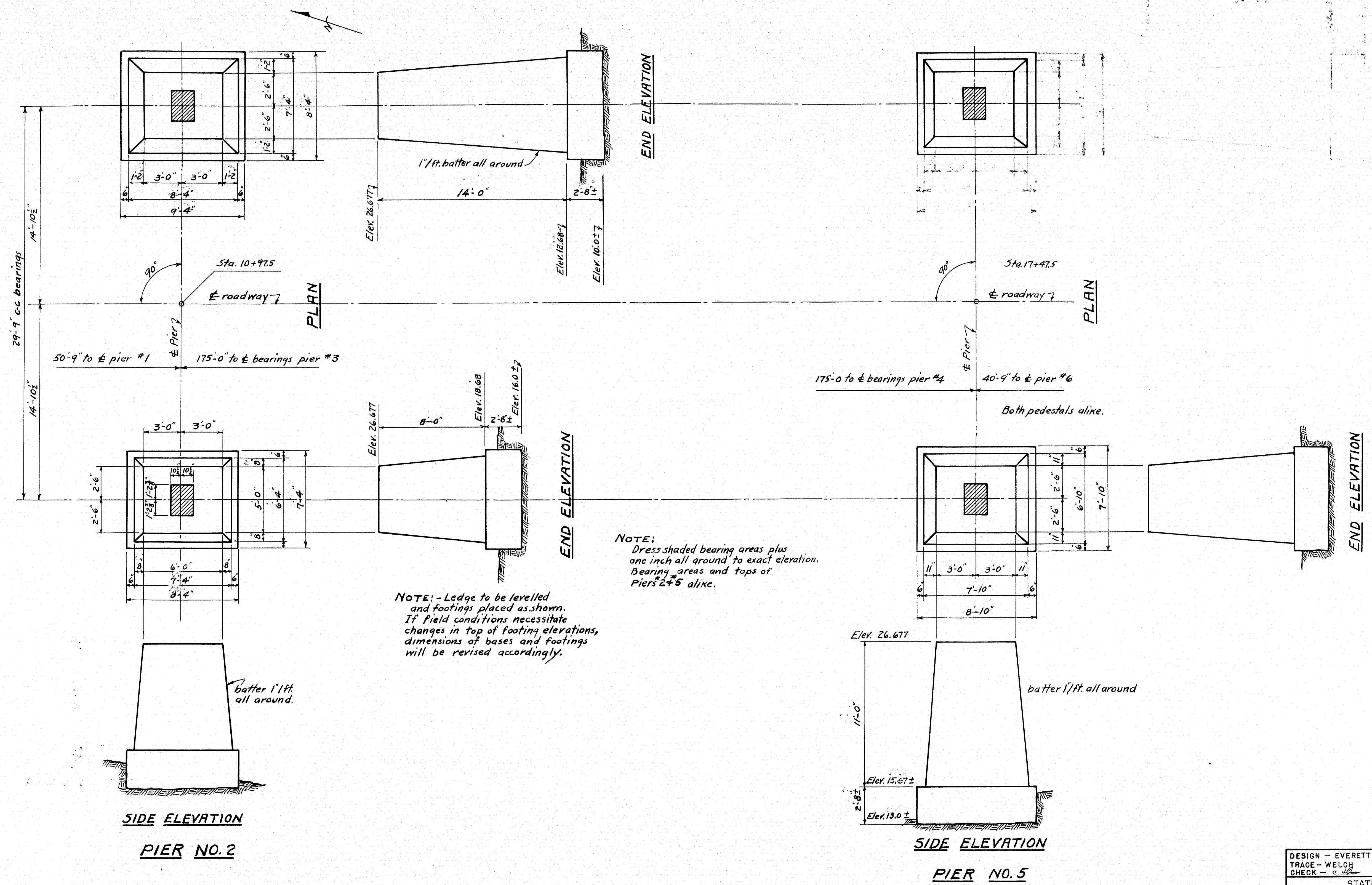


DESIGN - EVERETT
TRACE - WELSH
CHECK - J. J. J.

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ARROWSIC BRIDGE
OVER
SASANO RIVER
BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGadahoc COUNTY
PIERS NO. 1 & 6

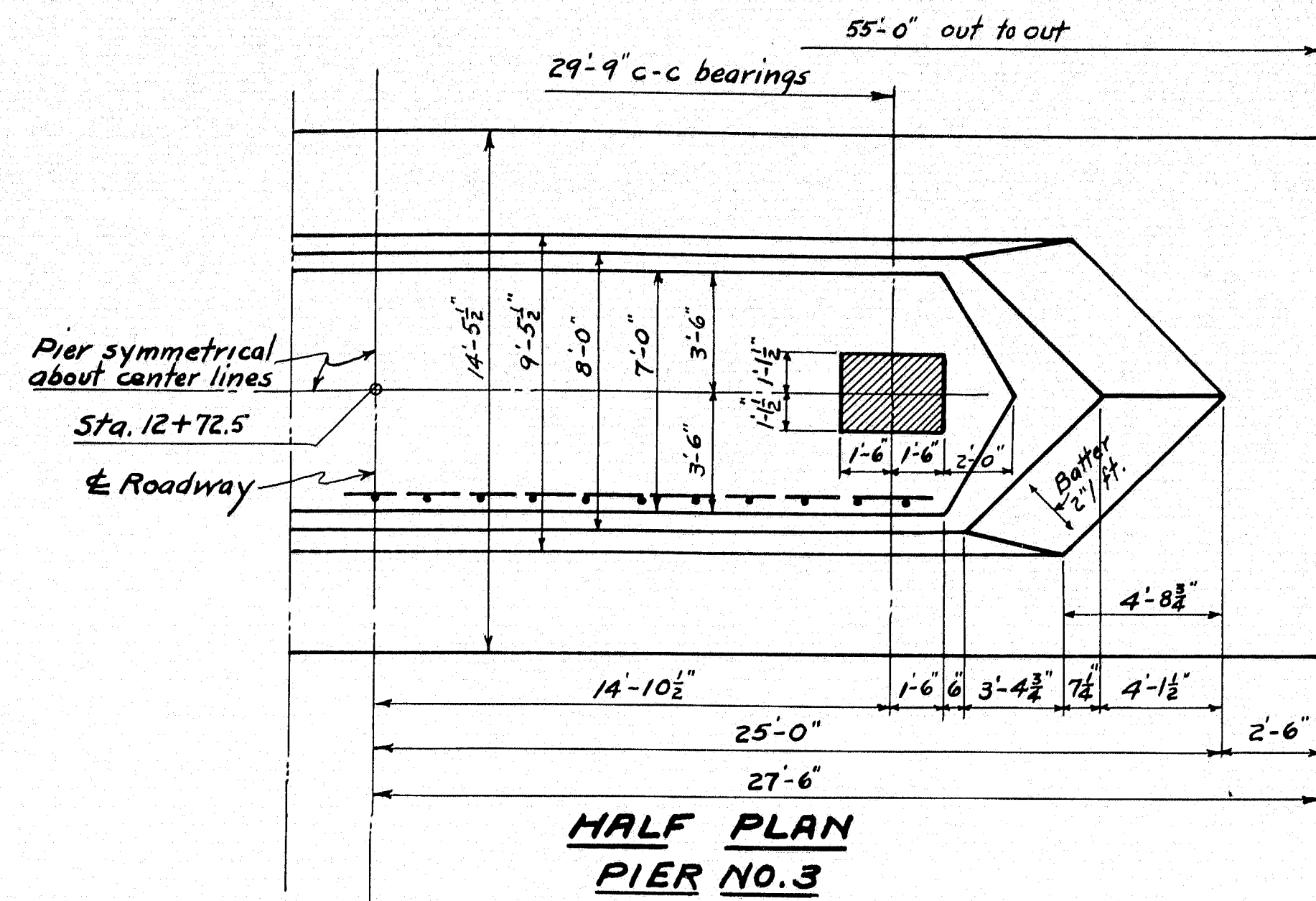
SHEET 29 OF 36 AUGUSTA, MAINE FEB. 1949



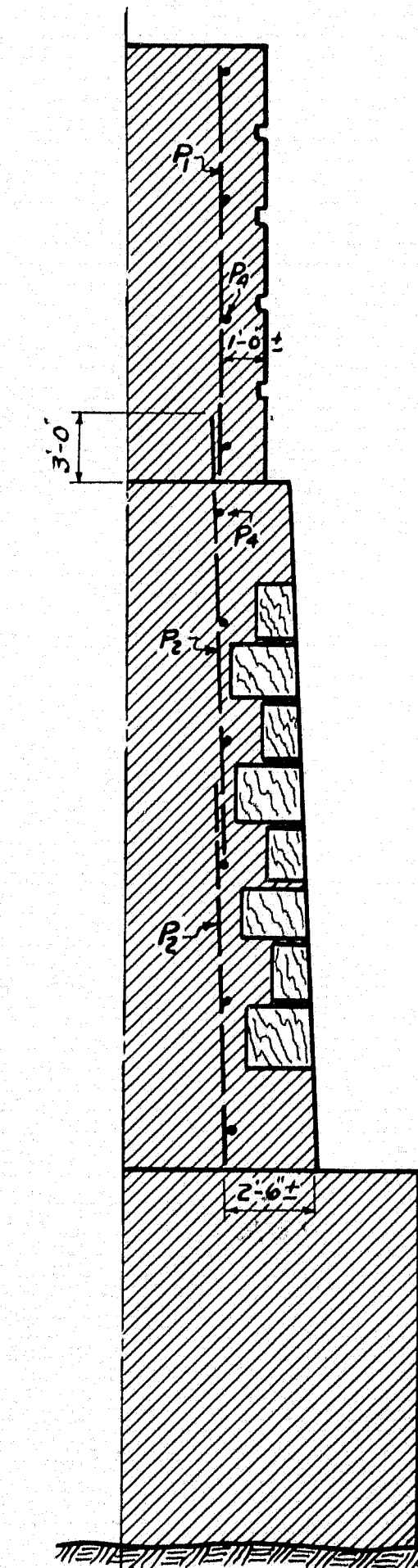
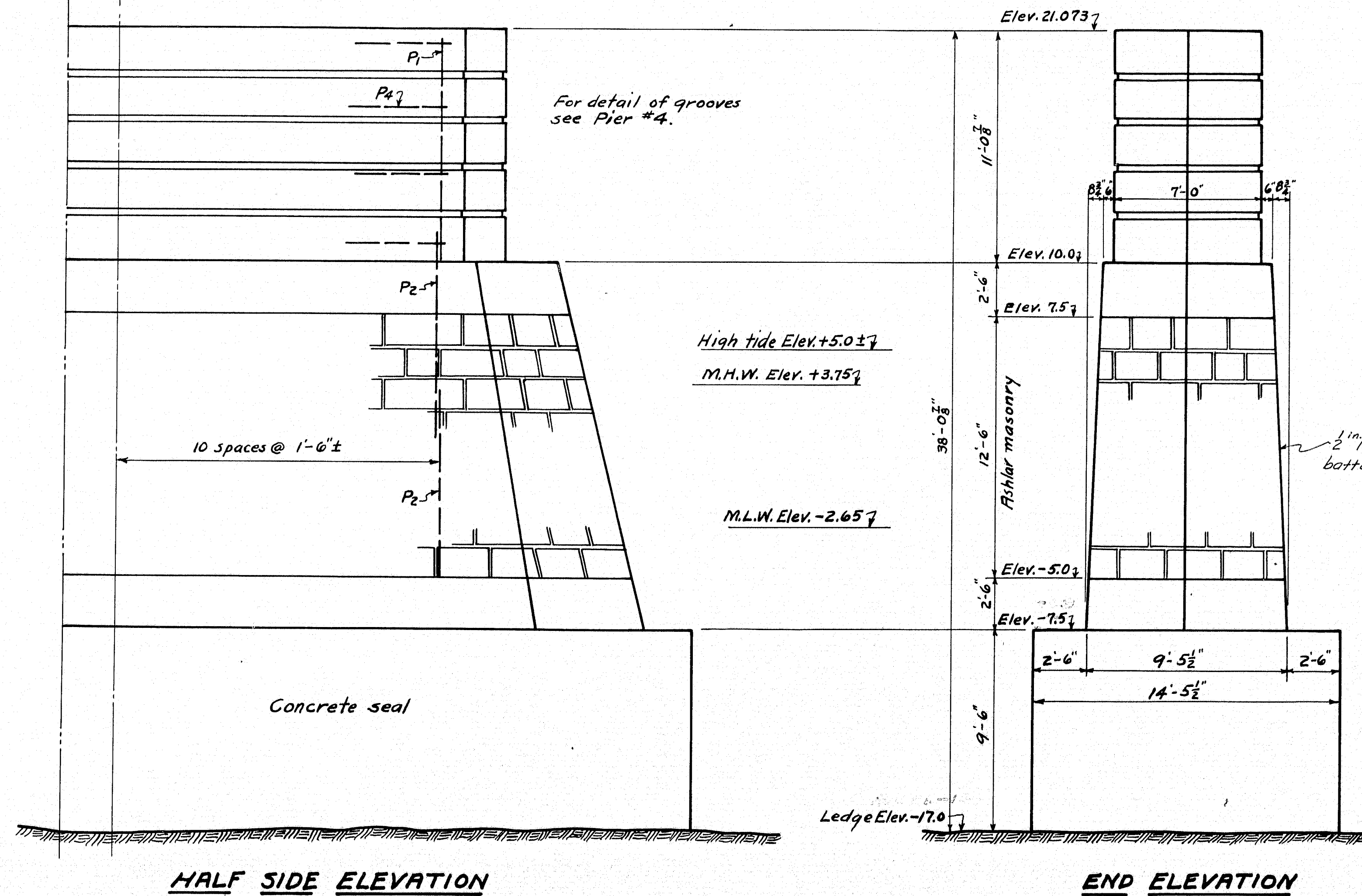
DESIGN - EVERETT
TRACE - WELCH
CHECK -

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ARROWSIC BRIDGE
OVER
SASANOA RIVER
BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGadahoc COUNTY
PIERS NO. 2 & 5
SHEET 30 OF 36 AUGUSTA, MAINE FEB. 1949



Dress shaded bearing areas
plus one inch all around to
exact elevation.



NOTE: - Substructure contractor before construction will submit details
of Ashlar masonry for Piers #3 & #4 to the Engineer for approval.

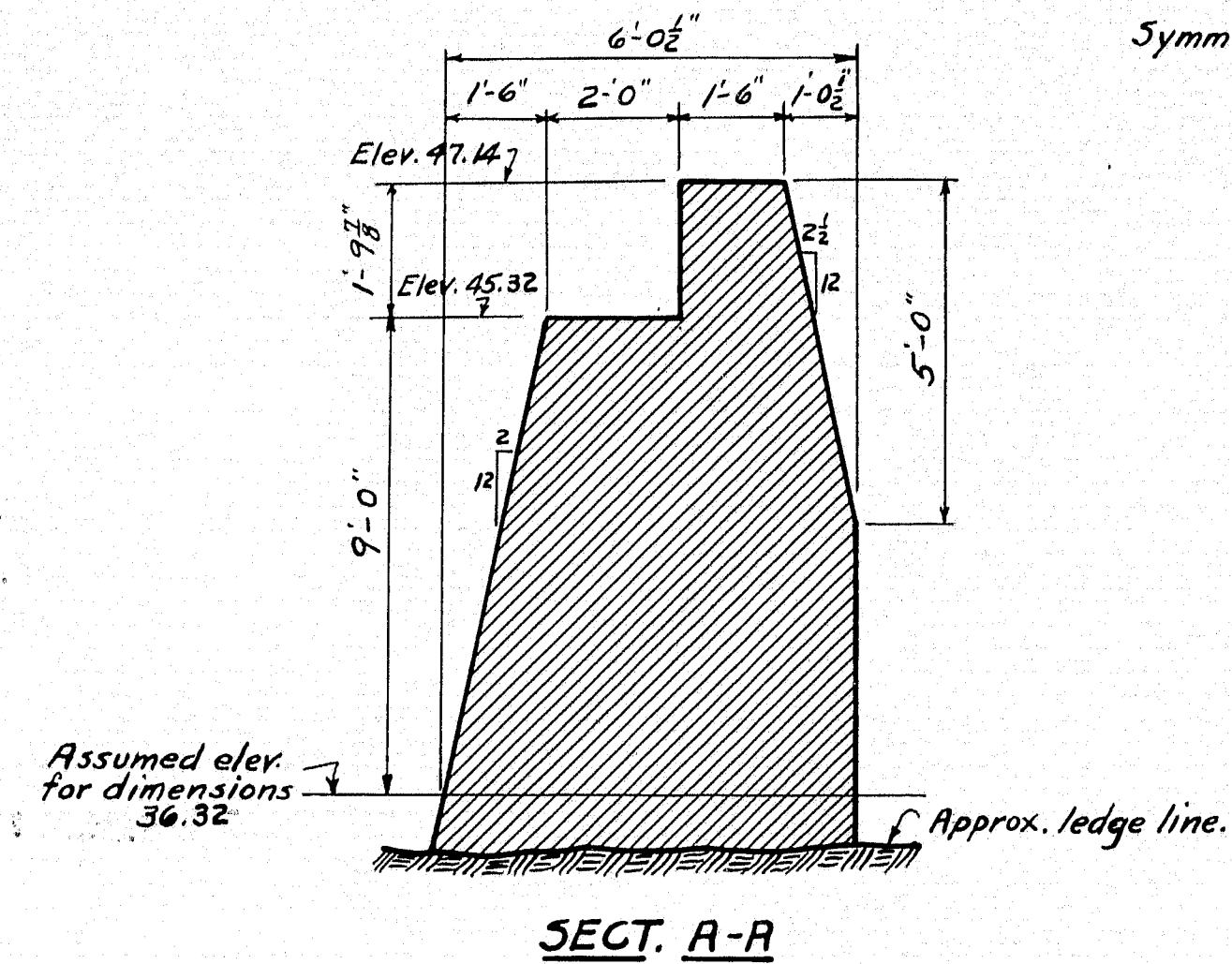
DESIGN - EVERETT
TRACE - WELCH
CHECK - *[Signature]*

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

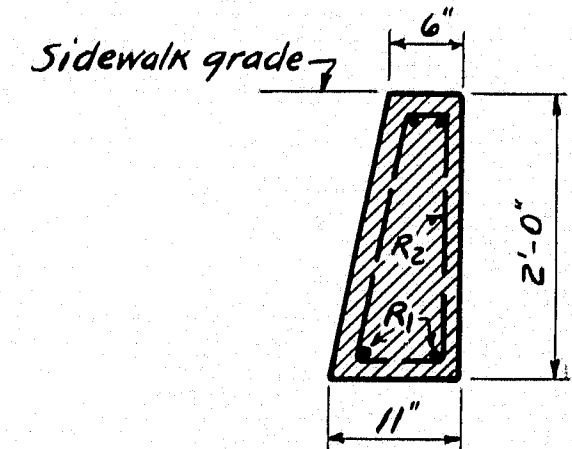
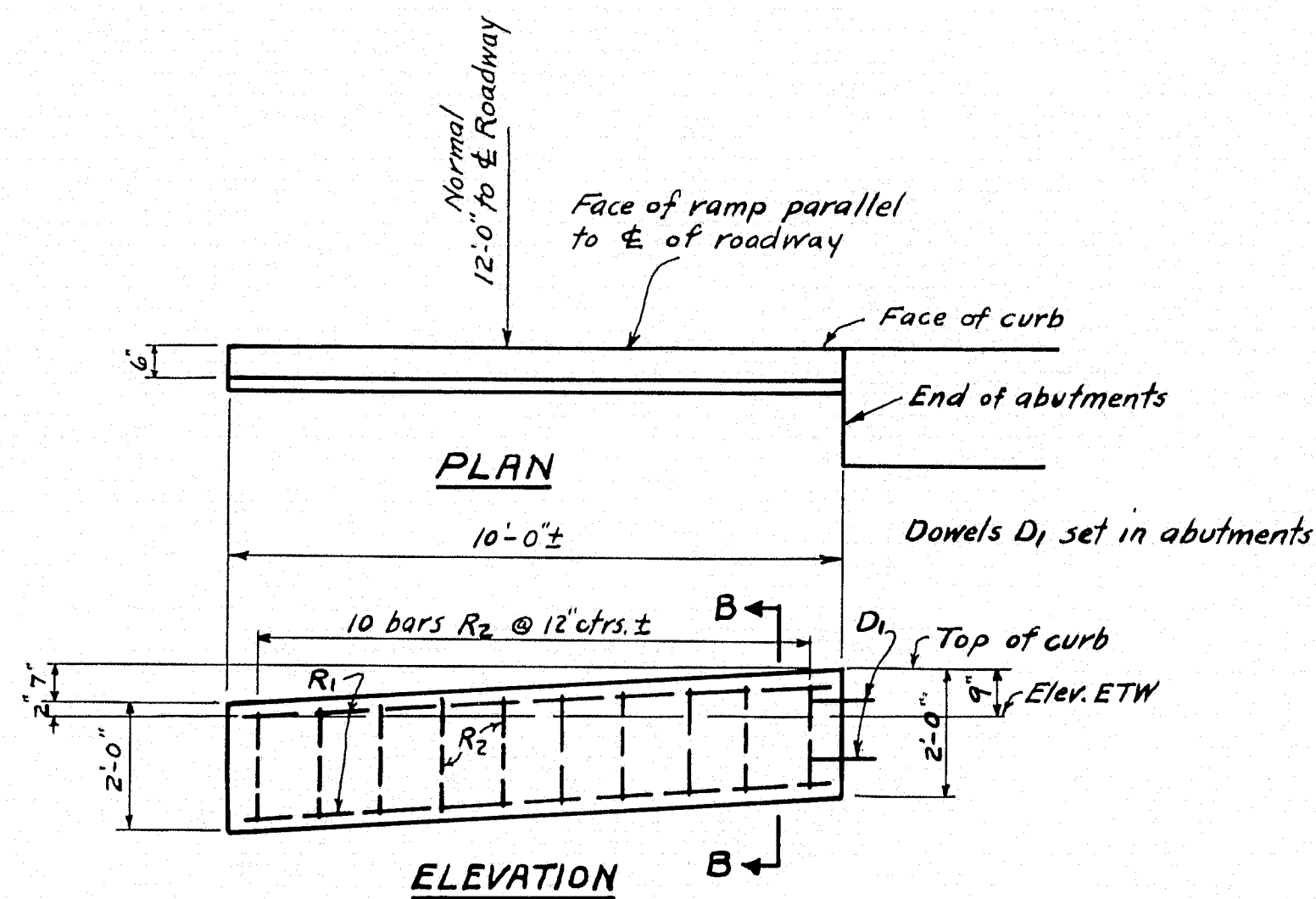
ARROWSIC BRIDGE
OVER
SASANOA RIVER
BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGadahoc COUNTY
PIER NO. 3

SHEET 31 OF 36 AUGUSTA, MAINE FEB. 1949

48-94



NOTE:
Dress shaded bearing
areas to exact elevation.

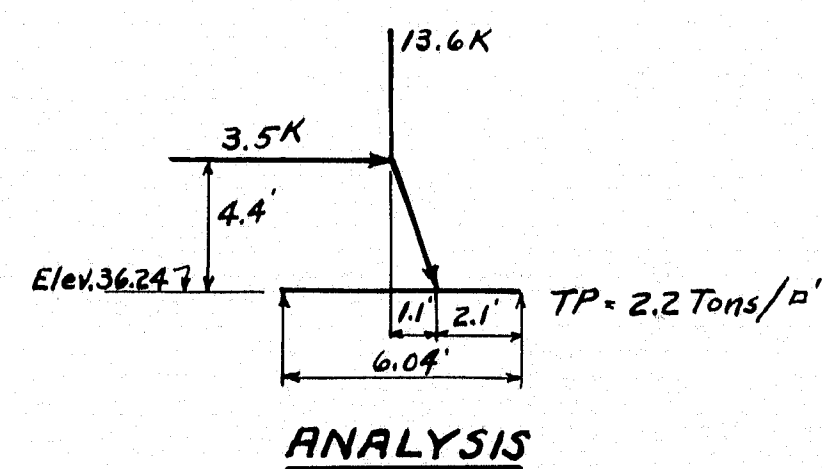


SECT. B-B

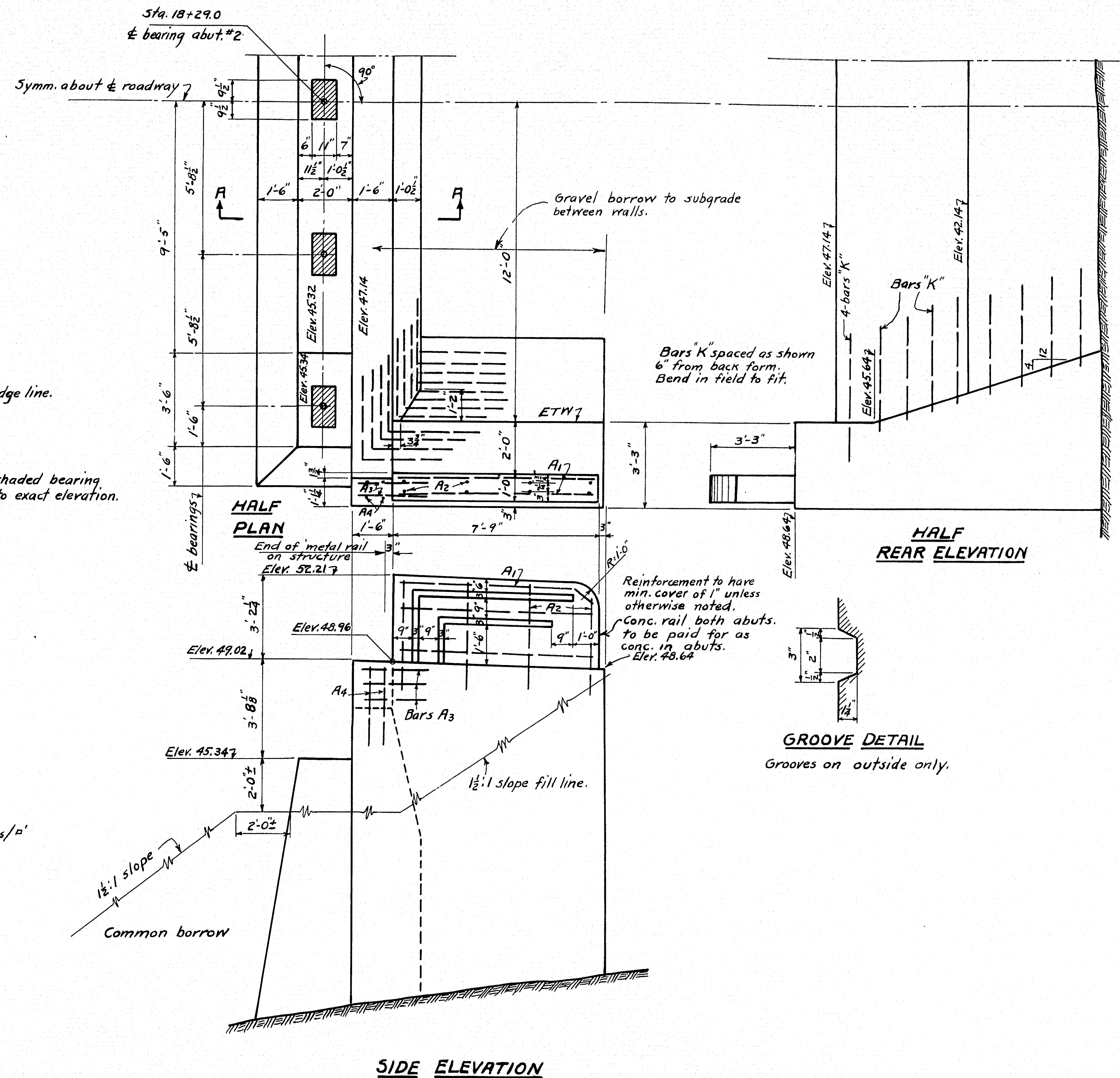
RAMP DETAIL

NOTE: Ramp as detailed to be
constructed at corners of
both abutments to provide
transition from sidewalk on
bridge to approaches.
4 ramps required.

Ramps to be paid for
as concrete in roadway
slabs.



ABUT. NO. 2



DESIGN - EVERETT
TRACE - WELCH
CHECK - *WEL*

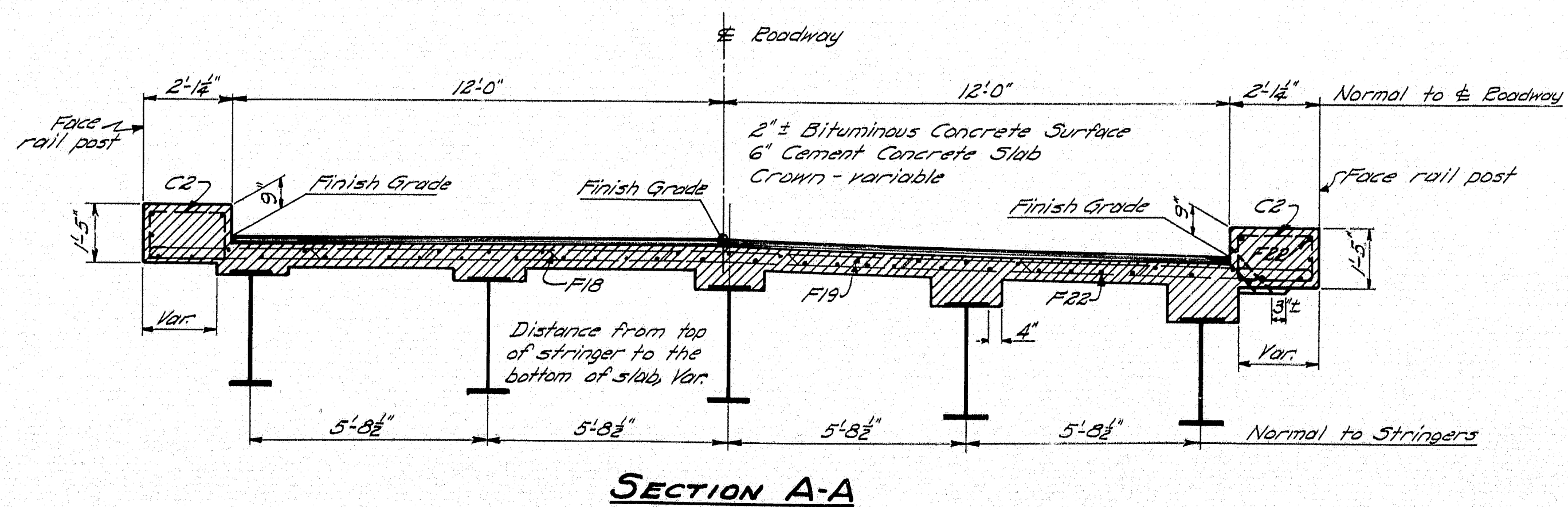
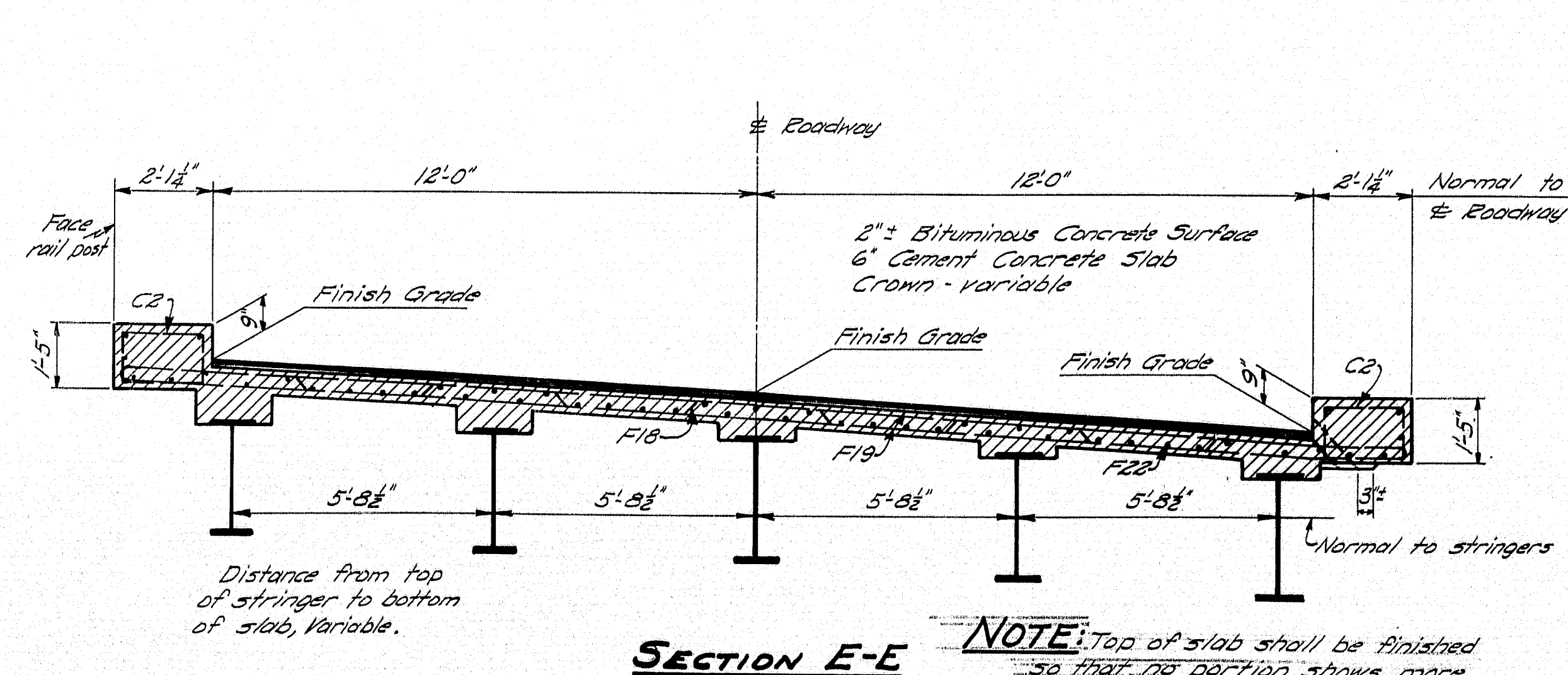
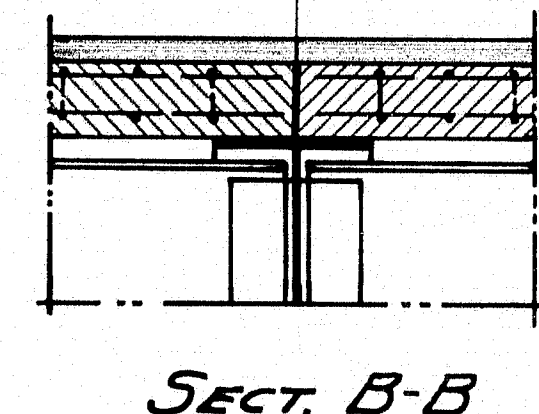
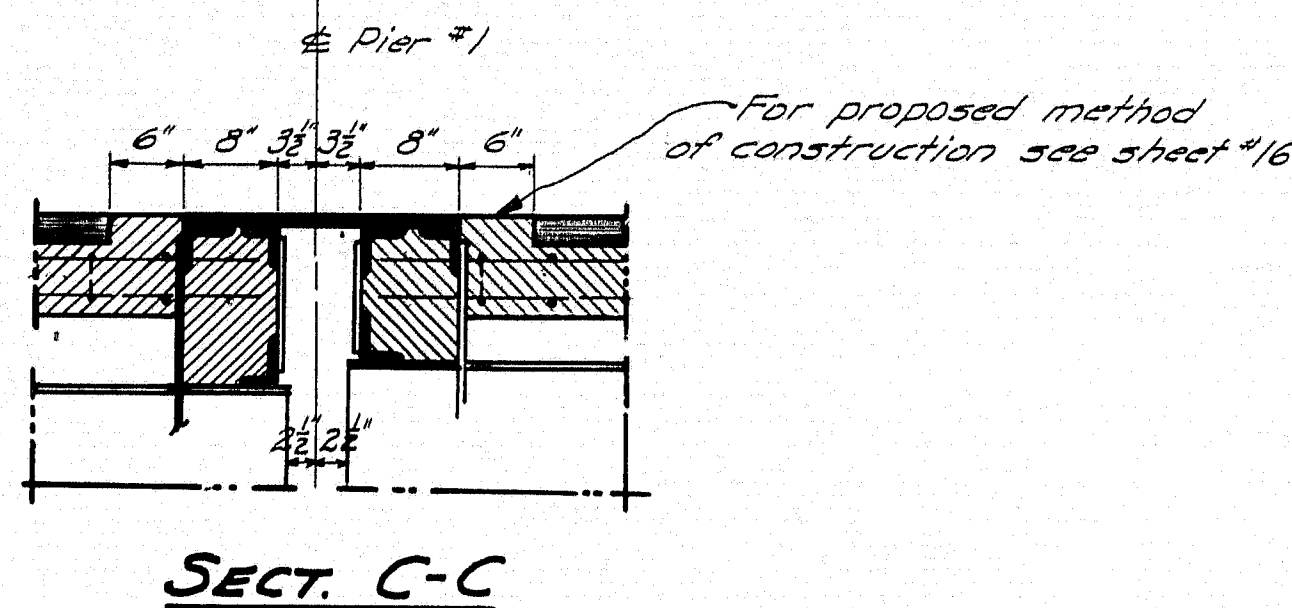
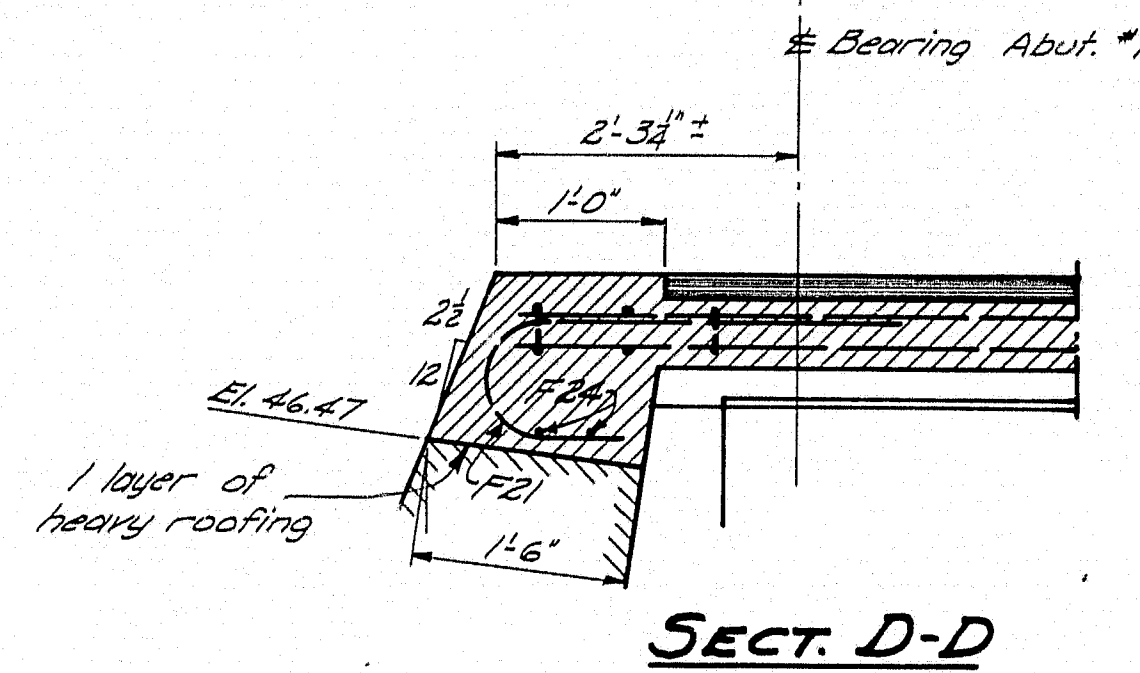
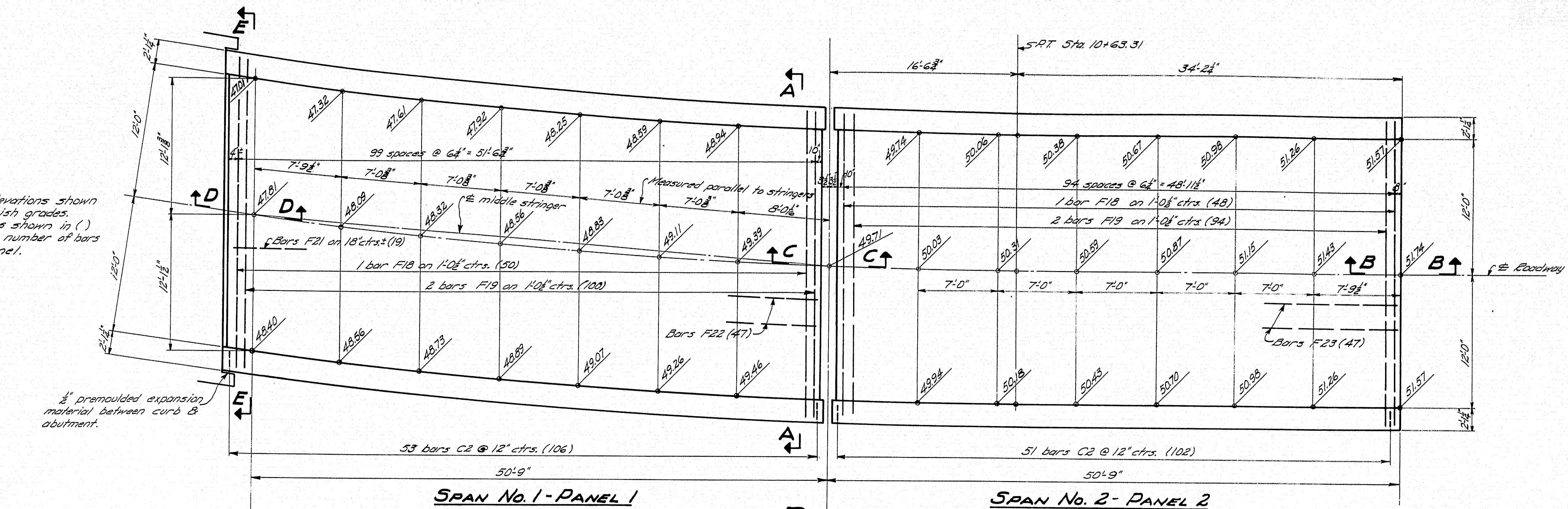
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ARROWSIC BRIDGE
OVER
SASANO RIVER
BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGadahoc COUNTY
ABUTMENT NO. 2

SHEET 33 OF 36 AUGUSTA, MAINE FEB. 1949

48-96

NOTE: All elevations shown are finish grades. Figures shown in () indicate number of bars per panel.



NOTE: Top of slab shall be finished so that no portion shows more than 4" high under a 10-foot straight edge radially.

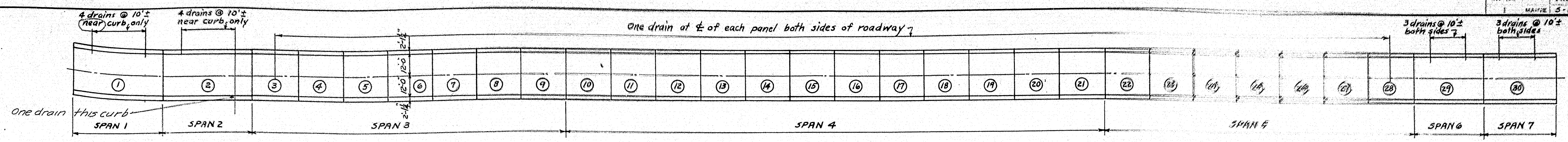
DESIGN - EVERETT
TRACE - CLARK
CHECK - *[Signature]*

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

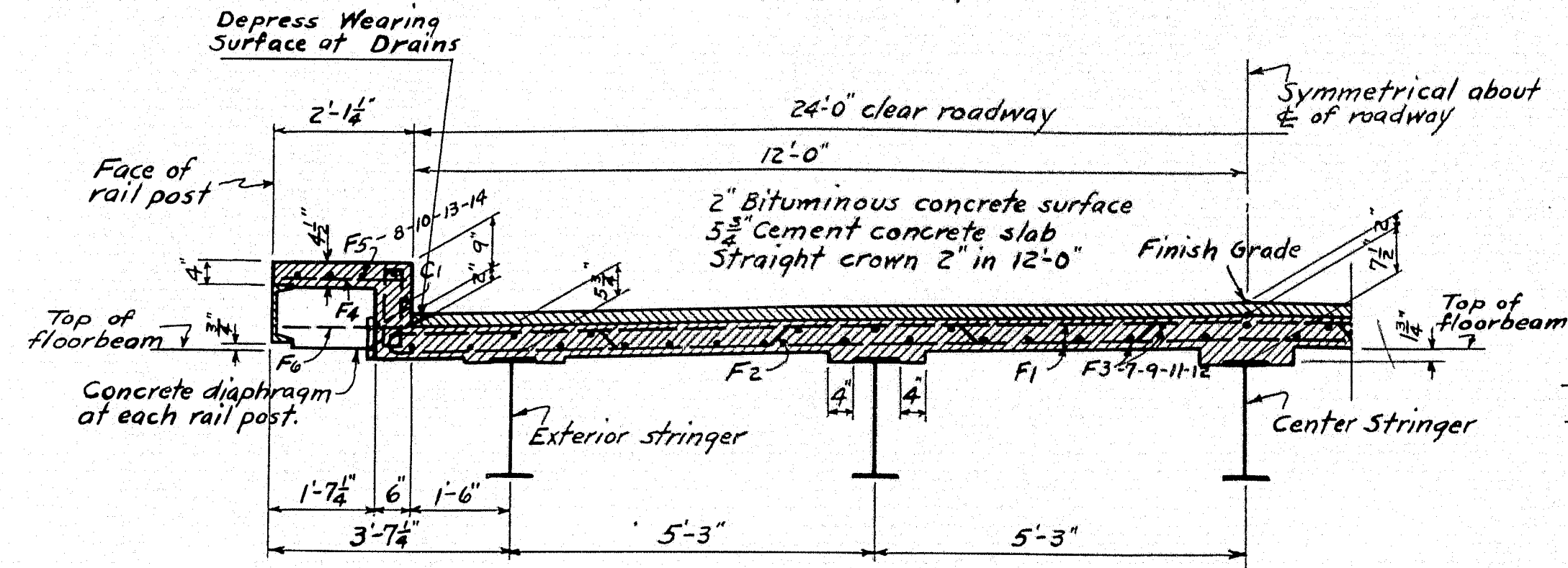
ARROWSIC BRIDGE
OVER
SASANOA RIVER
BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGadahoc COUNTY

FLOOR PLAN - SPANS NO. 1 & 2
SHEET 34 OF 36 AUGUSTA, MAINE FEB.

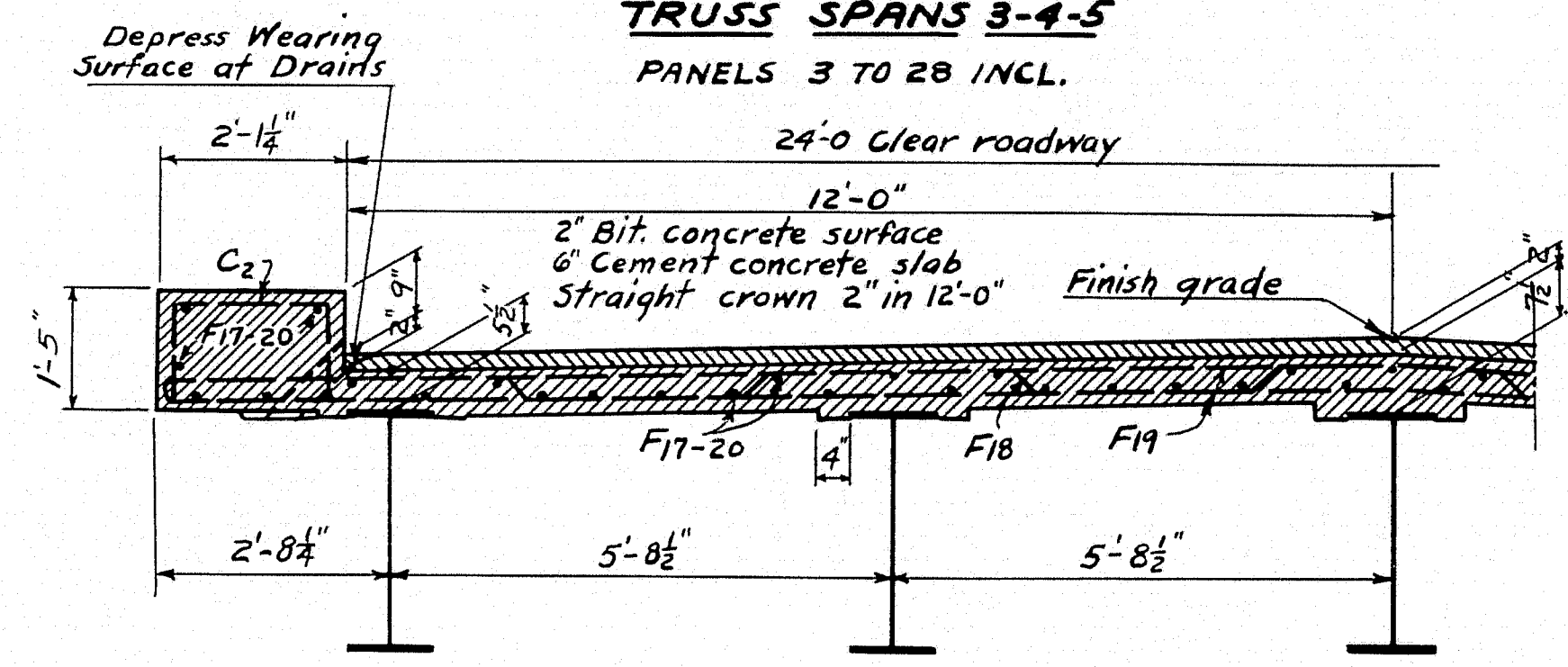
48-97



NOTE: Concrete diaphragms to be 1'-3" wide and constructed at each rail post. Diaphragms to be located so that 3/8" rods from rail posts will be centered in diaphragm. In panels 8 to 23 inclusive, 3 diaphragms per panel each side of roadway have been assumed. In panels 3 to 7 and 24 to 28 incl., 5 diaphragms each side are assumed. Final structural steel details will determine number and exact location of rail posts.



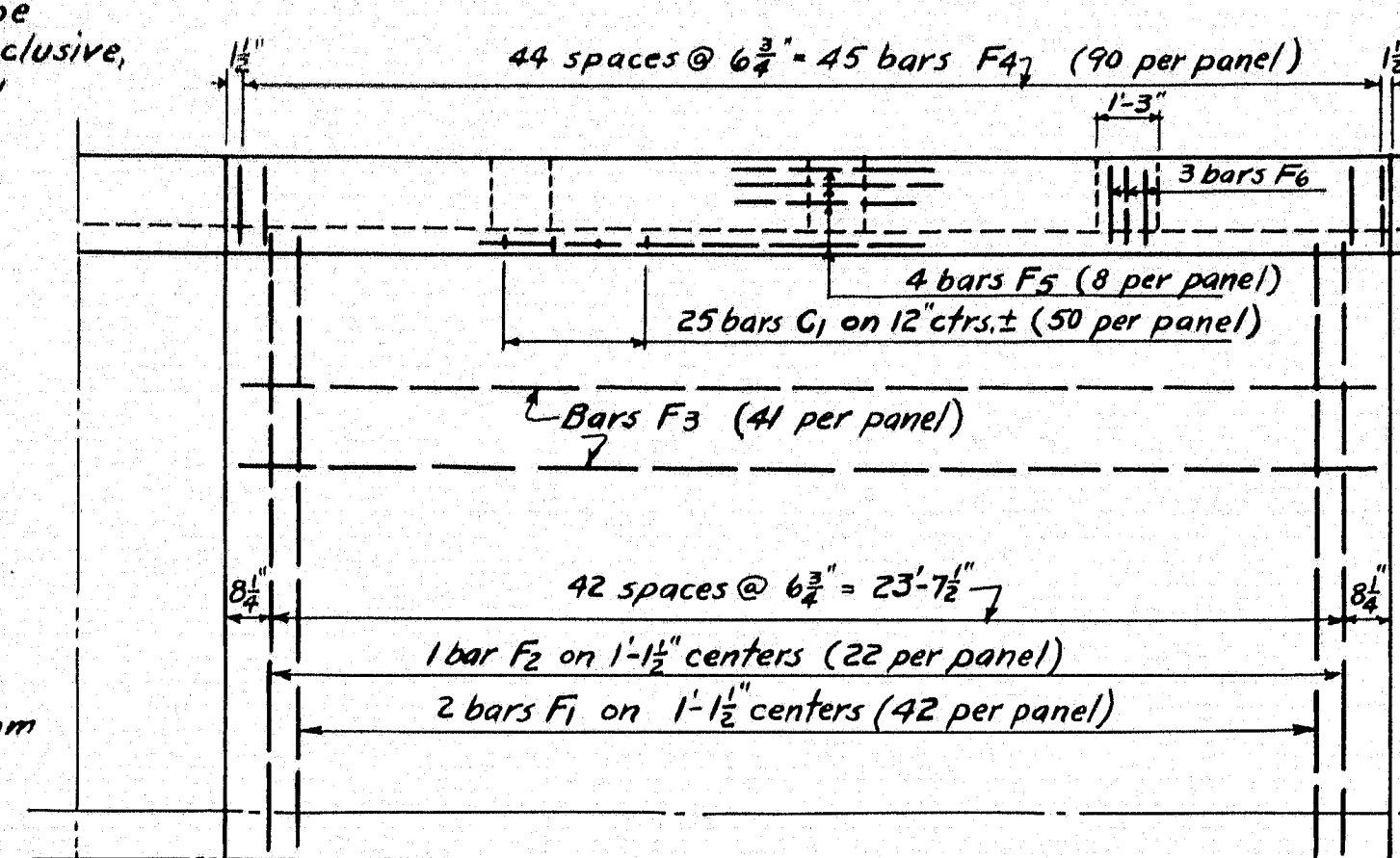
HALF TRANS. SECT.
SLAB AND SURFACE
TRUSS SPANS 3-4-5
 PANELS 3 TO 28 INCL.



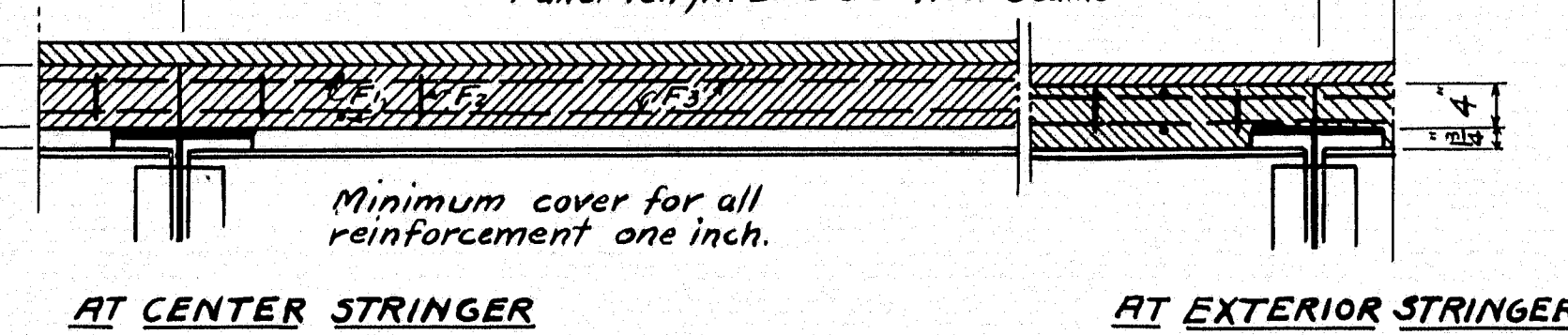
SPANS 6 AND 7
HALF TRANS. SECT.

NOTE: Top of slab shall be finished so that no portion shows more than 1/4-inch under a 10-foot straight edge longitudinally or transversely.

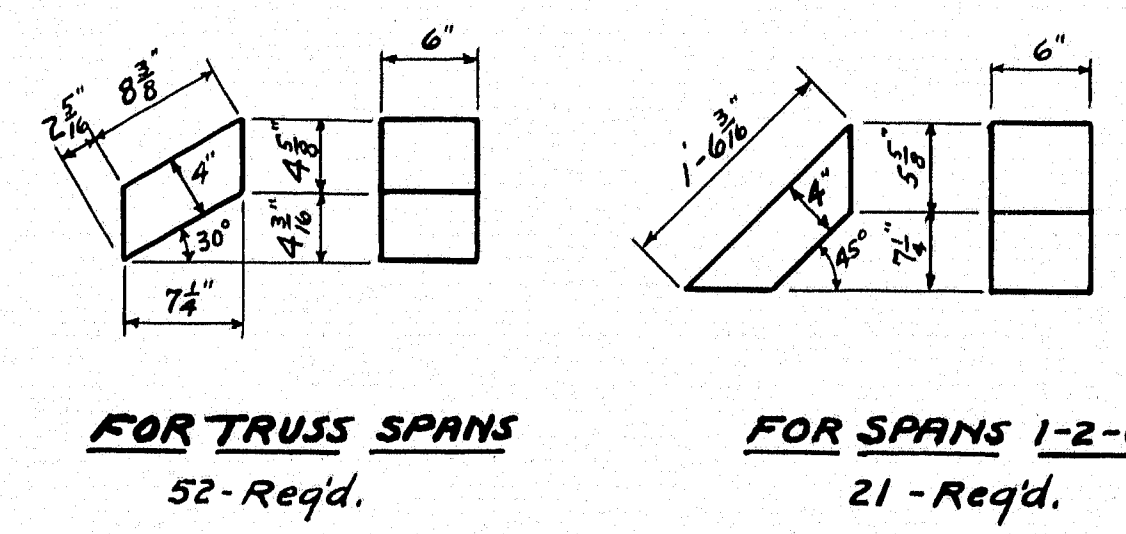
Spans 3-4-5 are truss spans.
FLOOR PLAN



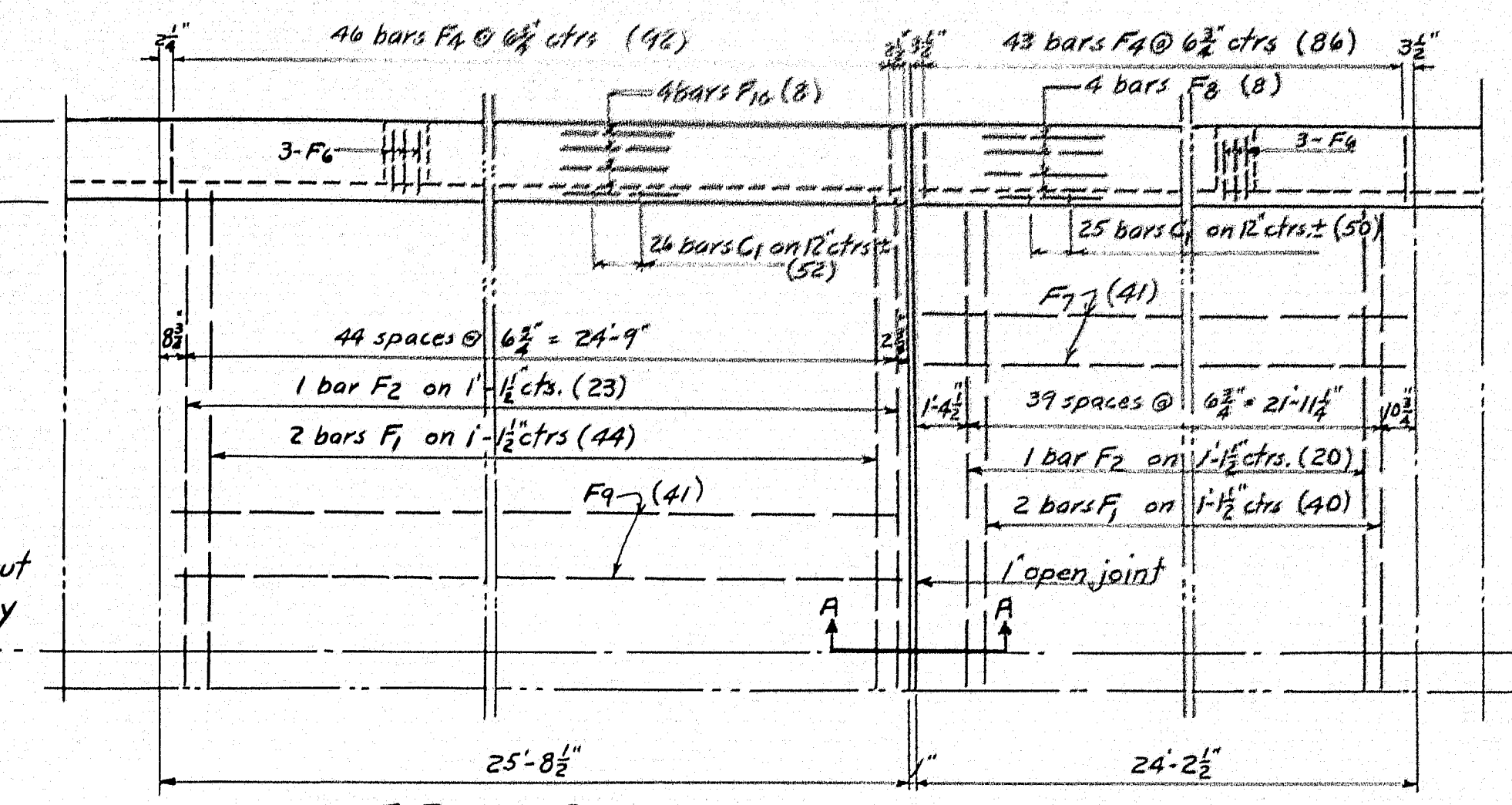
HALF PLAN



LONGITUDINAL SECTION
DETAIL FLOOR SLAB PANELS 3 to 10 inclusive
 13 to 18
 21 to 28

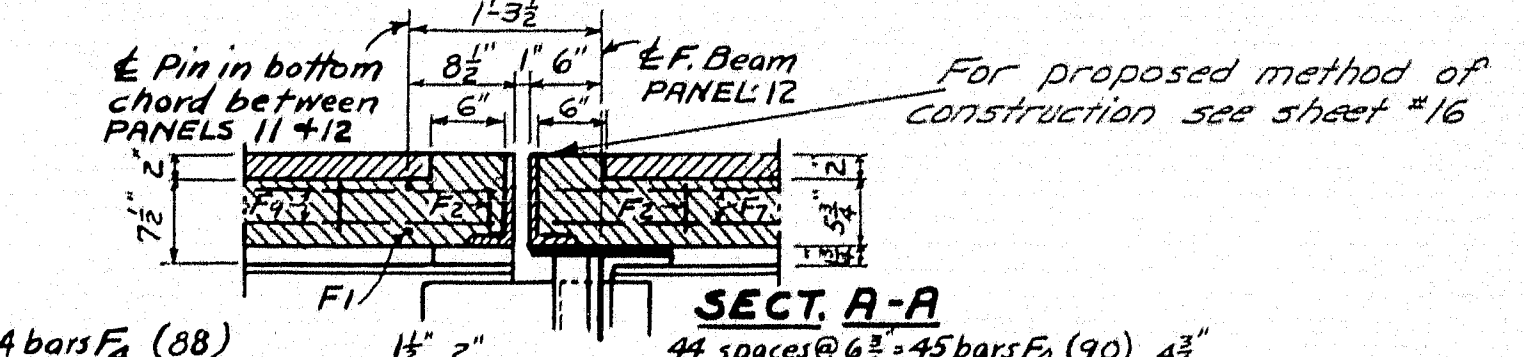


DRAIN FORM DETAILS
 Material #24 gage galv. iron.

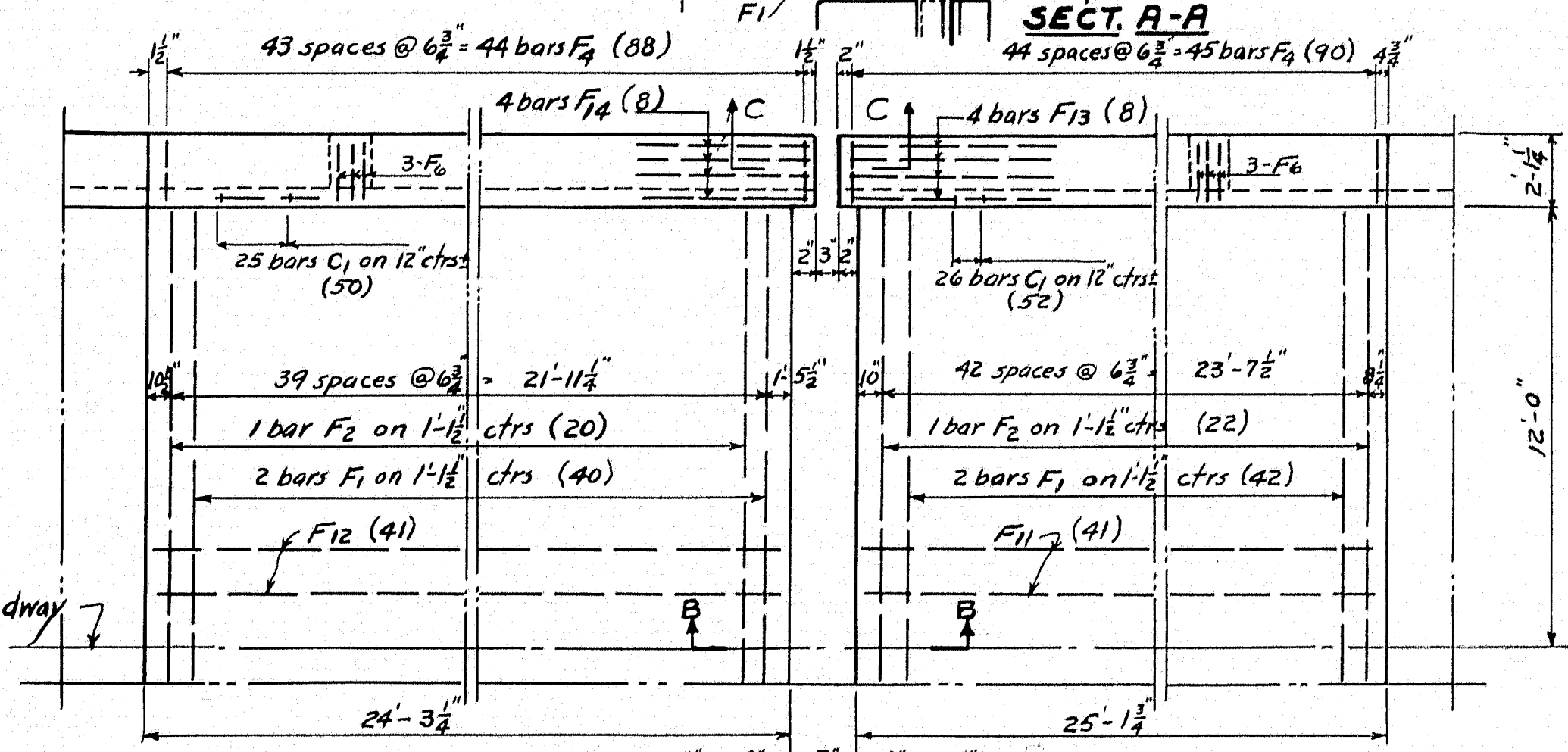


HALF PLAN - PANEL 11

HALF PLAN - PANEL 12

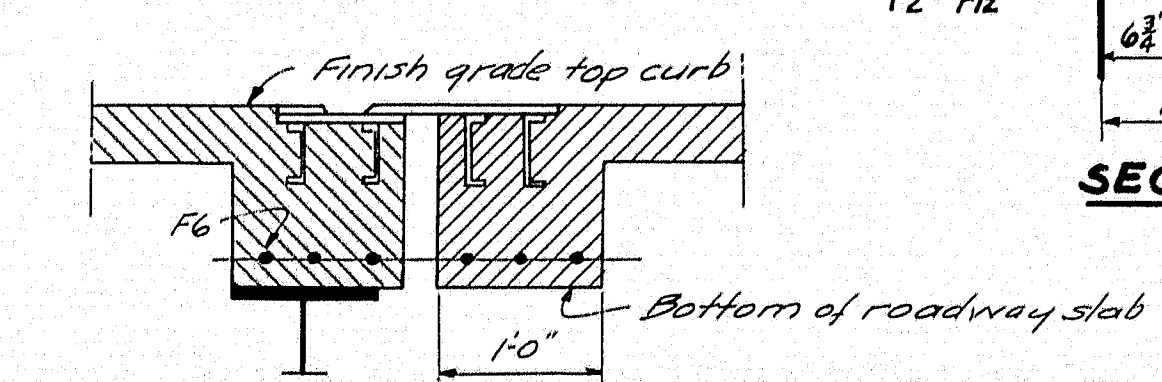


SECT. A-A



HALF PLAN
PANEL 19

HALF PLAN
PANEL 20

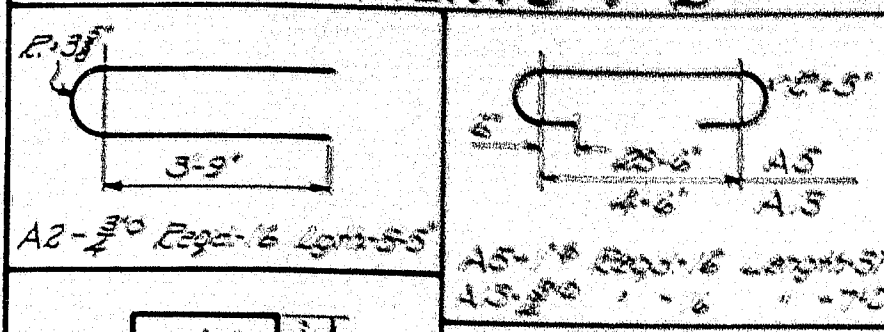
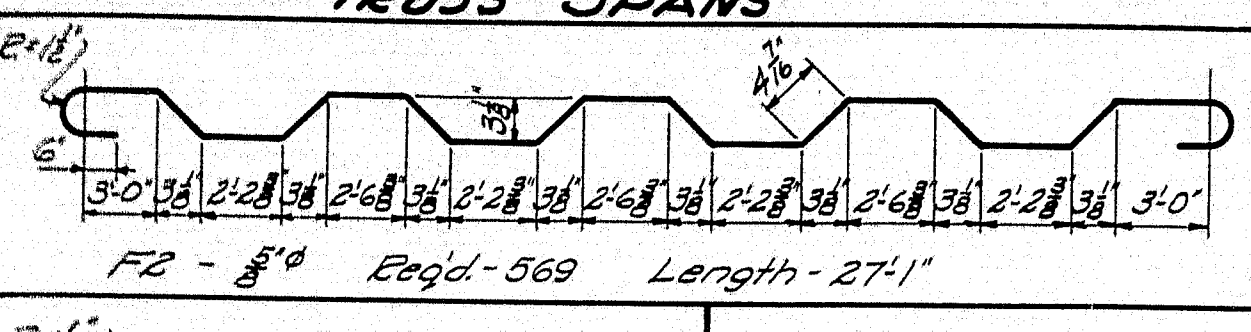
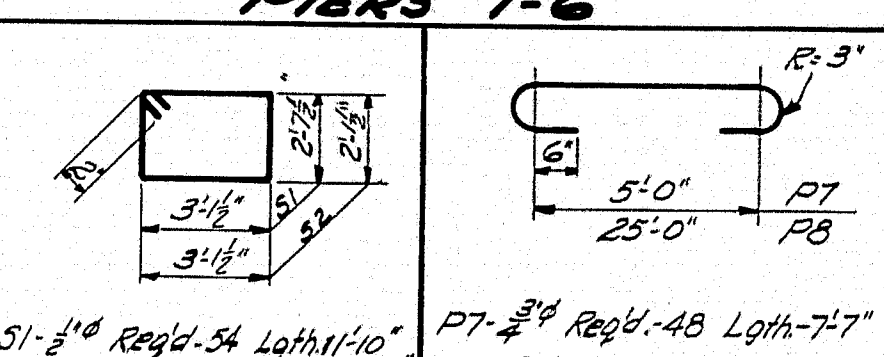
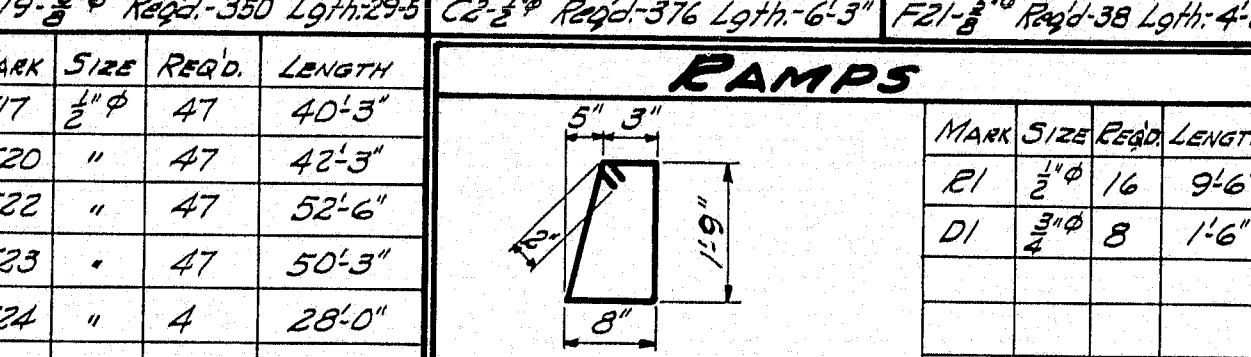
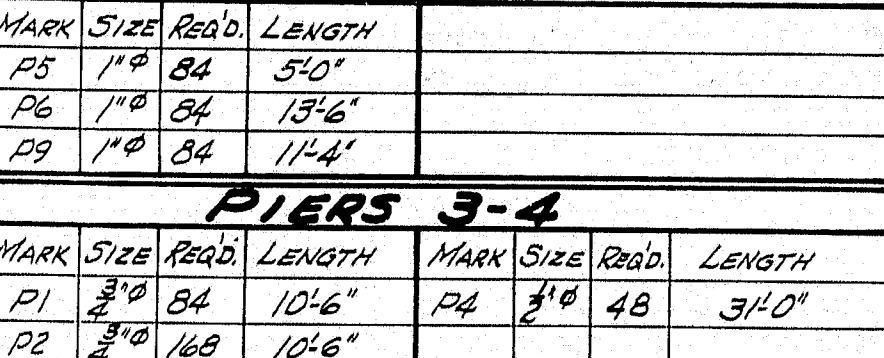
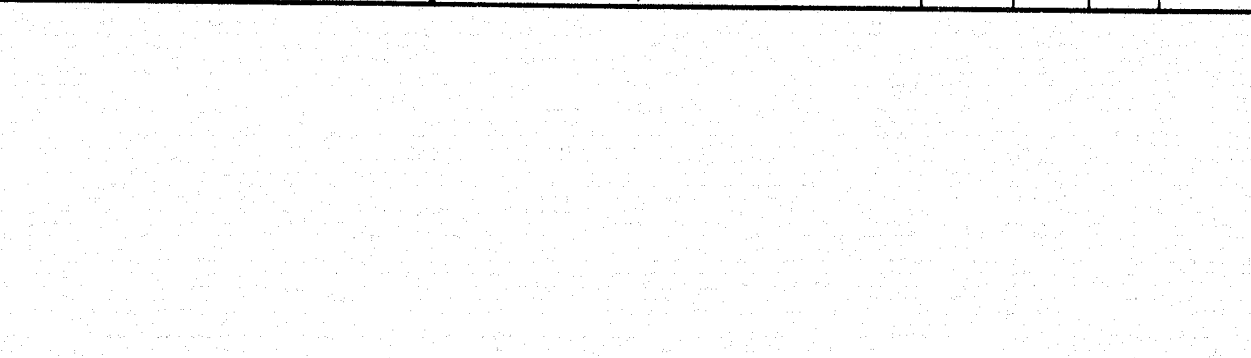


SECT. B-B

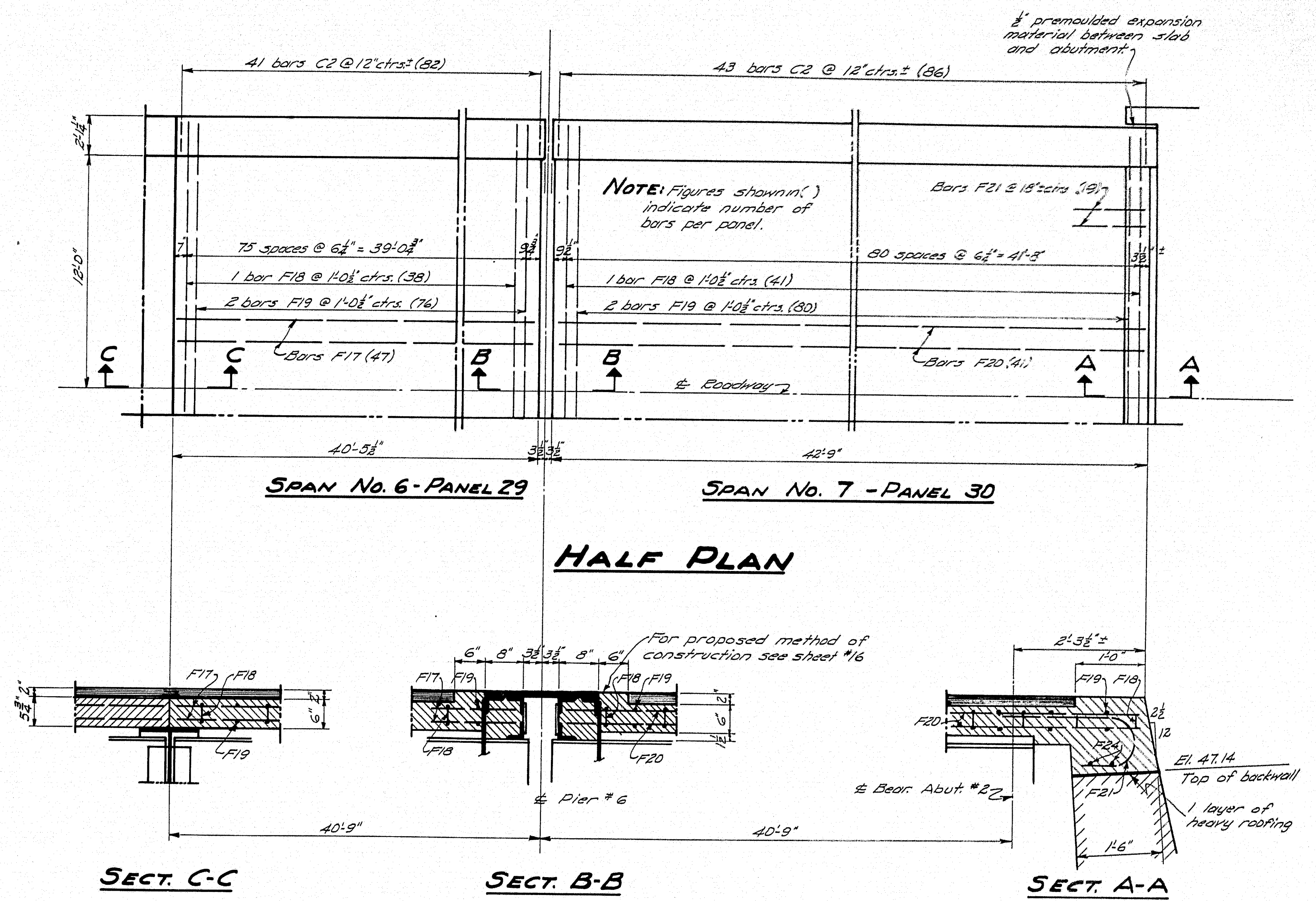


SECT. C-C

DESIGN - EVERETT
 TRACE - WELCH
 CHECK - [Signature]
 STATE HIGHWAY COMMISSION
 BRIDGE DIVISION
ARROWSIC BRIDGE
 OVER
SASANOA RIVER
 BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGadahoc COUNTY
 FLOOR PLAN - SPANS NO. 3, 4 & 5
 SHEET 35 OF 36 AUGUSTA, MAINE FEB. 1928

REINFORCING STEEL									
ABUTMENTS 1-2					TRUSS SPANS				
 <p>A2 - 3" Regd. 6 Lgth 5'5"</p> <p>A3 - 1" Regd. 6 Lgth 5'5"</p> <p>512 - 3" Regd. 32 Lgth 5'5"</p> <p>10' 3' 5 3/4" 7 3/4" 5 1/4" 4' 1 1/2"</p> <p>53 - 3" Regd. 17 Lgth 16'8"</p>					 <p>F2 - 3" Regd. 569 Length - 27'1"</p> <p>F1 - 3" Regd. 1090 Length - 26'2"</p> <p>C1 - 3" Regd. 1304 Length - 3'2"</p>				
MARK	SIZE	REQD.	LENGTH		MARK	SIZE	REQD.	LENGTH	
A1	3"	12	7'6"		F3	3"	41	25'6"	
A3	3"	12	3'0"		F4	3"	2336	1'10"	
A4	3"	8	4'0"		F5	3"	176	24'9"	
A6	1"	68	10'6"		F6	3"	598	1'10"	
A7	3"	4	29'0"		F7	3"	41	24'0"	
A8	3"	52	9'0"		F8	3"	8	24'0"	
A9	3"	36	9'6"						
A10	3"	40	8'6"						
A11	3"	14	4'6"						
A12	3"	14	3'6"						
A14	3"	12	6'10"						
K	3"	24	8'0"						
PIERS 1-6					APPROACH SPANS 1-2-6-7				
 <p>S1 - 3" Regd. 34 Lgth 11'10"</p> <p>S2 - 3" Regd. 34 Lgth 11'10"</p> <p>P7 - 3" Regd. 48 Lgth 7'7"</p> <p>P8 - 3" Regd. 48 Lgth 7'7"</p>					 <p>F18 - 3" Regd. 177 Length - 30'4"</p> <p>F19 - 3" Regd. 380 Lgth 29'5"</p> <p>C2 - 3" Regd. 376 Lgth 6'3"</p> <p>F21 - 3" Regd. 38 Lgth 4'8"</p>				
MARK	SIZE	REQD.	LENGTH		MARK	SIZE	REQD.	LENGTH	
P5	1"	84	5'0"		F17	3"	47	40'3"	
P6	1"	84	13'6"		F20	"	47	42'3"	
P9	1"	84	11'4"		F22	"	47	52'6"	
					F23	"	47	50'3"	
					F24	"	4	28'0"	
PIERS 3-4					RAMPS				
 <p>P1 - 3" Regd. 84 Lgth 10'6"</p> <p>P2 - 3" Regd. 168 Lgth 10'6"</p> <p>P3 - 3" Regd. 42 Lgth 13'0"</p>					 <p>R2 - 3" Regd. 40 Lgth 4'9 1/2"</p>				
MARK	SIZE	REQD.	LENGTH		MARK	SIZE	REQD.	LENGTH	
P1	3"	84	10'6"		R1	3"	16	9'6"	
P2	3"	168	10'6"		D1	3"	8	1'6"	
P3	3"	42	13'0"						

Dimensions to center of bars.

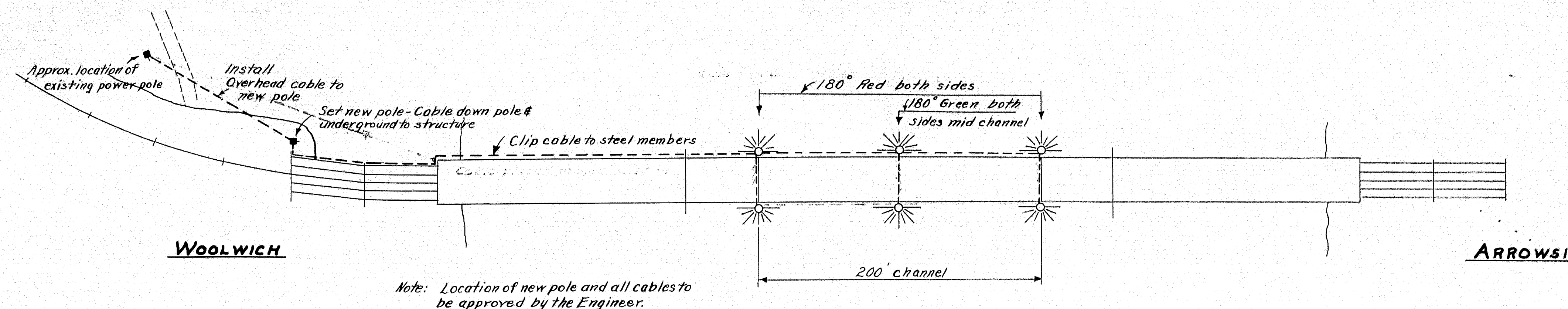


NOTE: For transverse section of spans 6-7 see Floor Plan Spans 3-4-5

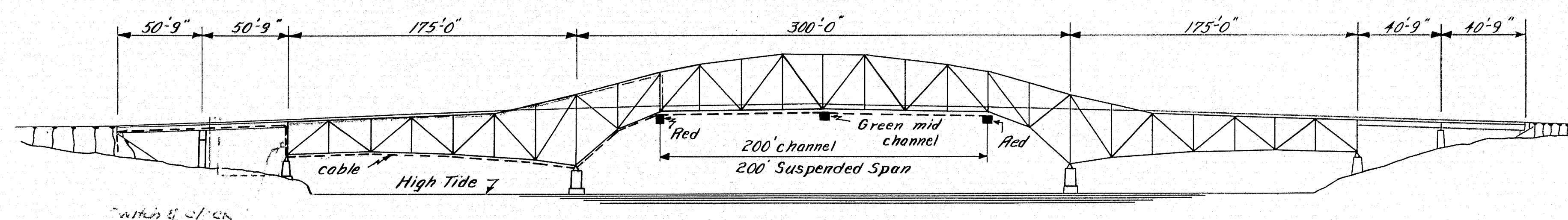
DESIGN - EVERETT
TRADE - CLARK
CHECK - [Signature]

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

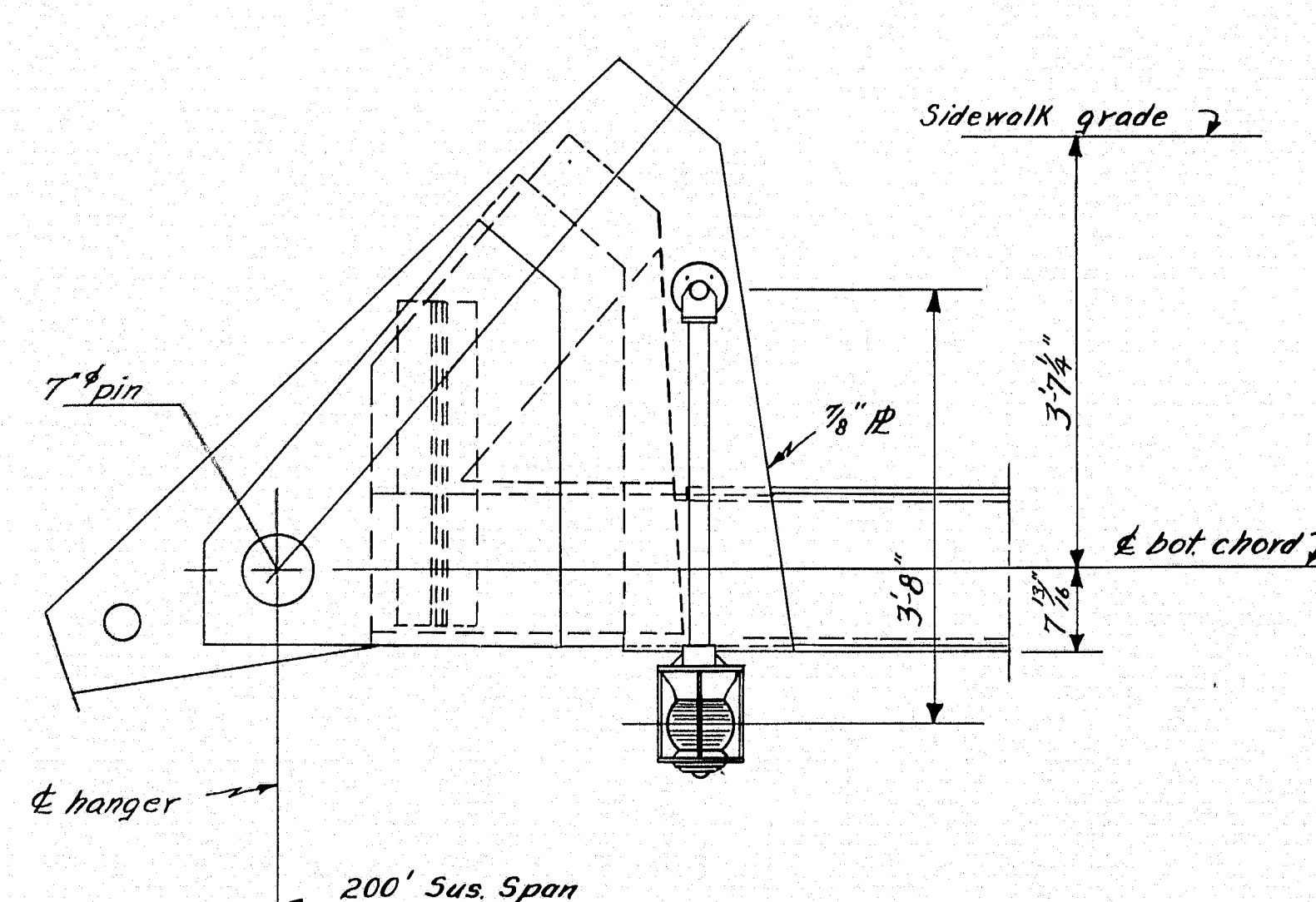
ARROWSIC BRIDGE
OVER
SASANOA RIVER
BETWEEN THE TOWNS OF
ARROWSIC & WOOLWICH
SAGadahoc COUNTY
FLOOR PLAN - SPANS NO. 6 & 7
SHEET 36 OF 36 AUGUSTA, MAINE FEB.



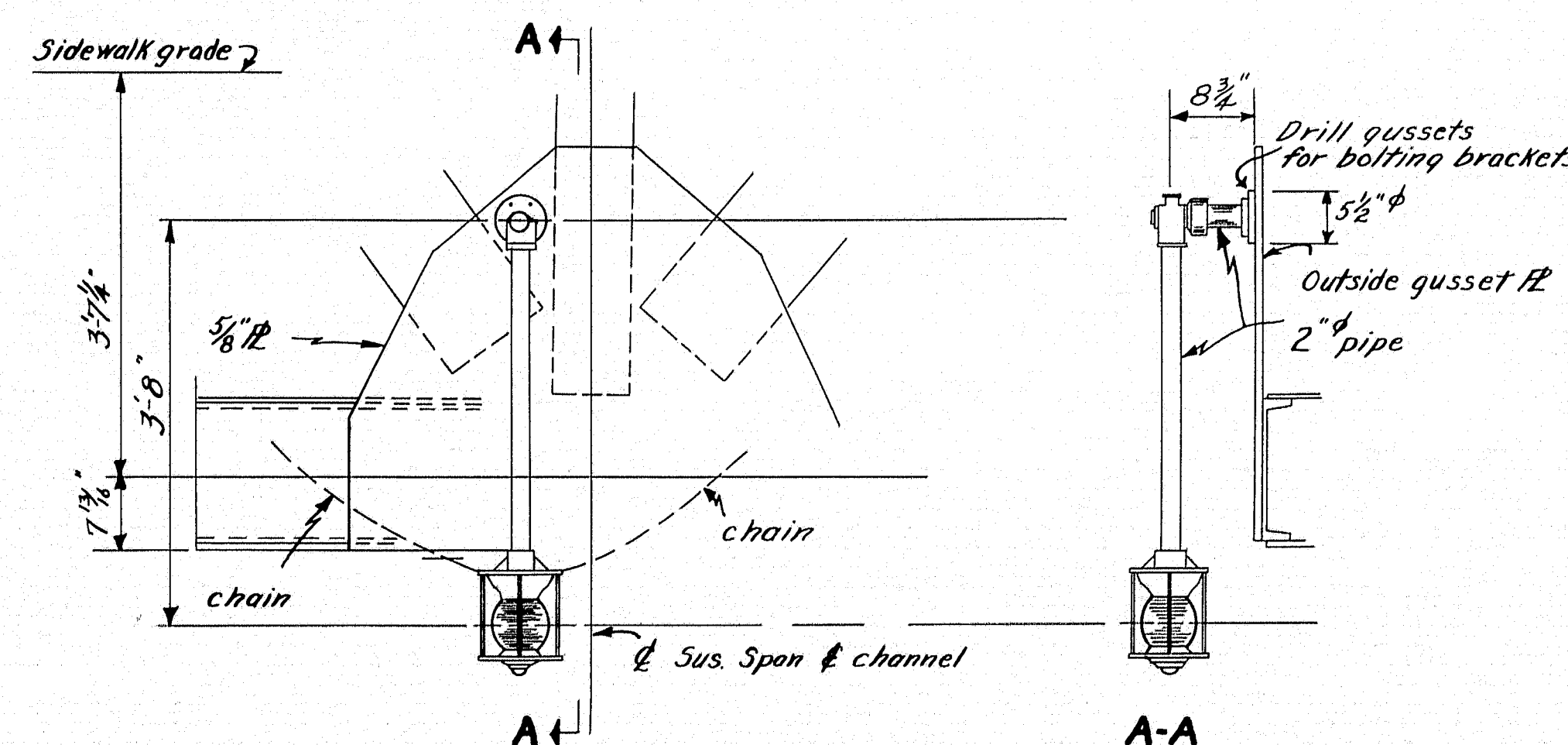
PLAN



ELEVATION



**TYPICAL DETAIL
CHANNEL SIDE LIGHT**



**TYPICAL DETAIL
MID-CHANNEL SPAN LIGHT**

NOTE: Two chains to be attached to each light. Chains will be suitable for pivoting light into an upright position to permit routine maintenance and also to keep light in proper position at other times. One end of each chain to be permanently attached to the sidewalk rail bar or post, while the opposite end of the other chain will be attached to rail bar or post and fastened with a suitable lock. Lock to be provided with two keys. Exact location of lights, lengths of chains and methods of attaching same to be approved by the Engineer.

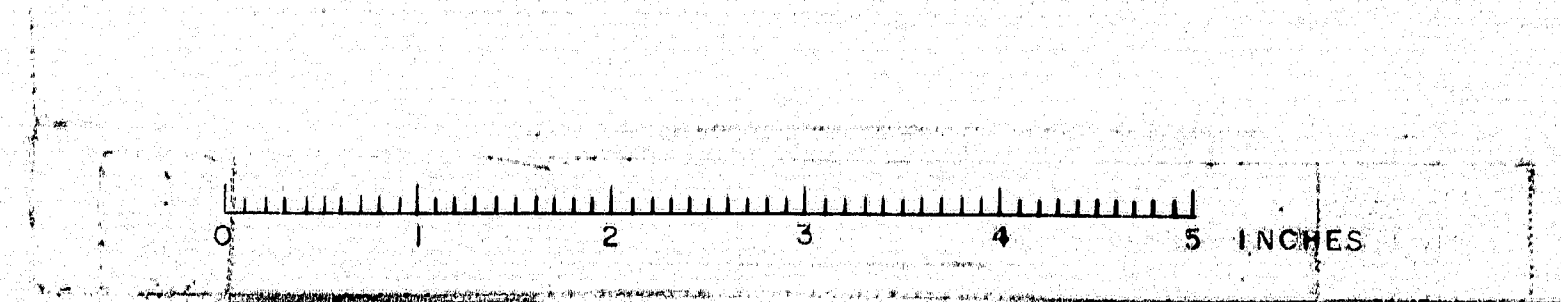
REQUIRED TO INSTALL:

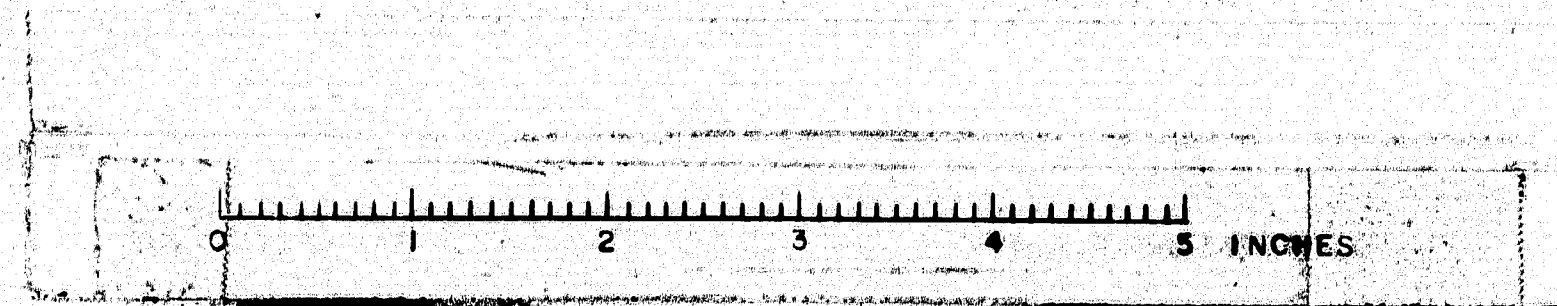
2 Mid-Channel Span lights, 180° green spheroidal lens, suspension pivot attachment dimensions as shown.
4-Channel side lights, same as above, except 180° Red. Above to be cast aluminum spheroidal lens electric navigation lights to conform to U.S. Dept. of Commerce. Lights and fixtures to be ARMSPEAR or equivalent.
1-Heavy duty time switch with astronomic dial (latitude 45°) to automatically turn lights on at sunset and off at sunrise. To be Westinghouse or equivalent.

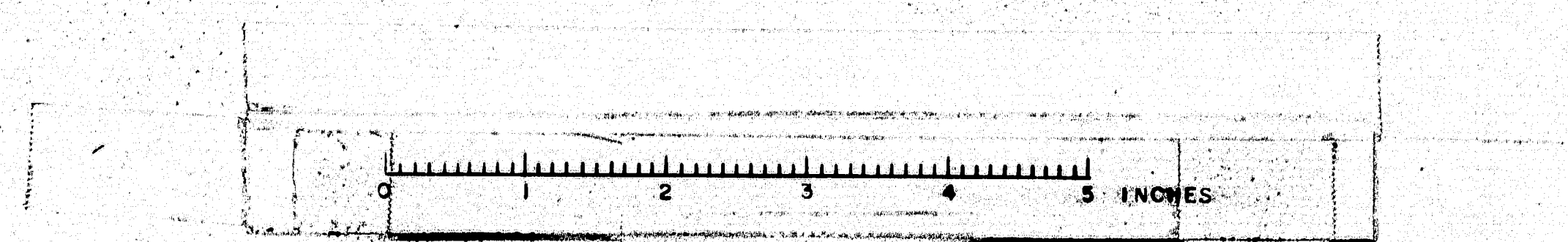
DESIGN - EVERETT	STATE HIGHWAY COMMISSION
CHECK - HAMILTON	BRIDGE DIVISION
TRACE - BACHELDER	
ARROWSIC BRIDGE	
OVER	
SASANOA RIVER	
BETWEEN THE TOWNS OF	
ARROWSIC & WOOLWICH	
SAGadahoc COUNTY	
PROPOSED DETAILS NAVIGATION LIGHTS	
SHEET 36A OF 36 AUGUSTA, MAINE JULY	

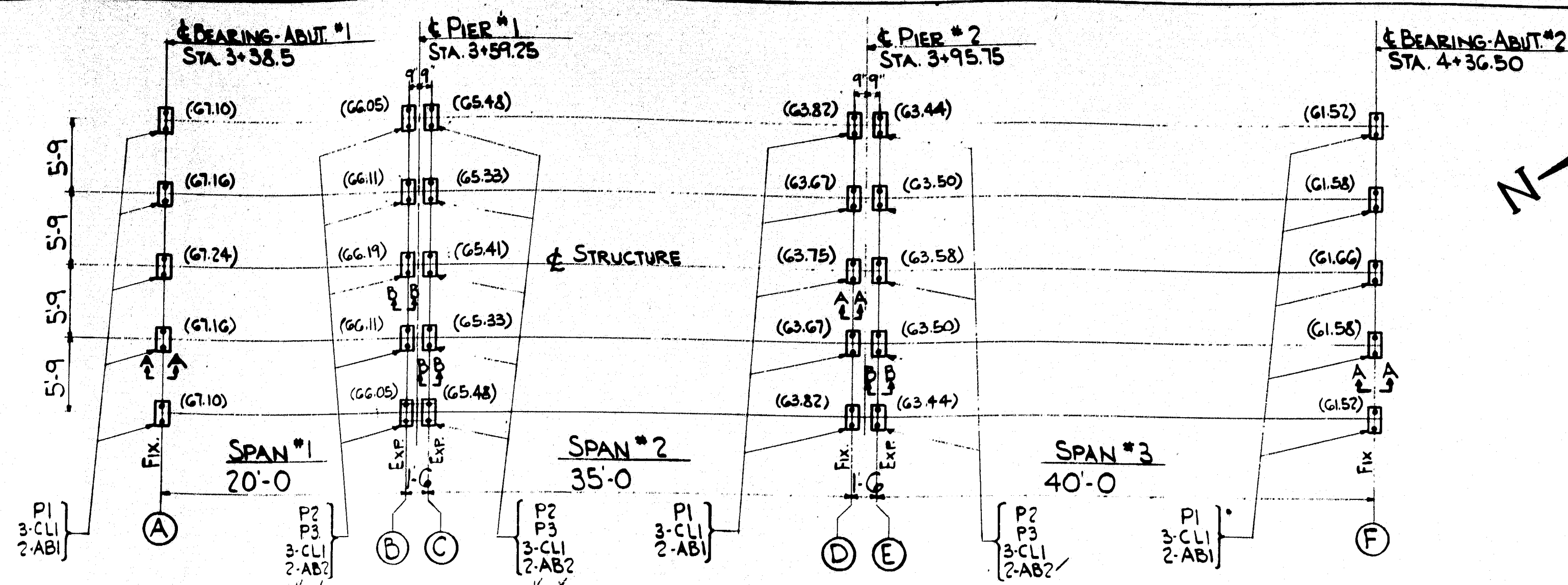
Field checked by G. C. ...

48-100

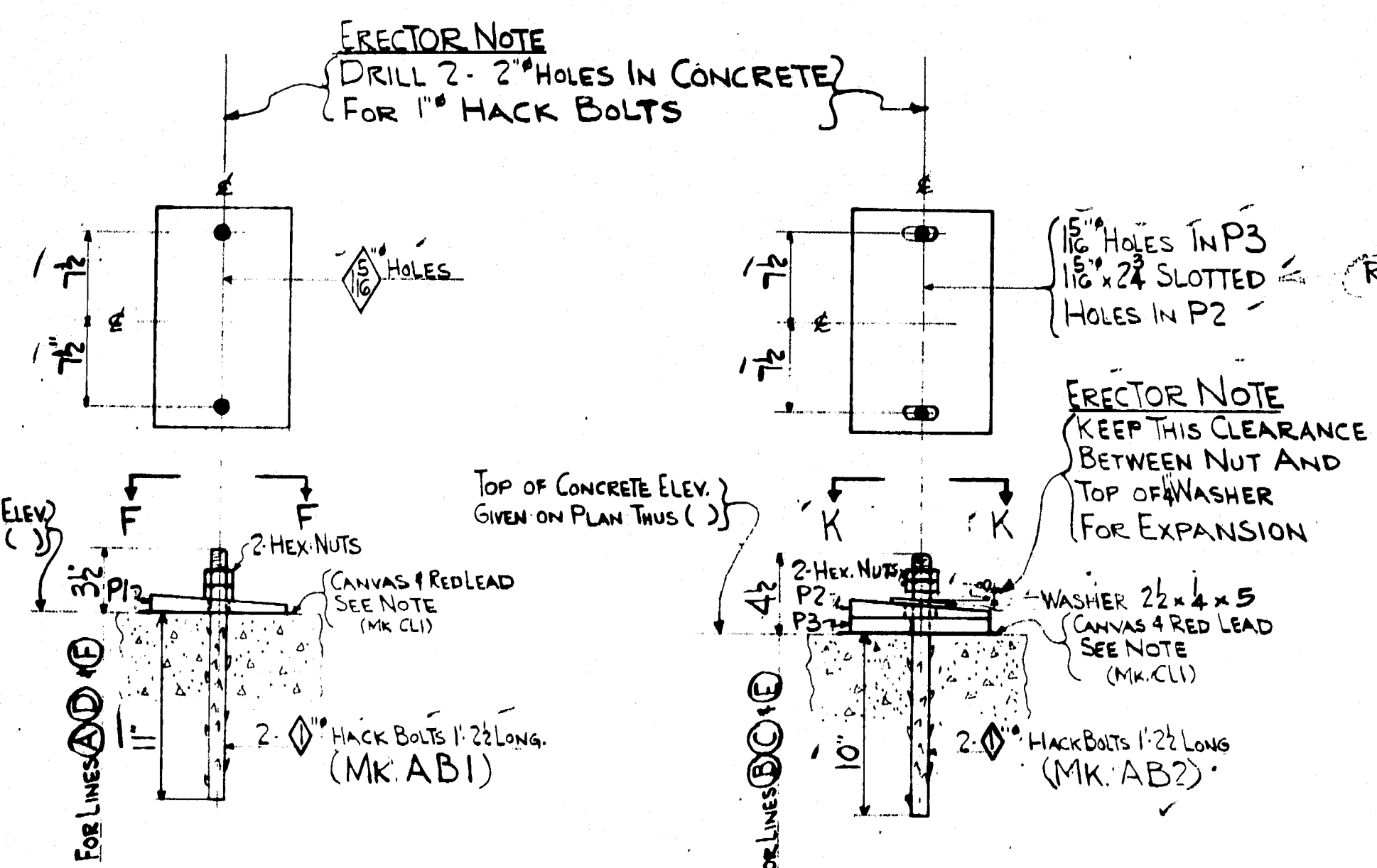






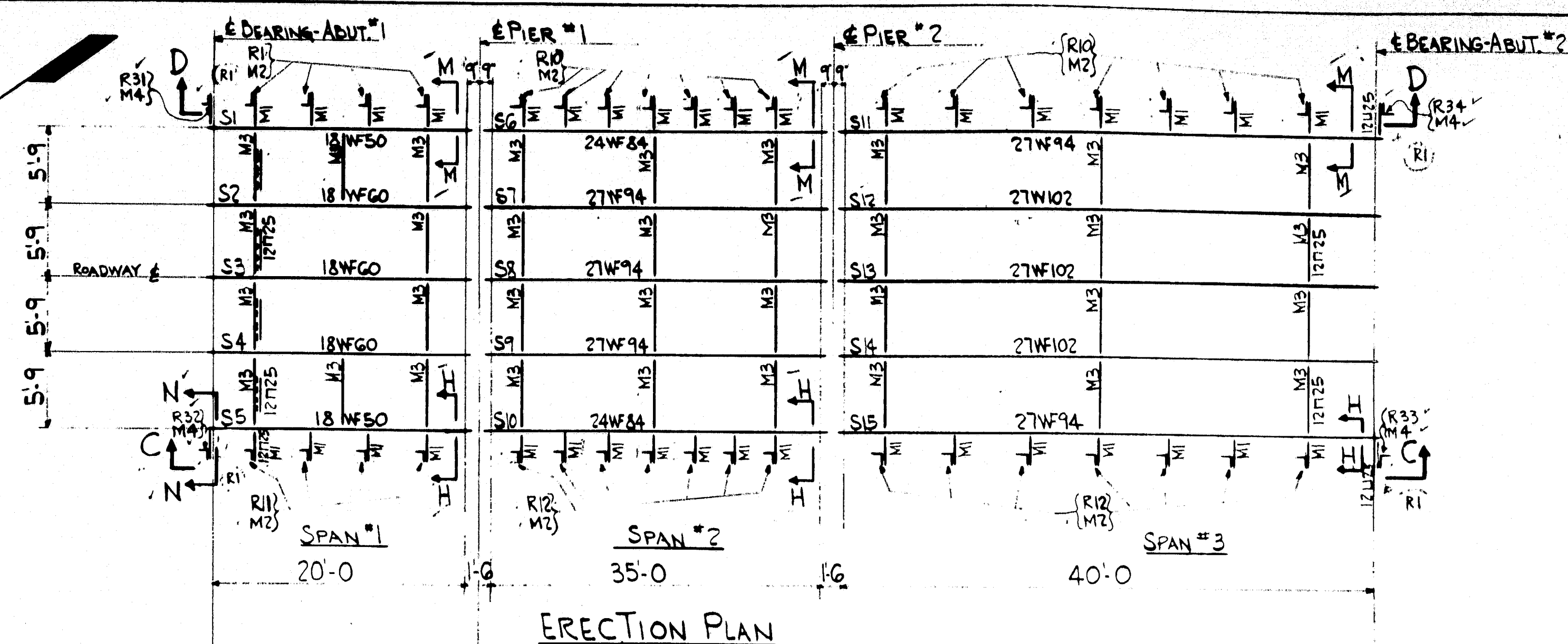
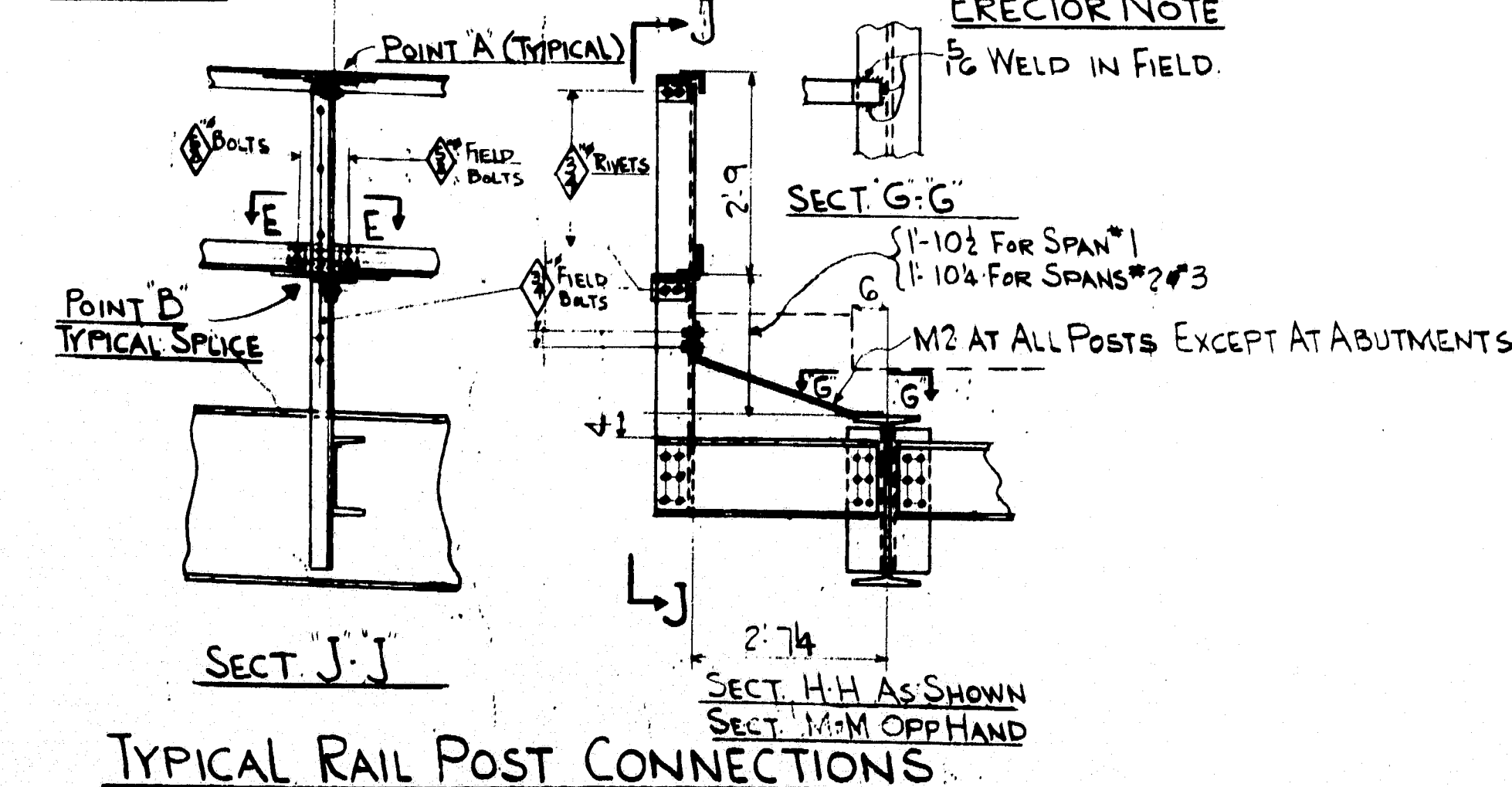
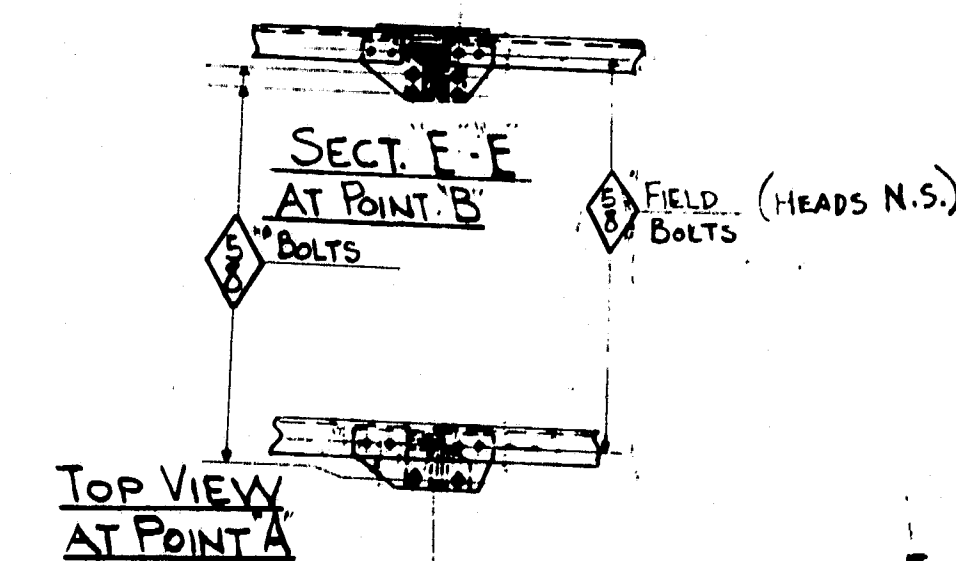
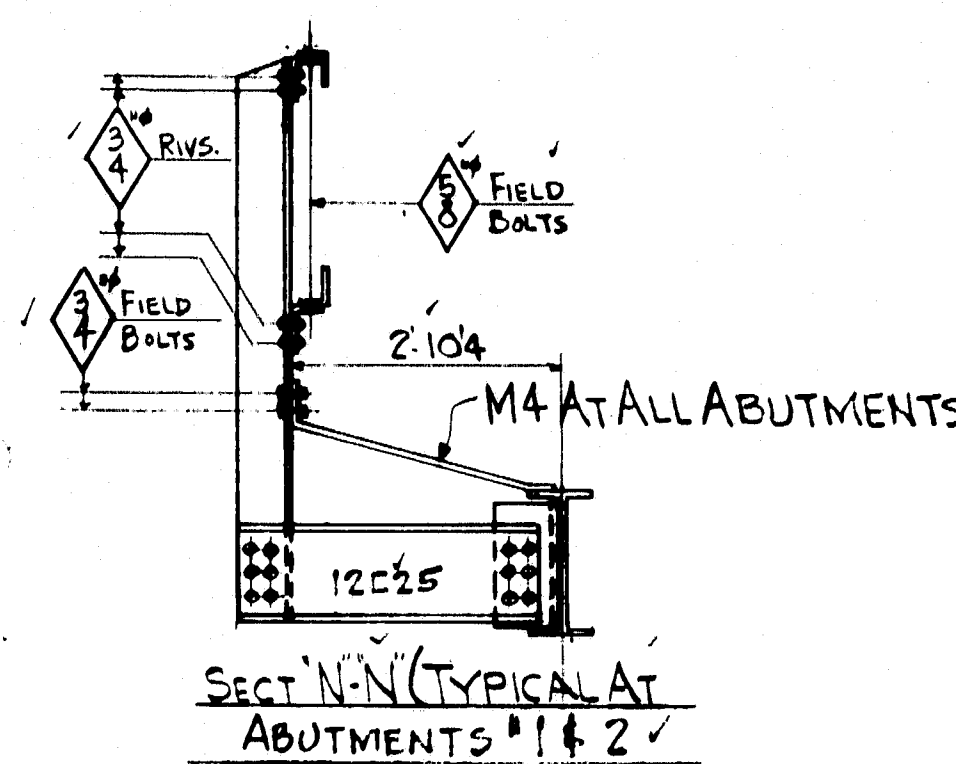
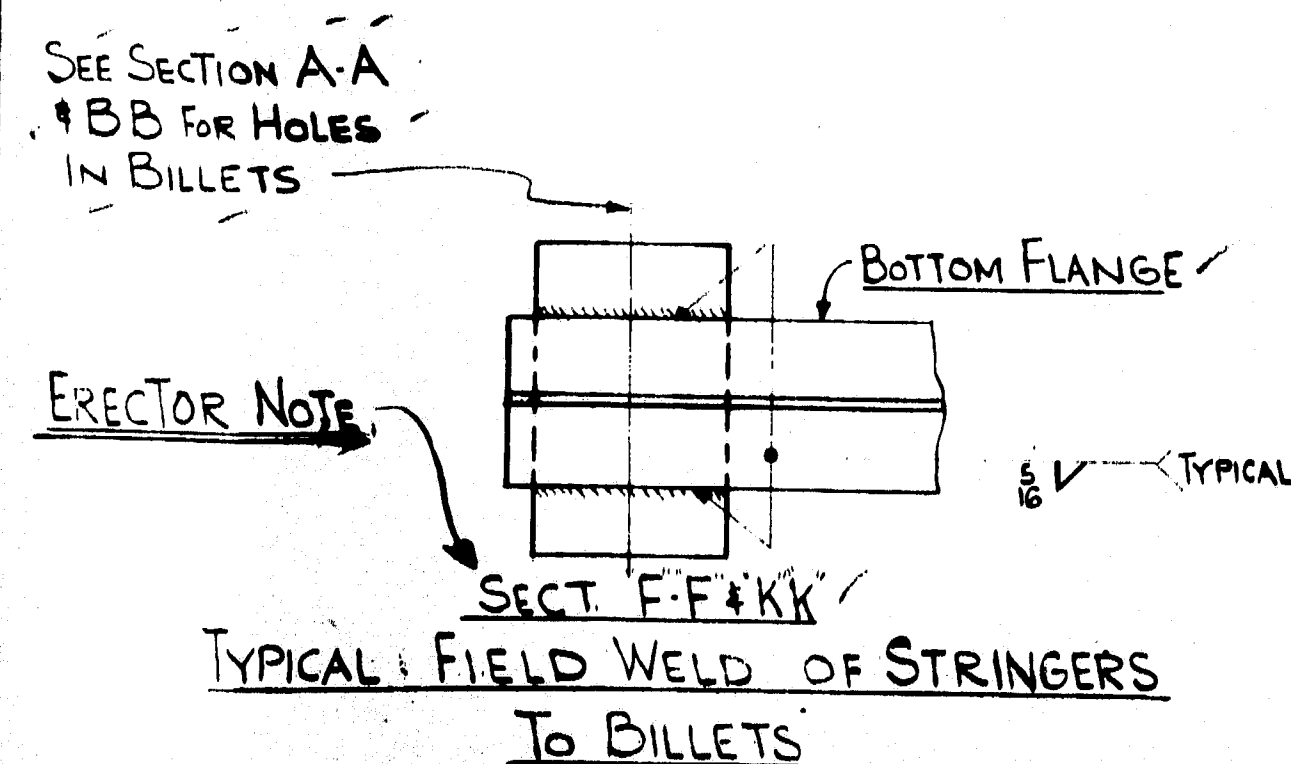


BILLET AND ANCHOR BOLT PLAN

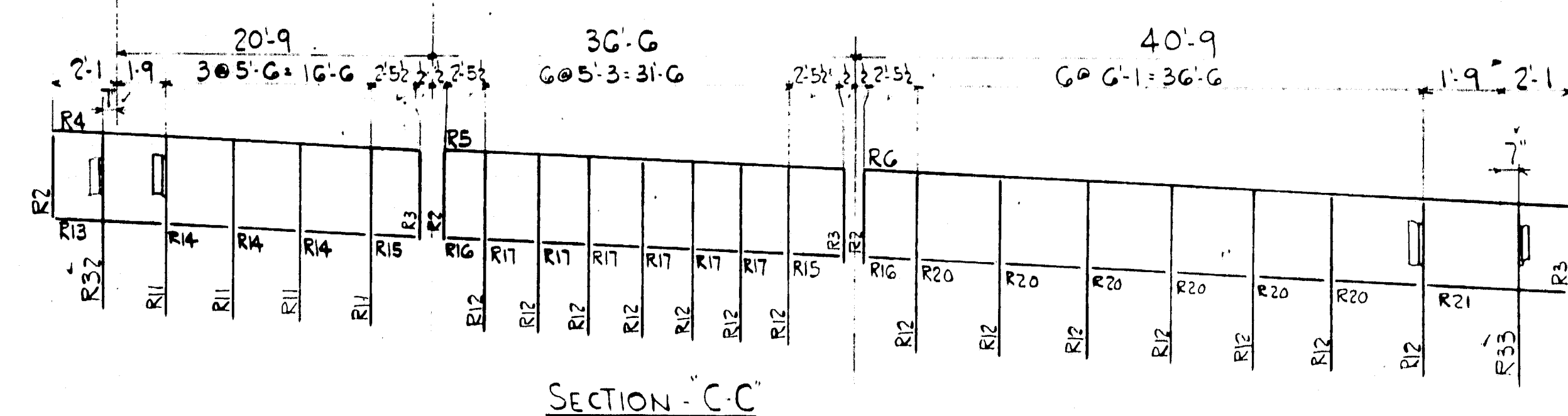


SECT. A-A LINES (A) (D) (F)

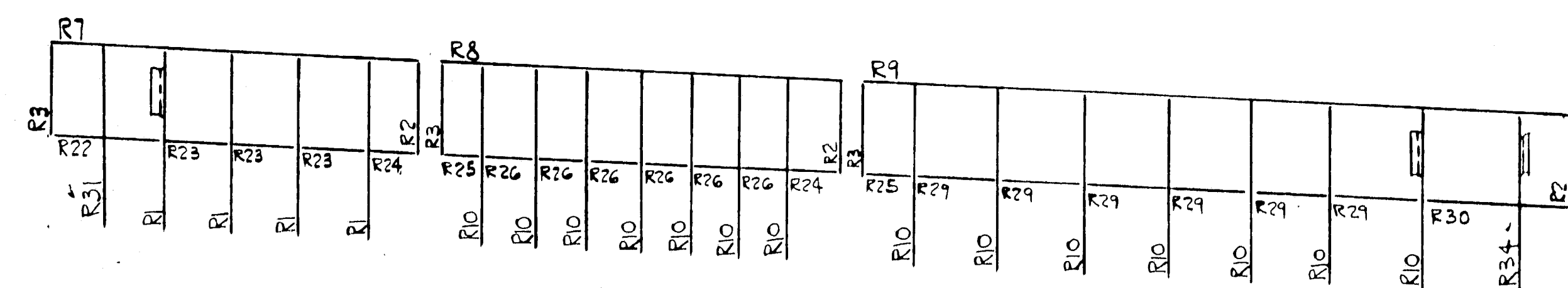
SECT. B-B LINES (B) (C) (E)



ERECTION PLAN



SECTION C-C



SECTION D-D

FOR TYPICAL DETAILS OF RAILING AND WIRE MESH SEE SHEET E104. UNLESS NOTED RIVETS & BOLTS 3" OPEN HOLES 1 1/2".

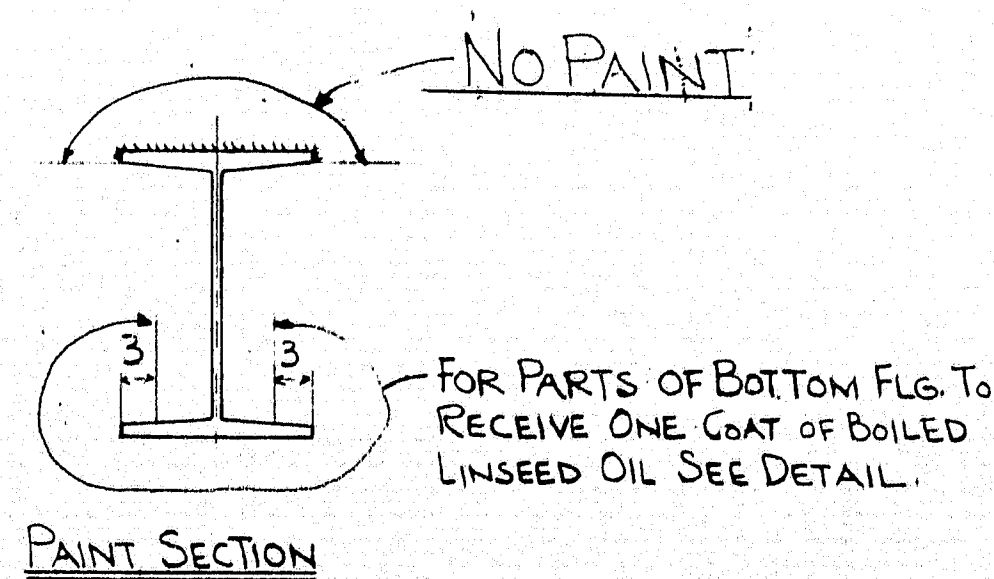
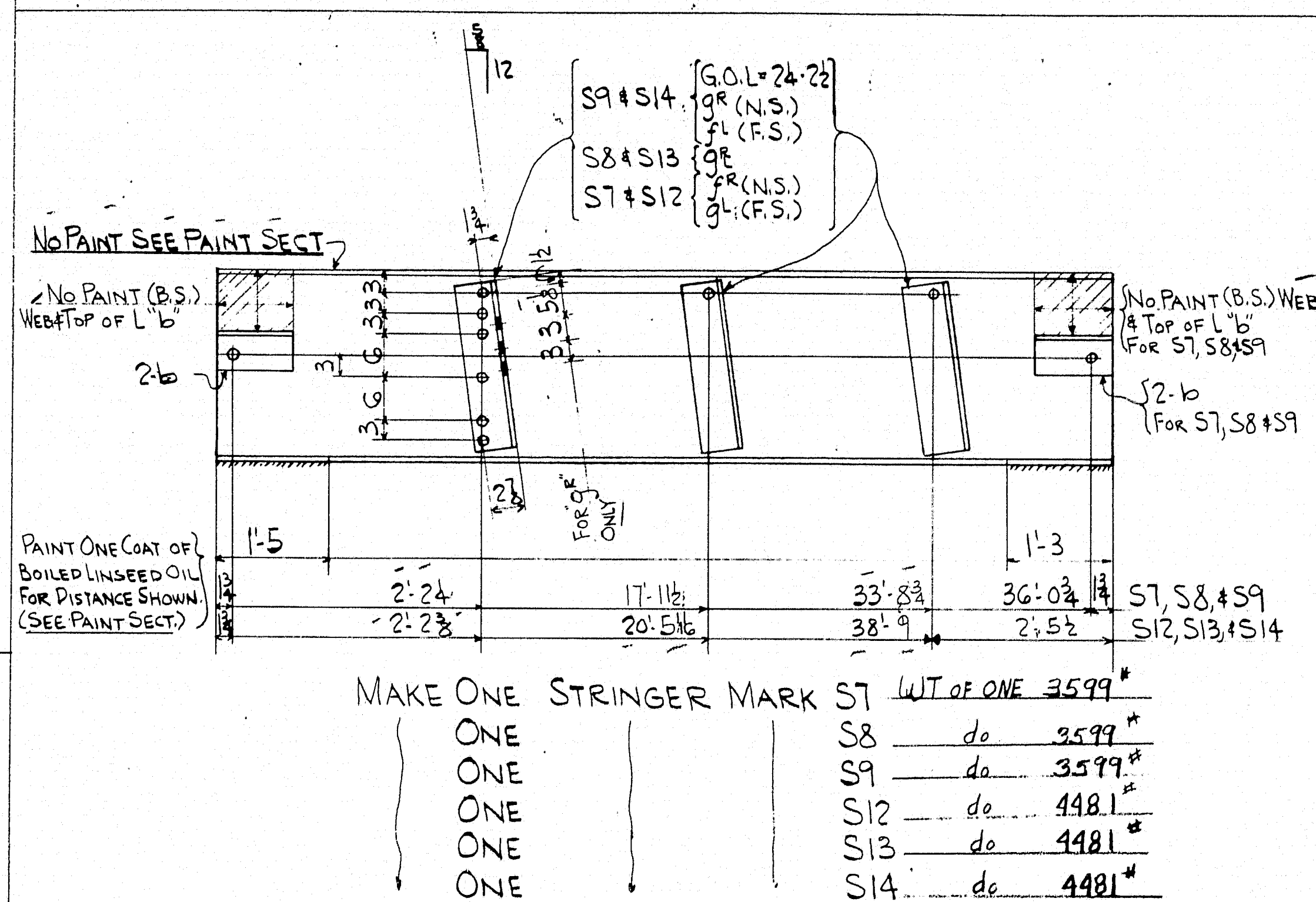
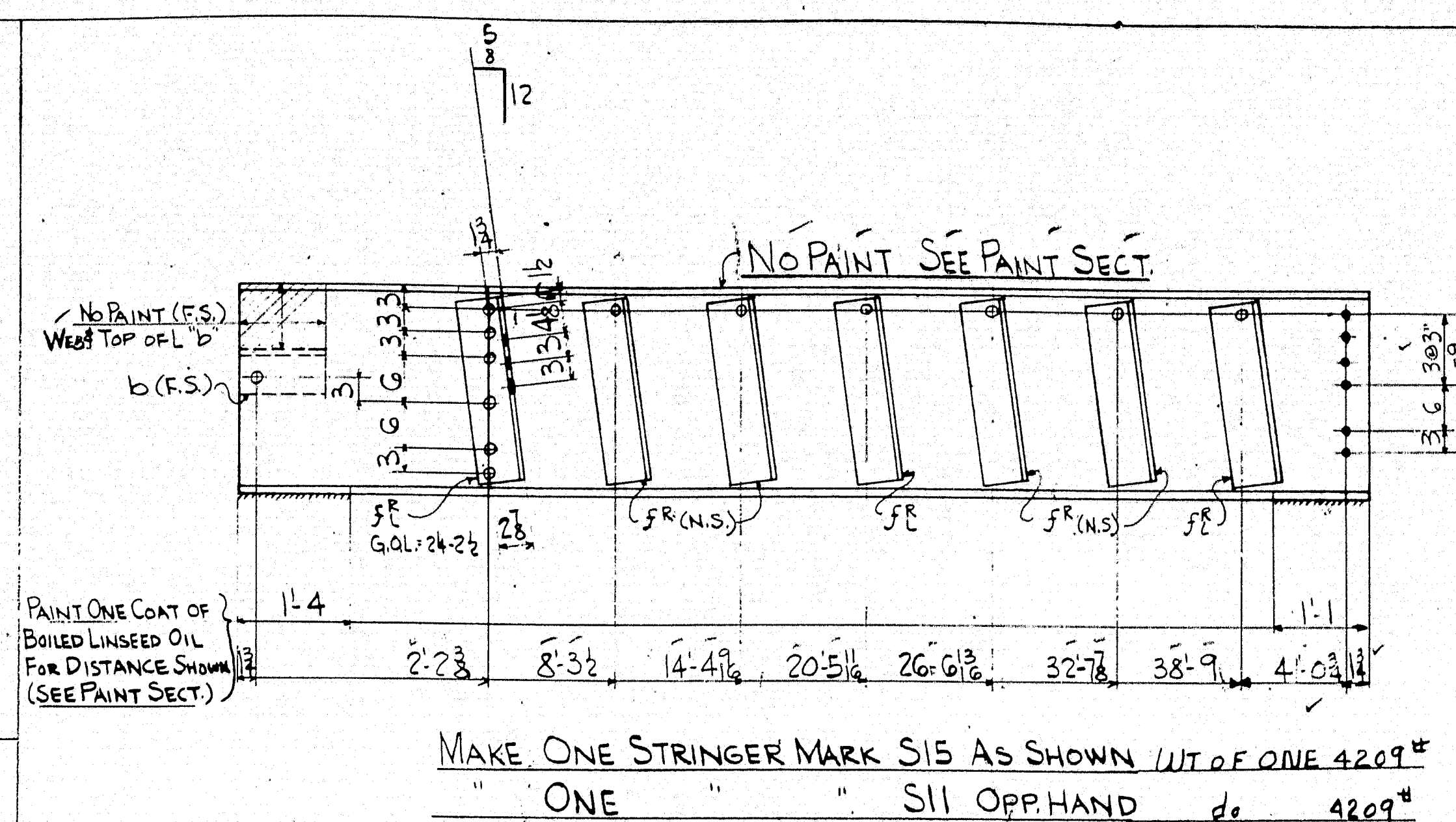
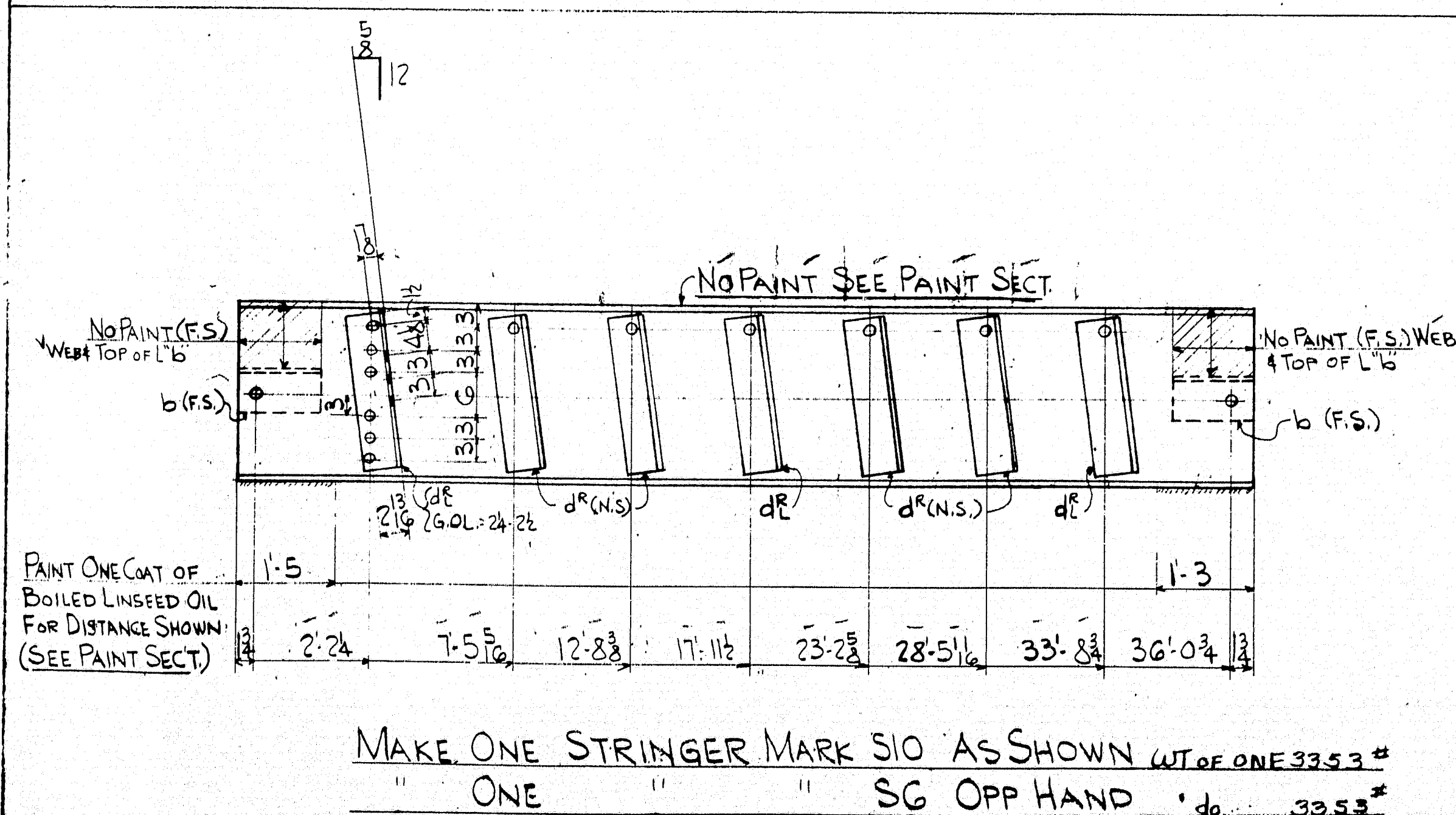
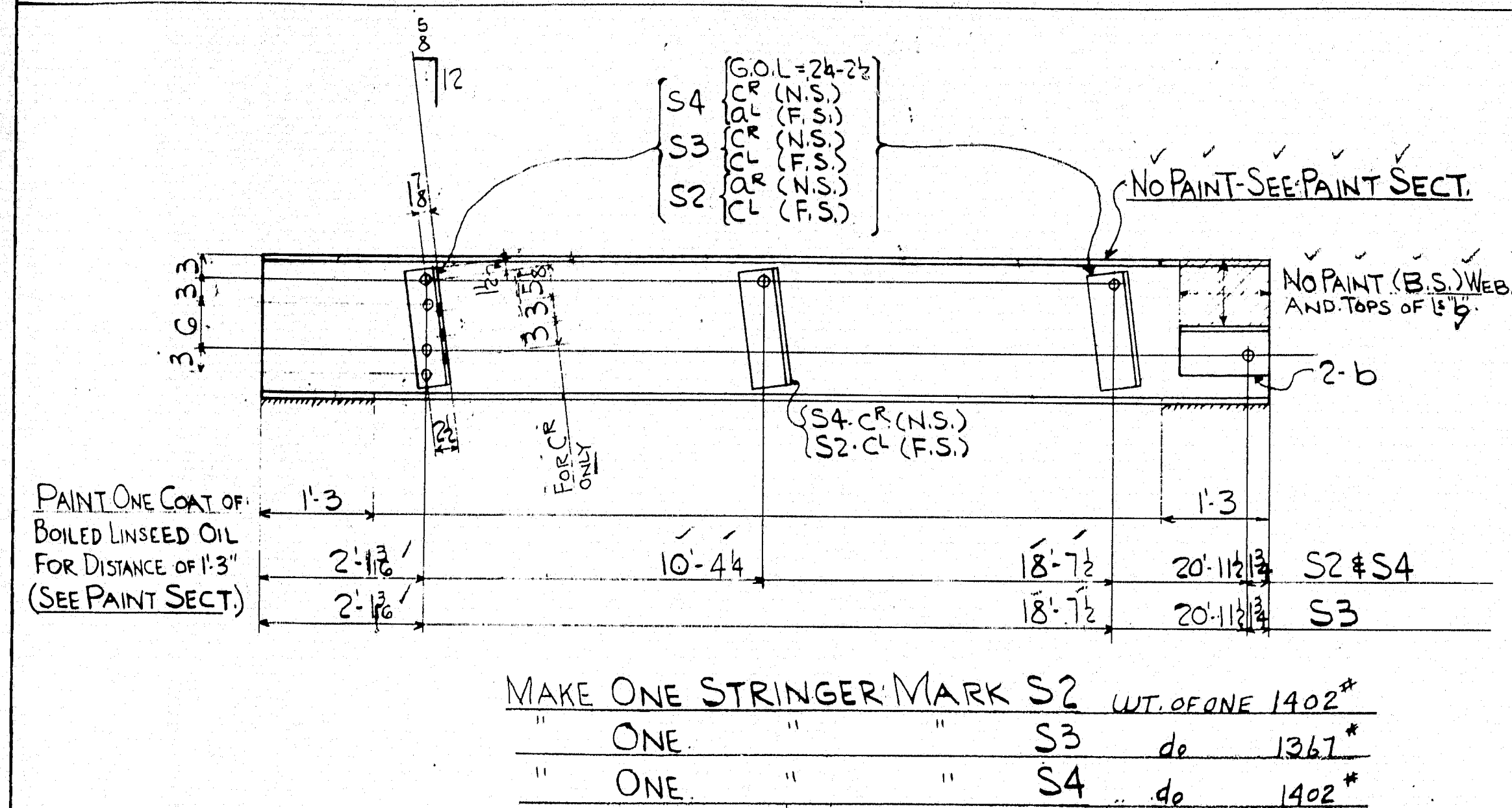
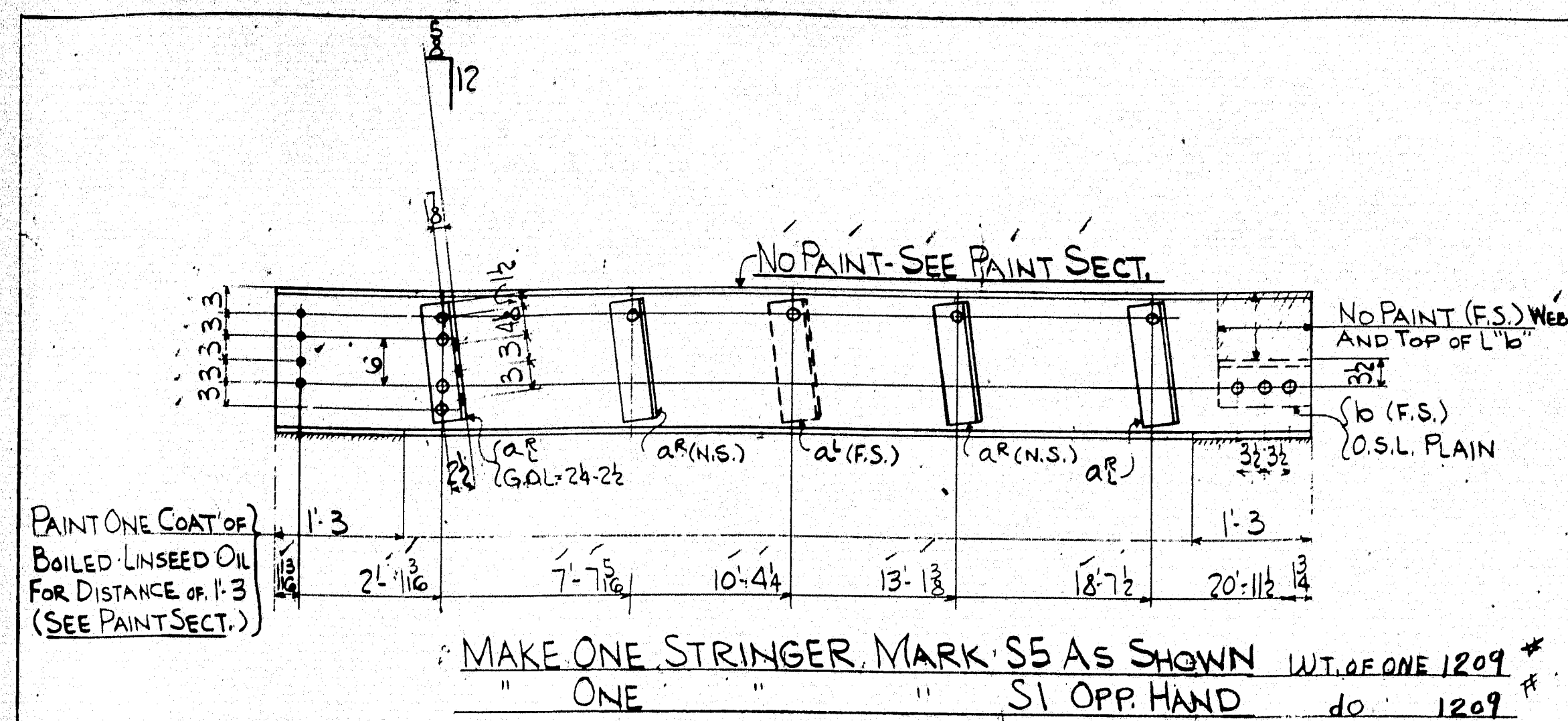
ELEVS. GIVEN THUS () ARE TO TOP OF CONCRETE. WHERE CANVAS & RED LEAD IS SHOWN ON PLAN PROVIDE 3 LAYERS OF CANVAS DUCK 12-14 OZ. WITH RED LEAD TO BE APPLIED AS FOLLOWS:

THOROUGHLY SWAB THE TOP SURFACE OF THE BRIDGE SEAT BEARING AREA WITH RED LEAD PAINT AND RACE UPON IT THREE LAYERS OF 12-14 OZ. DUCK, EACH LAYER BEING THOROUGHLY SWABBED ON ITS TOP SURFACE WITH RED LEAD PAINT. PLACE IN POSITION THE BEARING PLATES WHILE THE PAINT IS PLASTIC. PIECES OF CANVAS DUCK ARE MARKED CL1.

HOLES FOR HACK BOLTS TO BE DRILLED 1" LARGER THAN DIAMETER OF BOLT. HACK BOLTS TO BE GROUTED IN ACCORDING TO SPECIFICATIONS.

ALL BOLTS HEX HD. HEX NUT.

SHEET TITLE		ANCHOR BOLT BILLETS ERECTION PLANS	
STRUCTURE		ARROWSIC ROAD OVERPASS	
LOCATION		OVER MAINE CENTRAL R.R. TRACKS	
PUN. CHASER		HAT'S STRUCTURAL STEEL CO., INC.	
NEW YORK CITY AND NEW MARKET, N. Y.			
WIDEN BY	3	DATE	1/20/50
CHECKED BY	7	DATE	1/22/50
CONTRACT NO.		C378 SHEET NO. E1	



REQD	No	MARK	No	F.M.K.	SIZE	LENGTH	REMARKS	ORD	WEIGHT
AS SHOWN	1	S5	1		18WF50	21'-14"		9-418-6	1055.
OPP. HAND	1	S1	1		18WF50	21'-14"		do	1055.
			14	a ^R	16x4x1/2	1'-3"		1-21	250.
			2	b	16x4x1/2	10'		1-16	29.
			46	RVS.	8"				17.
	1	S2	1		18WF50	21'-14"		9-418-5	1266.
	1	S3	1		do	21'-14"		do	1266.
	1	S4	1		do	21'-14"		do	1266.
			4	a ^R	16x4x1/2	1'-3"		1-21	72.
			10	c ^R	16x4x1/2	1'-3"		do	179.
			41	RVS.	8"			1-16	86.
									15.
AS SHOWN	1	S10	1		24WF84	36'-2"		9-418-4	3042.
OPP. HAND	1	S6	1		24WF84	36'-2"		do	3042.
			20	d ^R	16x4x1/2	1'-9"		1-21	501.
			4	b	16x4x1/2	1'-9"		1-16	57.
			96	RVS.	8"				35.
AS SHOWN	1	S15	1		27WF94	41'-2"		9-418-7	3874.
OPP. HAND	1	S11	1		27WF94	41'-2"		do	3874.
			20	f ^R	16x4x1/2	2'-0"		1-21	572.
			2	b	16x4x1/2	2'-0"		1-16	29.
			90	RVS.	8"				32.
	1	S7	1		27WF94	36'-2"		9-418-3	3404.
	1	S8	1		27WF94	36'-2"		-3	3404.
	1	S9	1		27WF94	36'-2"		-3	3404.
	1	S12	1		27WF102	41'-2"		-1	4203.
	1	S13	1		27WF102	41'-2"		-1	4203.
	1	S14	1		27WF102	41'-2"		-1	4203.
			12	f ^R	16x4x1/2	2'-0"		1-21	343.
			24	g ^R	16x4x1/2	2'-0"		do	686.
			18	b	16x4x1/2	2'-0"		1-16	257.
			135	RVS.	8"				49.
									15770.
									45770.
									183.
									45953.

BEAMS FOR SPANS OVER MAINE
CENTRAL RAILROAD TRACKS

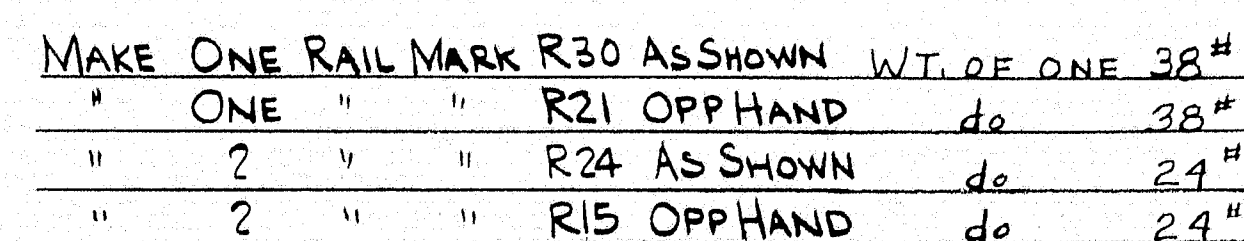
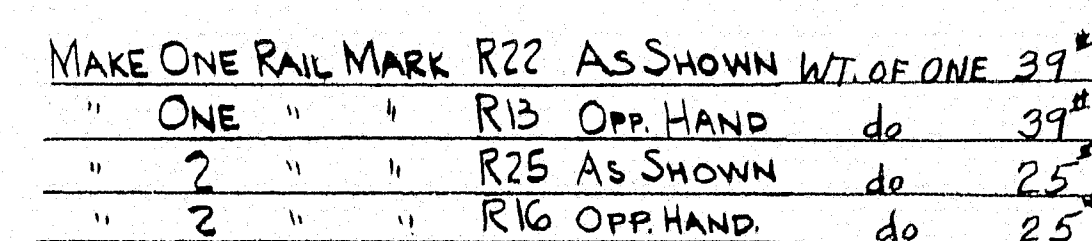
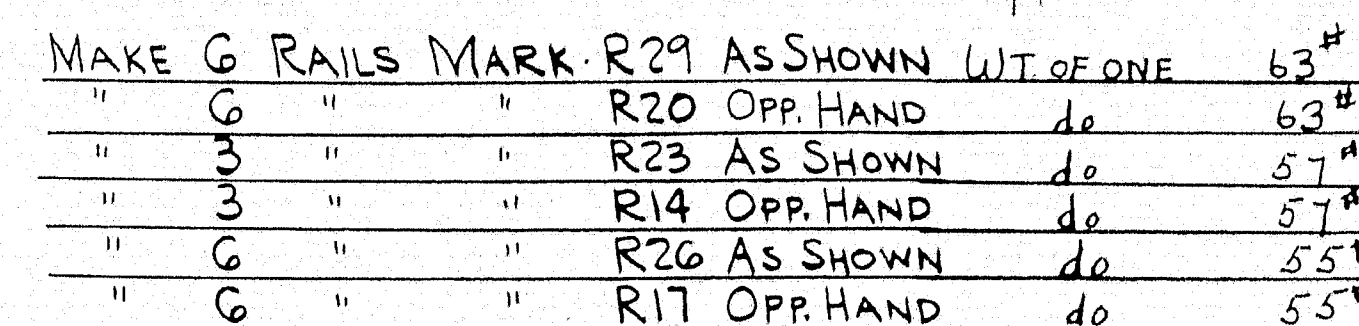
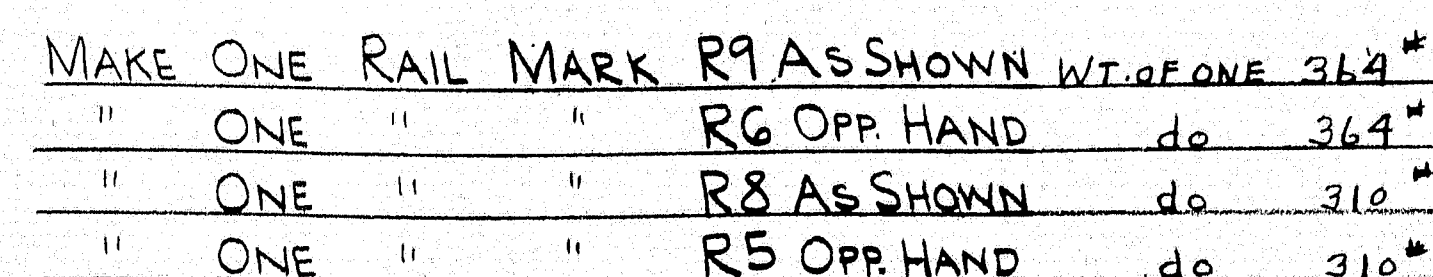
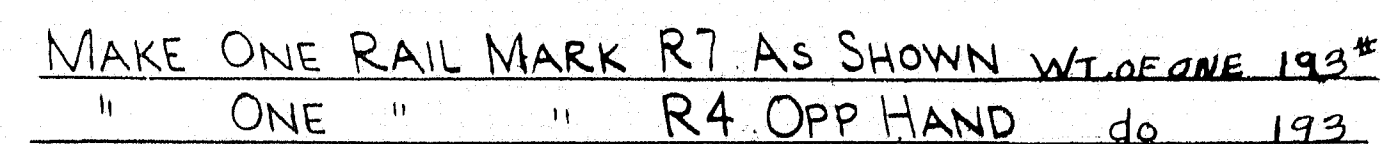
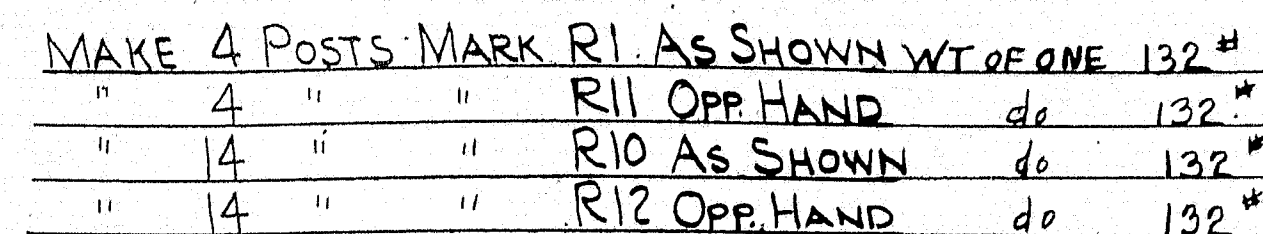
ARROWSIC BRIDGE OVER SASANOA RIVER
ARROWSIC - WOOLWICH
FED. AID PROJ. No. S-154 (2)
CONTRACT No. 2

FOR NOTES ON SPECIFICATIONS, MATERIAL,
PAINTING, PUNCHING, DRILLING, REAMING, ETC.
SEE SHEET X50

REVISED	No	DATE	BY	REMARKS

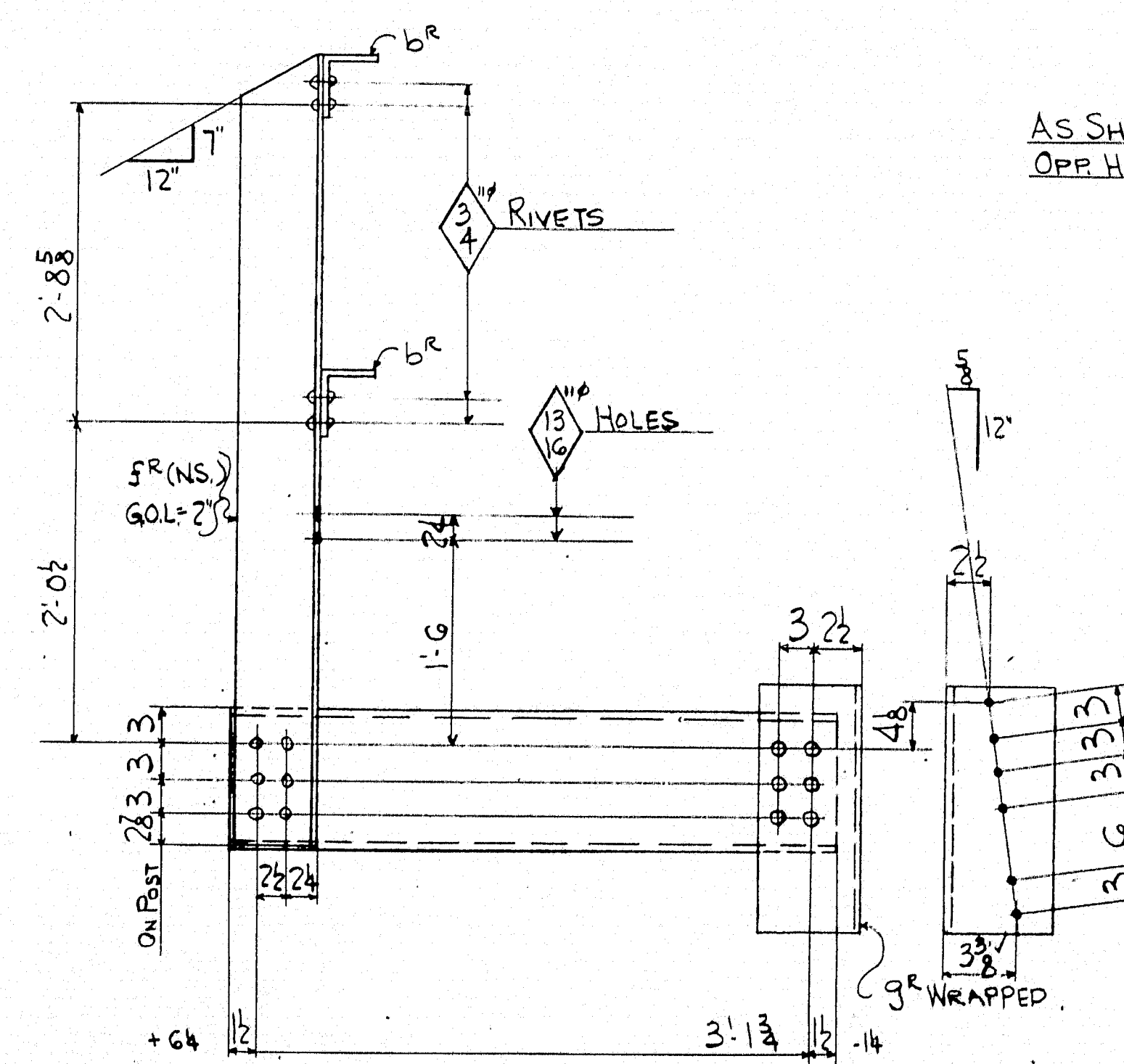
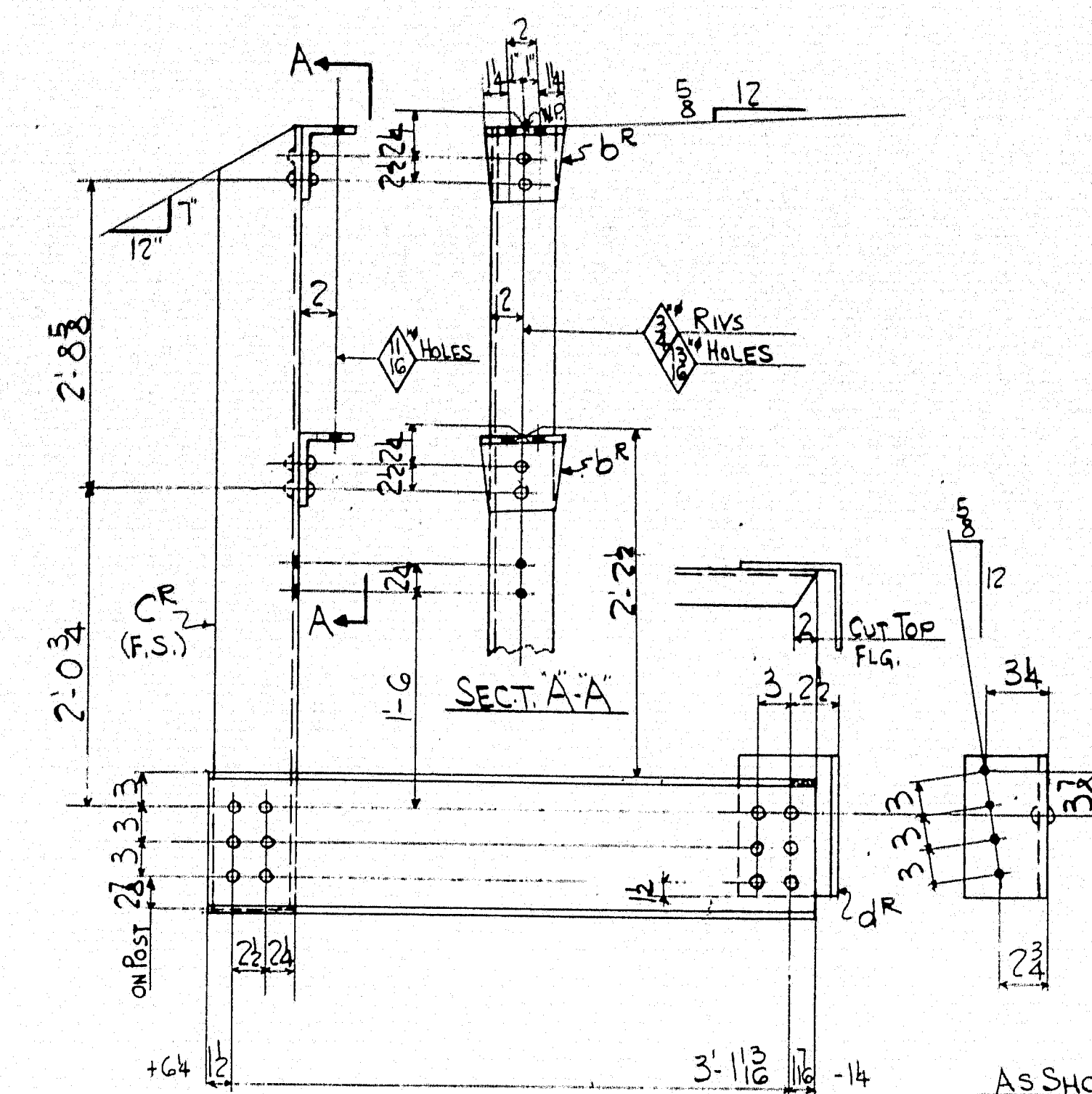
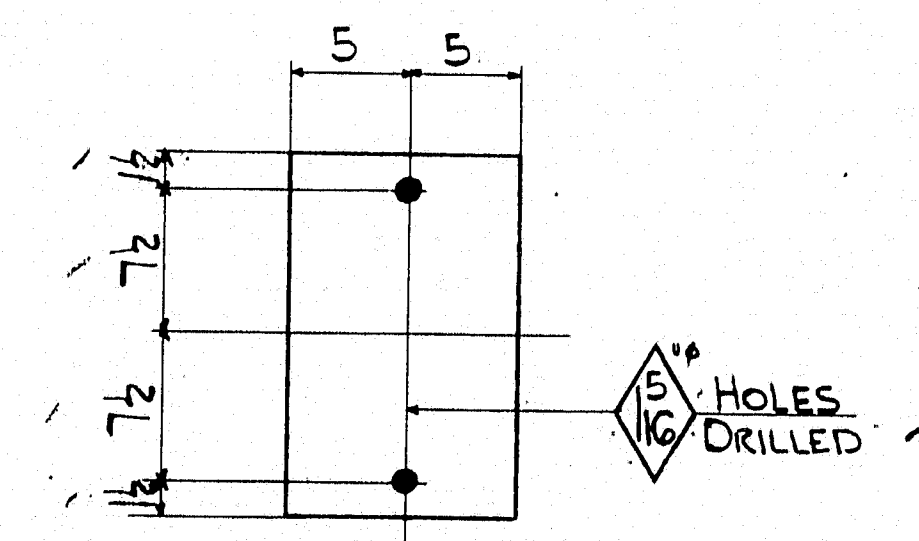
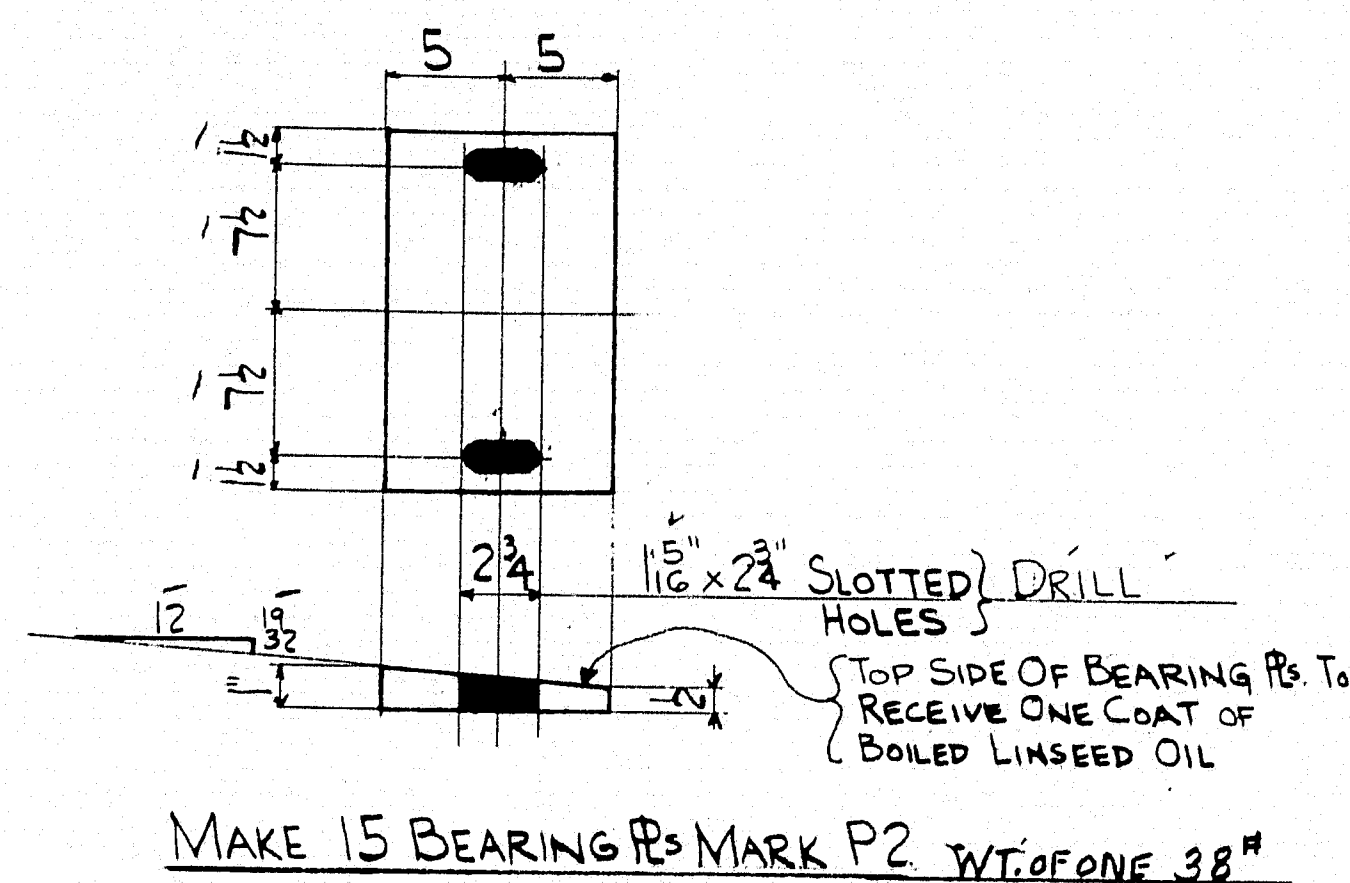
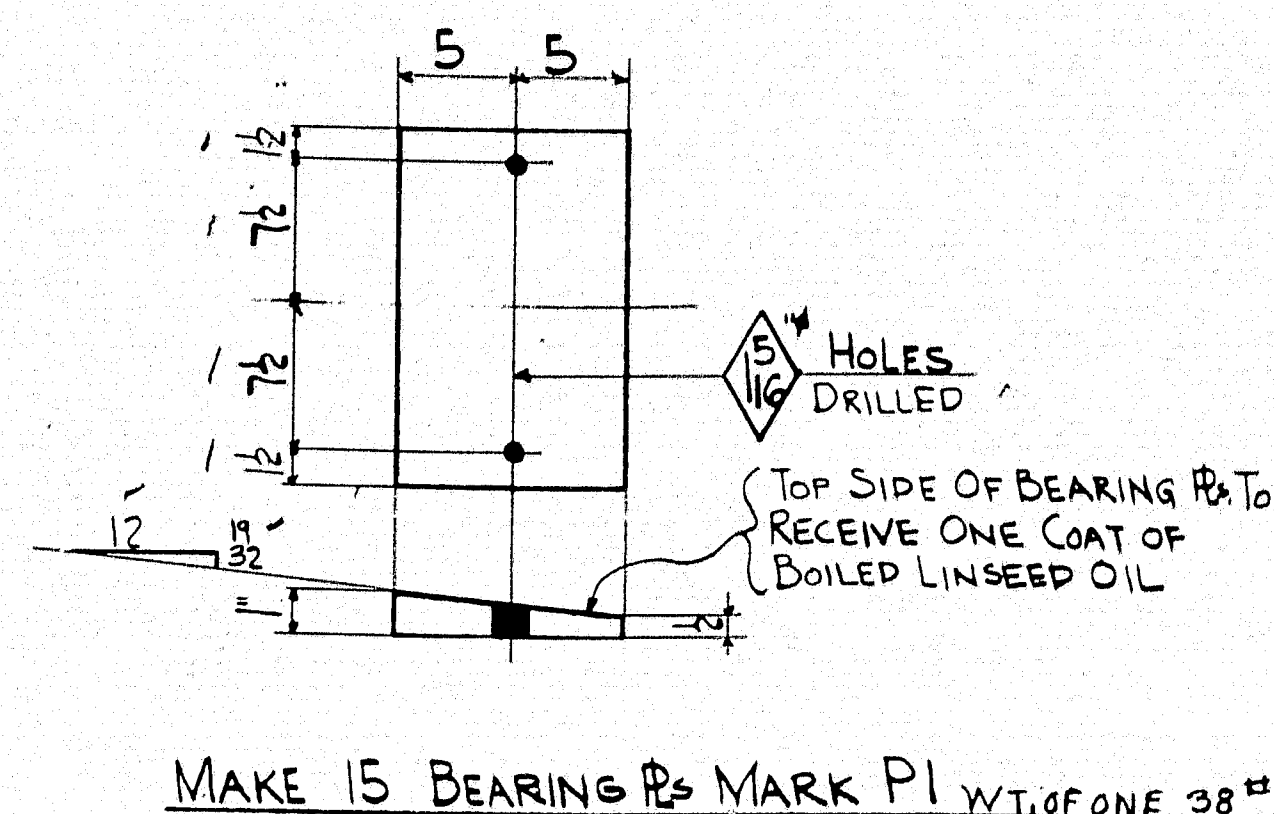
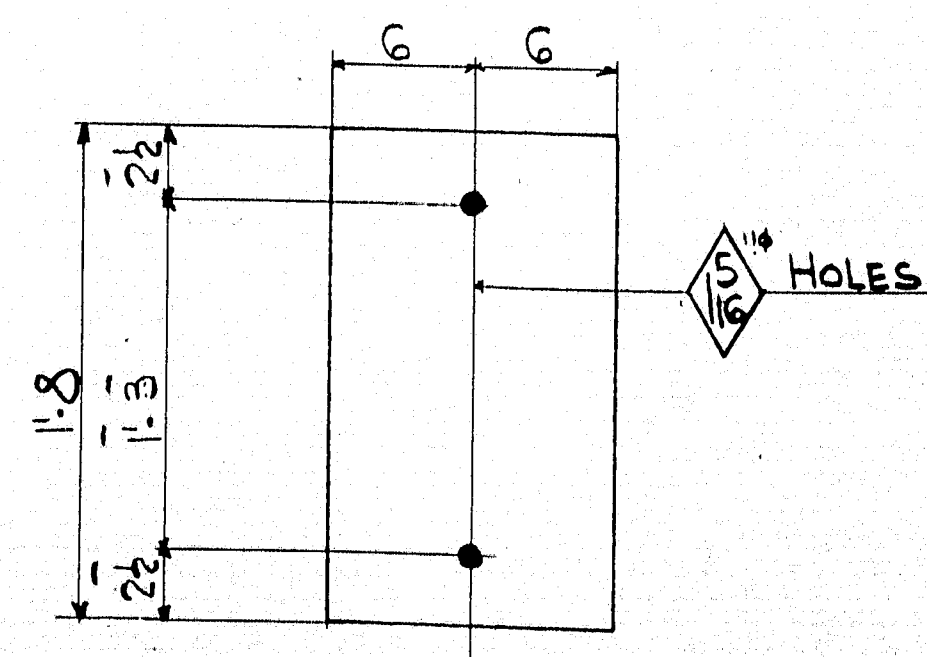
HARRIS STRUCTURAL STEEL CO.
410 FOURTH AVE., N. Y.

DRAWN BY: E
DATE: 11-10-49
DRAWN CHECKED BY: E
DATE: 11-20-49
CONTRACT No. 6378 SHEET No. 1



Gross Wt.	8994
Wt. Dred.	112
Net. Wt	8882
Paint	36
Tot. Wt	8918

48-103



REQ'D		MADE UP OF						
NO.	MARK	NO.	P.C. MK.	SIZE	LENGTH	REMARKS	ORD.	WEIGHT
34	M3	34		12C25	5' 7 1/2	CUT 33' 9.622' G	9-418-7	178.6
36	M1	36		12C25	3' 0 1/2	CUT 18' 4 1/2	Do - 9	275.4
36	M2	36		Bar 2x3	3' 1 1/2	BENT	1-30	35.9
4	M4	4		Do	3-4 3/8	Do	Do	43
30	AB1	30		1" ROD	1' 2 1/2	HACKED	2-6	97
30	AB2	30		do	do	do	Do	97
		30		120 HEX NUTS FOR 1" BOLTS			2-7	34
		30		R 2 1/2 x 4	5'	AB2 ONLY	2-8	27
90	CL1	90		1' 0 x 1 1/8	PIECES OF 12-14	02 CANVAS DUCK	33(183)	16
15	P1	15		R 10 x 1"	1'-6	BENELED	2-3	765
15	P2	15		R 10 x 1"	1'-6	BENELED	2-3	765
15	P3	15		R 10 x 3/8	1'-6		2-4	574
1	R32	1		12C25	3' 3/4		9-418-74	82
1	R31	1		do	3' 3/4		Do	82
		2		C F	5' 11"		1-16	192
		4		b F	5' 8 1/2 x 3/8			18
		2		d F	5' 8 x 6 x 3/8			49
		24		RIVS	3/8			9
		8		"	3/4"			2
1	R33	1		12C25	3' 3/4		9-418-74	82
1	R34	1		12C25	3' 3/4		Do	82
		2		f F	5' 10 1/2		1-16	191
		4		b F	5' 8 x 6 x 1/2			18
		2		g F	1'-9"			81
		24		RIVS	3/8			9
		8		"	3/4"			2
Gross Wt								11216
Net Wt.								423
Paint								10793
Tot Wt.								43
								10836

- ✓ BEARING PLATES, ANCHOR BOLTS,
- ✓ DIAPHRAGMS & TIES FOR RAILING
- ✓ POSTS FOR SPANS OVER MAINE
- ✓ CENTRAL R.R. TRACKS,

ARROWSIC BRIDGE OVER SASANOVA RIVER
ARROWSIC - WOOLWICH
FED. AID PROJ. No. S-154 (2)
CONTRACT No. 2

FOR NOTES ON SPECIFICATIONS, MATERIAL,
PAINTING, PUNCHING, DRILLING, REAMING, ETC
SEE SHEET X50

ETC. HARRIS STRUCTURAL STEEL CO.
412 FOURTH AVE., N. W.

INVERTS 8" DIAM.	OPEN HOLES 16" DIAM.	
UNLESS OTHERWISE NOTED		
REVISIONS		
R1	11/20/50	As NOTED

DRAWN, MADE BY F DATE 11-16-49
 CHECKED BY J DATE 11-27-49
 CONTRACT NO. C-278 SHEET NO. 3

24 10-48 022 00

[illegible]

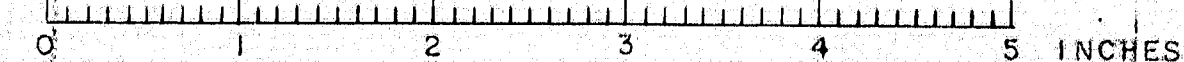
RIVETS	DIAM.	OPEN HOLES
UNLESS OTHERWISE NOTED		

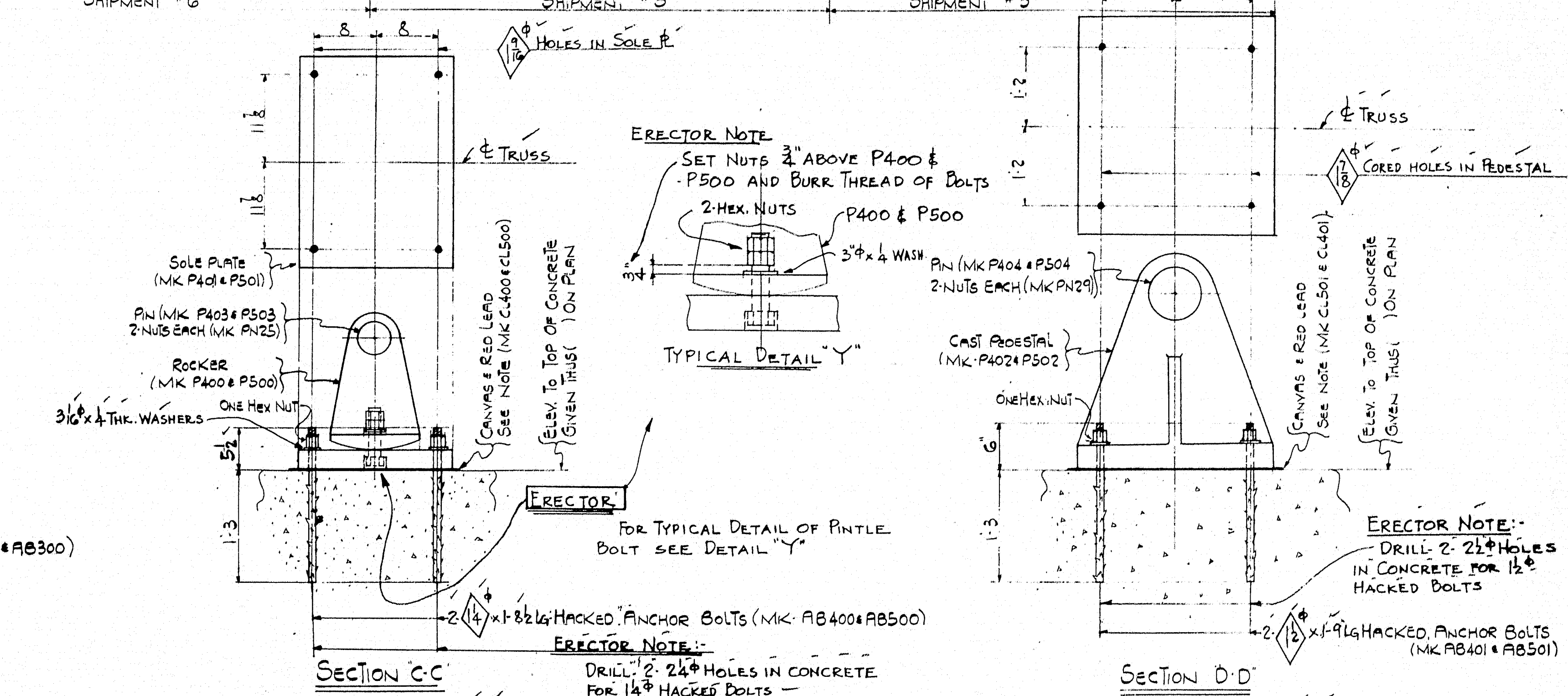
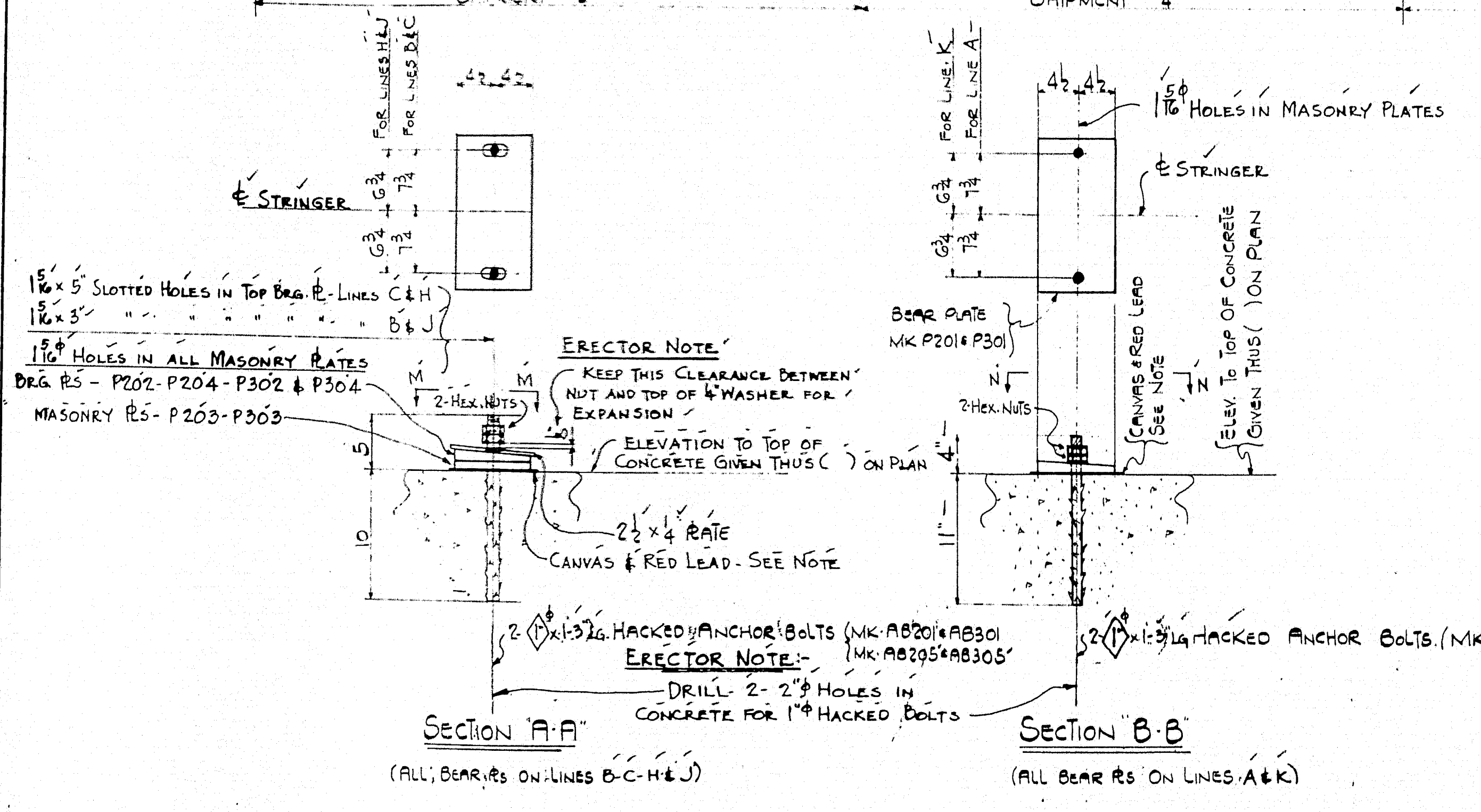
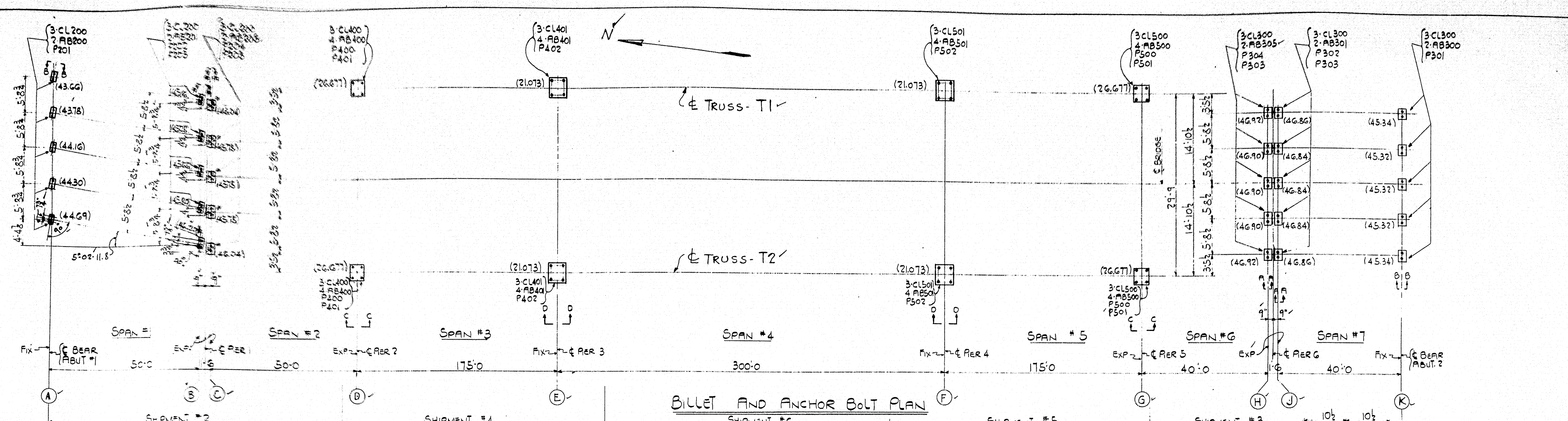
REVISED
RI-113150-LGTH OF
54 BOLTS CHANGED

CONTRACT NO.
C 378

SHEET NO.	
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8 4
48-105





SIZE OF BEARING & MASONRY PLATES

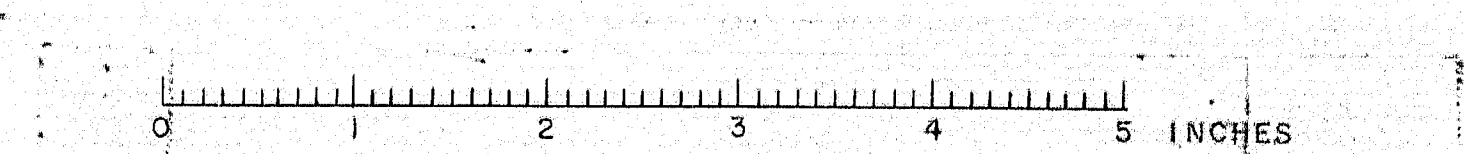
For P301, P302 & P304	12" x 16" x 1-5" (BEVELED)
P204	9" x 16" x 1-7" Do.
P201 & P202	9" x 16" x 1-7" Do.
P203	9" x 16" x 1-7" Do.
P303	9" x 16" x 1-5" Do.
P401 & P501	21" x 36" x 2-4"

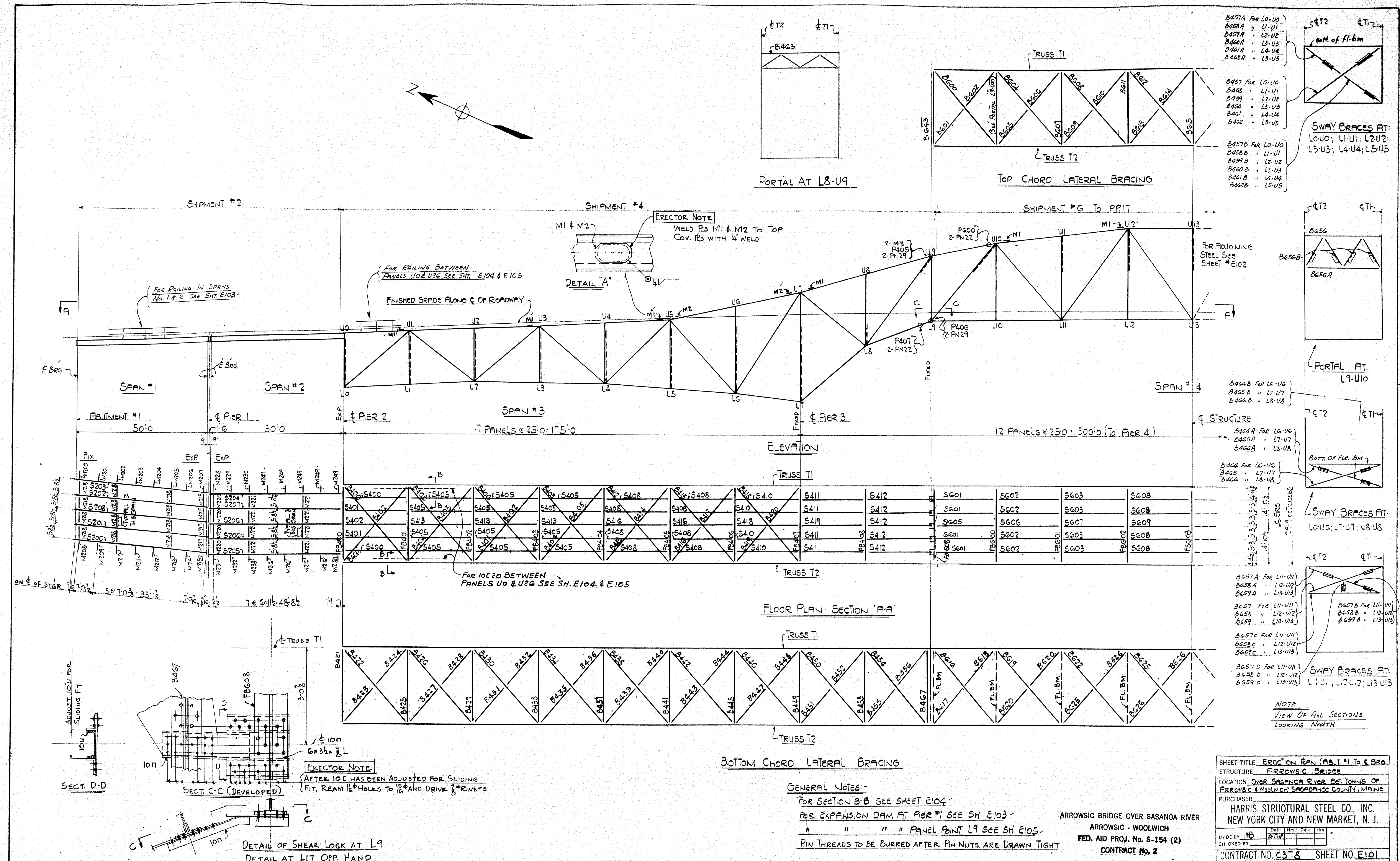
NOTES:

- WHERE CANVAS & RED LEAD IS SHOWN ON PLAN, PROVIDE: 3 LAYERS OF CANVAS DUCK 12-14 OZ. WITH RED LEAD TO BE APPLIED AS FOLLOWS:-
- THOROUGHLY SWAB THE TOP SURFACE OF THE BRIDGE SEAT BEARING AREA WITH RED LEAD PAINT AND PLACE UPON IT THREE LAYERS OF 12-14 OZ. DUCK, EACH LAYER BEING THOROUGHLY SWABBED ON ITS TOP SURFACE WITH RED LEAD PAINT. PLACE IN POSITION THE BEARING PLATES AND PEDESTALS WHILE THE PAINT IS PLASTIC.
- PIECES OF CANVAS DUCK ARE MARKED WITH PREFIX CL. ELEVATIONS GIVEN THUS () ARE TO TOP OF CONCRETE.
- Holes for HACKED BOLTS TO BE DRILLED IN CONCRETE 1" LARGER THAN DIAMETER OF BOLT.
- HACKED BOLTS TO BE GROUTED IN ACCORDING TO SPECIFICATIONS.
- PN THREADS TO BE BURRED AFTER PN NUTS ARE DRAWN TIGHT.

ARROWSIC BRIDGE OVER SASANOA RIVER
ARROWSIC - WOOLWICH
FED. AID PROJ. No. S-154 (2)
CONTRACT No. 2

SHEET TITLE: BILLET AND ANCHOR BOLT PLAN
STRUCTURE: ARROWSIC BRIDGE
LOCATION: OVER SASANOA RIVER, BET. TOWNS OF ARROWSIC & WOOLWICH, SAGadahoc COUNTY, MAINE
PURCHASER: HARRIS STRUCTURAL STEEL CO., INC.
NEW YORK CITY AND NEW MARKET, N. J.
MADE BY: W.B. [Signature]
CHECKED BY: E.T. [Signature]
CONTRACT NO. 0378 SHEET NO. E-100





SWAY BRACES AT:
 L0-U0; L1-U1; L2-U2;
 L3-U3; L4-U4; L5-U5

SWAY BRACES AT:
 L6-U6; L7-U7; L8-U8

SWAY BRACES AT:
 L9-U9; L10-U10

SWAY BRACES AT:
 L11-U11; L12-U12; L13-U13

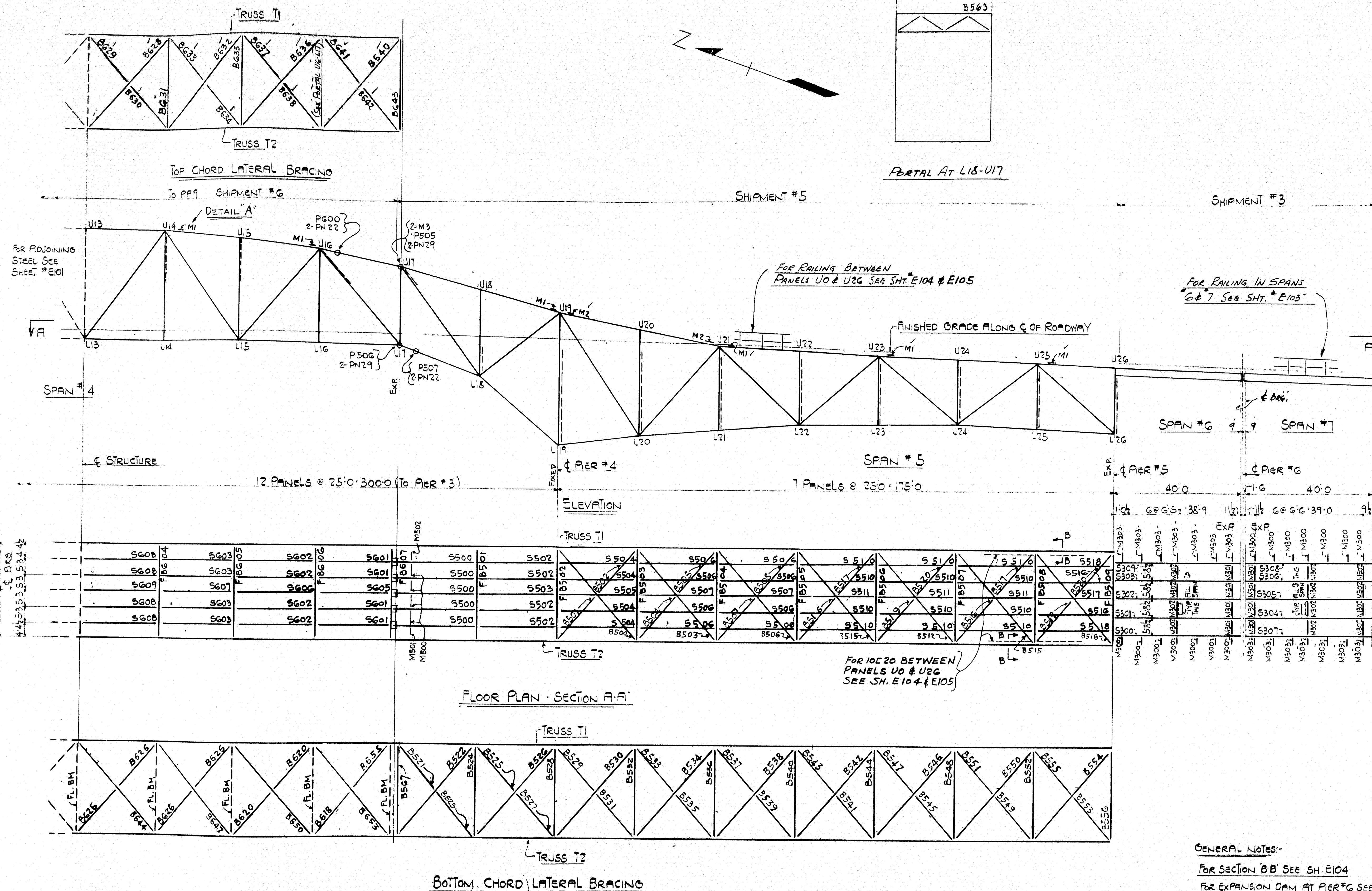
SWAY BRACES AT:
 L14-U14; L15-U15

NOTE:
 VIEW OF ALL SECTIONS
 LOOKING NORTH

GENERAL NOTES:
 FOR SECTION 'B-B' SEE SHEET E104
 FOR EXPANSION DAM AT PIER #1 SEE SH. E103
 " " " PANEL POINT L9 SEE SH. E105
 PIN THREADS TO BE BURIED AFTER PIN NUTS ARE DRAWN TIGHT

ARROWSIC BRIDGE OVER SASANOA RIVER
 ARROWSIC - WOOLWICH
 FED. AID PROJ. No. S-154 (2)
 CONTRACT No. 2

SHEET TITLE: ERECTION PLAN (PIER #1 TO #4)			
STRUCTURE: ARROWSIC BRIDGE			
LOCATION: OVER SASANOA RIVER, BET. TOWNS OF ARROWSIC & WOOLWICH, SARASOTA COUNTY, FLORIDA			
PURCHASER: HARRIS STRUCTURAL STEEL CO., INC. NEW YORK CITY AND NEW MARKET, N. J.			
DATE: 10/1/58	BY: J.B.	CHECKED BY: J.B.	DATE: 10/1/58
CONTRACT NO. C-378 SHEET NO. E101			



B557A For L26-U26
B558A " L25-U25
B559A " L24-U24
B560A " L23-U23
B561A " L22-U22
B562A " L21-U21

B557B For L26-U26
B558B " L25-U25
B559B " L24-U24
B560B " L23-U23
B561B " L22-U22
B562B " L21-U21

B661B For L15-U15
B662B For L14-U14

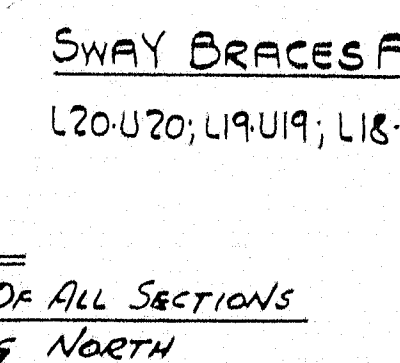
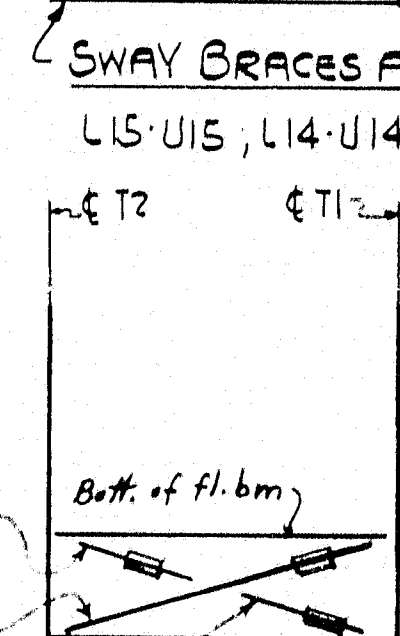
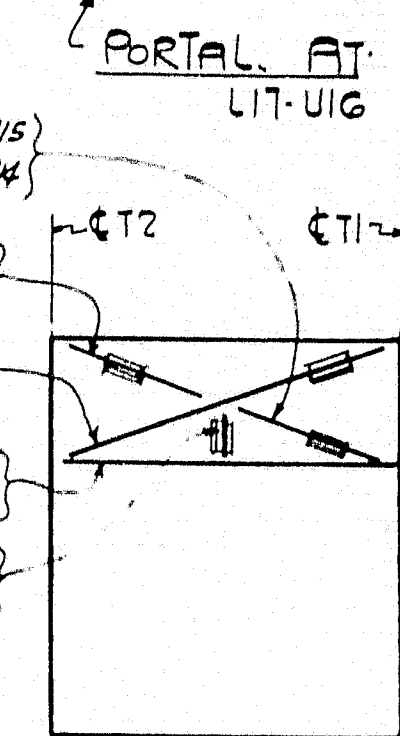
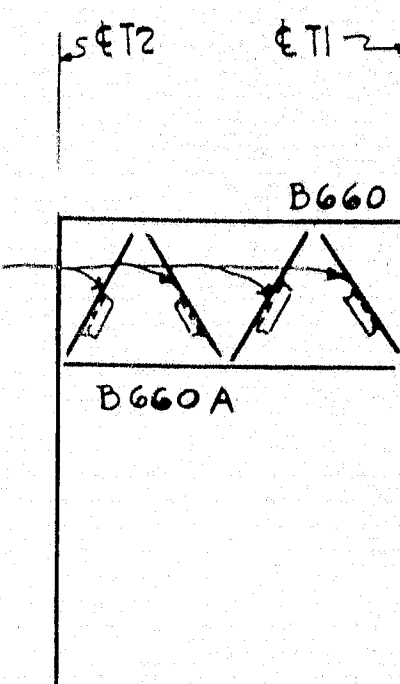
B661A For L15-U15
B662A " L14-U14

B661C For L15-U15
B662C " L14-U14

B661D For L15-U15
B662D " L14-U14

B564A For L20-U20
B565A " L19-U19
B566A " L18-U18

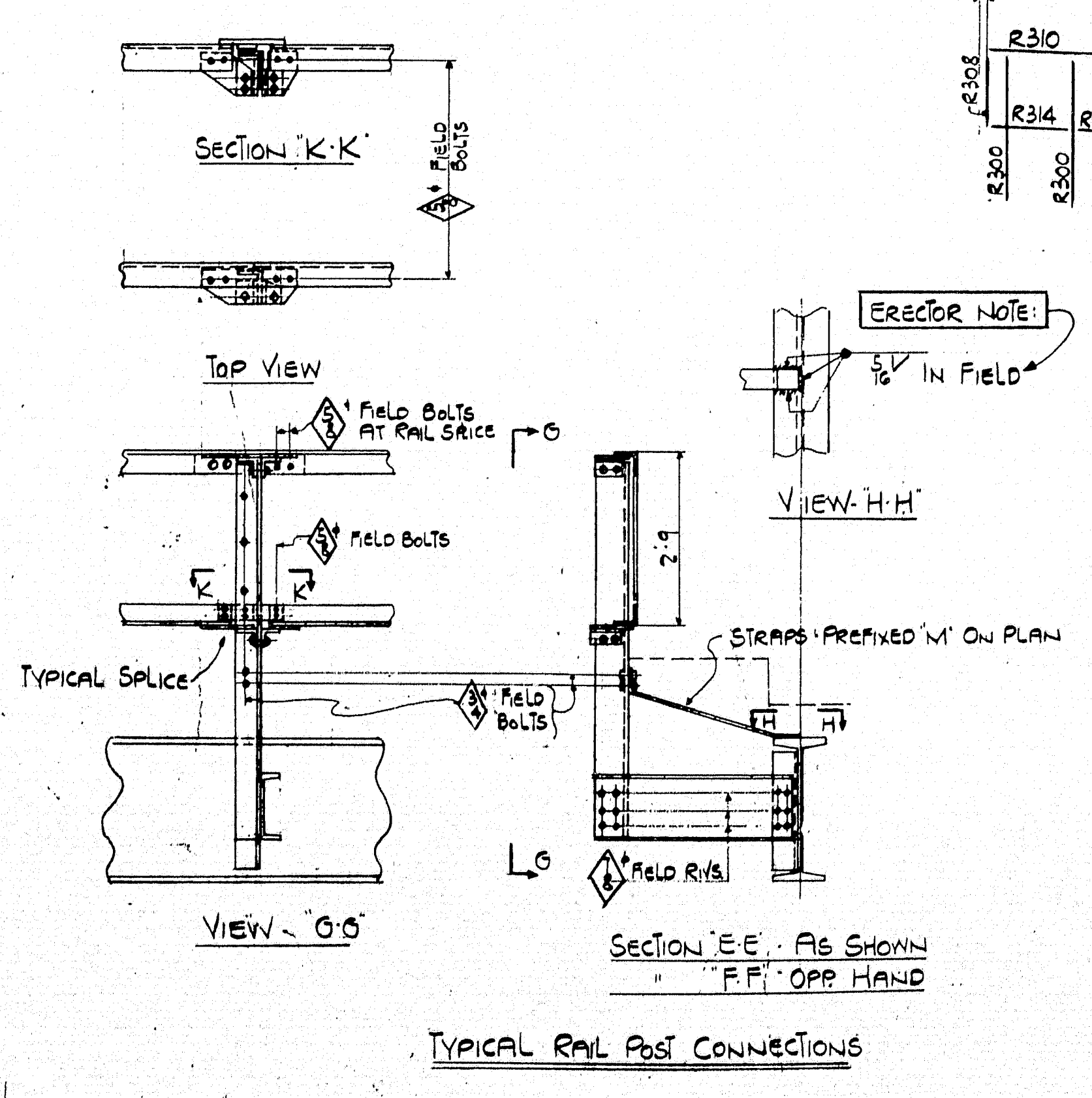
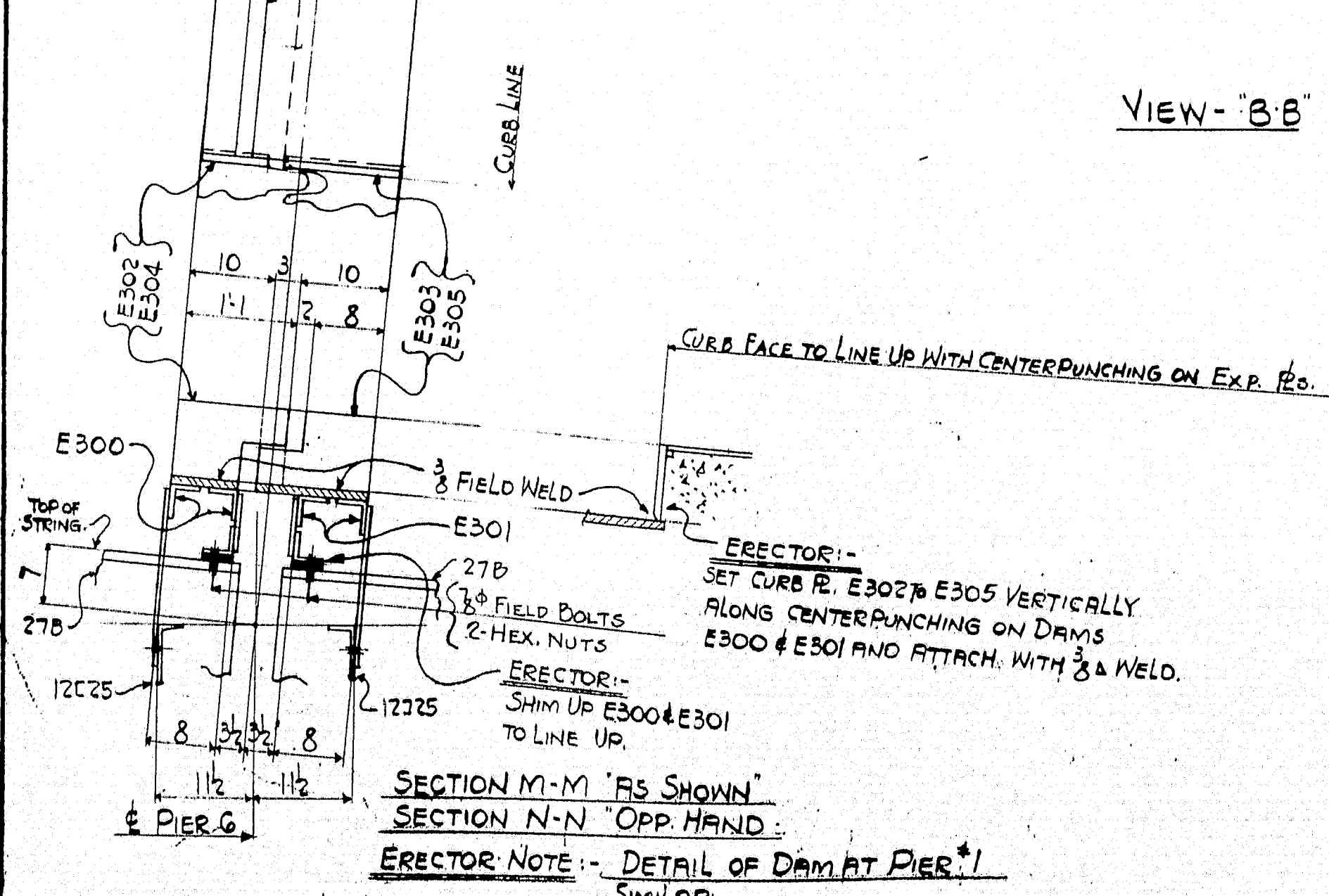
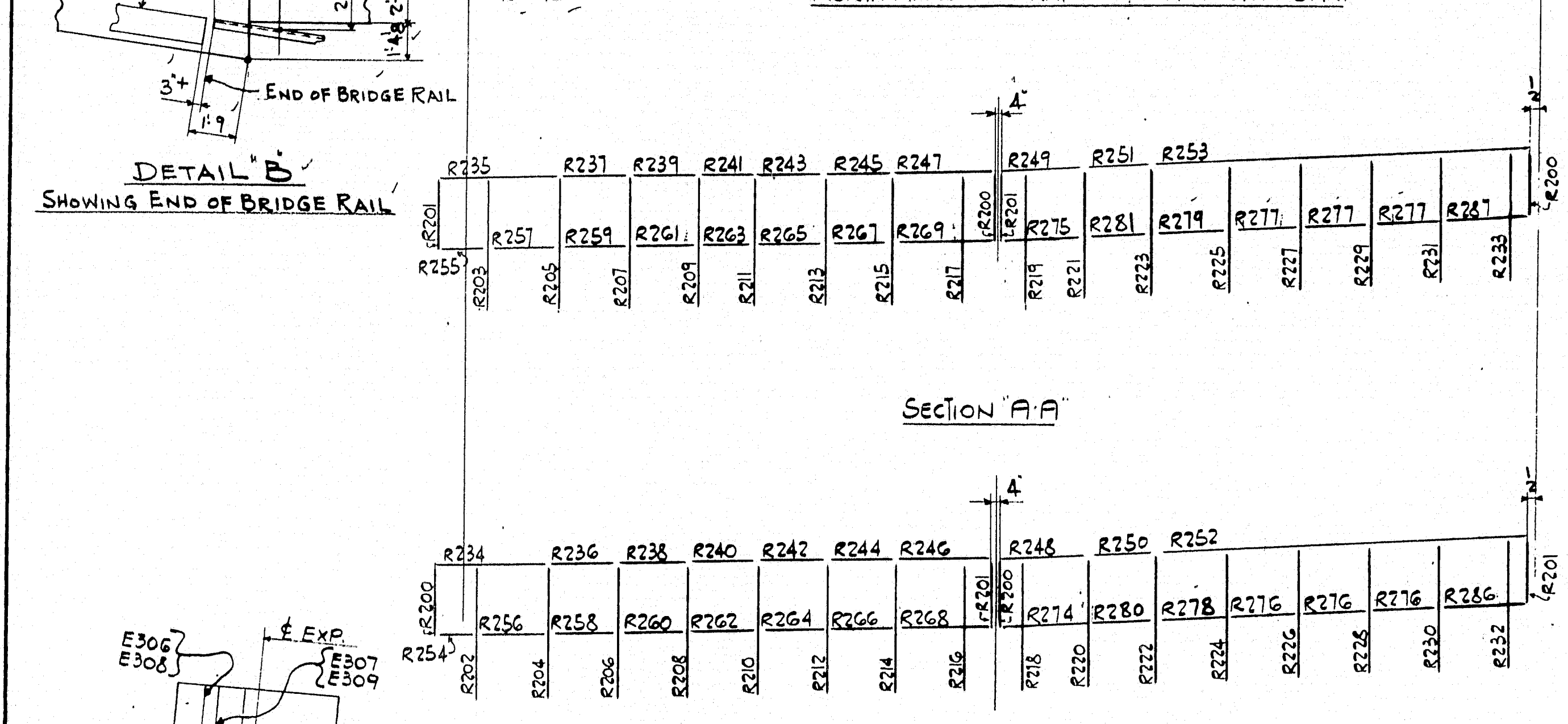
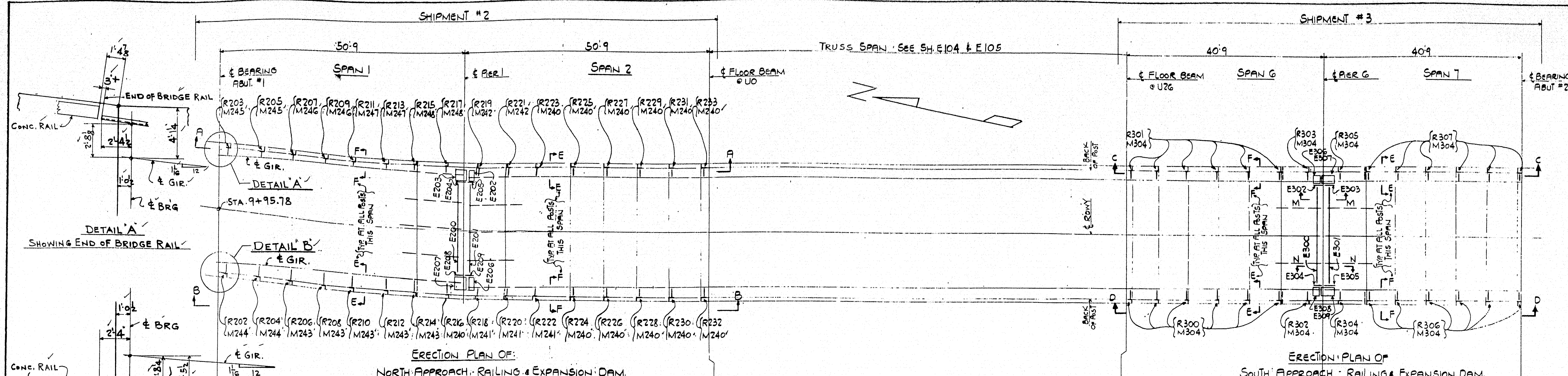
B564B For L20-U20
B565B " L19-U19
B566B " L18-U18



NOTE

VIEW OF ALL SECTIONS
LOOKING NORTH

SHEET TITLE: ERECTION PLAN (FOR TO BE BUILT)	
STRUCTURE: ARROWSIC BRIDGE	
LOCATION: OVER SASANOA RIVER AT TOWN OF ARROWSIC, WOOLWICH, SAGadahoc COUNTY, MAINE	
PURCHASER: HARRIS STRUCTURAL STEEL CO., INC.	
NEW YORK CITY AND NEW MARKET, N. J.	
MADE BY: V.B.	CHECKED BY: [Signature]
CONTRACT NO. 5378 SHEET NO. E102	



GENERAL NOTES:-
FOR TYPICAL DETAIL OF RAILING
AND WIRE MESH SEE SH. E104.

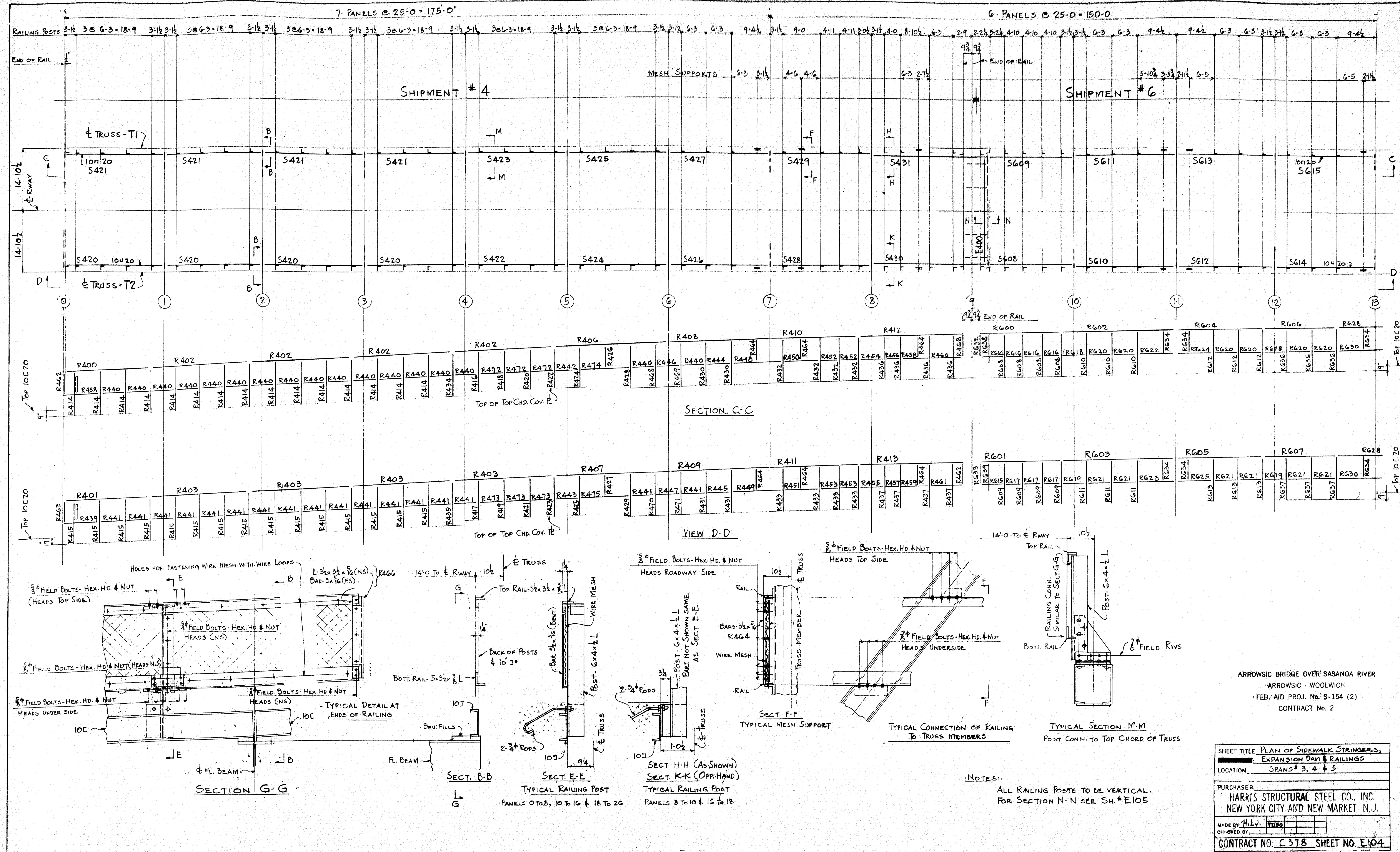
ARROWSIC BRIDGE OVER SASANOA RIVER
ARROWSIC - WOOLWICH
FED. AID PROJ. No. S-154 (2)
CONTRACT No. 2

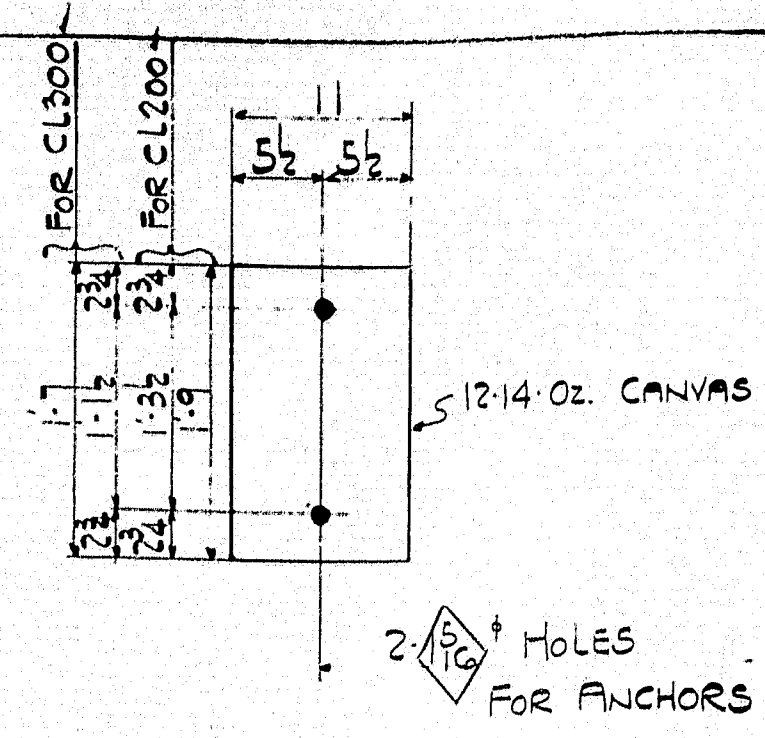
(APPROACH SPANS)

SHEET TITLE ERECTOR PLAN FOR RAILING & EXP. DAM
STRUCTURE - ARROWSIC BRIDGE
LOCATION OVER SASANOA RIVER AT TOWN OF
ARROWSIC & WOOLWICH SAGadahoc COUNTY MAINE
PU. CHASER
HARRIS STRUCTURAL STEEL CO., INC.
NEW YORK CITY AND NEW MARKET, N. J.

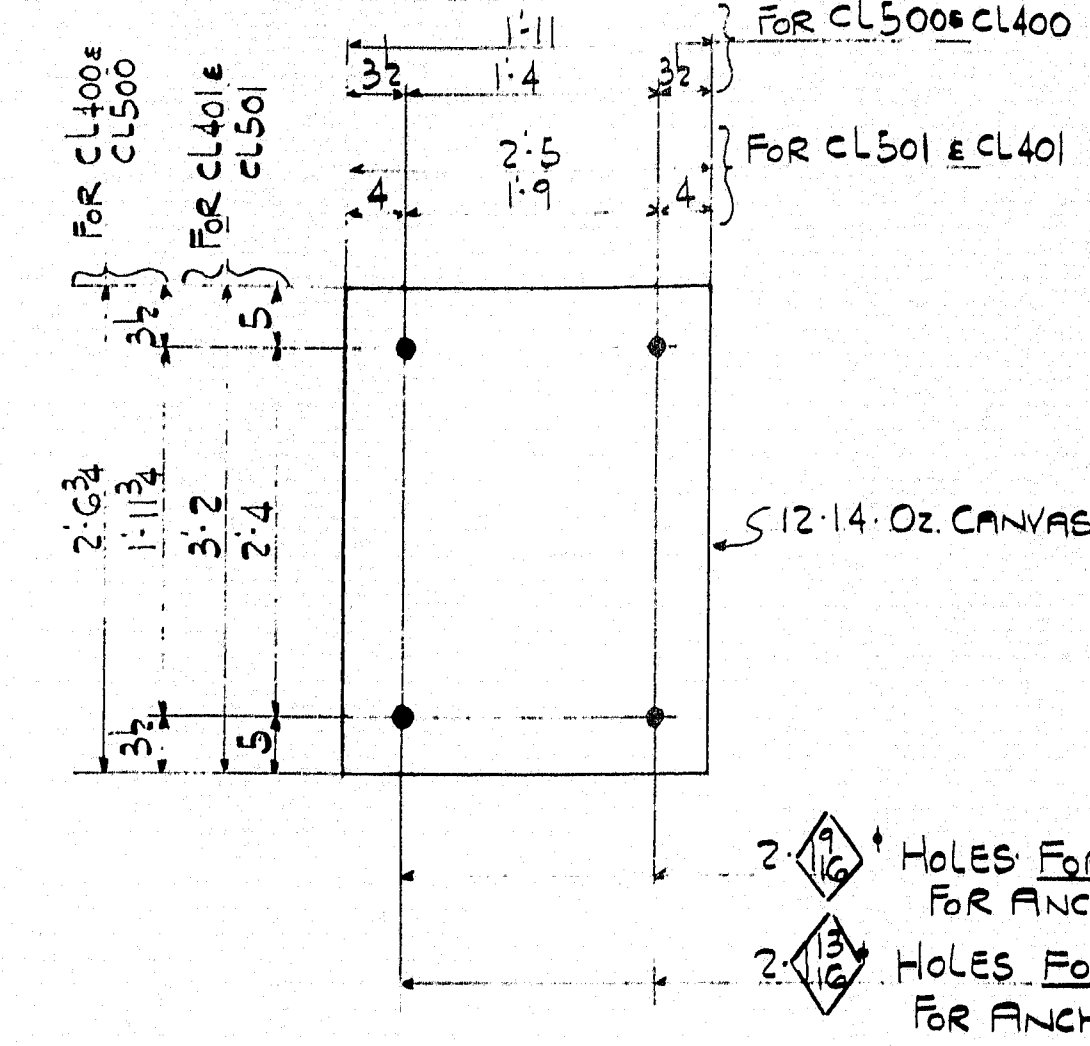
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CHECKED BY: [Signature]

CONTRACT NO. 2376 SHEET NO. E103

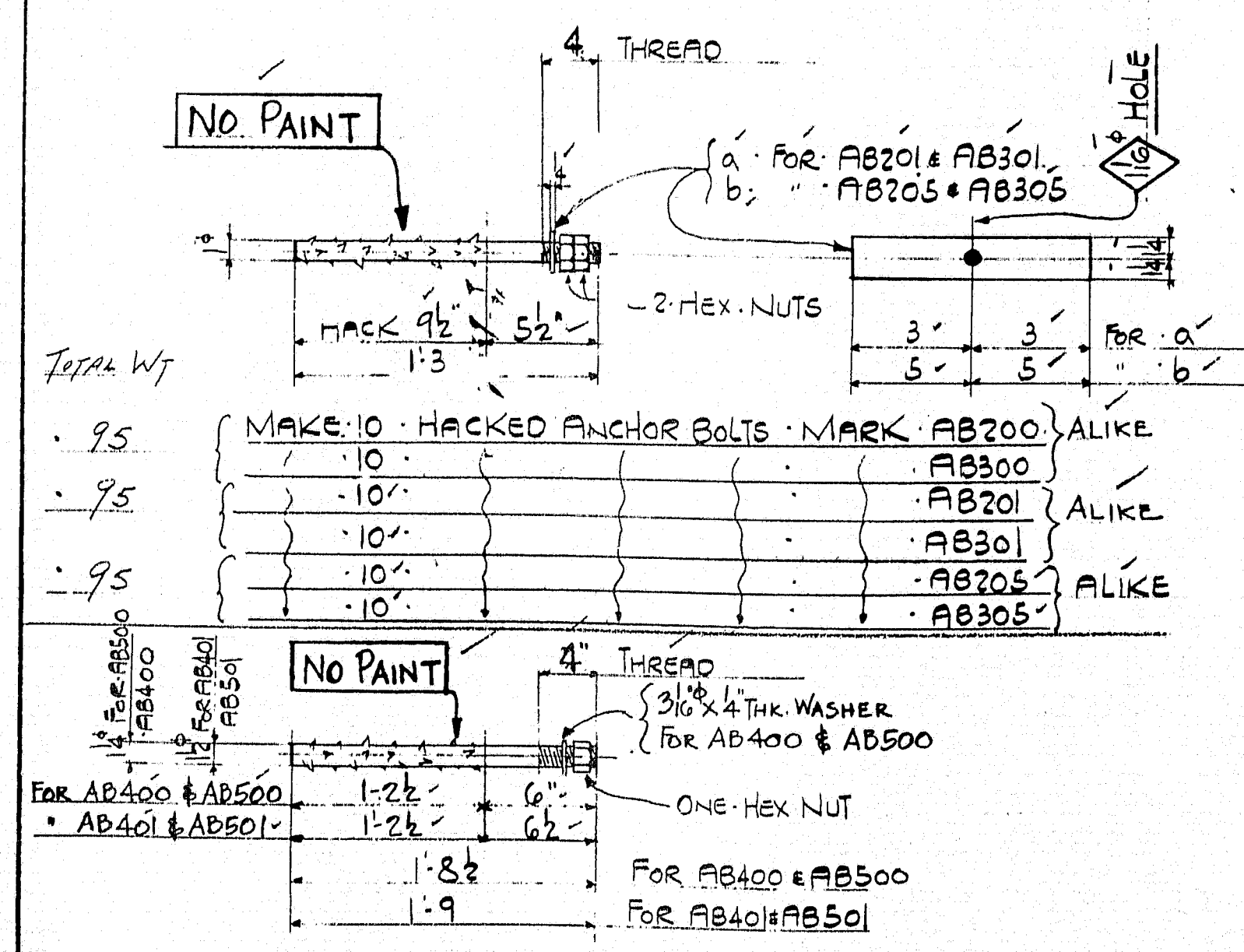




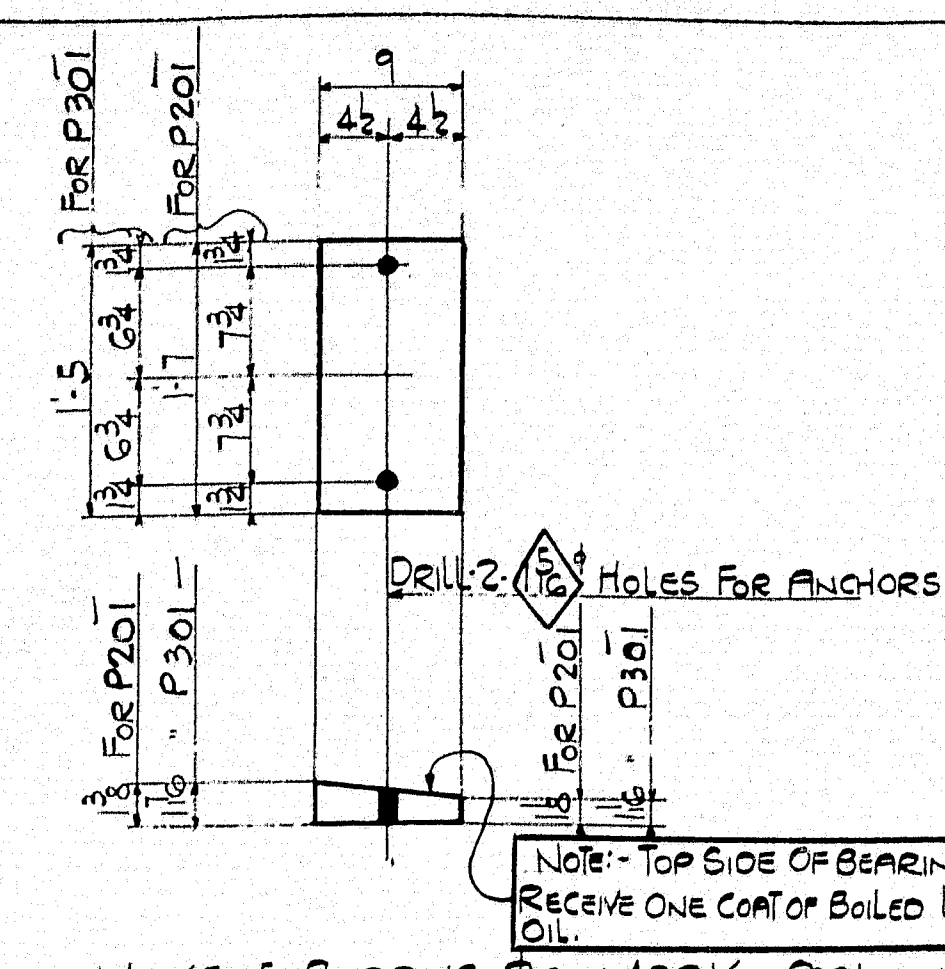
MAKE 45 PIECES OF CANVAS MARK CL200 }
45 CL300 } Total Wt. = 14 1/2



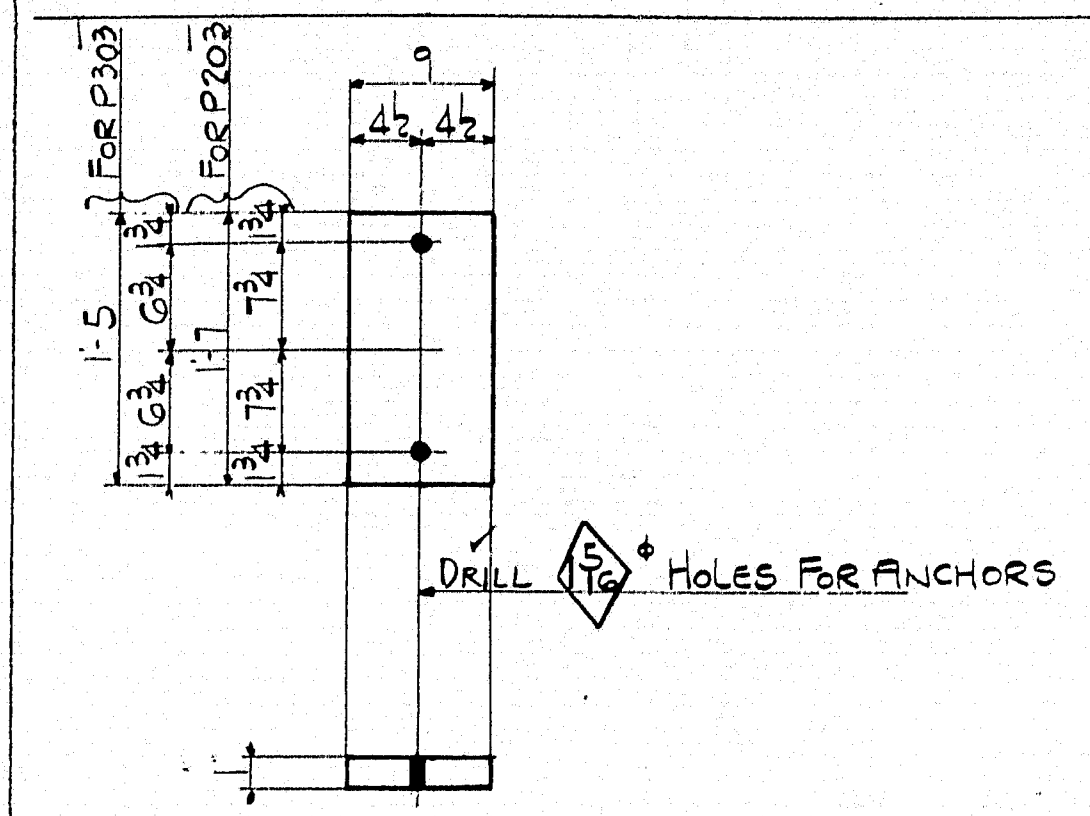
MAKE 6 PIECES OF CANVAS MARK CL400 } ALIKE
6 CL500 }
6 CL401 } ALIKE
6 CL501 }



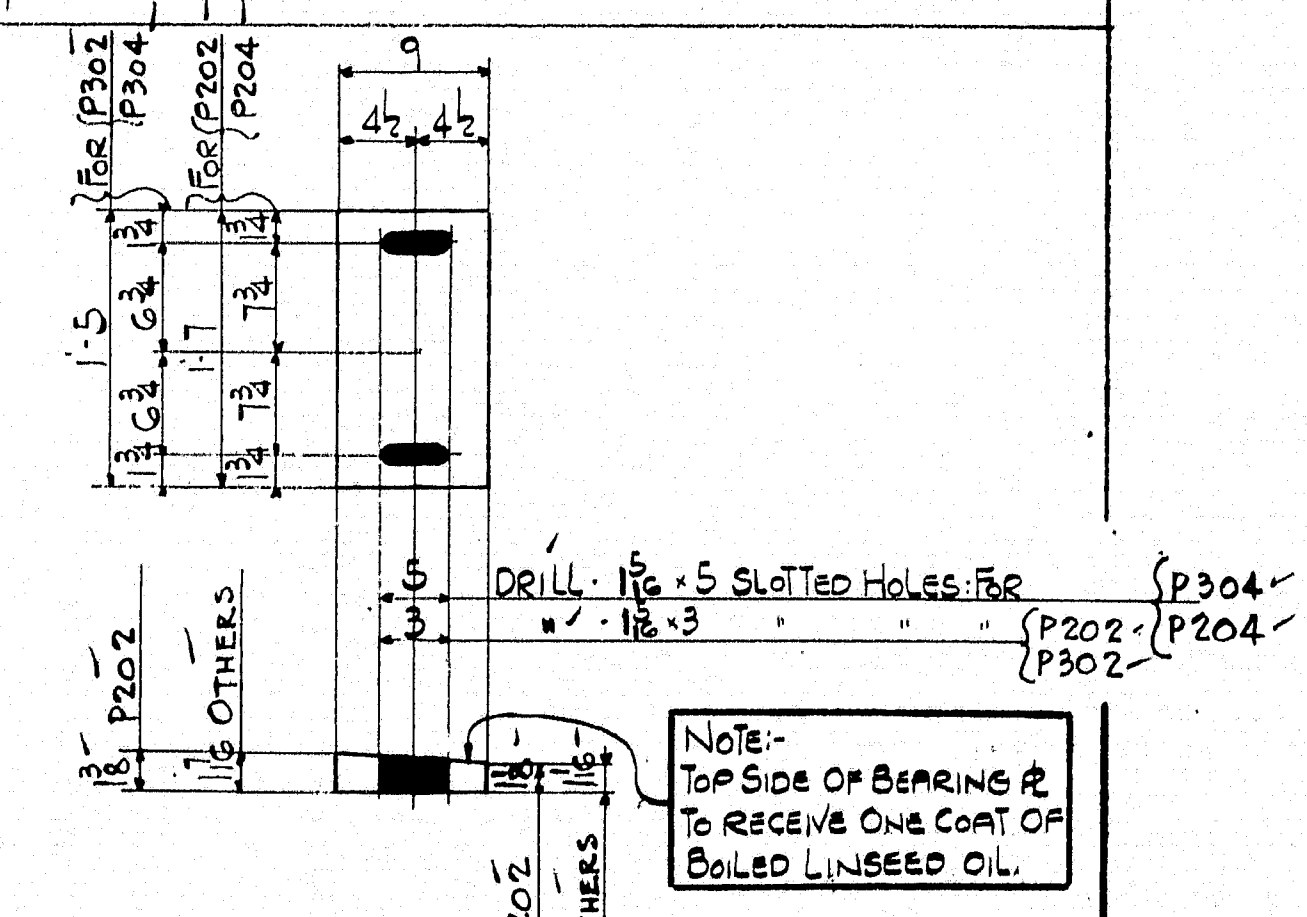
MAKE 8 HACKED ANCHOR BOLTS MARK AB400 } ALIKE Total Wt. = 130
8 AB500 }
8 AB401 } ALIKE Total Wt. = 185
8 AB501 }



MAKE 5 BEARING PLATES MARK P301 Wt. OF ONE = 54
5 P201 do = 60



MAKE 10 BEARING PLATES MARK P303 Wt. OF ONE = 43
10 P203 do = 48



MAKE 5 BEARING PLATES MARK P302 Wt. OF ONE = 53
5 P304 do = 52
5 P202 do = 59
5 P204 Wt. OF ONE = 58

ALIKE
ALIKE
ALIKE

REQ'D	NO	MARK	NO	PLATE	SIZE	LENGTH	REMARKS	QTY	WEIGHT
45	CL300	45	11x11	PIECES OF 12-14 OZ CANVAS DUCK				7	
45	CL200	45	11x11	" " " " " "				7	
6	CL401	6	2-5x3-2	" " " " " "				3	
6	CL501	6	2-5x3-2	PIECES OF 12-14 OZ CANVAS DUCK				3	
6	CL400	6	1-11x2-6 1/2	" " " " " "				3	
6	CL500	6	1-11x2-6 1/2	" " " " " "				3	
10	AB200	10	1" ROD	1-3				33	
10	AB300	10	1" ROD	1-3				33	
10	AB201	10	1" ROD	1-3				33	
10	AB301	10	1" ROD	1-3				33	
10	AB205	10	1" ROD	1-3				33	
10	AB305	10	1" ROD	1-3				33	
20	a	20	2 1/2 x 4	G	5x AB201 & AB301	106-12		21	
20	b	20	2 1/2 x 4	G	5x AB205 & AB305	106-12		21	
120	HEX NUTS FOR 1" BOLTS					106-9		34	
5	P302	5	BEAR	2 9 x 1 1/2	1-5	BEVELED	106-4	313	46
5	P304	5	"	"	1-5	"	106-4	313	55
5	P204	5	"	"	1-7	"	106-3	348	60
5	P202	5	"	2 9 x 1 1/2	1-7	"	106-3	333	37
5	P301	5	BEAR	2 9 x 1 1/2	1-5	BEVELED	106-4	313	45
5	P201	5	"	2 9 x 1 1/2	1-7	Do	106-3	333	35
10	P303	10	BEAR	2 9 x 1 1/2	1-5	"	106-6	435	8
10	P203	10	"	2 9 x 1 1/2	1-7	Do	106-6	483	8
8	AB400	8	1 1/2" ROD	1-8 1/2			115-4	57	
8	AB500	8	1 1/2" ROD	1-8 1/2			115-4	57	
8	AB401	8	1 1/2" ROD	1-9			115-5	84	
8	AB501	8	1 1/2" ROD	1-9			115-5	84	
16	HEX NUTS FOR 1 1/2" BOLTS						115-6	9	
16	"						115-7	16	
16	WASH. 3/16" DIA. 1/4" THK.						115-7	7	
							GROSS WT	3503	
							NET WT	296	
							PAINT	3207	
							TOT WT	3890	

ARROWSIC BRIDGE OVER SASANOA RIVER
ARROWSIC - WOOLWICH
FED. AID PROJ. No. S-154 (2)
CONTRACT No. 2

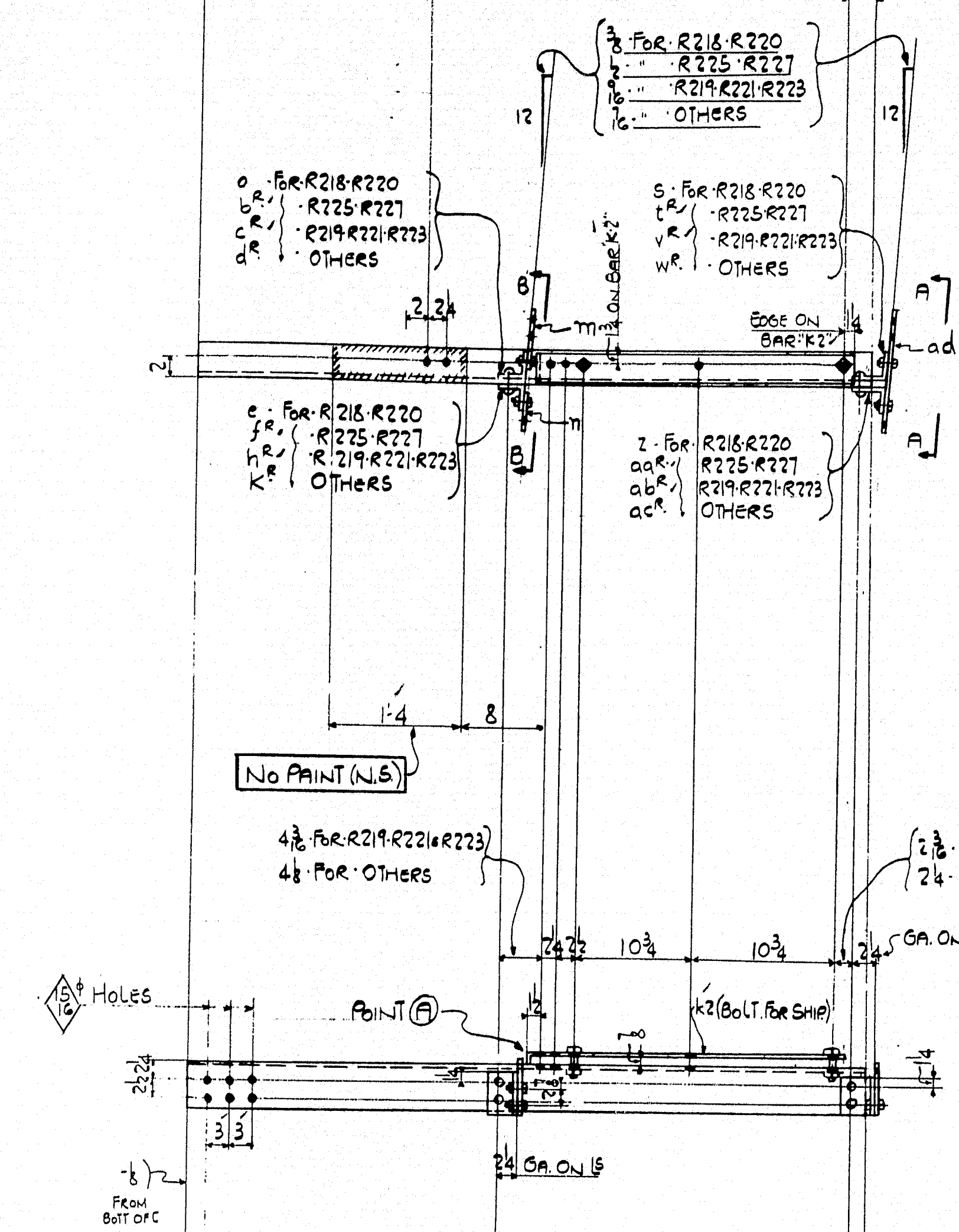
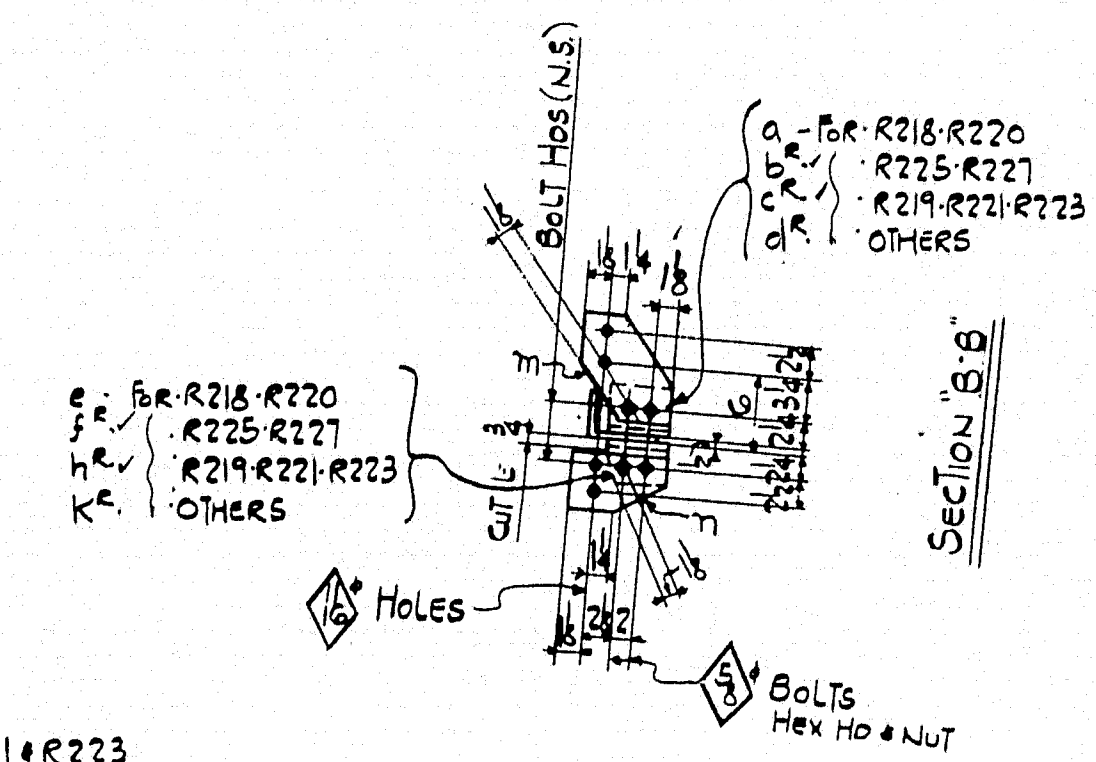
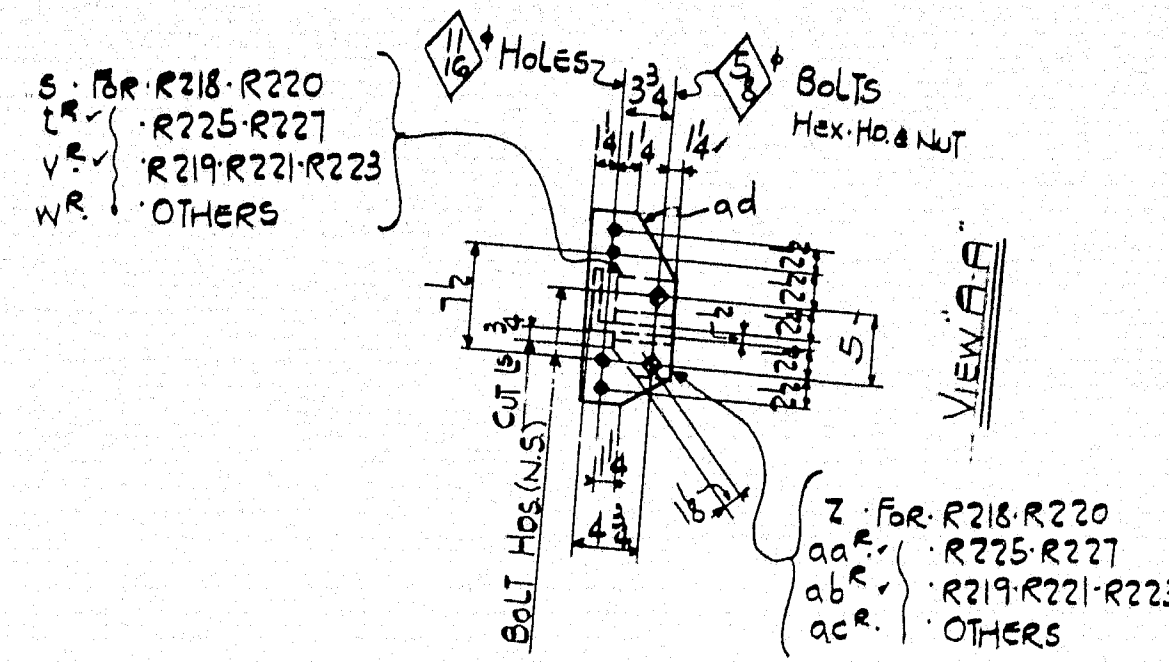
CANVAS DUCK - HACK BOLTS & BEARING PLATES
ARROWSIC BRIDGE
HARRIS STRUCTURAL STEEL CO.
419 FOURTH AVE., N. Y.

FOR NOTES ON SPECIFICATIONS, MATERIAL,
PAINTING, PUNCHING, DRILLING, REAMING, ETC.
SEE SHEET X50

REVISED	DATE	BY
1	10-27-49	VB
2	12-19-49	VB

For R218	3'2 1/2	6'4 1/2	3'9
R219	2'1 1/2	6'2 1/2	3'2 1/2
R220	2'9 3/4	6'0 1/2	3'6 1/2
R221	2'5 1/2	5'10	3'4 1/2
R222	2'9 3/4	5'11 1/2	3'6 1/2
R223	2'6 1/2	5'10 1/2	3'4 1/2
R224	2'6 1/2	5'10 1/2	3'4 1/2
R225		5'10 1/2	3'4 1/2
R226		5'10 1/2	3'4 1/2
R227		5'9 1/2	3'4 1/2
R228 & R229		5'9 1/2	3'4 1/2
R230 & R231		5'9 1/2	3'4 1/2
R232 & R233	2'6 1/2	5'9 1/2	3'4 1/2

ENLARGED DETAIL @ POINT (A)



FROM TOP OF RAIL			
4'0 3/4	6'8 1/2	1'5 1/2	MAKE ONE RAIL MARK R218 AS SHOWN
3'8 1/4	6'4 1/2	1'1 1/2	ONE R219 OPP. HAND
3'6 1/2	6'2 1/2	1'1 1/2	ONE R220 AS SHOWN
3'3 1/2	6'0 1/2	1'1 1/2	ONE R221 OPP. HAND
3'5 3/4	6'1 1/2	1'1 1/2	ONE R222 AS SHOWN
3'3 1/2	6'0 1/2	1'1 1/2	ONE R223 OPP. HAND
3'4 1/2	6'1 1/2	1'1 1/2	ONE R224 AS SHOWN
3'3 3/4	6'0 3/4	1'1 1/2	ONE R225 OPP. HAND
3'3 1/2	6'0 1/2	1'1 1/2	ONE R226 AS SHOWN
3'3 1/2	6'0 1/2	1'1 1/2	ONE R227 OPP. HAND
3'3 1/2	6'0 1/2	1'1 1/2	ONE R228 AS SHOWN
3'3 1/2	6'0 1/2	1'1 1/2	ONE R229 OPP. HAND
3'3 1/2	5'11 1/2	1'1 1/2	ONE R230 AS SHOWN
3'3 1/2	5'11 1/2	1'1 1/2	ONE R231 OPP. HAND
3'2 1/2	5'11 1/2	1'1 1/2	ONE R232 AS SHOWN
3'2 1/2	5'11 1/2	1'1 1/2	ONE R233 OPP. HAND

REQ'D		MADE UP OF						
No.	MARK	No.	PE. MK.	SIZE	LENGTH	REMARKS	ORD.	WEIGHT
AS SHOWN	ONE R218	ONE		LG 4x2	6'10 1/2		108-3	111
OPP. HAND	ONE R219	ONE		6'6				105
AS SHOWN	ONE R220	ONE		6'4 1/2				103
OPP. HAND	ONE R221	ONE		6'1 1/2				99
AS SHOWN	ONE R222	ONE		6'3 1/2				102
OPP. HAND	ONE R223	ONE		6'1 1/2				100
AS SHOWN	ONE R224	ONE		6'2 1/2				101
OPP. HAND	ONE R225	ONE		6'1 1/2				100
AS SHOWN	ONE R226	ONE		6'2				100
OPP. HAND	ONE R227	ONE		6'1 1/2				99
AS SHOWN	ONE R228	ONE		6'1 1/2				99
OPP. HAND	ONE R229	ONE		6'1 1/2				99
AS SHOWN	ONE R230	ONE		6'1 1/2				99
OPP. HAND	ONE R231	ONE		6'1 1/2				99
AS SHOWN	ONE R232	ONE		6'0 3/4				98
OPP. HAND	ONE R233	ONE		6'0 3/4				98

2	a	LG 3x3x1/2	5 1/2	BENT FOR R218 R220	108-8	6
2	b	5 1/2				6
3	c	5 1/2				10
9	d	5 1/2				29
2	e	LG 3x3x1/2	5 1/2	BENT FOR R218 R220	108-8	6
2	f	5 1/2				6
3	h	5 1/2				10
9	k	5 1/2				29
16	m	RG 3x5	8 1/2		9-419-43	175
16	n	5				46
16	K 2'	BAR 3x5	2'6 (AB)	SAME AS SHOWN	108-13	149
16	ad	RG 4x5	1'3	BENT FOR R218 R220	9-419-43	133
2	s	LG 3x3x1/2	5	BENT FOR R218 R220	108-8	6
2	t	5				6
3	v	5				9
9	w	5				27
2	z	LG 3x3x1/2	5	BENT FOR R218 R220	108-8	6
2	aa	5				6
3	ab	5				9
9	ac	5				27
64	RVS	3/4"				15
96	BOLTS	5/8"	1 1/2	HEX HO & NUT	123-13	17
32	BOLTS	3/4"	2 1/2			10
GROSS WT						2255
WT DEL						62
NET WT						2193
PAINT						9
TOTAL WT						2202

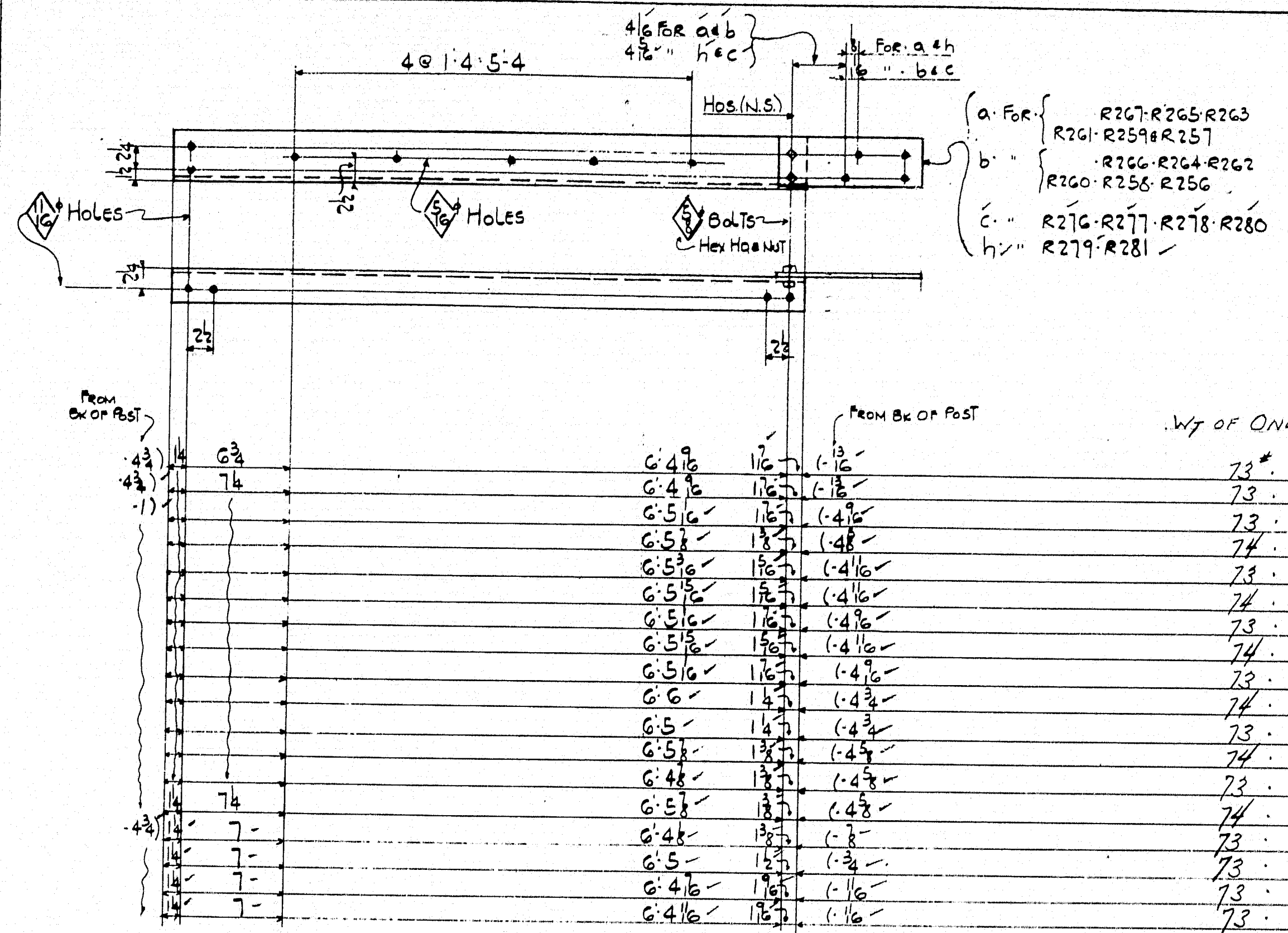
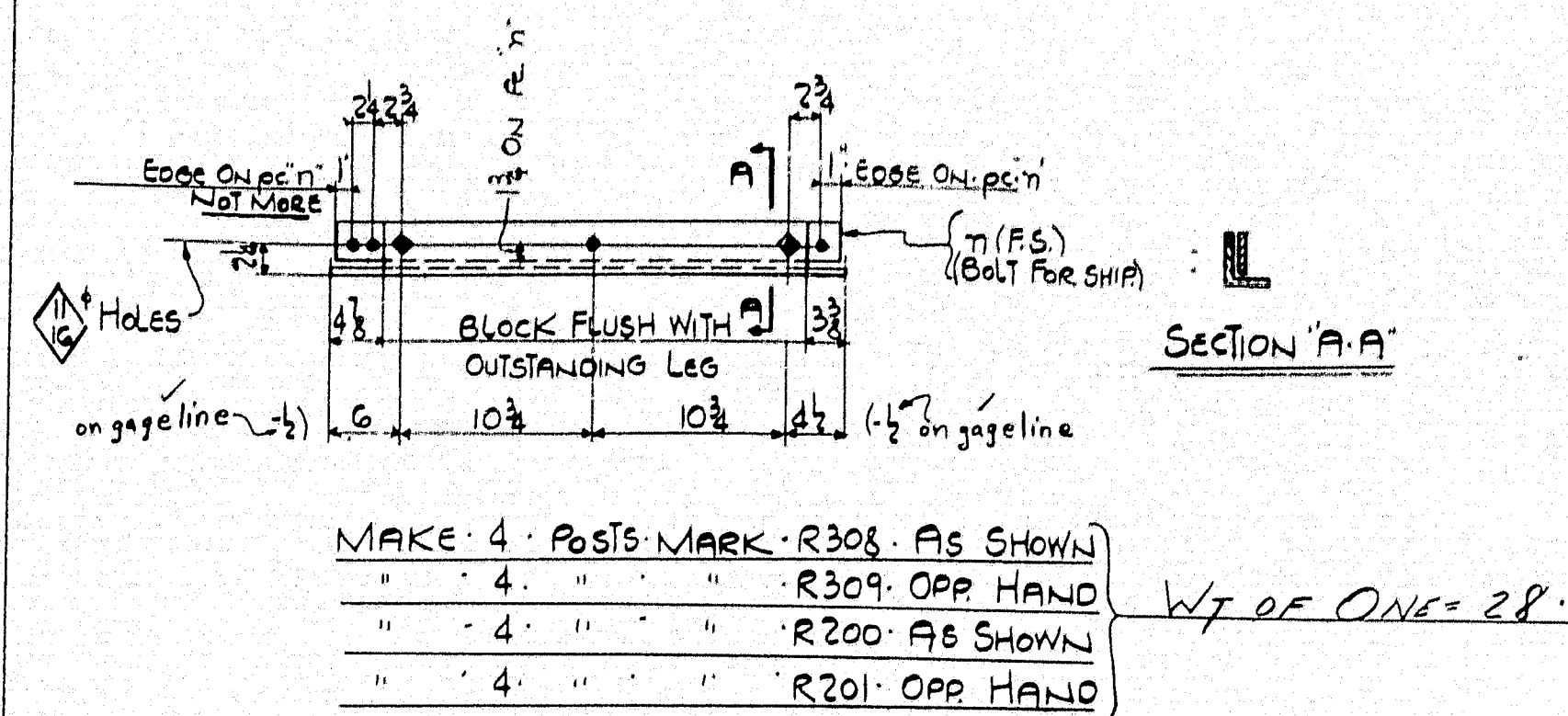
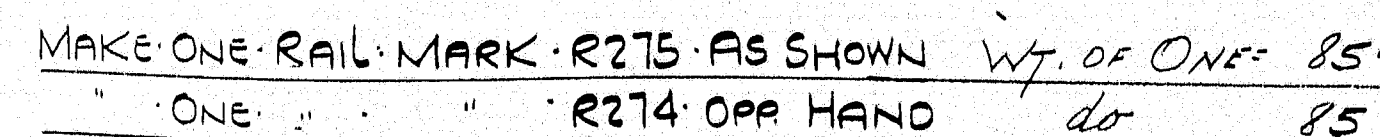
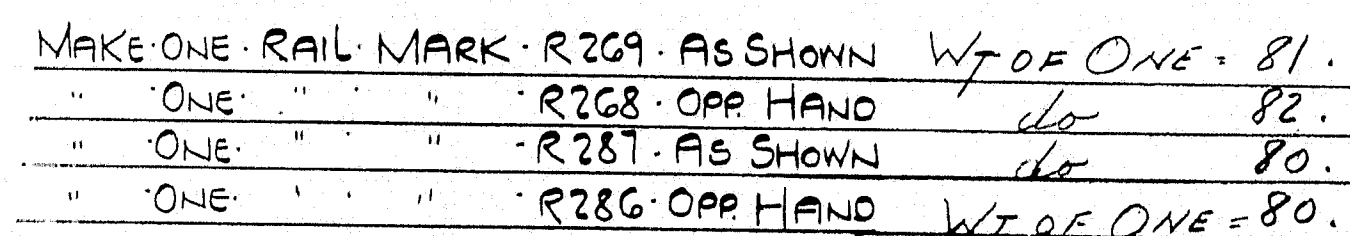
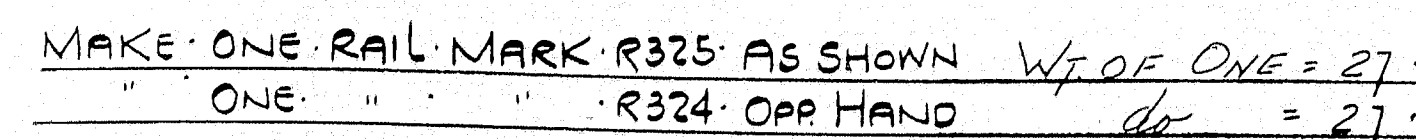
ARROWSIC BRIDGE OVER SASANOA RIVER
ARROWSIC - WOOLWICH
FED. AID PROJ. No. S-154 (2)
CONTRACT No. 2

FOR NOTES ON SPECIFICATIONS, MATERIAL,
PAINTING, PUNCHING, DRILLING, REAMING, ETC.
SEE SHEET X50

RAILING - NORTH APPROACH (SPAN 2)

REVISIONS

DATE 12-23-49
DRAWN BY V.B.
CHECKED BY F.T.
CONTRACT No. C-378 SHEET No. 106



AS SHOWN
OPP. HAND
AS SHOWN
OPP. HAND

AS SHOWN
OPP. HAND
AS SHOWN
OPP. HAND

WT OF ONE :

[illegible]

REQ'D		MADE UP OF						
NO	MARK	NO	P. MK	SIZE	LENGTH	REMARKS	ORD.	WEIGHT
ONE	R325	ONE		L5x3x $\frac{3}{8}$	2'-7 $\frac{1}{2}$		9-418-87	27
ONE	R324	ONE		D _o	2'-7 $\frac{1}{2}$			27
ONE	R269	ONE		L5x3x $\frac{3}{8}$	6'-6 $\frac{1}{2}$			68
ONE	R268	ONE			6'-7 $\frac{1}{4}$			69
ONE	R287	ONE			6'-6"			68
ONE	R286	ONE			6'-6"			68
		1	a	R 4x $\frac{3}{8}$	10 $\frac{3}{4}$	FOR R269	9-419-43	5
		1	b		10 $\frac{3}{4}$	R268		5
		2	c		10 $\frac{3}{4}$	R267, R286		9
		1	d	L5x3x $\frac{3}{8}$	7'-4"	R269	9-418-87	7
		1	e		7'-4"	R268		7
		2	f		7'	R287, R286		12
		16	BOLTS	5/8"	1 $\frac{1}{2}$	HEX HO & NUT	123-12	3
ONE	R275	ONE		L5x3x $\frac{3}{8}$	6'-5 $\frac{1}{2}$		9-418-87	67
ONE	R274	ONE		D _o	6'-6 $\frac{1}{2}$			68
		1	K	L5x3x $\frac{3}{8}$	7'-3"	FOR R275		7
		1	m	D _o	8'	R274		7
		2	h	R 4x $\frac{3}{8}$	10 $\frac{3}{4}$	R275	9-419-43	9
		2	c			R274	D _o	9
		12	BOLTS	5/8"	1 $\frac{1}{2}$	HEX HO & NUT	123-12	2
4	R308	4		L3 $\frac{1}{2}$ x3x $\frac{3}{8}$	2'-8		108-8	77
4	R309	4			2'-8			77
4	R200	4			2'-8			77
4	R201	4			2'-8			77
		16	n	ONE 3x $\frac{3}{8}$	2'-7 $\frac{1}{2}$	BOLT FOR SHIP	9-419-43	133
		33	BOLTS	5/8"	3'-4		123-14	6
3	R277	3		L5x3x $\frac{3}{8}$	6'-6"		9-418-87	203
3	R276	3			6'-6"			203
ONE	R267	ONE			6'-6 $\frac{1}{2}$			68
ONE	R266	ONE			6'-7 $\frac{1}{4}$			69
ONE	R265	ONE			6'-6 $\frac{1}{2}$			68
ONE	R264	ONE			6'-7 $\frac{1}{4}$			69
ONE	R263	ONE			6'-6 $\frac{1}{2}$			68
ONE	R262	ONE			6'-7 $\frac{1}{4}$			69
ONE	R261	ONE			6'-6 $\frac{1}{2}$			68
ONE	R260	ONE			6'-7 $\frac{1}{4}$			69
ONE	R259	ONE			6'-6 $\frac{1}{2}$			68
ONE	R258	ONE			6'-7 $\frac{1}{4}$			69
ONE	R257	ONE			6'-6 $\frac{1}{2}$			68
ONE	R256	ONE			6'-7 $\frac{1}{4}$			69
ONE	R281	ONE			6'-5 $\frac{1}{2}$			67
ONE	R280	ONE			6'-6 $\frac{1}{2}$			68
ONE	R279	ONE			6'-6"			68
ONE	R278	ONE			6'-6 $\frac{1}{2}$			68
		6	a				9-419-43	27
		8	c					27
		2	h					36
		44	BOLTS	5/8"	1 $\frac{1}{2}$	HEX HO & NUT	123-12	9

GROSS WT.	2597
WT DED.	
NET WT.	2597
PAINT	10
TOTAL WT.	2607

ARROWSIC BRIDGE OVER SASANOVA RIVER
ARROWSIC - WOOLWICH
FED. AID PROJ. No. S-154 (2)
CONTRACT No. 2

FOR NOTES ON SPECIFICATIONS, MATERIAL,
PAINTING, PUNCHING, DRILLING, REAMING, ETC.
SEE SHEET X50

AS NOTED RAILING NORTH & SOUTH APPROACHES (SPANS 13&14)

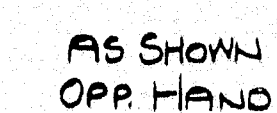
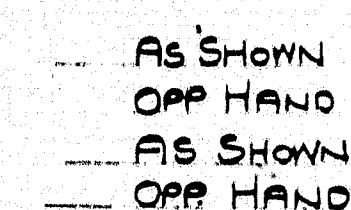
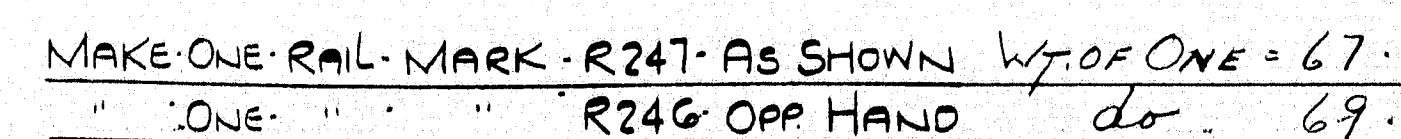
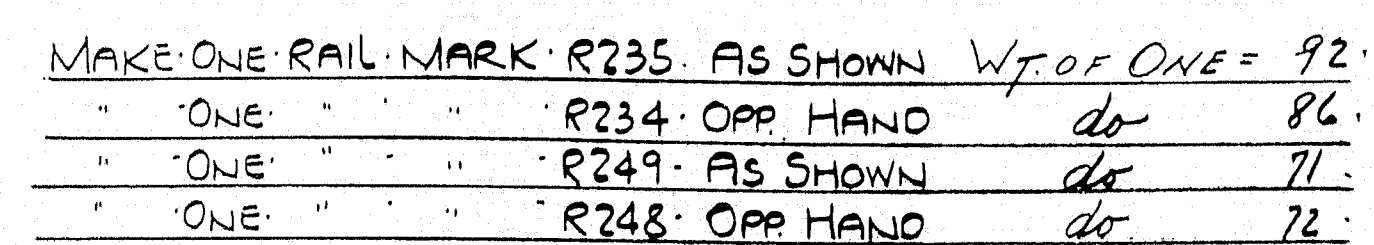
RIVETS DIAM. OPEN HOLES DIAM.
UNLESS OTHERWISE NOTED

HARRIS STRUCTURAL STEEL CO.
410 FOURTH AVE. N. Y.

REVISIONS

NO.	DESCRIPTION	DATE
1	AS NOTED	12-26-49
2	AS NOTED	1-16-50
3	AS NOTED	1-16-50
4	AS NOTED	1-16-50
5	AS NOTED	1-16-50
6	AS NOTED	1-16-50
7	AS NOTED	1-16-50
8	AS NOTED	1-16-50
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36	AS NOTED	1-16-50
37	AS NOTED	1-16-50
38	AS NOTED	1-16-50
39	AS NOTED	1-16-50
40	AS NOTED	1-16-50
41	AS NOTED	1-16-50
42	AS NOTED	1-16-50
43	AS NOTED	1-16-50
44	AS NOTED	1-16-50
45	AS NOTED	1-16-50
46	AS NOTED	1-16-50
47	AS NOTED	1-16-50
48	AS NOTED	1-16-50
49	AS NOTED	1-16-50
50	AS NOTED	1-16-50

DRAW. MADE BY WB DATE 12-26-49
DRAW. CHECKED BY ET DATE 1-16-50
CONTRACT NO. 6318 SHEET NO. 108

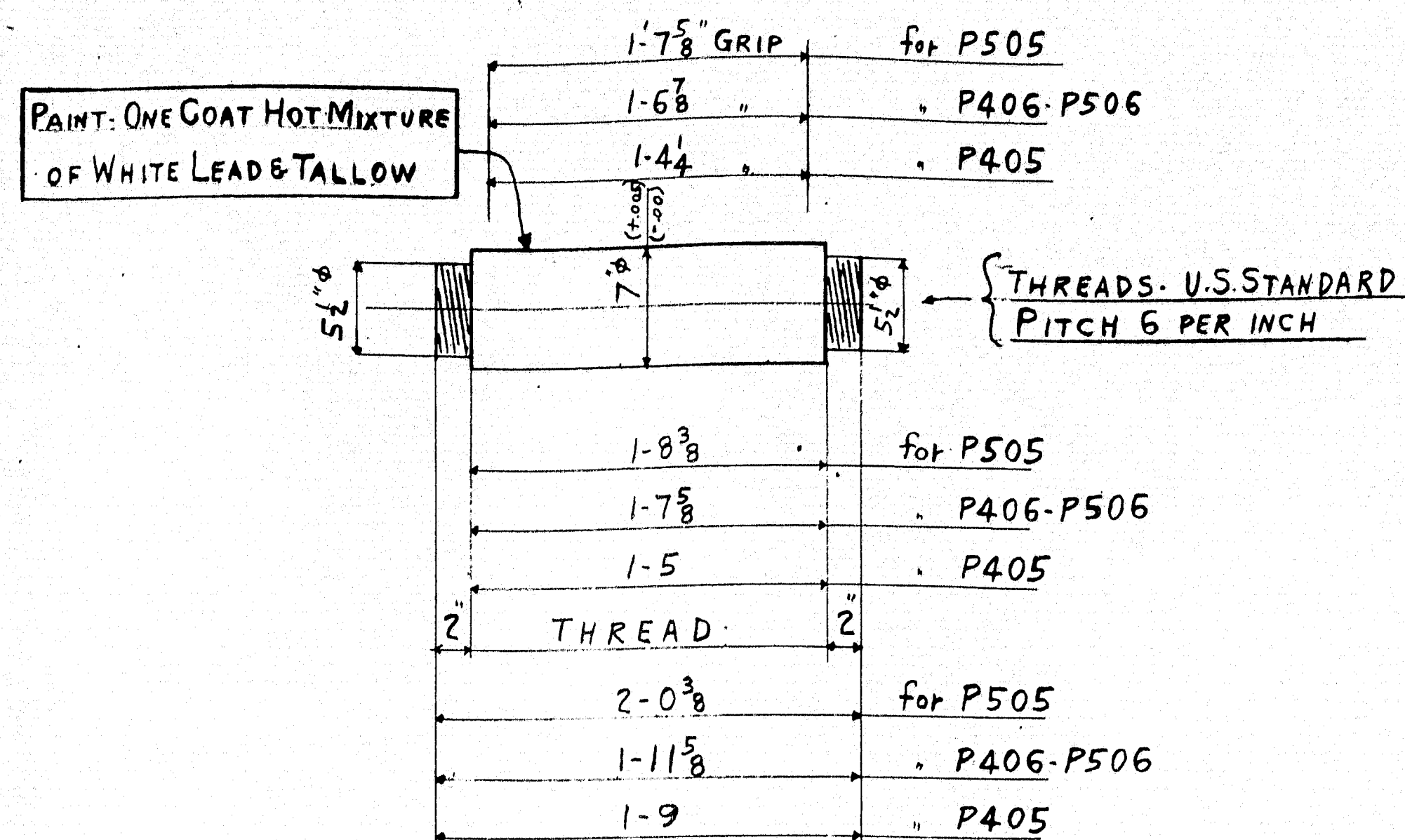


GROSS WT.	1218
WT. DED.	-
NET WT.	1218
PAINT	5
TOTAL WT.	1223

RAILING-NORTH APPROACH (SPANS 1 & 2)

RIVETS	DIAM.	OPEN HOLES	DIAM.
UNLESS OTHERWISE NOTED			As NOTED
REVISIONS			

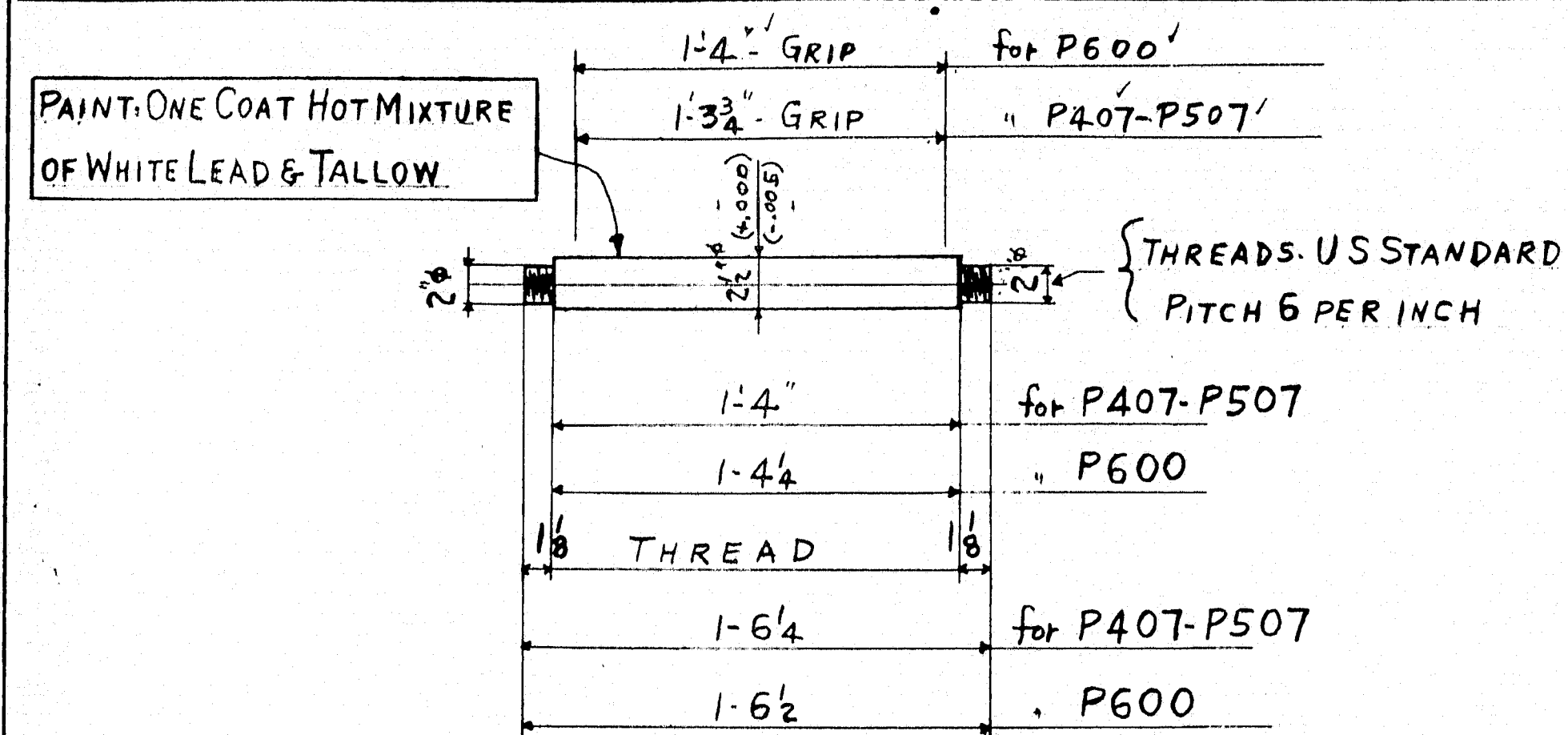
DRAW. MADE BY: WB DATE: 12-28-49
DRAW. CHECKED BY: FT DATE: 1-16-50
CONTRACT No. C378 SHEET No. 109



SPEC. MAT'L - SAE 1020 HOT ROLLED CARBON STEEL

MAKE 2 PINS - MARK P405 WT. OF ONE 214#

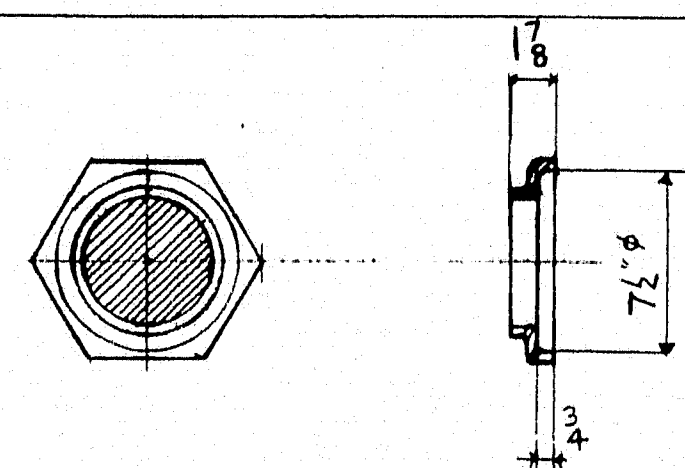
2	P406	do	243#
2	P505	do	251#
2	P506	do	243#



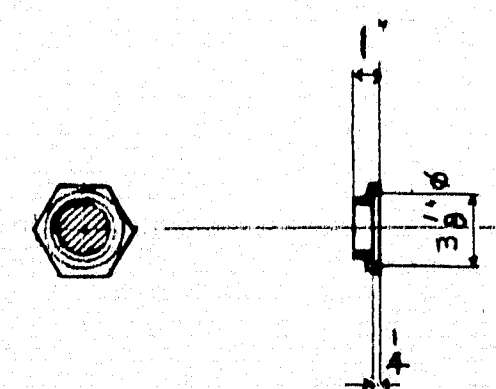
SPEC. MAT'L - SAE 1020 COLD FINISHED CARBON STEEL

MAKE 2 PINS - MARK P407 WT. OF ONE 25#

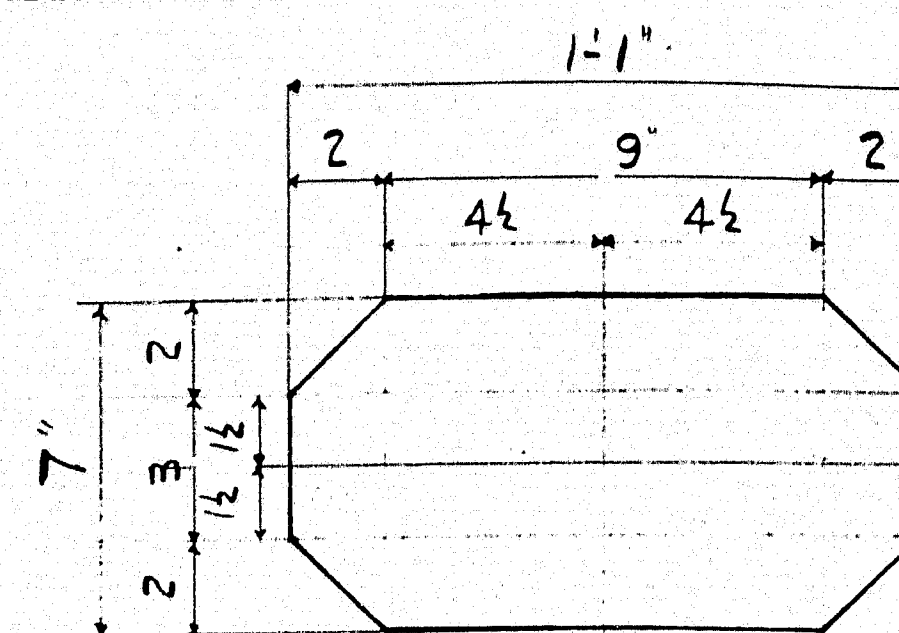
2	P507	do	25
4	P600	do	26



16 NUTS - MARK PN29
WT. OF ONE 12#



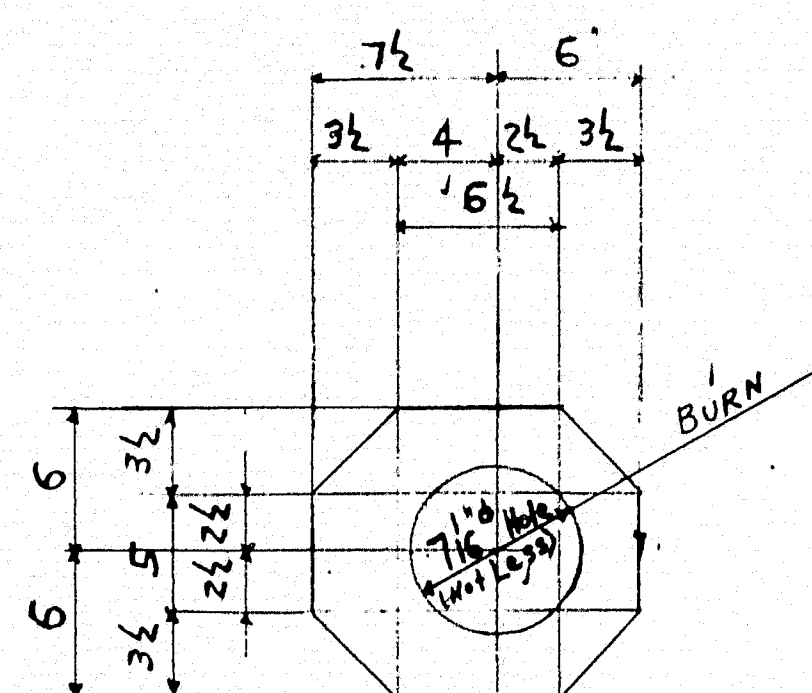
16 NUTS - MARK PN22
TOTAL WT. 32#



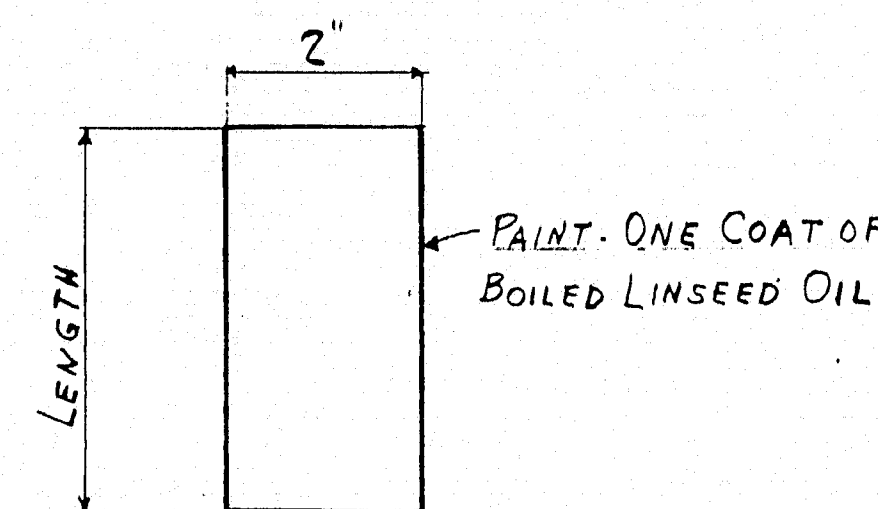
PAINT: ONE COAT OF BOILED LINSEED OIL

WT. OF ONE 7# MAKE 14 PLATES 7x5 1/2 x 1-1" MARK M1

do 11# 8' 7x7 1/2 x 1-1" MARK M2



MAKE 8 PLATES - 12x3/8 x 1-1/2 MARK M3
WT. OF ONE 11#



MAKE 2 PLATES - 2x1/2 x 0-4" MARK M503

2	2x1/2 0-4 1/8	M504
2	2x1/2 0-4 1/4	M505
2	2x1/2 0-4 3/8	M506
2	2x1/2 0-4 1/2	M507
2	2x1/2 0-5 1/8	M508
2	2x1/2 0-5 1/4	M509
2	2x1/2 0-5 3/8	M510
1	2x1/2 0-5 1/2	M511

TOTAL WT. 24#

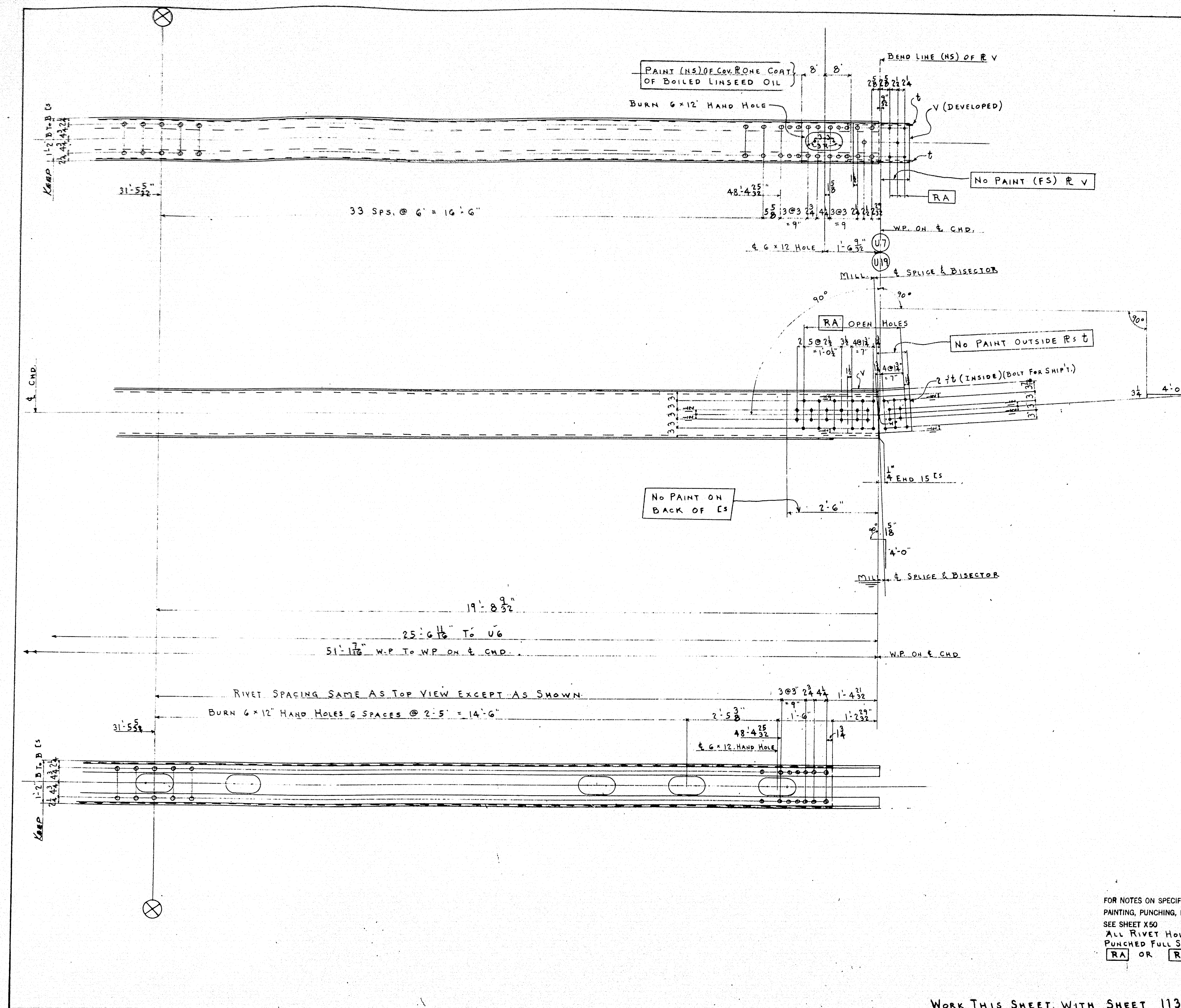
SHEET NO			REQ'D		MADE UP OF				REMARKS	ORD	WEIGHT	J. W.	
4	5	6	NO	MARK	NO	PK	MARK	SIZE					LENGTH
			✓	2	P505	2		7" PIN	2-0 3/8		117-6	531	31
			✓	2	P406	2		7" "	1-11 5/8			516	31
			✓	2	P506	2		7" "	1-11 5/8			516	31
			✓	2	P405	2		7" "	1-9			458	31
8	8		✓			16		STD. RECESSED PIN NUTS FOR 7" PIN (PN29)	12	32789		192	-
			✓	2	P407	2		2 1/2" PIN	1-6 1/4		32777	51	2
			✓	2	P507	2		2 1/2" "	1-6 1/4			51	2
			✓	4	P600	4		2 1/2" "	1-6 1/2			103	4
4	4	8	✓			16		STD. RECESSED PIN NUTS FOR 2 1/2" PIN (PN22)		32789		32	-
8	8	8	✓	24	M1	24		P 7x5 1/2	1-1		9-423-6	193	17
4	4		✓	8	M2	8		P 7x7 1/2	1-1		do	90	6
4	4		✓	8	M3	8		P 12x3/8	1-1 1/2		114-6	138	52
	2			2	M503	2		P 2x1/2	0-4		9-423-1	2	-
	2			2	M504	2		2x1/2	0-4 1/8			2	-
	2			2	M505	2		2x1/2	0-4 3/8			3	-
	2			2	M506	2		2x1/2	0-4 1/2			3	-
	2			2	M507	2		2x1/2	0-4 5/8			3	-
	2			2	M508	2		2x1/2	0-5 1/8			3	-
	2			2	M509	2		2x1/2	0-5 1/4			3	-
	2			2	M510	2		2x1/2	0-5 3/8			3	-
	1			1	M511	1		P 2x1/2	0-5 1/2			2	-
											Gross Wt	2895	-
											Wt. DED.	207	-
											Net. Wt.	2688	-
											Paint	10	-
											TOTAL Wt.	2698	-

GENERAL NOTES -
MATERIAL: STRUCTURAL CARBON STEEL; A.S.T.M. DESIGNATION A7-42 UNLESS OTHERWISE NOTED.

ARROWSIC BRIDGE OVER SASANCA RIVER
ARROWSIC - WOODWICH
FED. AID PROJ. NO. S-154 (2)
CONTRACT NO. 2

FOR NOTES ON SPECIFICATIONS, MATERIAL, PAINTING, PUNCHING, DRILLING, REAMING, ETC. SEE SHEET X80

RIVETS	DIAM.	OPEN HOLES	DIAM.
UNLESS OTHERWISE NOTED			
REVISIONS			
DRAWN BY: H.M. DATE: 1-13-50			
CHECKED BY: H.L.W. DATE: 1/30/50			
CONTRACT NO. C378 SHEET NO. 110			

[illegible]

ARROWSIC BRIDGE OVER SASANOA RIVER
ARROWSIC - WOOLWICH
FED. AID PROJ. No. S-154 (2)
CONTRACT No. 2

FOR NOTES ON SPECIFICATIONS, MATERIAL,
PAINTING, PUNCHING, DRILLING, REAMING, ETC.
SEE SHEET X50
ALL RIVET HOLES & OPEN HOLES
PUNCHED FULL SIZE UNLESS NOTED
[RA] OR [RT]

CHORD MEMBERS U5-7 (T1) U21-19 (T1)
 U5-7 (T2) U21-19 (T2)

HARRIS STRUCTURAL STEEL CO
419 FOURTH AVE., N. Y.

DRAW. MADE BY Stall DATE 11/29/49
DRAW. CHECKED BY L DATE 12-29-49
CONTRACT NO. C378 SHEET NO. 114

WORK THIS SHEET WITH SHEET 113

48-126



