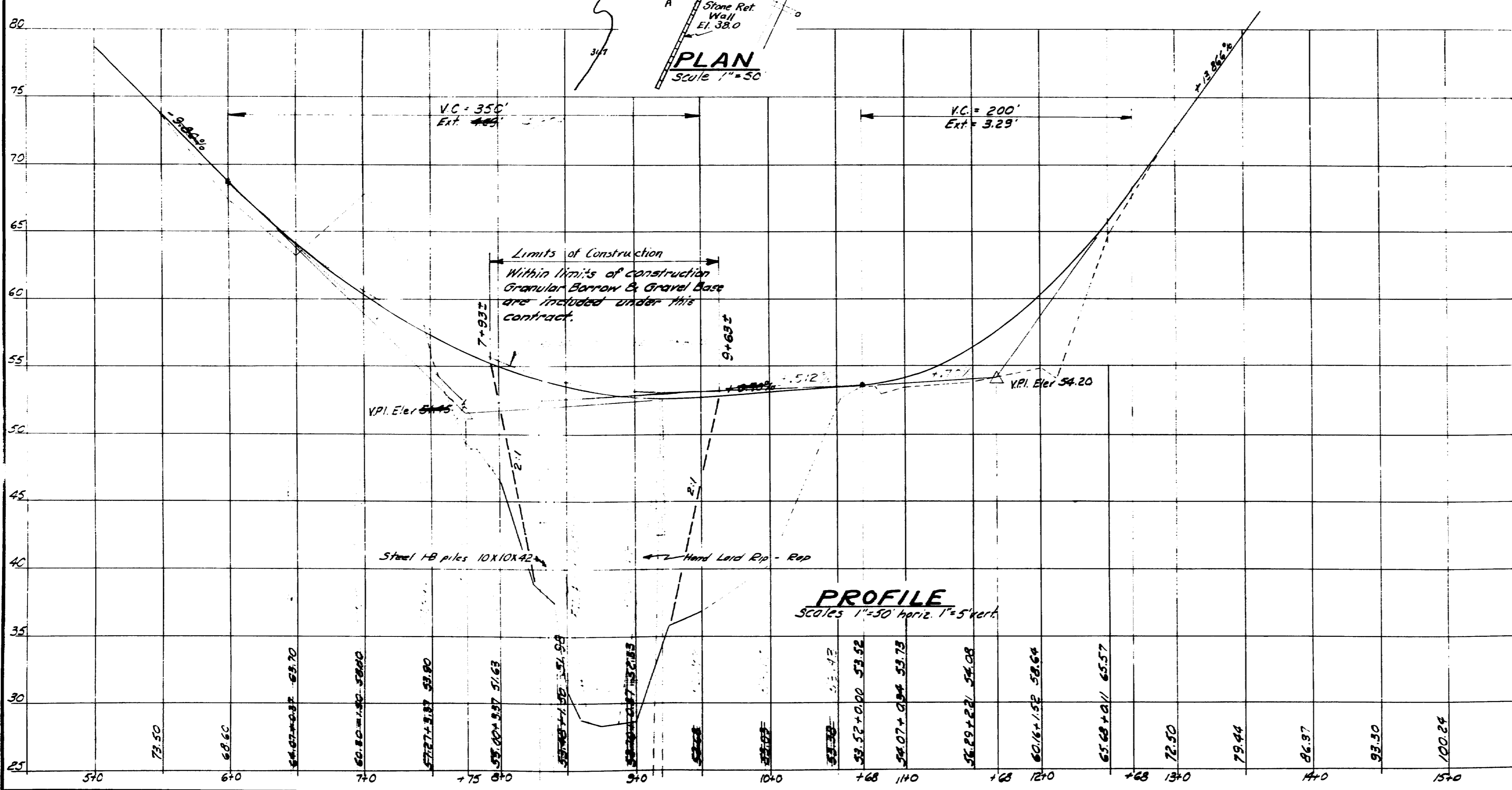
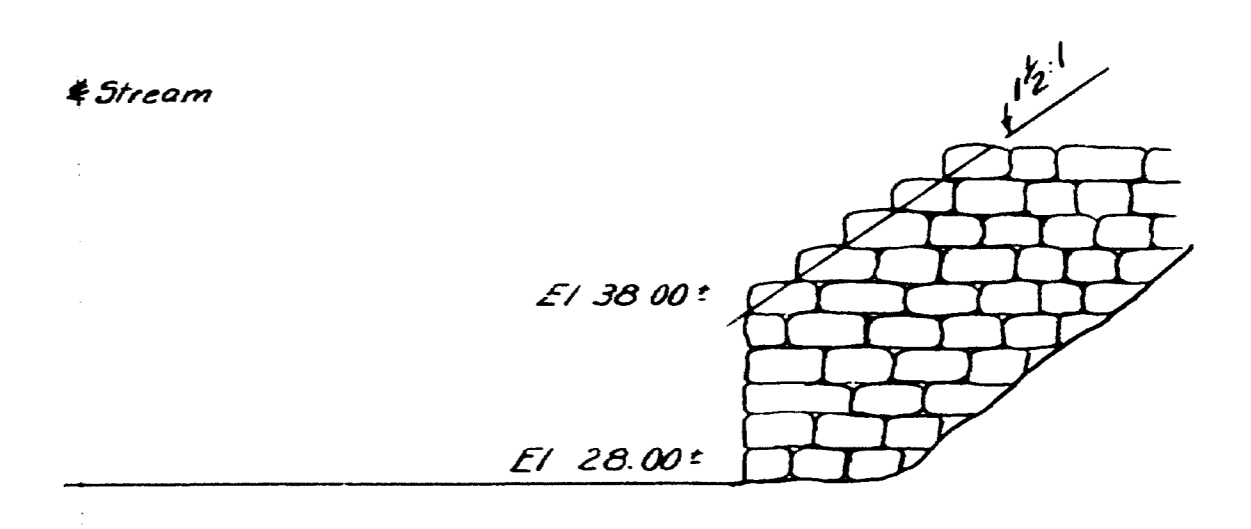
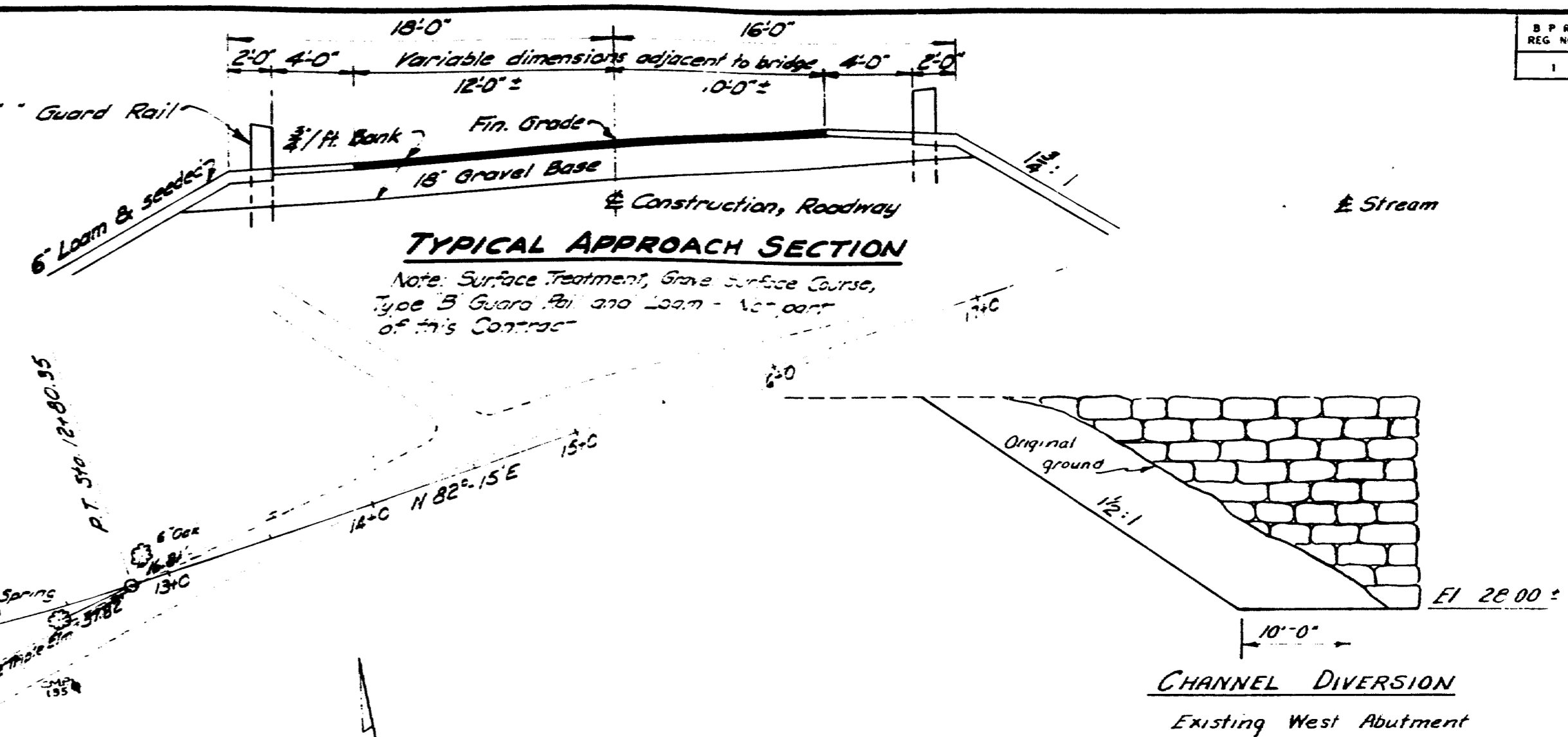
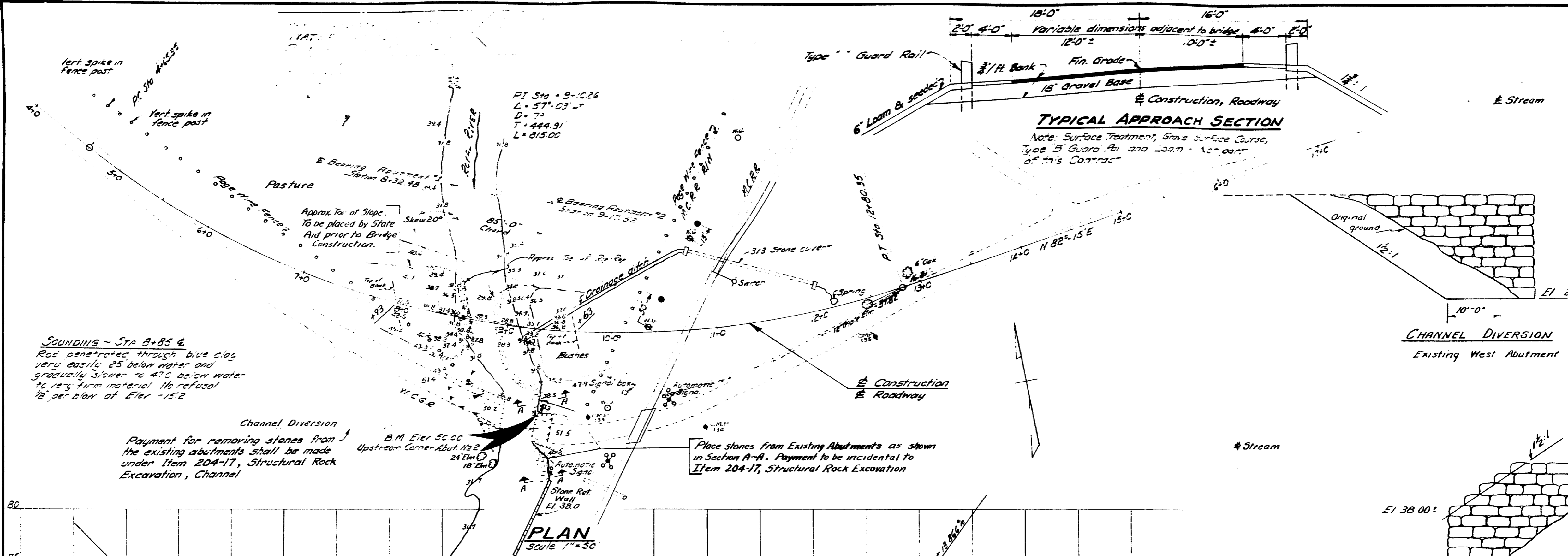
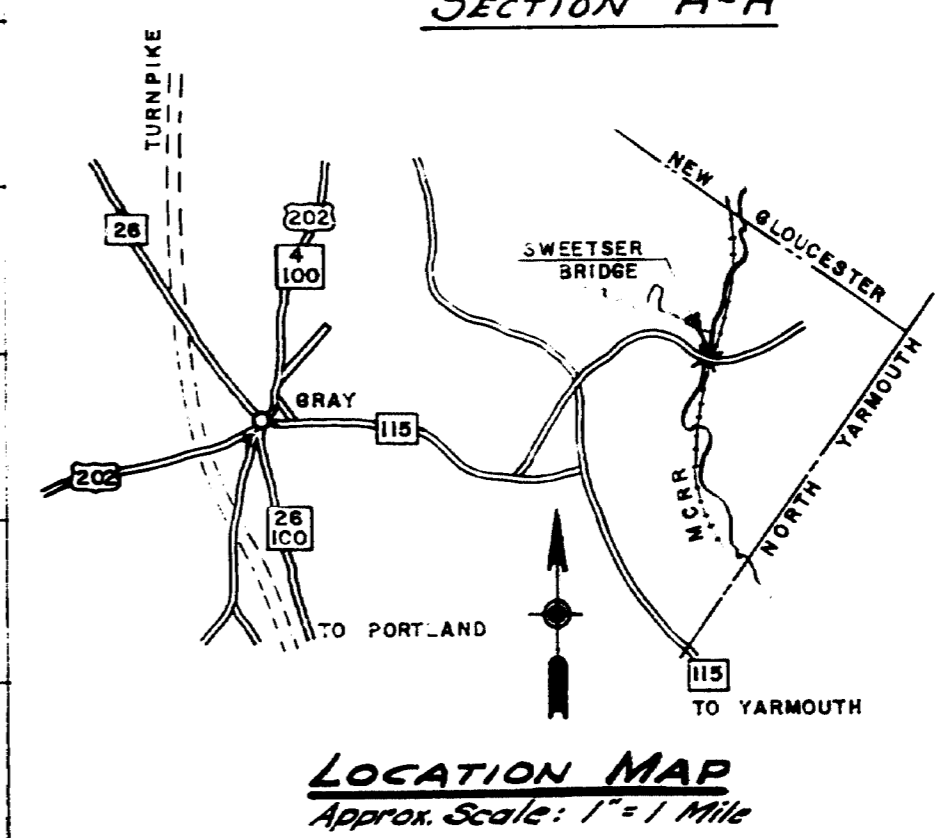


D.P. & REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



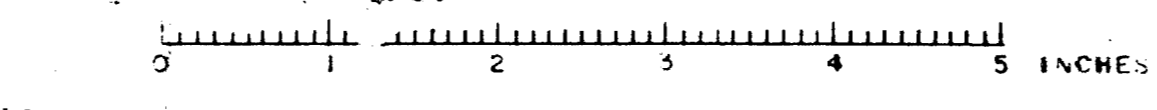
- SURVEY NOTES**
1. Exist. Superstructure - Narrow steel pony truss. 4" transverse plank on 8" steel & wood stringers.
 2. Exist. Substructure - Large well split granite wall, laid in mortar. No signs of settlement.
 3. Stream - Moderate Current, extreme high water - never up to bridge. Present water El. 31.8.
 4. Public Utilities - Central Maine Power Co., Pine Tree Tel. & Tel. Co., Maine Central Railroad Co., Western Union Telegraph Co.
- All utility plant to be adjusted as necessary by the respective Utilities, unless otherwise noted.



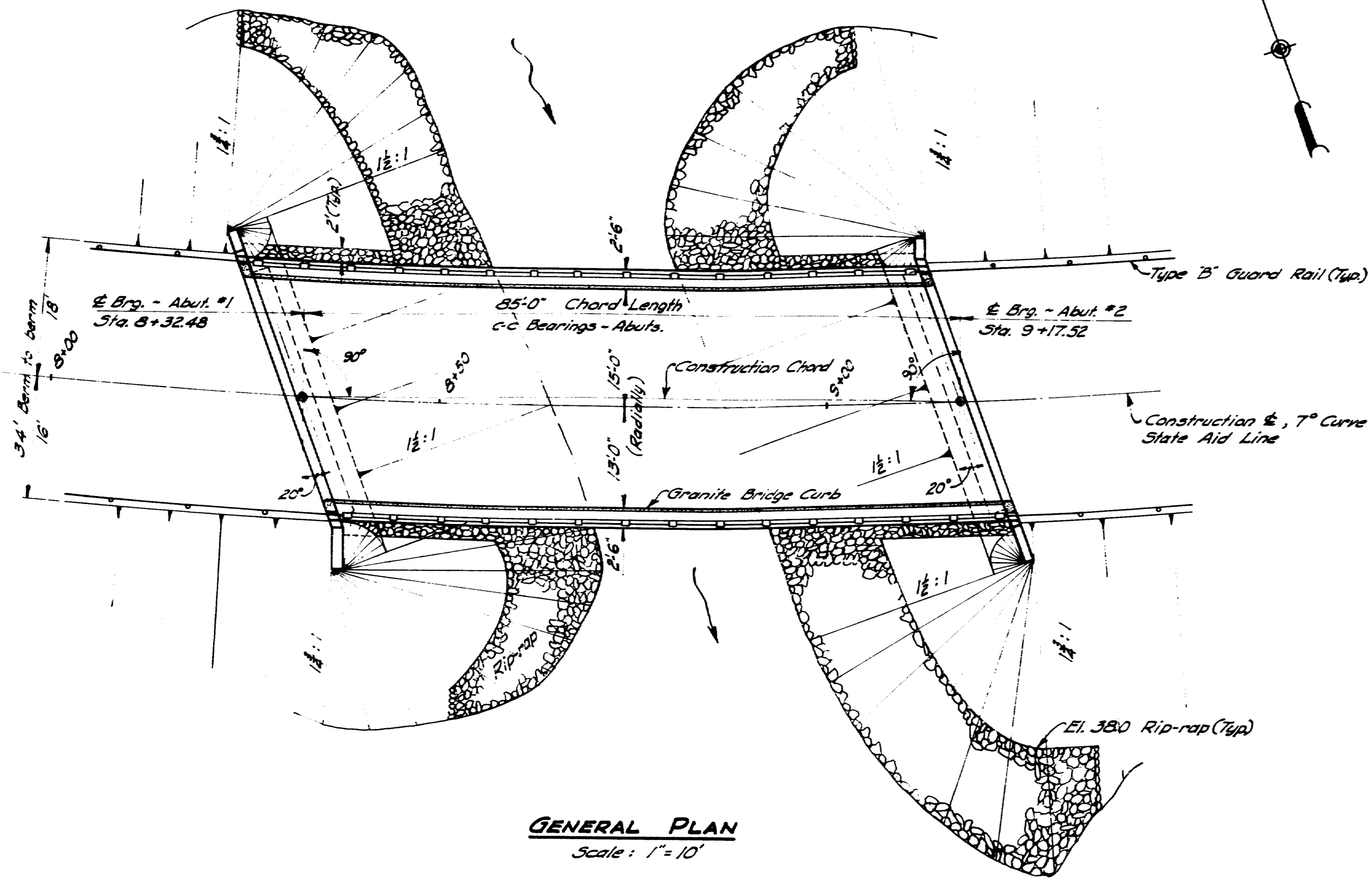
DESIGN - F. Barnes	67 DGE NO. 5781
TRACE - F. Barnes	SURVEY -
CHECK - AC	PLOT - E. W. Barnes

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
SWEETSER BRIDGE
OVER
ROYAL RIVER
IN THE TOWN OF
GRAY
CUMBERLAND COUNTY
SURVEY

SHEET 1 OF 9 AUGUSTA, MAINE FEB. 1962



D.P. & REC. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



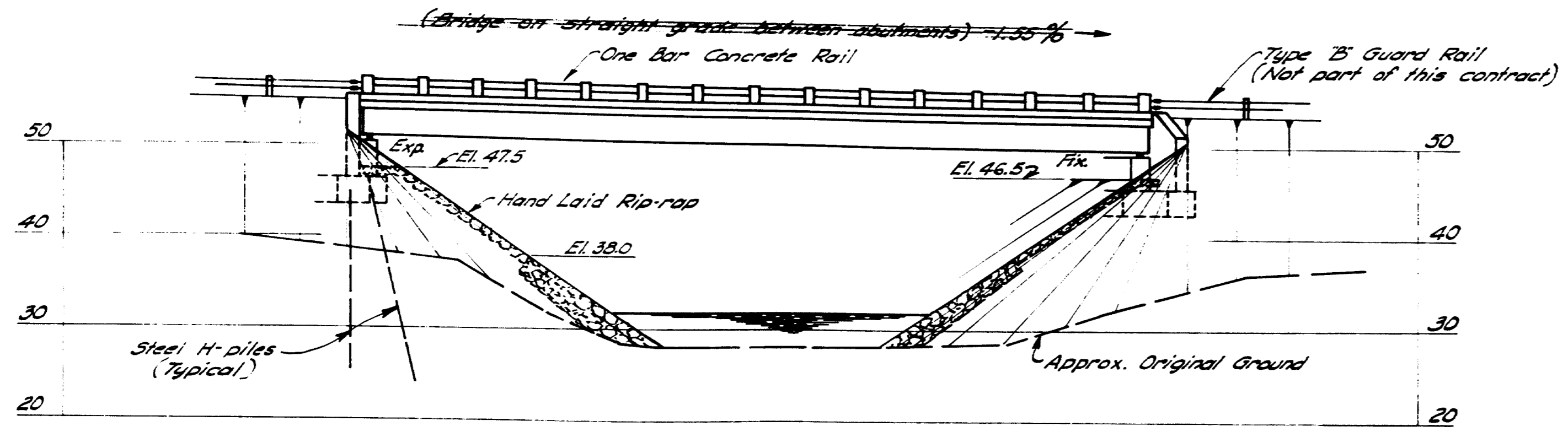
GENERAL PLAN
Scale: 1" = 10'

SPECIFICATIONS
Design: A.A.S.H.O. Standard Specifications for Highway Bridges 1961.

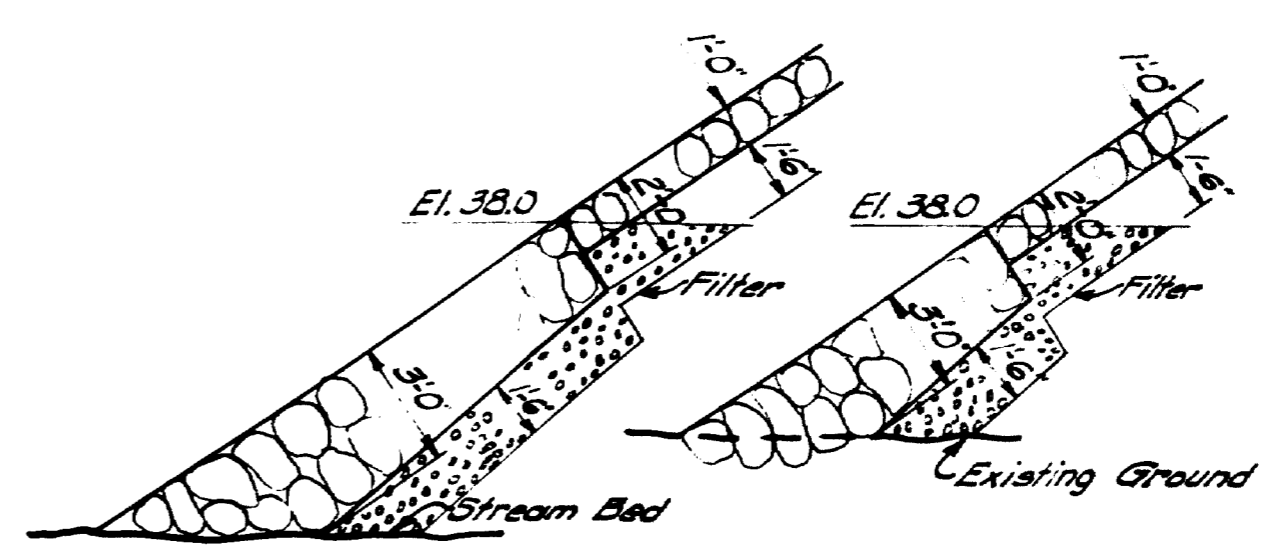
LOADING H20-44
 $f_s = 18,000 \text{ p.s.i.} \sim A7$ } Structural Steel
 $20,000 \text{ p.s.i.} \sim A36$ }
 $f_c = 20,000 \text{ p.s.i.}$ } Reinforced Concrete
 $f_c = 1200 \text{ p.s.i.}$ }
 $n = 10$

CONTRACT:
State of Maine, State Highway Commission
Standard Specifications Highways and Bridges
Revision of January 1956.

CONCRETE CLASSIFICATION
Concrete Rail Class 'Y'
All other concrete Class 'A'

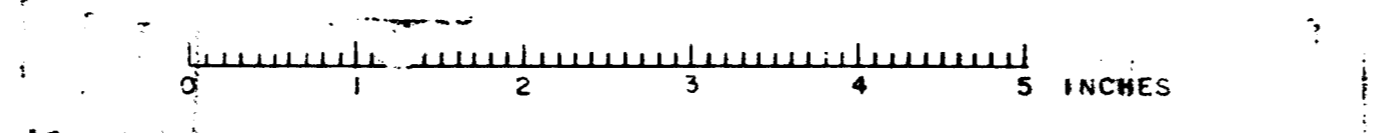


DOWN STREAM ELEVATION
Scale: Vert. & Hor., 1" = 10'



TYPICAL SECTION - RIP-RAP
Plain Riprap below Elev. 32.0 & Hand Laid Riprap above Elev. 32.0

DESIGN - <i>AMS</i>	BRIDGE NO. 3781
TRACE - <i>G.M.C.</i>	SURVEY -
CHECK - <i>R.W.</i>	PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
SWEETSER BRIDGE	
OVER	
ROYAL RIVER	
IN THE TOWN OF	
GRAY	
CUMBERLAND COUNTY	
GENERAL PLAN & ELEVATION	
SHEET 2 OF 9 AUGUSTA, MAINE MAR. 1962	

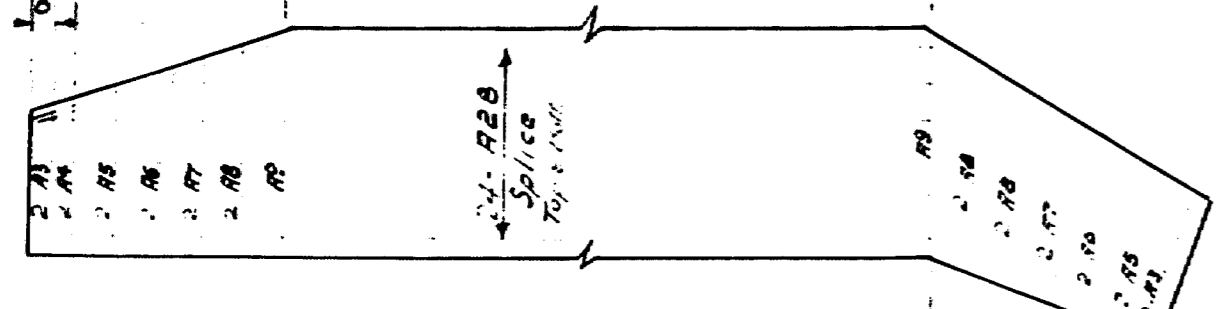


B.P.R. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

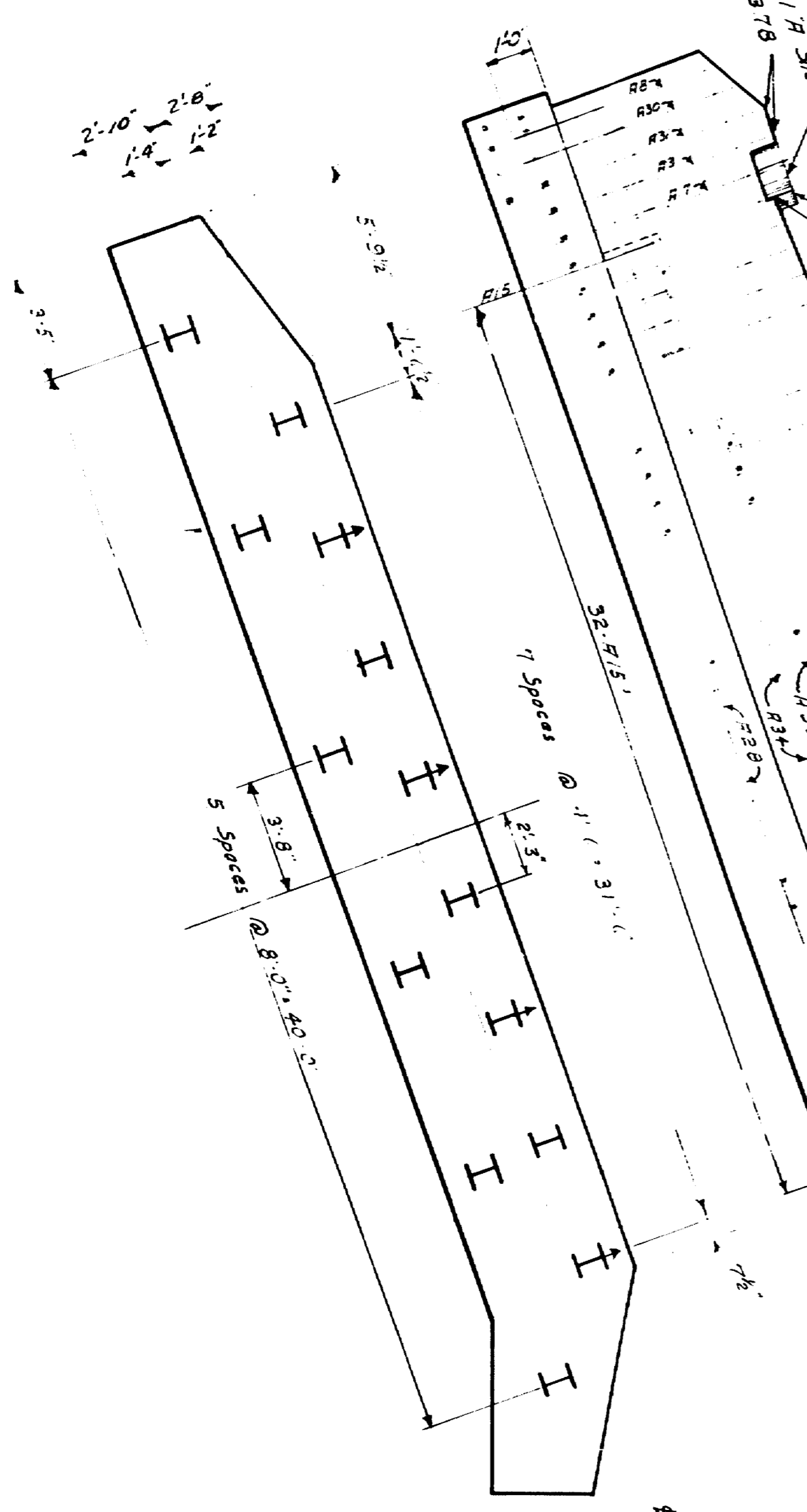
1'-0" 5'-0" 70'-R9 @ 1'-0" x 34'-0" Top & Bottom

Reinforcing steel to be bent in the field whenever necessary.

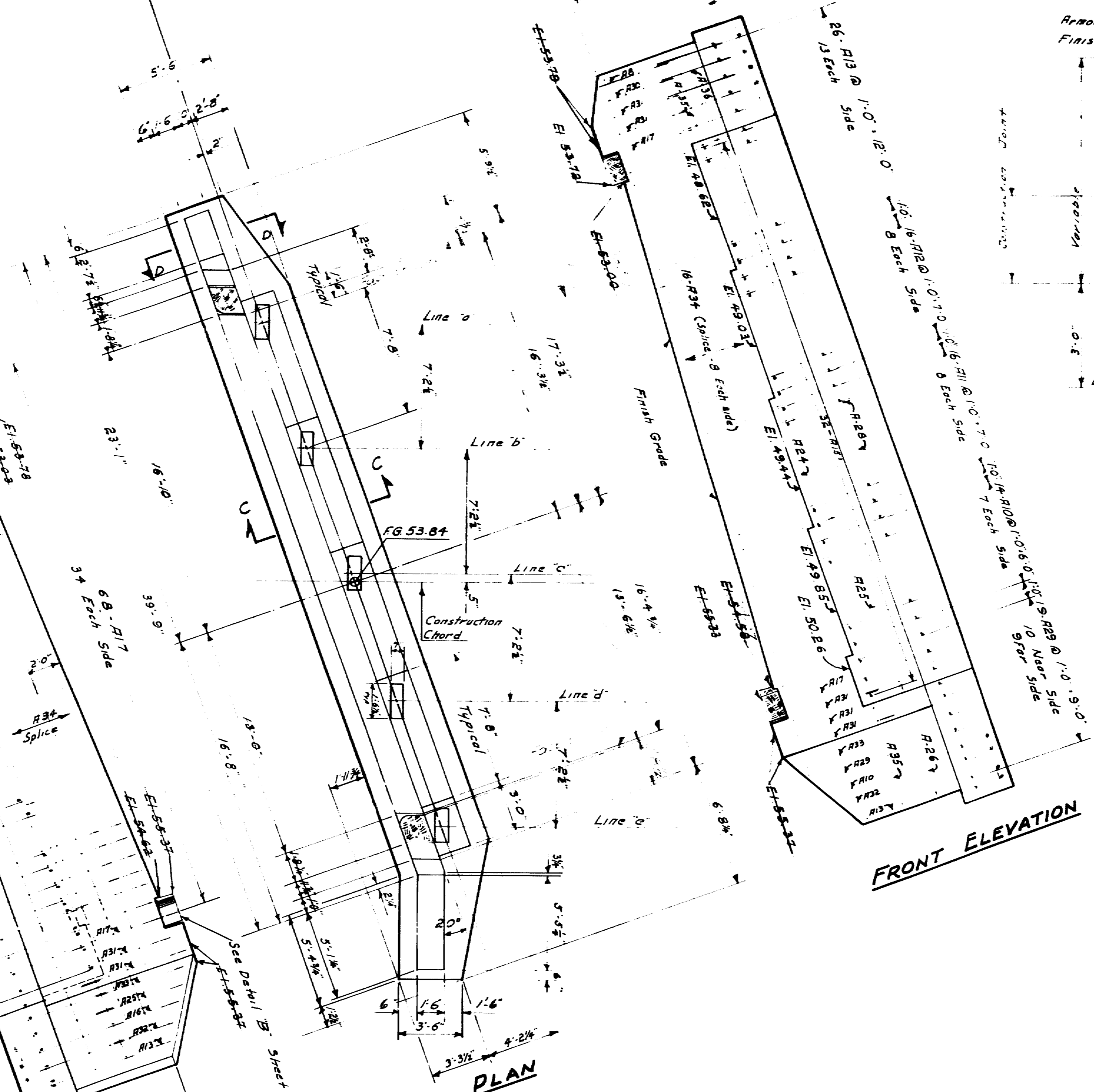
Bearing Abutment #1



HORIZONTAL STEEL (FOOTING)



PILE PLAN



PLAN

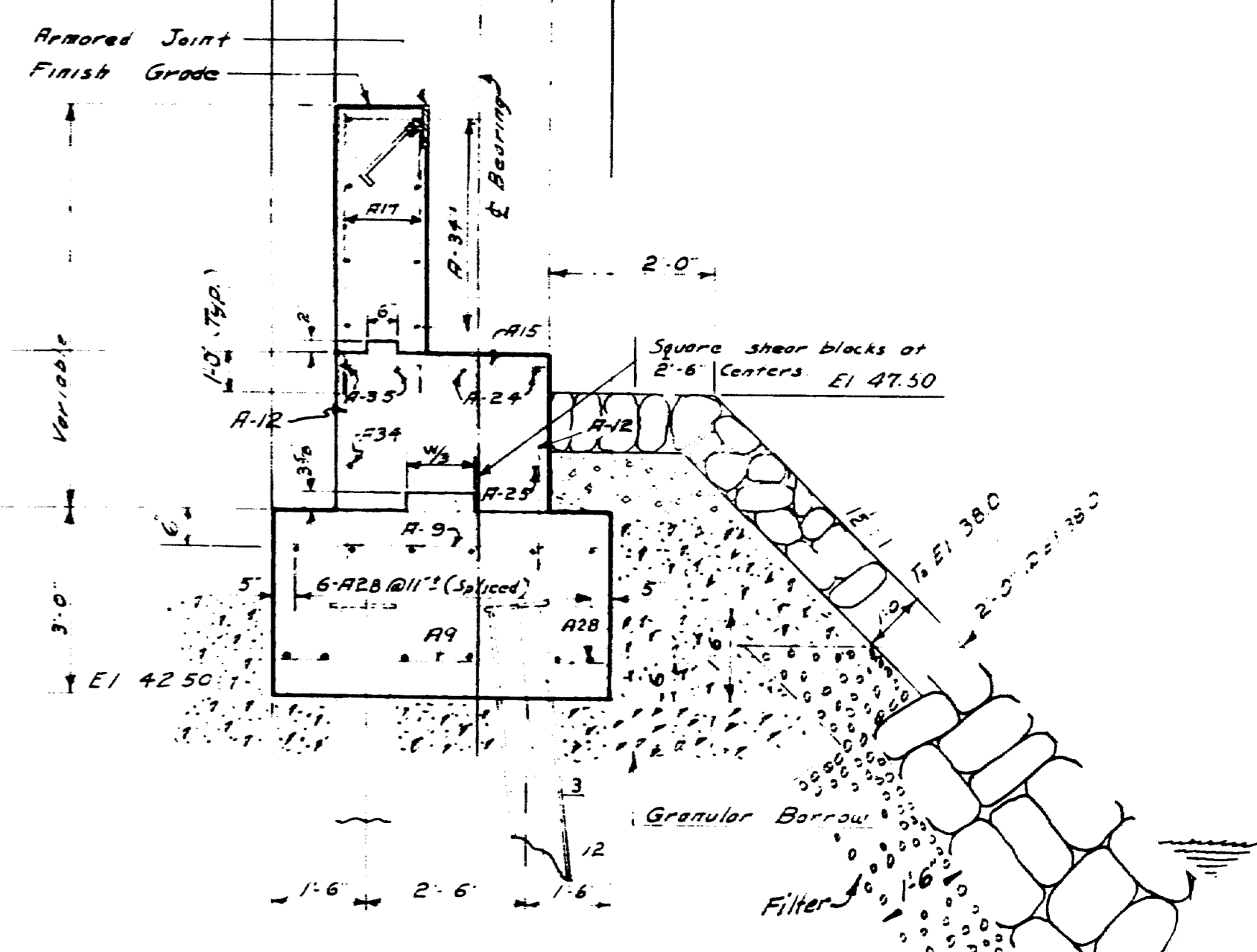
REAR ELEVATION

PILE NOTES:-

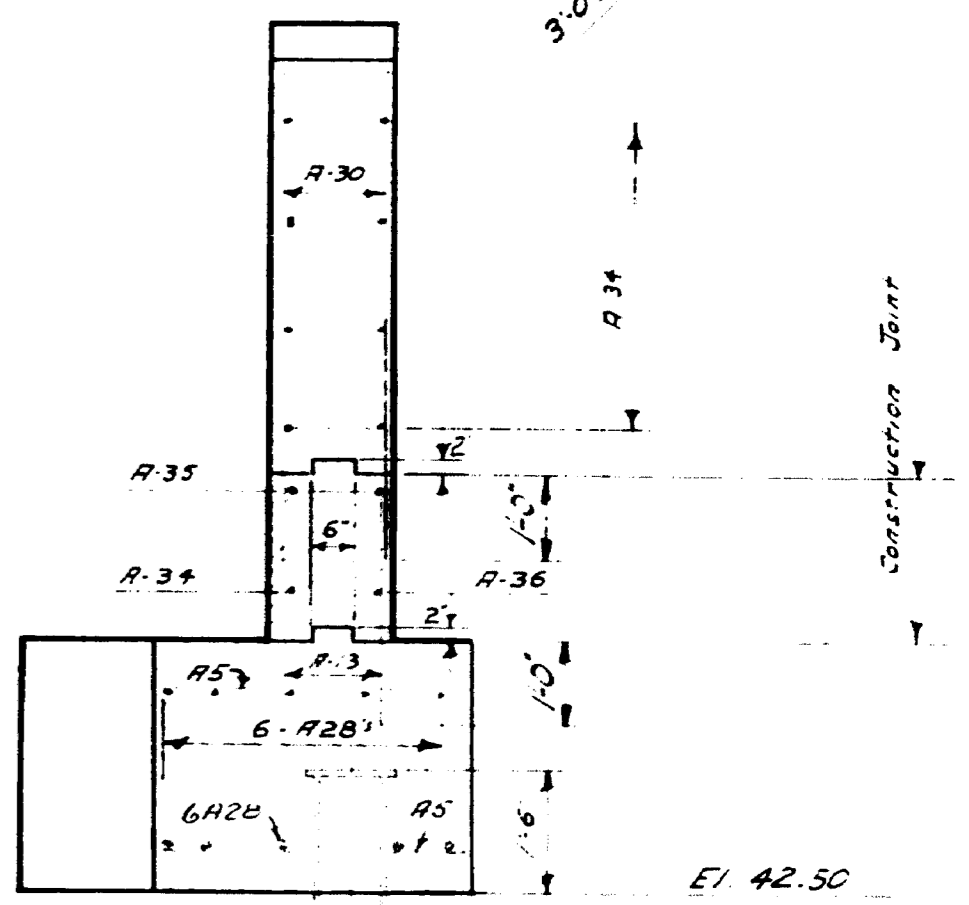
14 - Steel Piles Regd. - 10 BP 42
 Piles to be driven to ledge or practical refusal (top)
 Allowable load: 37 tons.
 Piles shown thus, ∇ , are to be battered 3"/ft
 in direction of arrow.
 Estimated length = 65'
 See Sh. #7 for "Pile Cap Detail"

NOTE-

Dress shaded bearing areas 1" larger all around than Masonry Plate.
 Place reinforcing steel in bridge seats to clear anchor bolts.
 Chamfer all exposed edges of concrete 1/4".
 Place granular borrow to elevation of bottom of footing before driving piles.
 Stones not to exceed 6" diameter in areas where piles are to be driven, at both abutments.



SECTION C-C



SECTION D-D

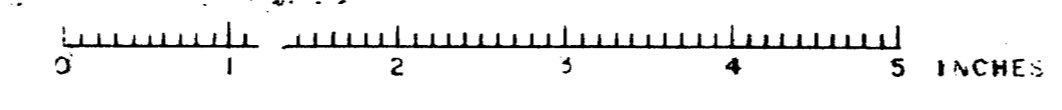
DESIGN - P.L.V.
 TRACE - B.T.H.
 CHECK - R.P.S.

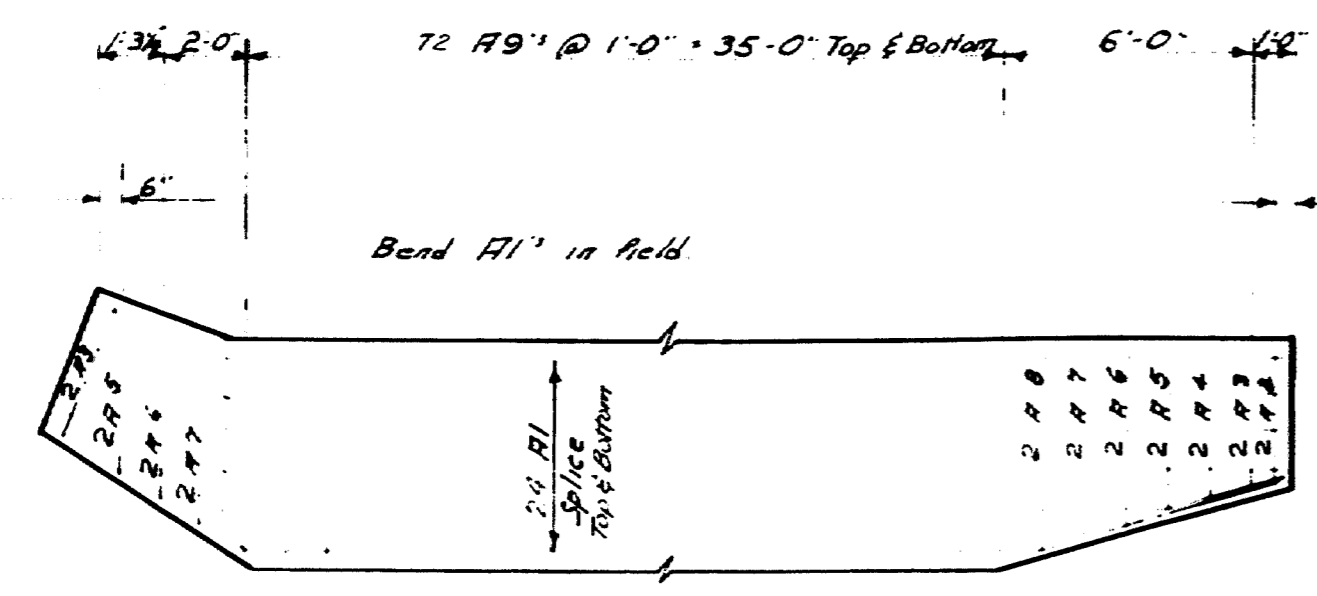
BRIDGE NO. 5781
 SURVEY -
 PLOT -

STATE HIGHWAY COMMISSION
 BRIDGE DIVISION

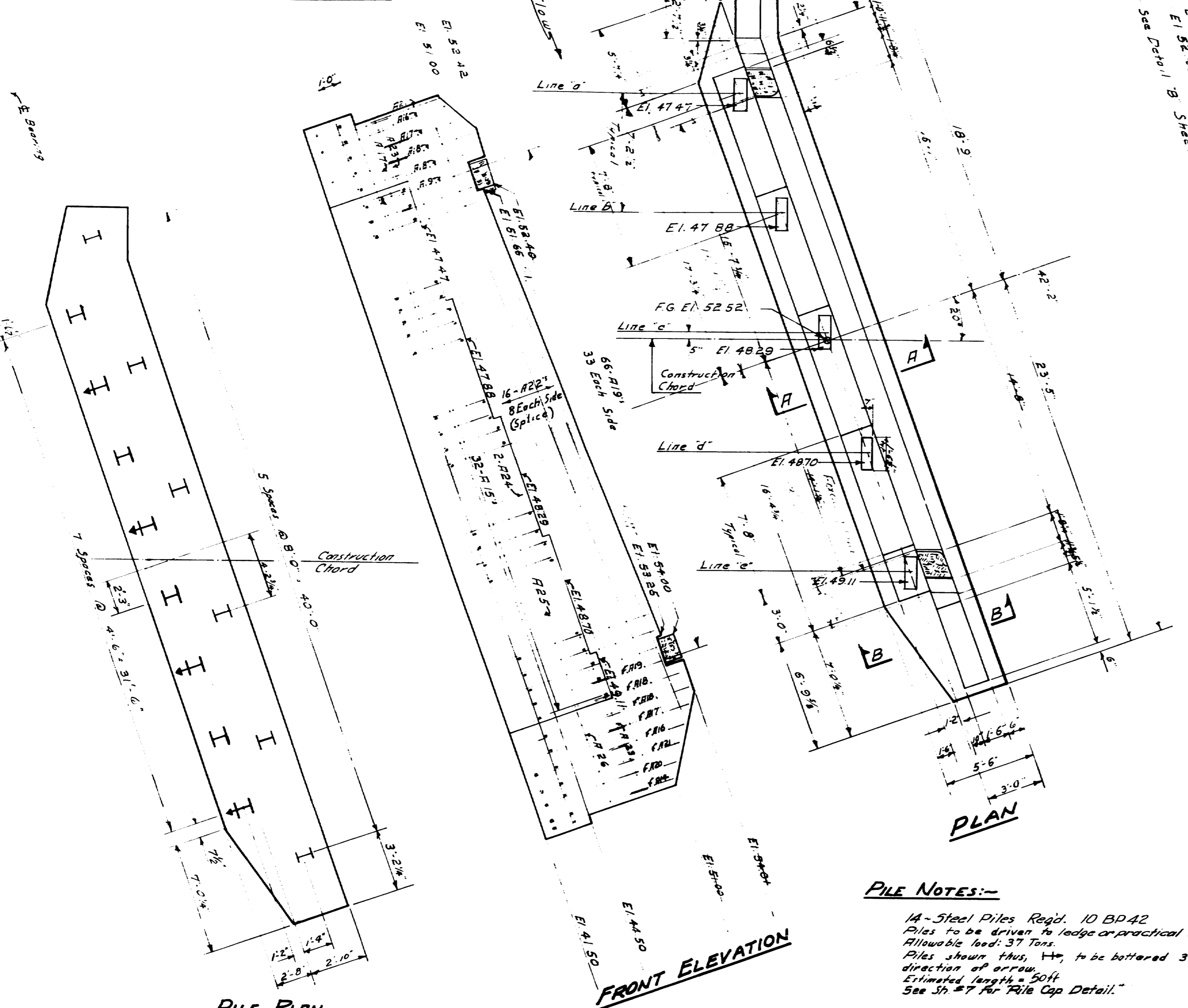
SWEETSER BRIDGE
 OVER
ROYAL RIVER
 IN THE TOWN OF
GRAY
 CUMBERLAND COUNTY
 ABUTMENT NO. 1

SHEET 3 OF 9 AUGUSTA, MAINE FEB. 1962





HORIZONTAL STEEL (FOOTING)

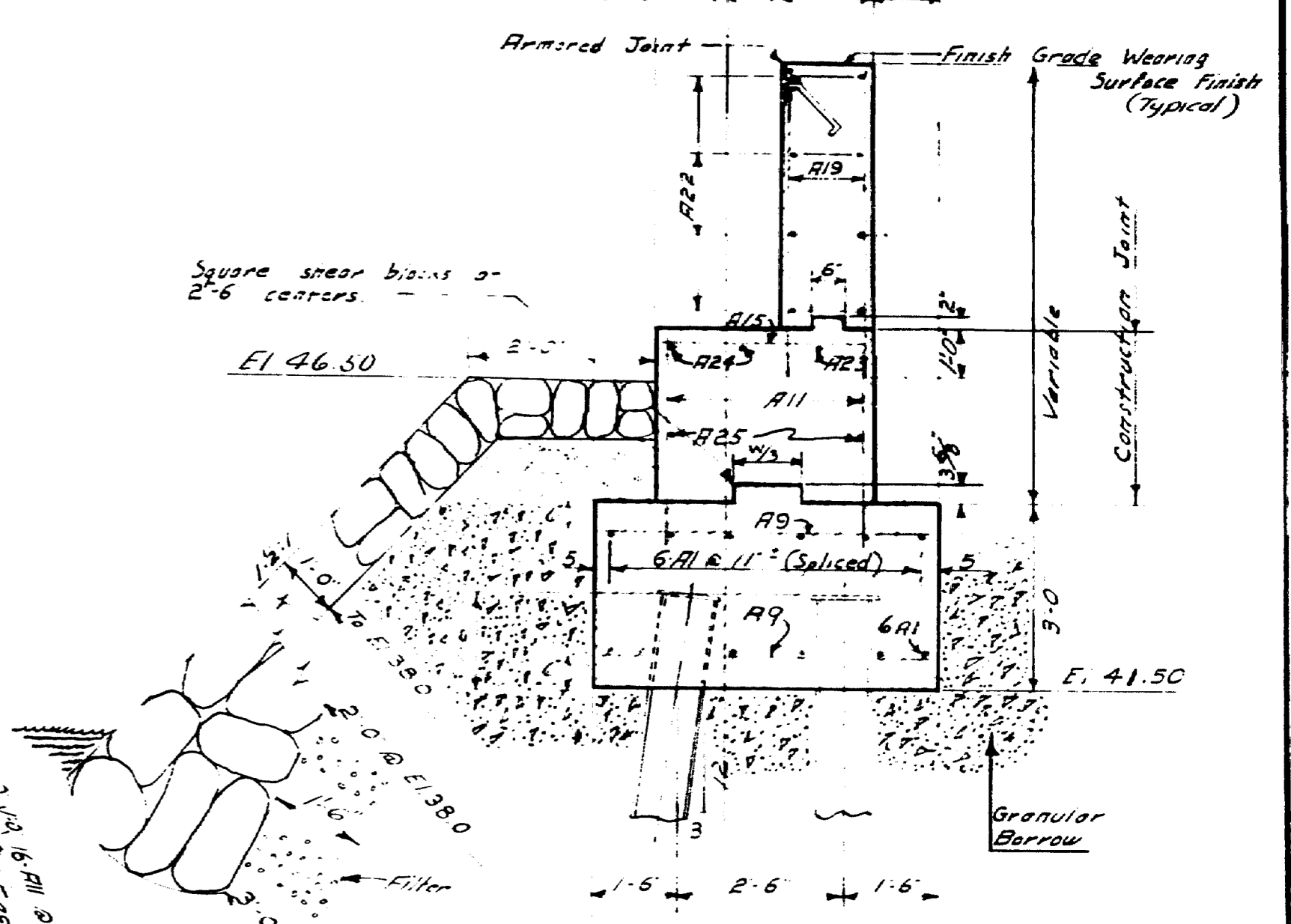


PILE NOTES:-

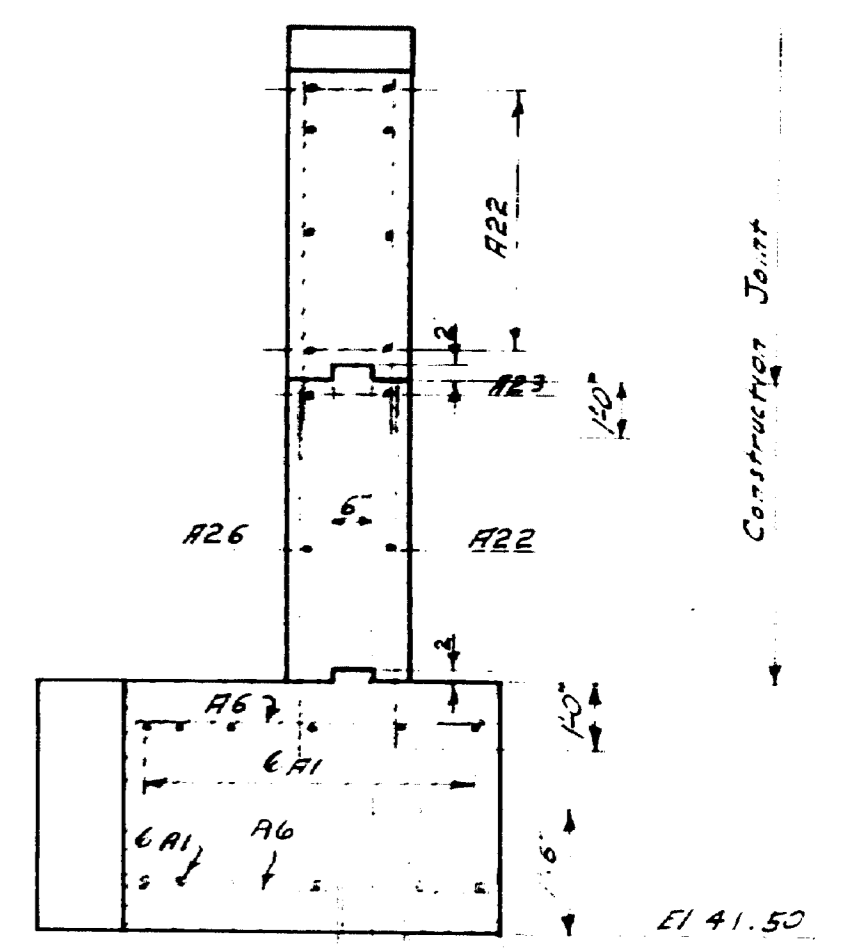
1A - Steel Piles Reg'd. 10 BD42
 Piles to be driven to ledge or practical refusal (Typ.)
 Allowable load: 37 Tons.
 Piles shown thus, to be battered 3/4" in direction of arrow.
 Estimated length = 50ft
 See Sh #7 for Pile Cap Detail.

NOTES:-

Dress shaded bearing areas, 1" larger all around than Masonry Plate.
 Place reinforcing steel in bridge seat to clear anchor bolts.
 Chamfer all exposed edges of concrete 3/4".
 Place granular borrow to elevation of bottom of footing before driving piles.



SECTION A-A



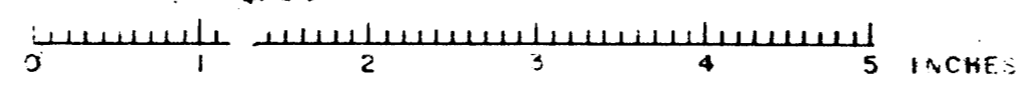
SECTION B-B

DESIGN - E.I.V.	BP. LGE NO. 5781
TRACE - T.T.B.	SURVEY -
CHECK - A.B.S.	PLOT -

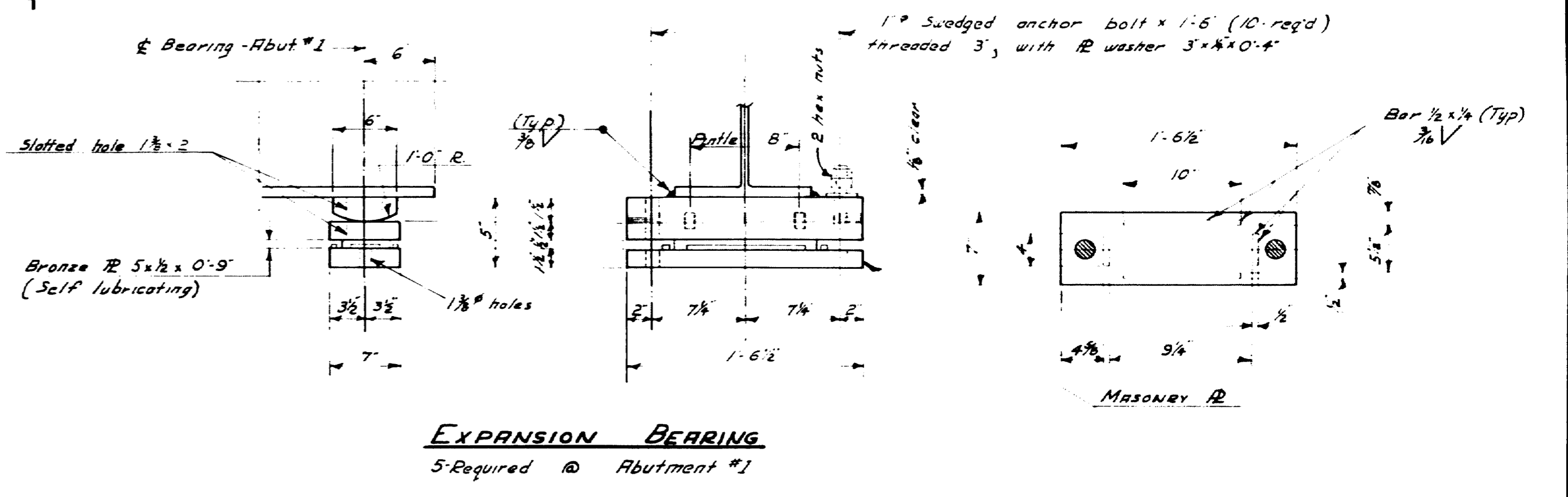
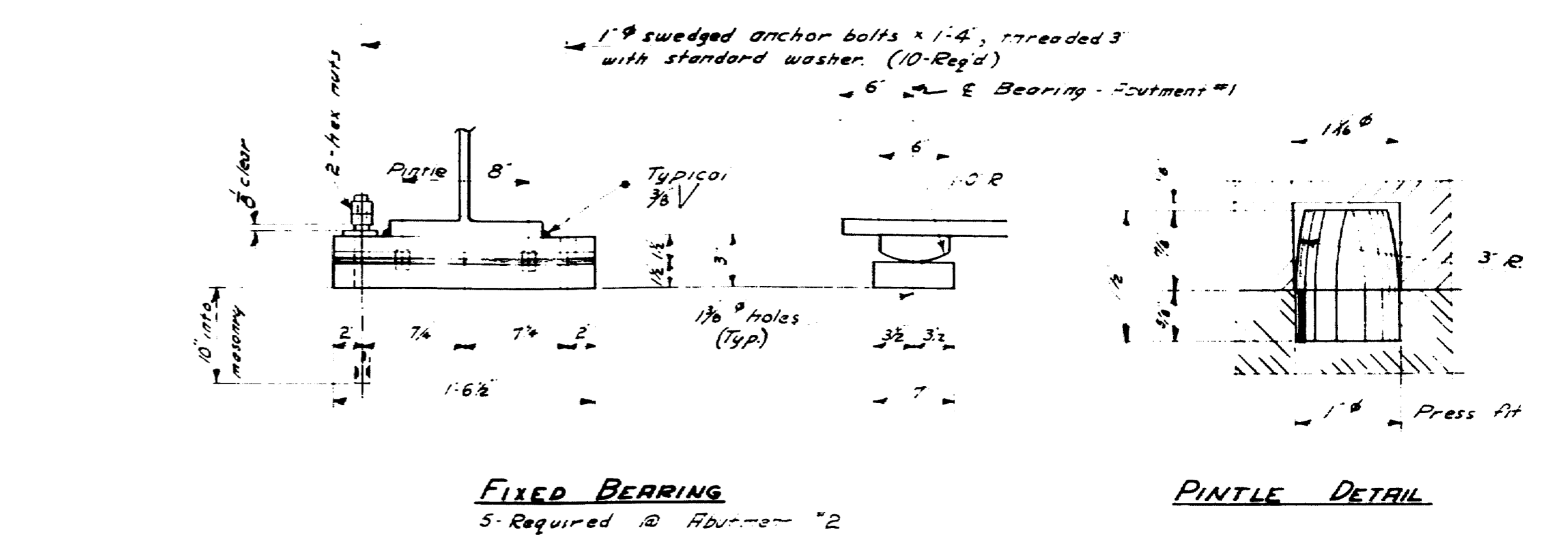
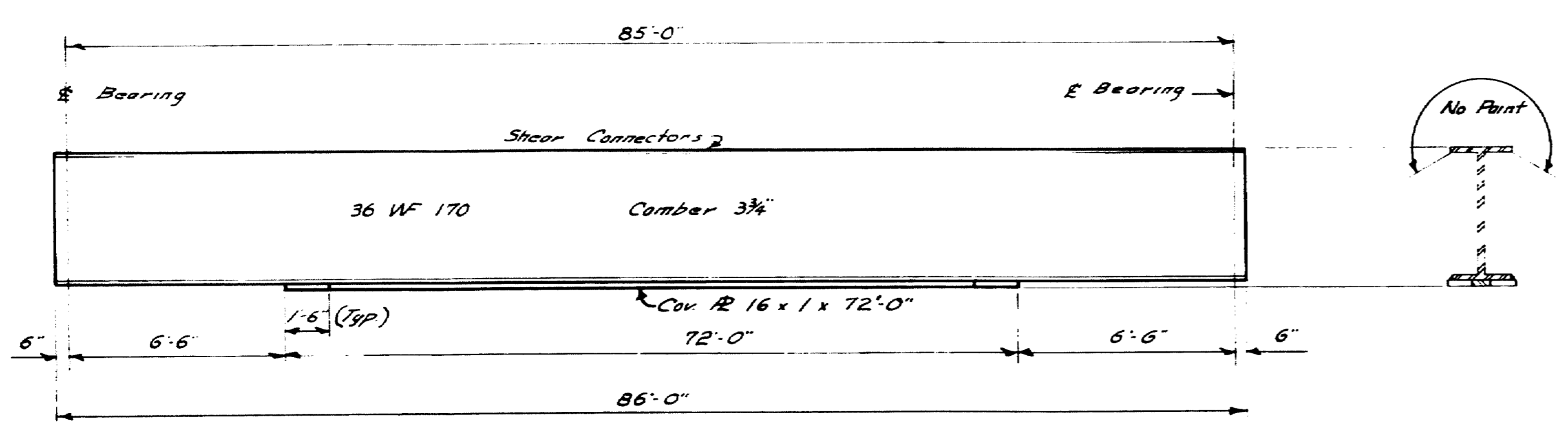
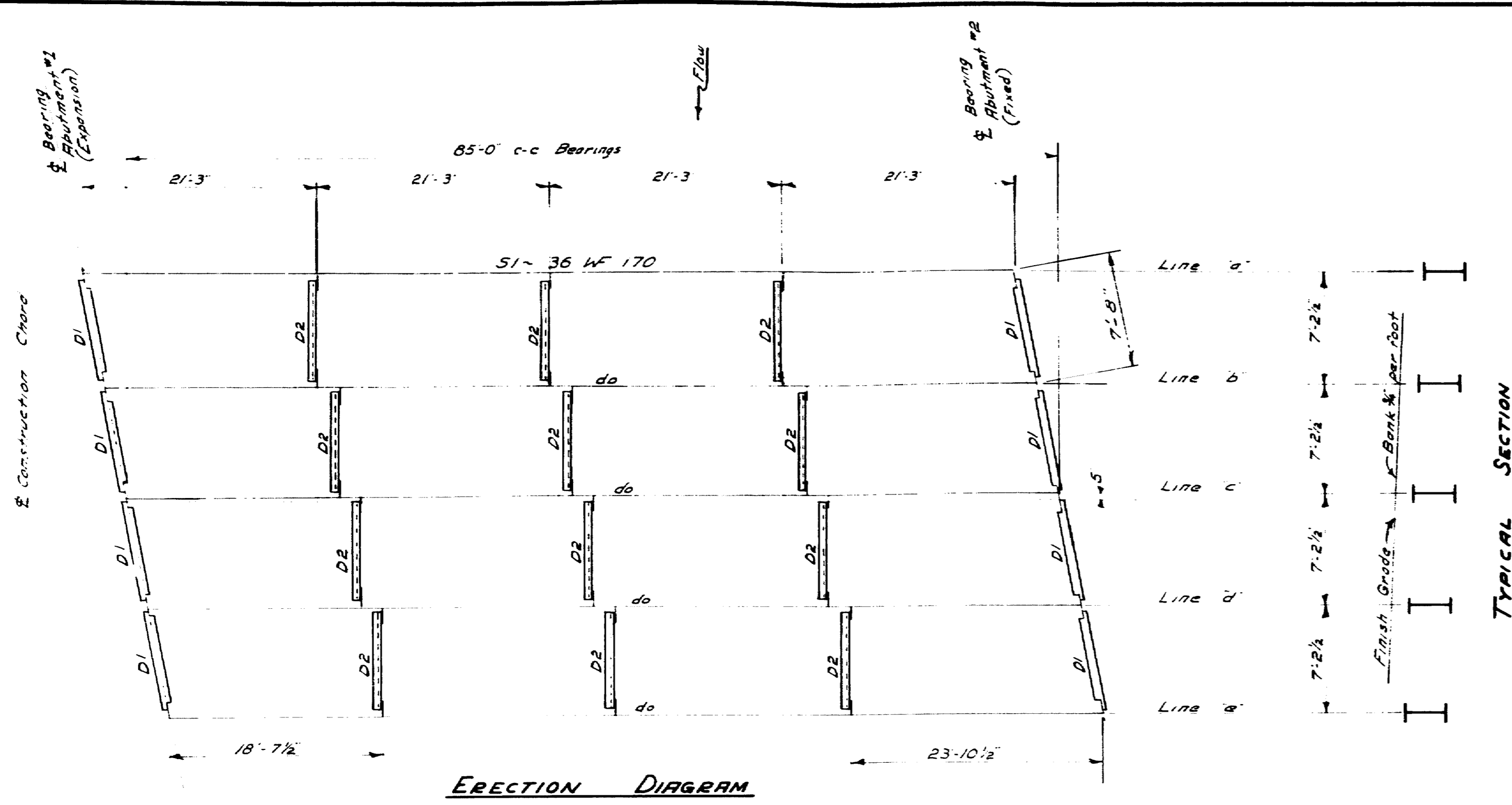
STATE HIGHWAY COMMISSION
 BRIDGE DIVISION

SWEETSER BRIDGE
 OVER
ROYAL RIVER
 IN THE TOWN OF
GRAY
 CUMBERLAND COUNTY
 ABUTMENT NO. 2

SHEET 4 OF 9 AUGUSTA, MAINE FEB. 1962



B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



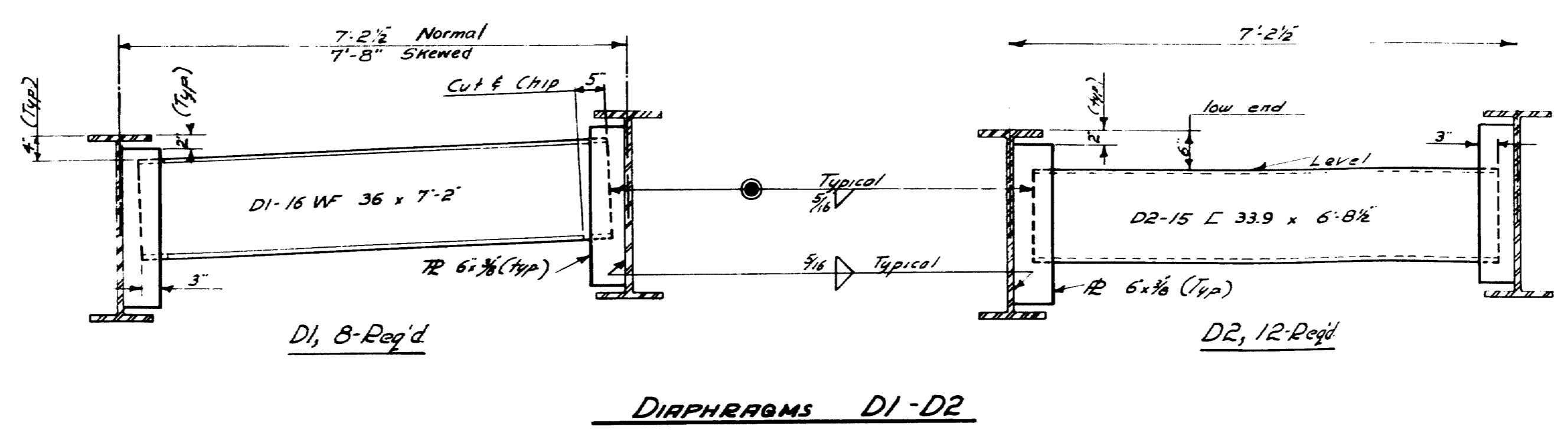
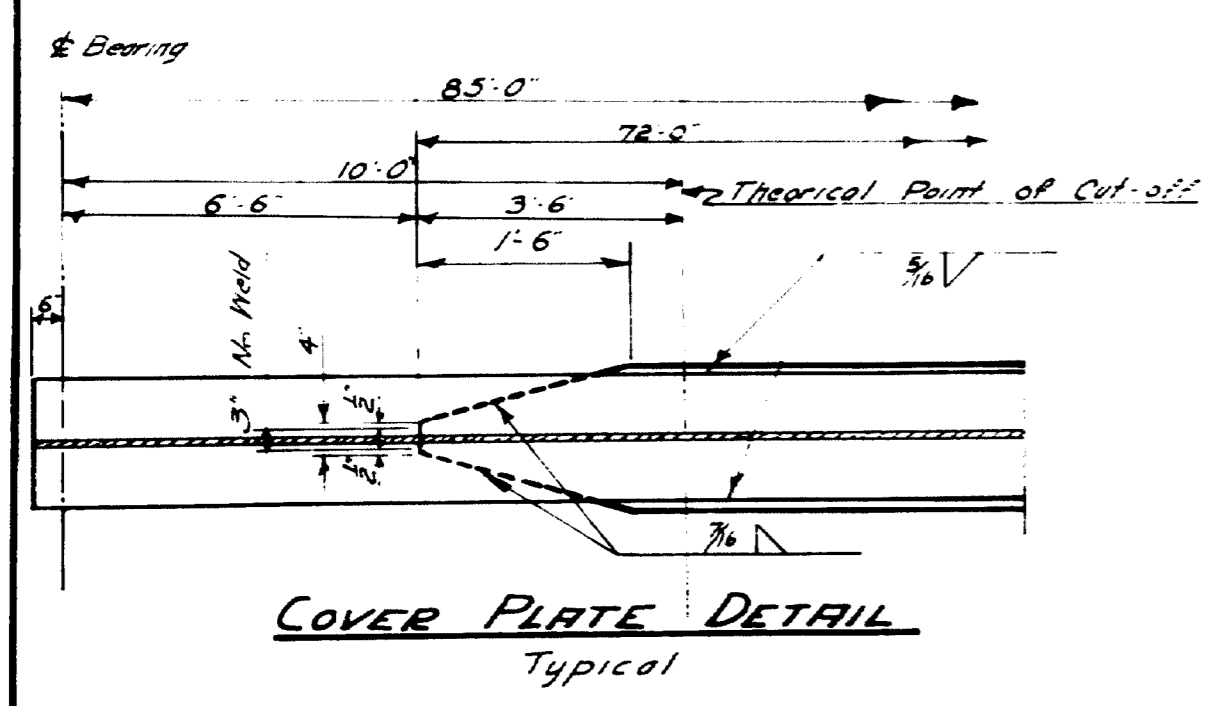
~SPECIFICATIONS~

FABRICATION & ERECTION ~ State of Maine, Standard Specifications Highways & Bridges, Revision of January 1956.

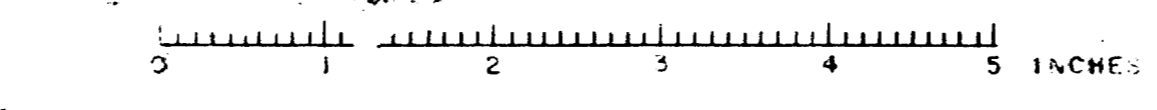
DESIGN & DETAIL ~ A.A.S.H.O. 1961.

MATERIALS ~ Stringers and Cover plates shall conform to A.S.T.M. Designation A36. Other structural steel may be the same or A.S.T.M. Designation A7.

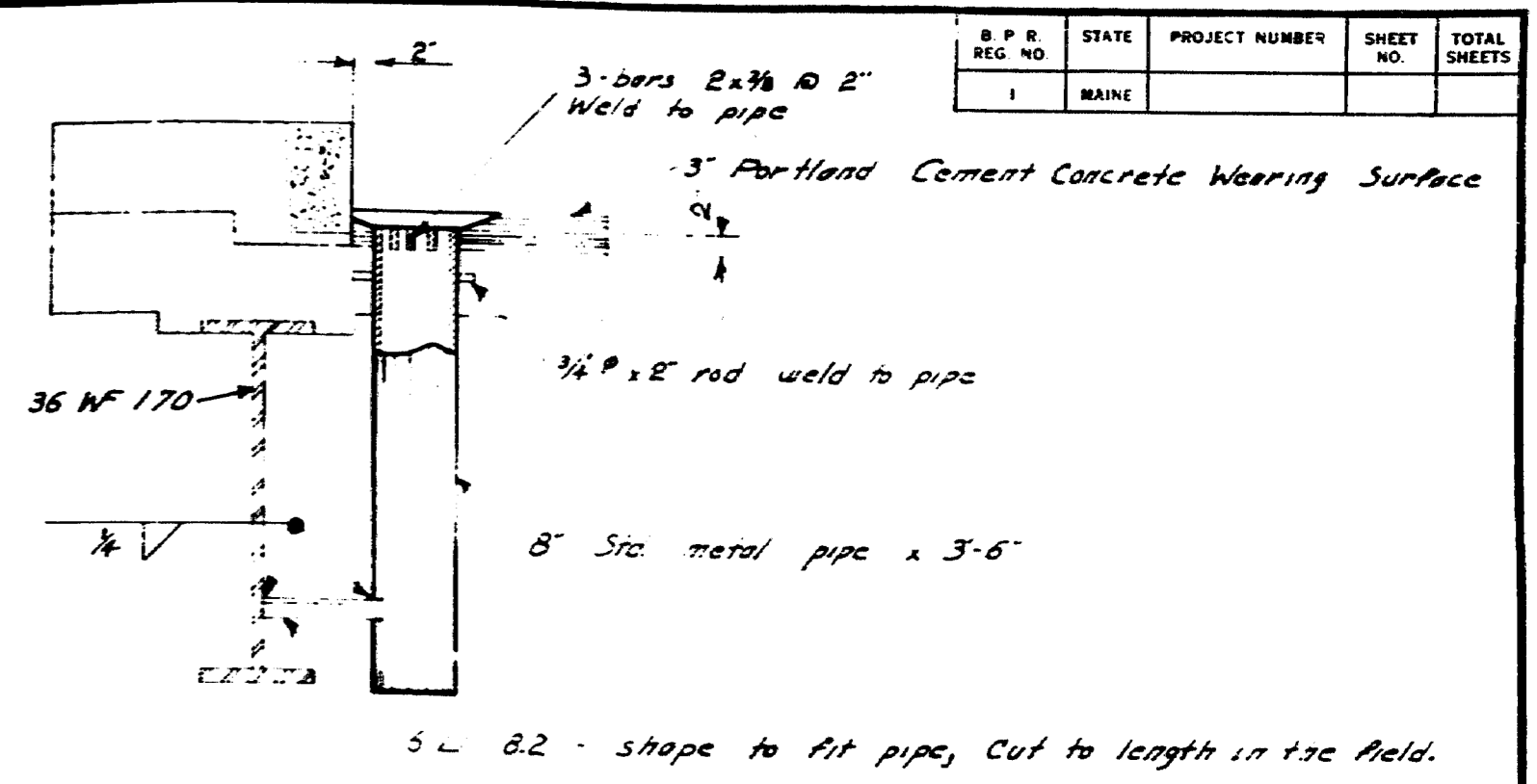
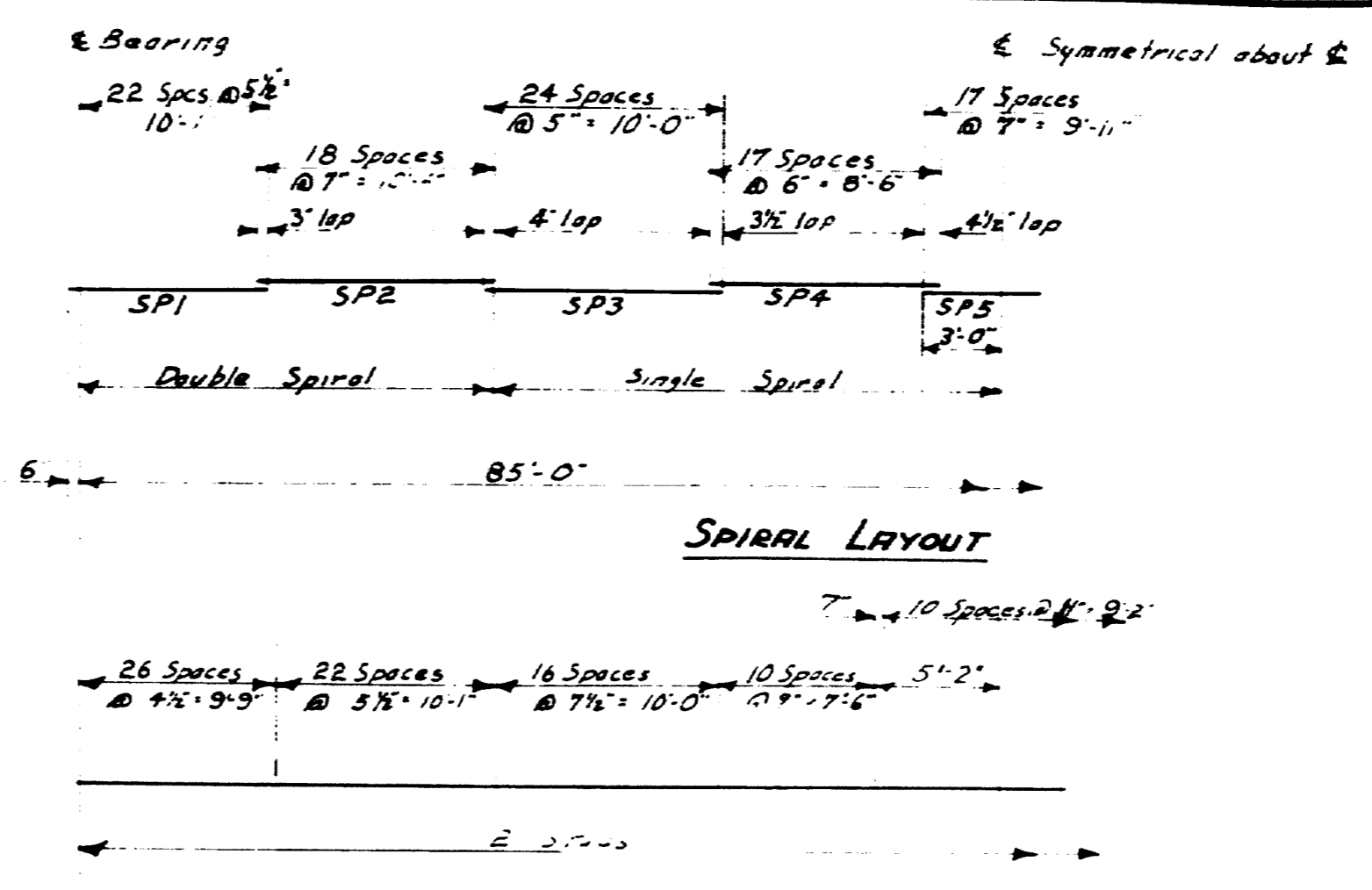
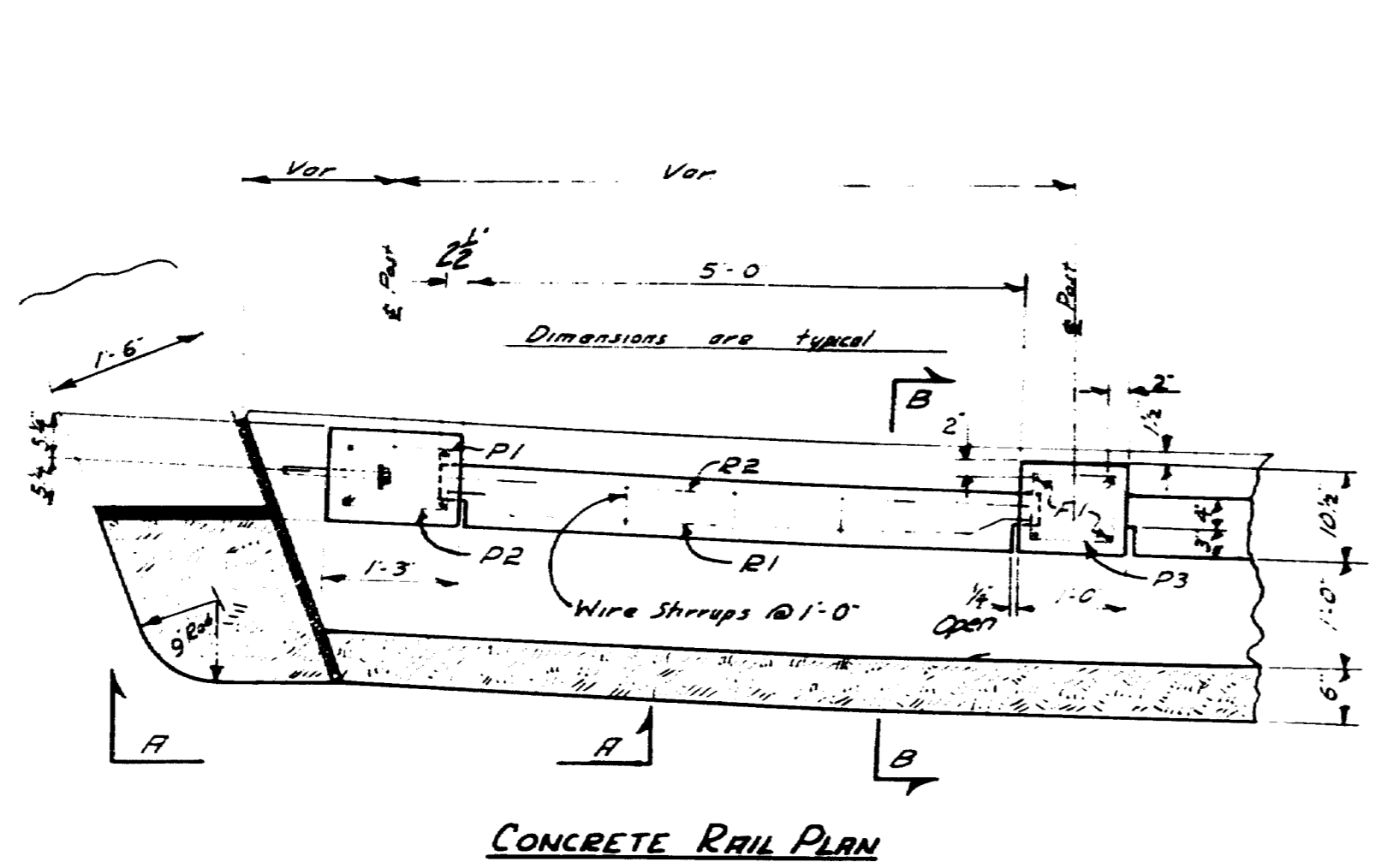
DESIGN STRESS ~ A36: 20,000 psi
A7: 18,000 psi



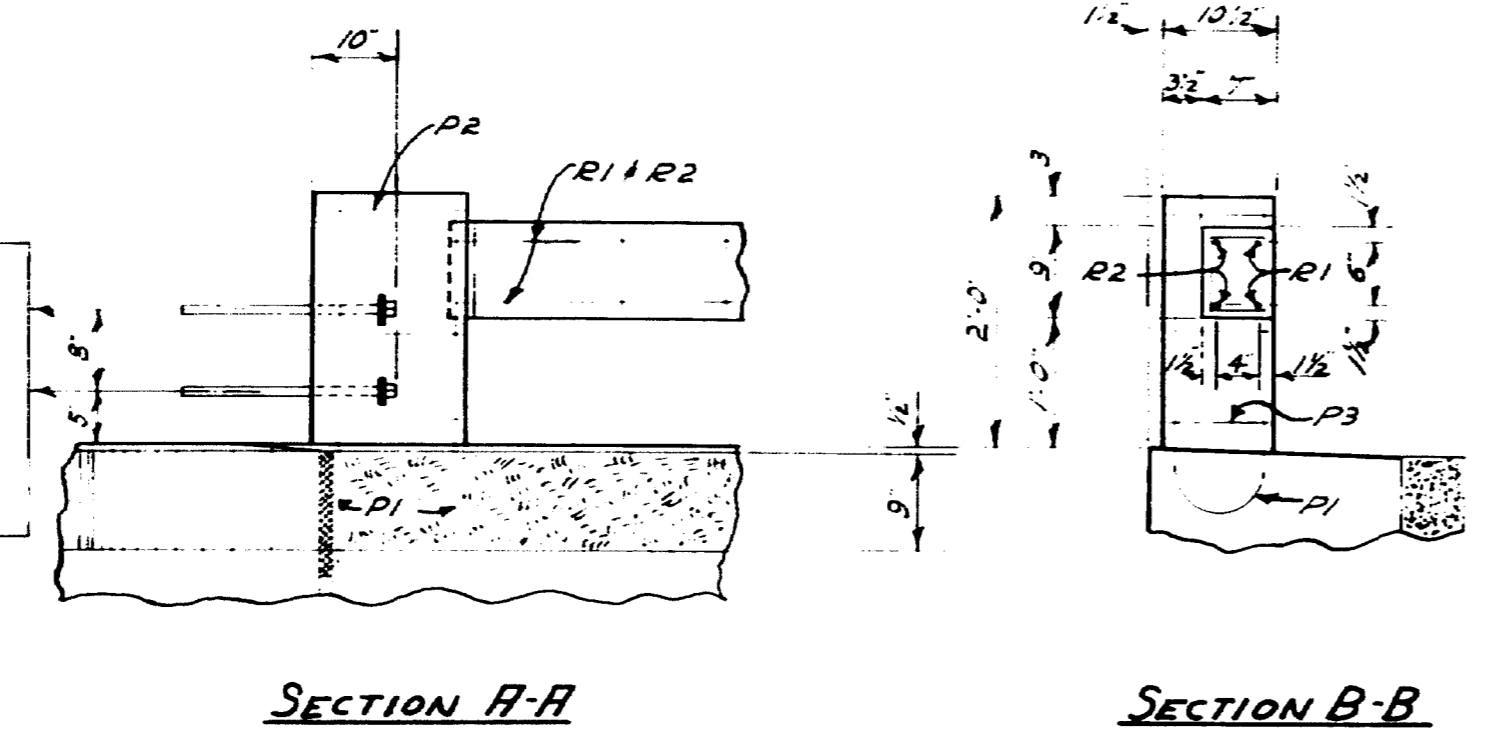
DESIGN - AAS	BRIDGE NO. 5781
TRACE - BT	SURVEY - PLOT
CHECK - KLN	
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
SWEETSER BRIDGE	
OVER ROYAL RIVER	
IN THE TOWN OF GRAY	
CUMBERLAND COUNTY	
STRUCTURAL STEEL	
SHEET 5 OF 9 AUGUSTA, MAINE FEB. 1962	



B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



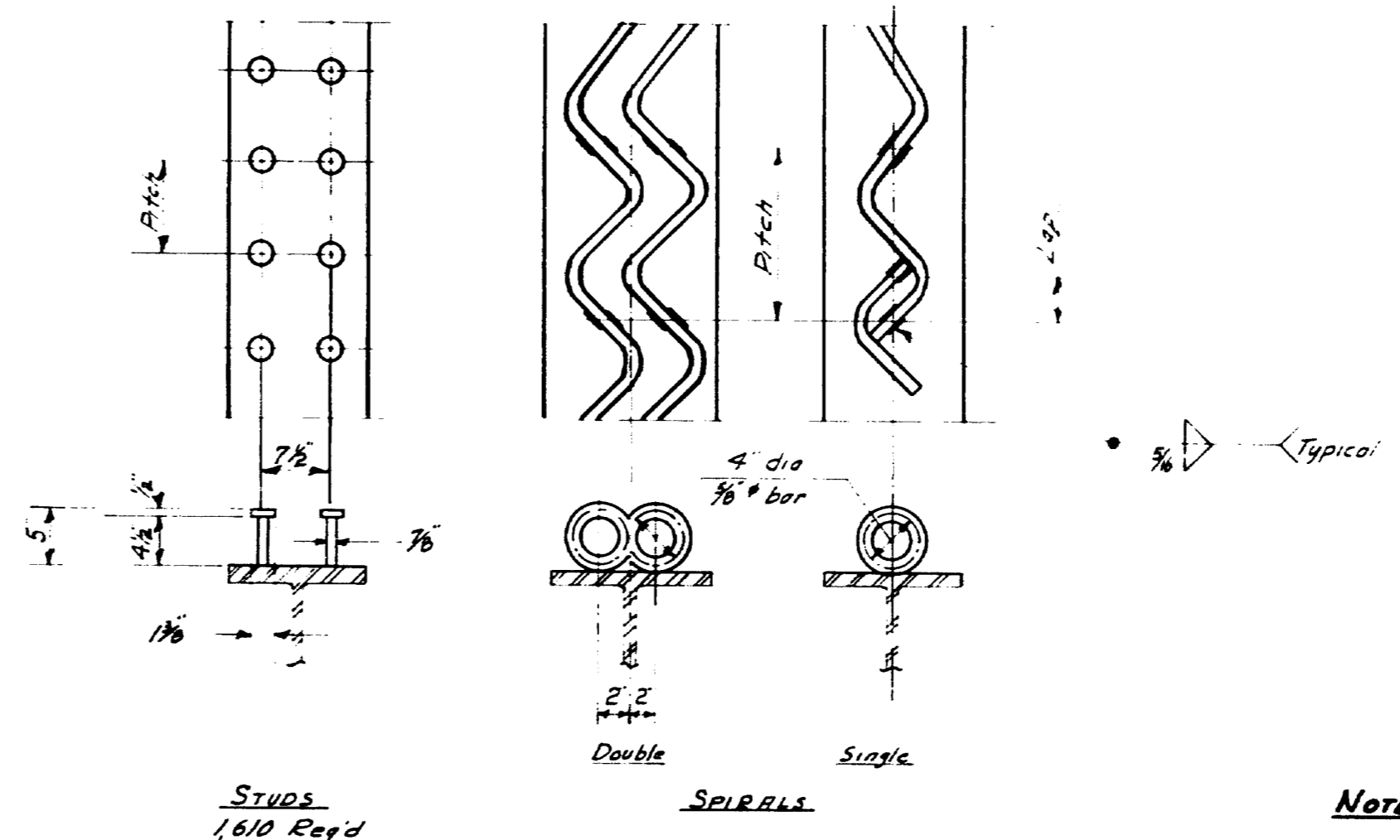
Anchorage for type 'A' Guard Rail. Install single cable compensating devices - MALLEABLE IRON FITTINGS CO'S P4413- or equal. About #1 only. Payment for compensating devices and for B1-type Anchors will be included in the contract unit price for Anchorage for Type 'A' Guard Rail., Item 905-31. A-Bridge Anchors req'd. at each abutment.



NOTE-

Rail posts are to be constructed plumb with tops level. All exposed edges of concrete on rails and posts are to be chamfered 1/2". Wrap tongues which extends 2' into posts, with two layers of heavy roofing. Construct wire stirrups for rails in the field from a single strand of #9 annealed wire making a complete turn around each "R" bar.

Stud shear connectors are patented. If the contractor elects to use studs he shall pay royalty. Payment to the contractor for the cost of royalty will be included in the lump sum price for Item 705-17 Shear Connectors.

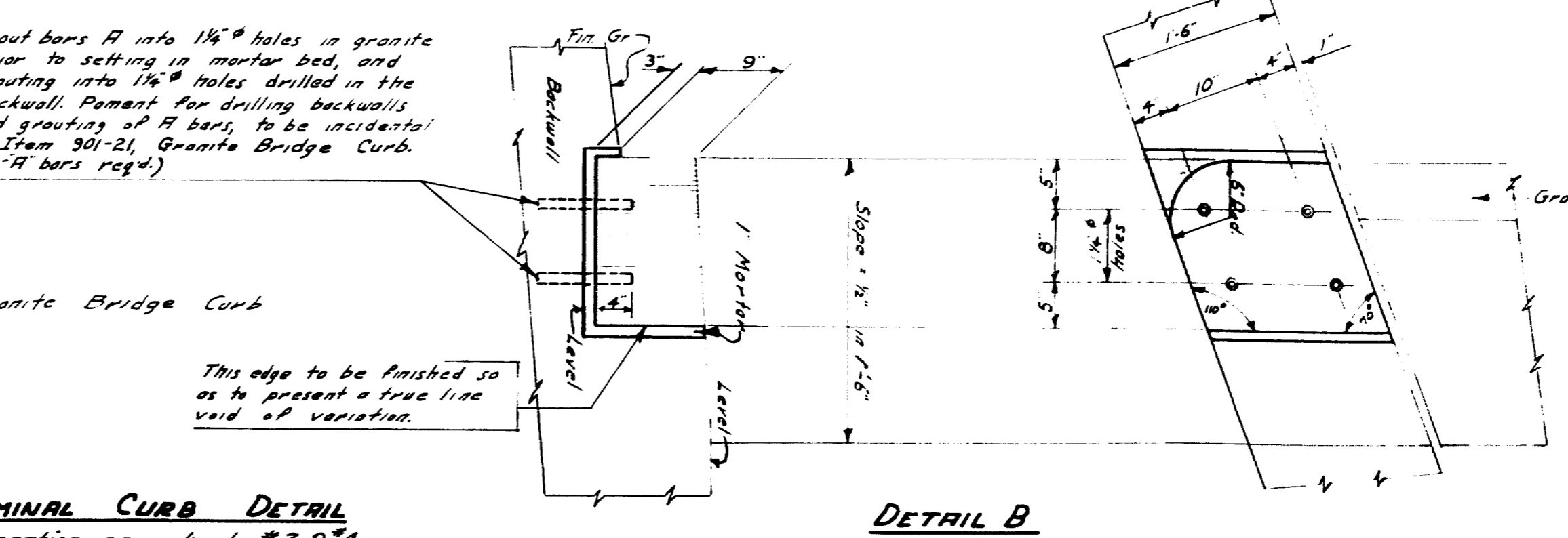
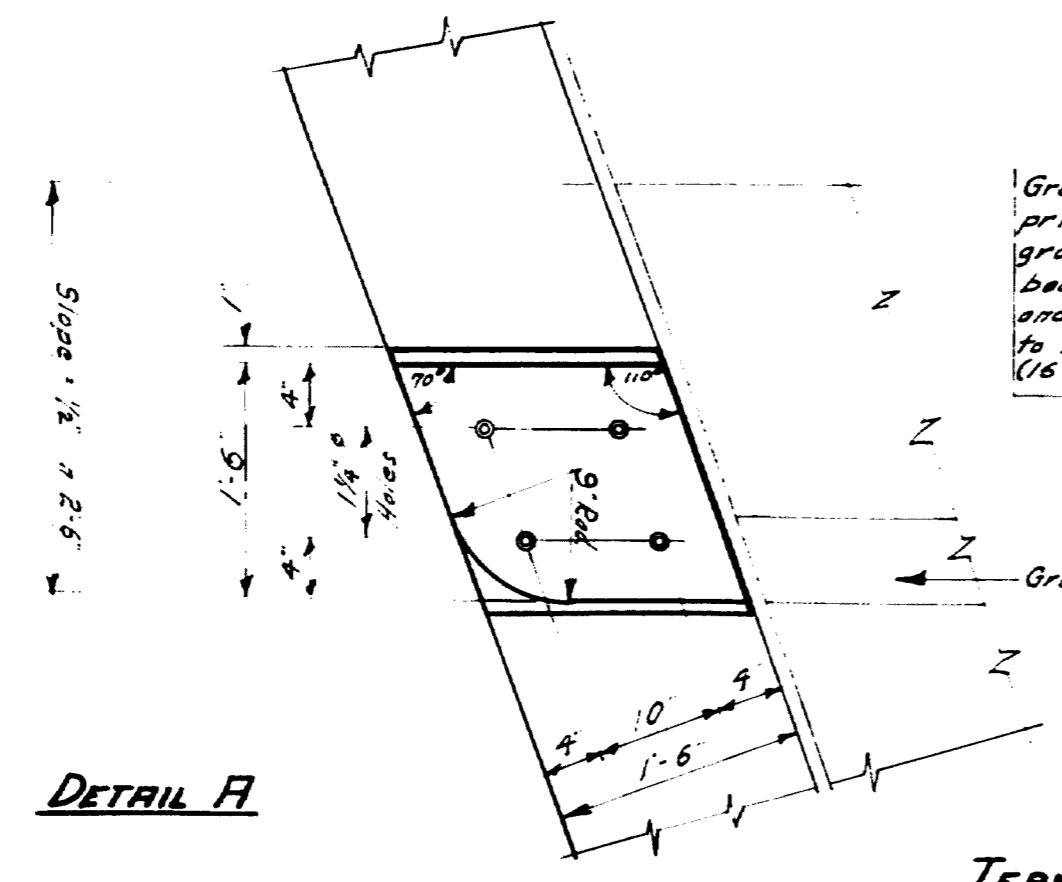
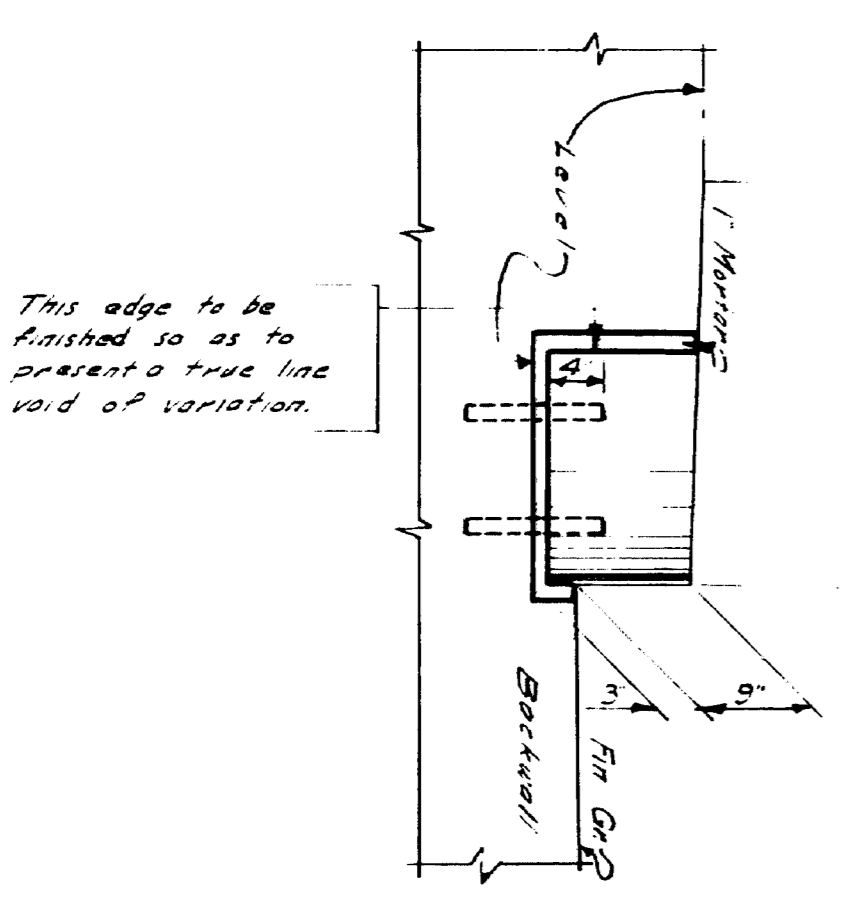


SHEAR CONNECTORS

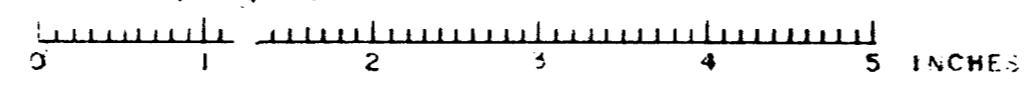
The use of studs or spirals shown to be optional to the contractor. Studs to be Granular or Flux filled, automatically and welded in shop or field.

NOTE- Furnishing and erection of 8" Std. metal pipe drains to be paid for as Structural Steel under Items 702-103 & 702-104. Adjust reinforcing steel to clear drains. For drain location see sheet #9.

METAL PIPE DRAIN
3-Req'd



DESIGN - E. I. N.	BRIDGE NO. 5781
TRACE - E. T. P.	SURVEY -
CHECK - A. E. S.	PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
SWEETSER BRIDGE	
OVER	
ROYAL RIVER	
IN THE TOWN OF	
GRAY	
CUMBERLAND COUNTY	
DRAIN PIPE, CONCRETE RAIL, SHEAR CONNECTORS, & CURB	
SHEET 6 OF 9 AUGUSTA, MAINE MARCH 1962	

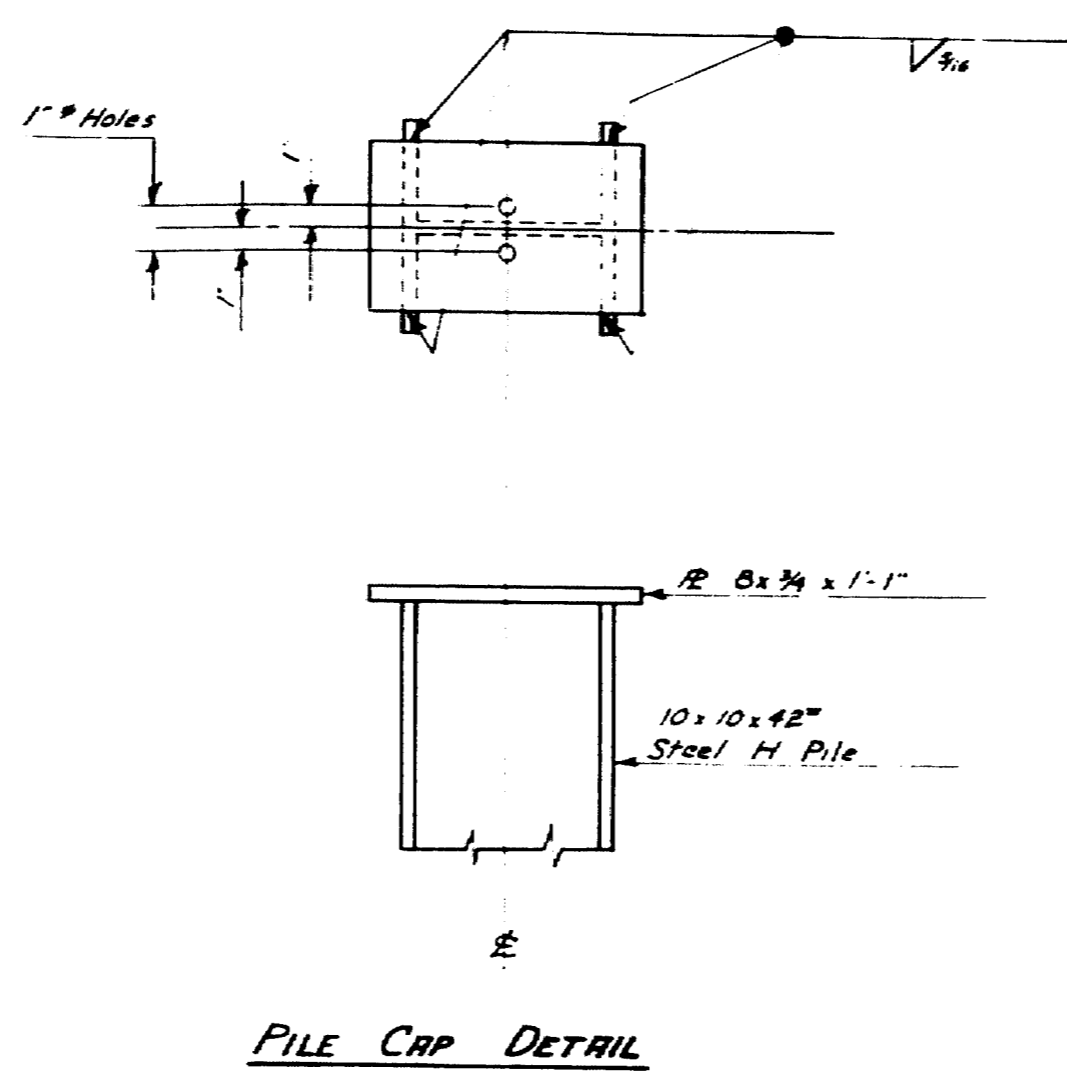


REINFORCING STEEL SCHEDULE

~ ABUTMENTS ~				
~ STRAIGHT BARS ~				
Mark	Size	No.	Length	Location
A1	#6	24	23'-8"	Footing
A2		2	3'-2"	
A3		3	3'-4"	
A4		4	3'-7"	
A5		5	3'-11"	
A6		8	4'-2"	
A7		8	4'-6"	
A8		10	4'-9"	Footing & Wing
A9	#6	142	5'-2"	
A10	#5	32	5'-8"	Footing & Wing
A11		32	5'-3"	Footing
A12		32	4'-10"	Footing
A13		42	4'-4"	Footing & Wing
A14		27	4'-0"	
A15		68	3'-0"	Bridge Seat
A16		6	4'-7"	Wing
A17		2	5'-2"	Wing & Backwall
A18		8	5'-9"	Wing
A19		66	5'-4"	Backwall
A20		2	3'-4"	Wing
A21		4	3'-11"	
A22	#5	18	22'-0"	Backwall & Bridge Seat
A23	#6	4	22'-0"	Bridge Seat & Wing
A24	#6	4	33'-4"	Bridge Seat - Top
A25	#5	2	33'-4"	Bridge Seat - Bottom
A26	#5	2	7'-6"	Wing
A28	#6	24	24'-4"	Footing
A29	#5	21	5'-8"	Footing & Wing
A30		2	5'-4"	Wing
A31		8	5'-11"	
A32		2	3'-9"	
A33		2	5'-6"	
A34	#5	18	23'-6"	Wing & Bridge Seat
A35	#6	4	23'-6"	
A36	#5	1	6'-10"	Wing

~ SUPERSTRUCTURE ~				
~ BENT BARS ~				
Mark	Size	No.	Length	Location
F2	#5	96	31'-8"	Roadway Slab
S1	#4	175	5'-4"	Curb
P1	#6	60	5'-6"	Rail Post
P2	#4	12	3'-8"	
P3	#4	78	3'-2"	
R1	#4	56	5'-7"	Rail Bar

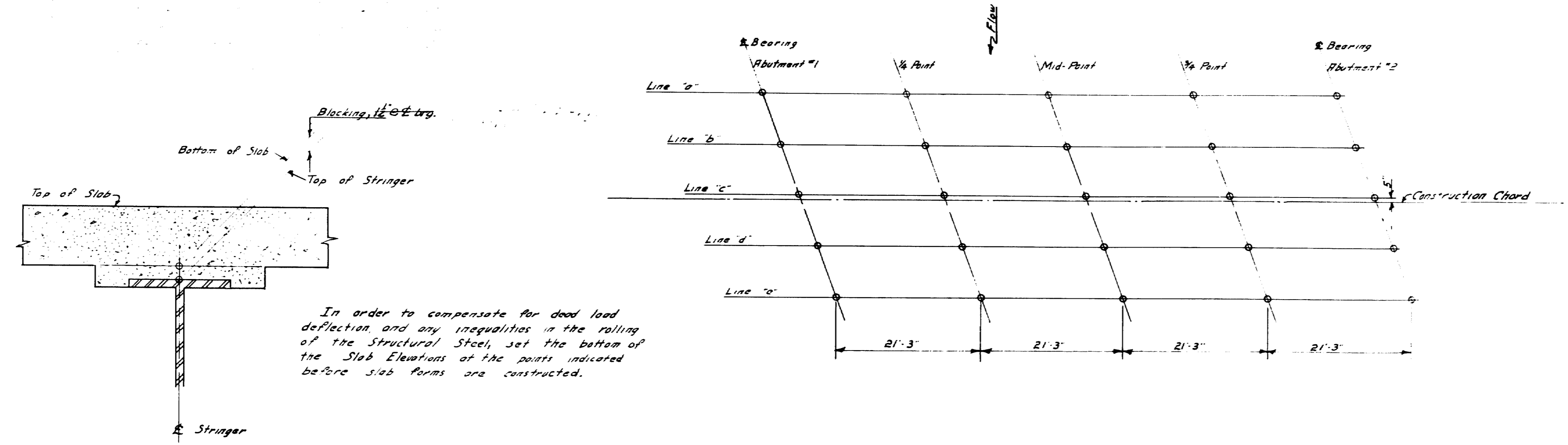
~ STRAIGHT BARS ~				
Mark	Size	No.	Length	Location
F1	#5	194	20'-0"	Roadway Slab
F3	#5	194	16'-5"	Splice with F1
F4	#4	264	44'-3"	
F5	#5	52	4'-0"	Rail Slab To Roadway Slab
F6	#5	45	3'-6"	
F7	#5	58	3'-0"	
F8	#5	37	2'-6"	
C1	#4	15	17'-0"	Curb
C3	#4	15	16'-0"	
T1	#3	87	29'-5"	Wearing Surface
T2	#3	58	43'-9"	
R2	#4	56	5'-4"	Rail Bar



BOTTOM OF SLAB ELEVATIONS

Beam	Abut #1 E. Bearing	Quarter Pt.	Mid-Point	Quarter Pt.	Abut #2 E. Bearing
a	52.17	52.02	51.72	51.36	50.85
b	52.58	52.43	52.13	51.77	51.26
c	52.99	52.84	52.54	52.18	51.67
d	53.40	53.25	52.95	52.59	52.08
e	53.81	53.66	53.36	53.00	52.49

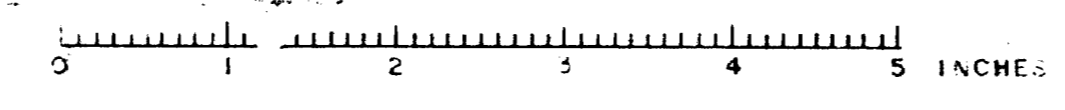
All bars are to be Intermediate Grade, F = 20,000 p.s.i.
Dimensions to \pm bars.



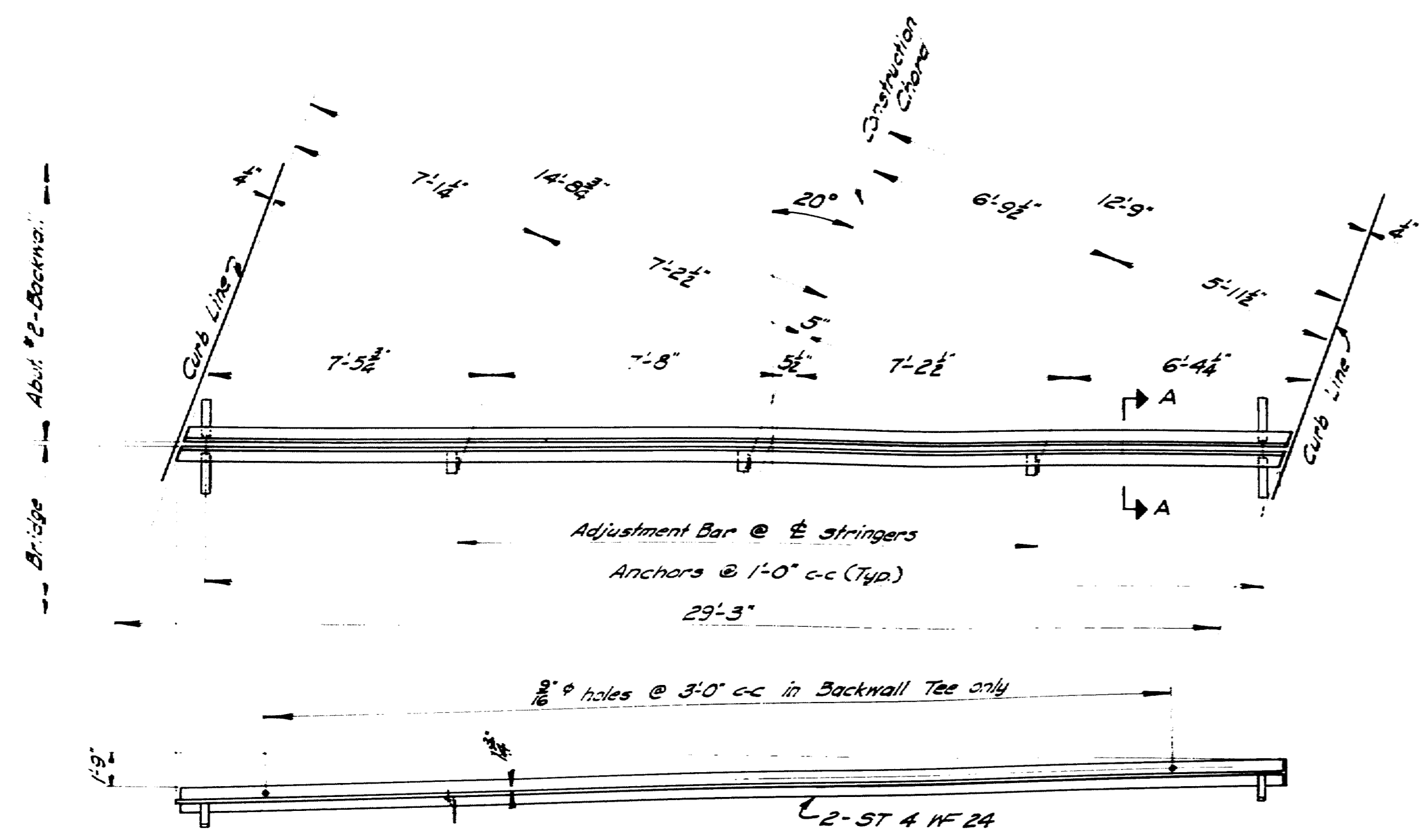
In order to compensate for dead load deflection, and any inequalities in the rolling of the Structural Steel, set the bottom of the Slab Elevations at the points indicated before slab forms are constructed.

BLOCKING DETAILS

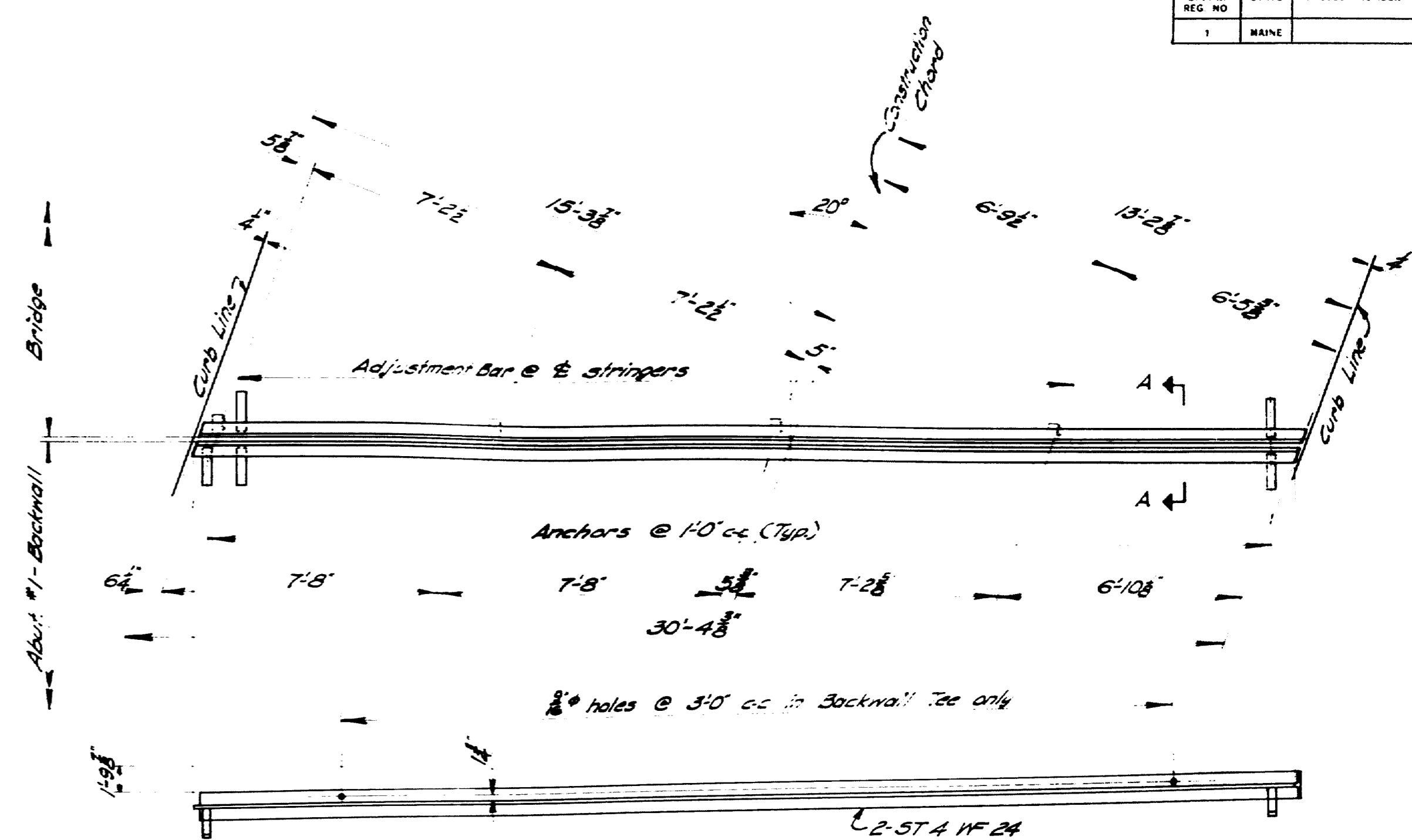
DESIGN - RBS	BRIDGE NO. 5781
TRACE - D.T.H.	SURVEY - PLOT
CHECK - RINEARS	
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
SWEETSER BRIDGE OVER ROYAL RIVER IN THE TOWN OF GRAY CUMBERLAND COUNTY	
BLOCKING, & REINFORCING STEEL	
SHEET 7 OF 9 AUGUSTA, MAINE MARCH 1962	



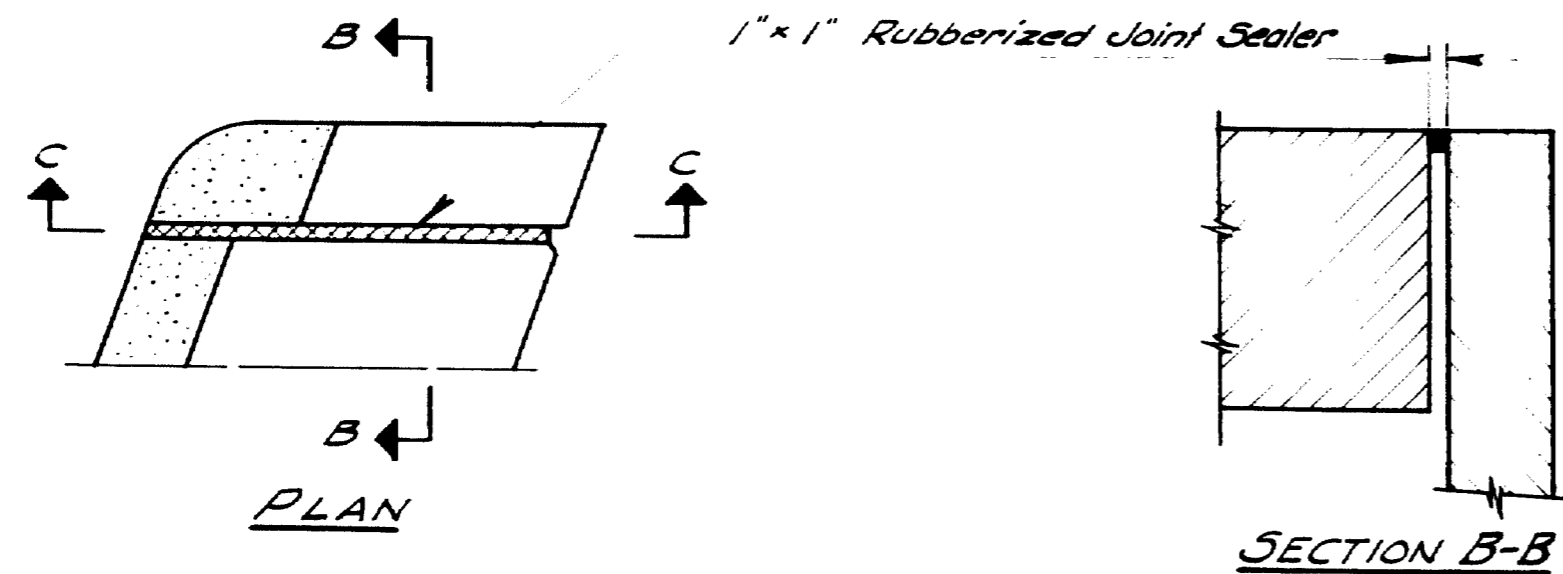
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



ARMORED JOINT
Abutment #2



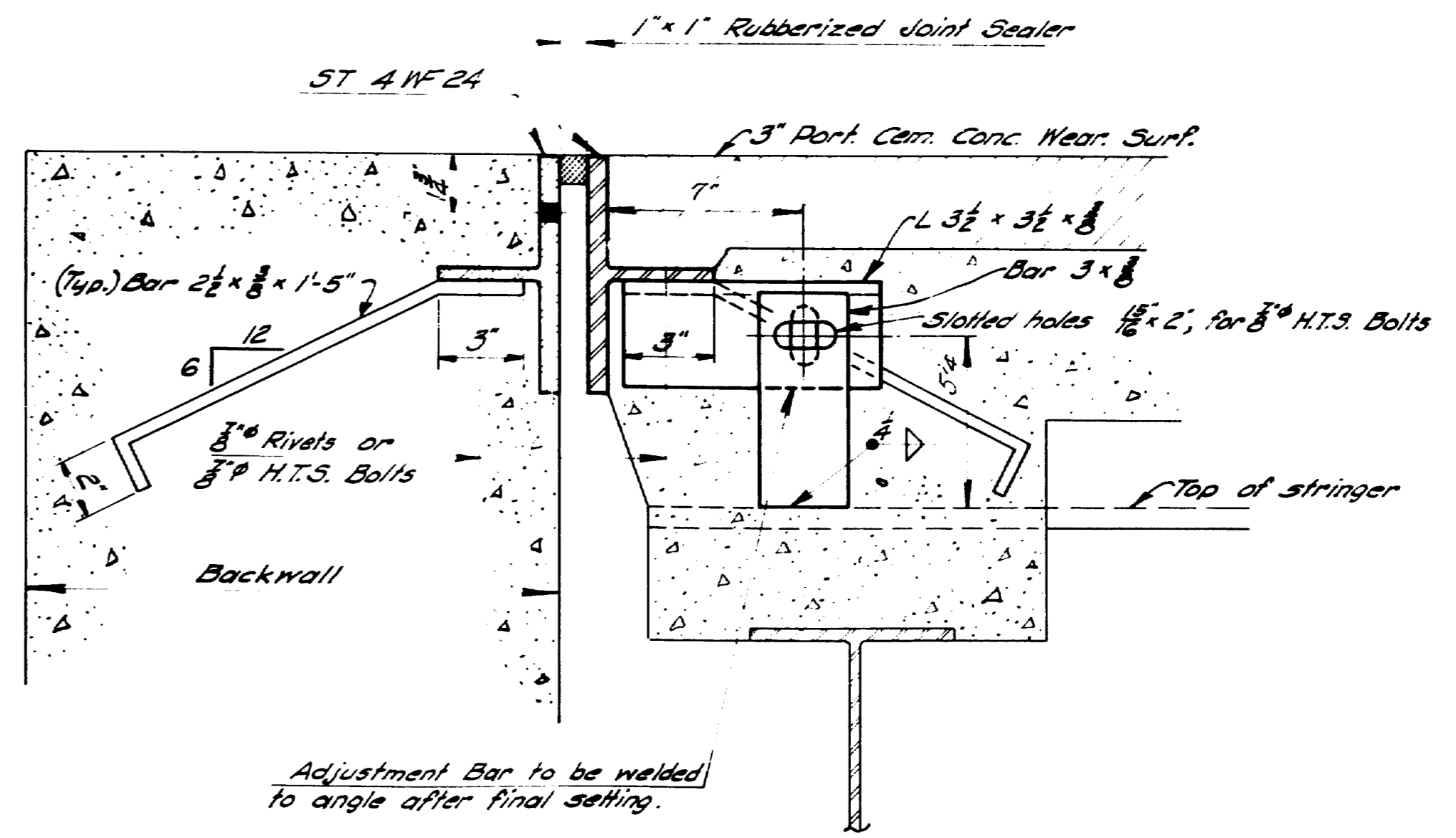
ARMORED JOINT
Abutment #1



SECTION C-C

NOTE:
 Rubberized Joint Sealer shall be supported on non-bituminous material. At the Contractor's option, the supporting material may be left in place or removed.
 If the supporting material is left in place it shall be compressible in accordance with A.A.S.H.O. specification, M 153-54.
 If the supporting material is removed, bonding with the Rubberized Joint Sealer shall be prevented by a method satisfactory to the Engineer (layer of fine sand, wax paper, etc.)

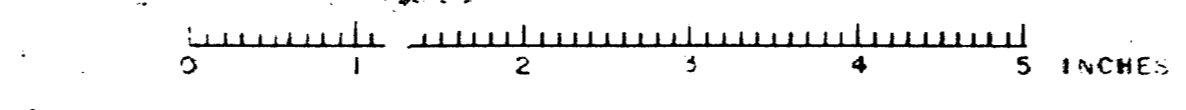
SAFETY CURB EXPANSION JOINT



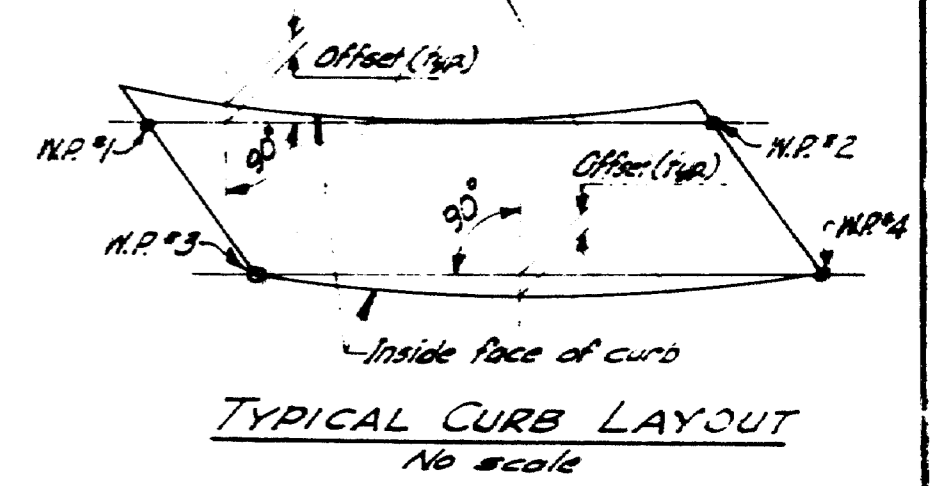
SECTION A-A

DESIGN - R.T.N. TRACE - G.H.C. CHECK - R.R.S.	BRIDGE NO. SURVEY - PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
SWEETSER BRIDGE	
OVER	
ROYAL RIVER	
IN THE TOWN OF	
GRAY	
CUMBERLAND COUNTY	
ARMORED JOINT & EXPANSION JOINT DETAILS	
SHEET 8 OF 9 AUGUSTA, MAINE MAR. 1962	

87-21

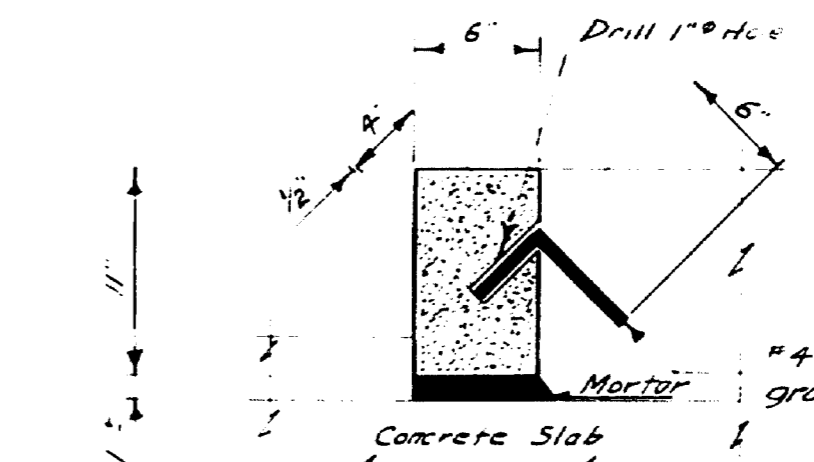
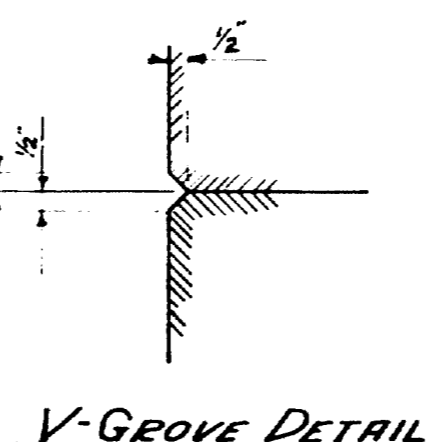
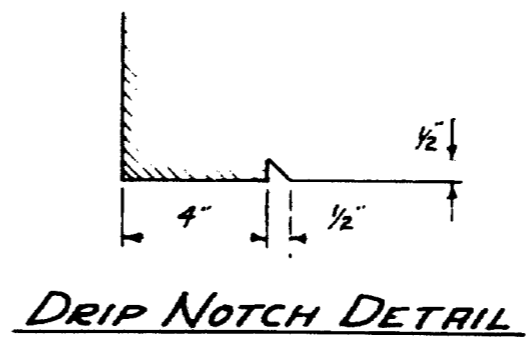
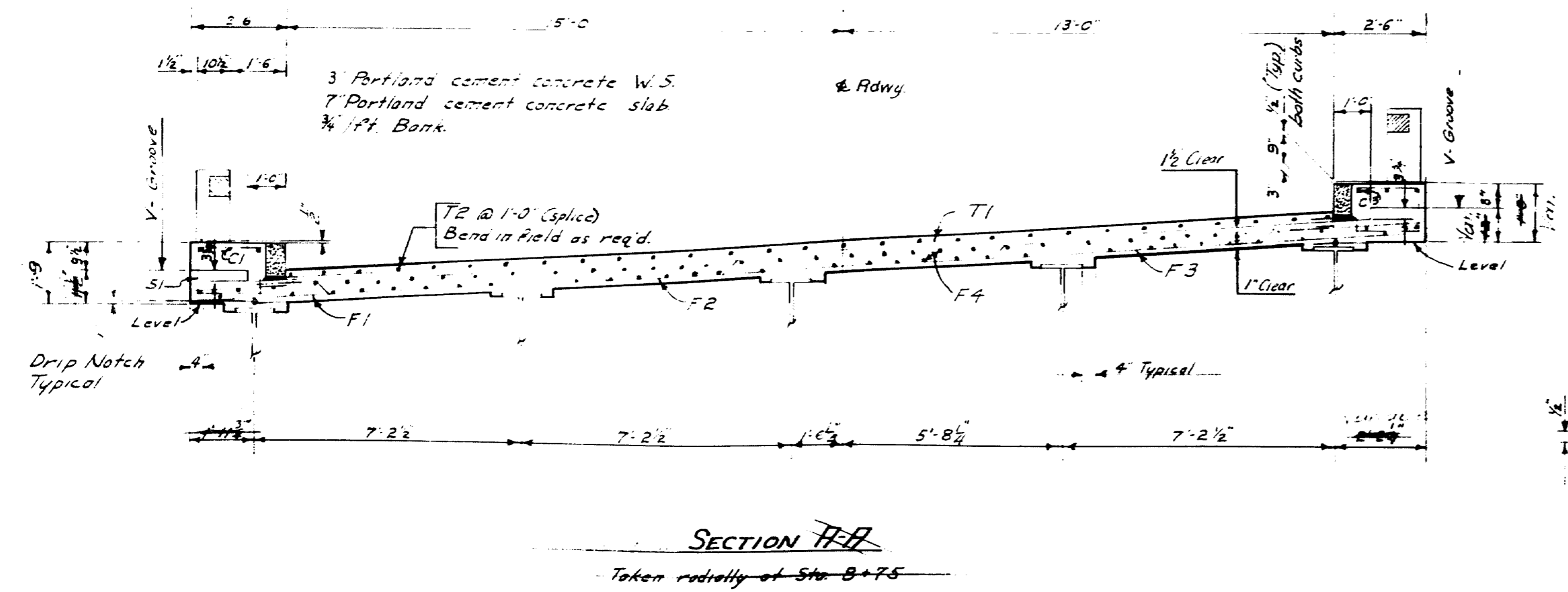
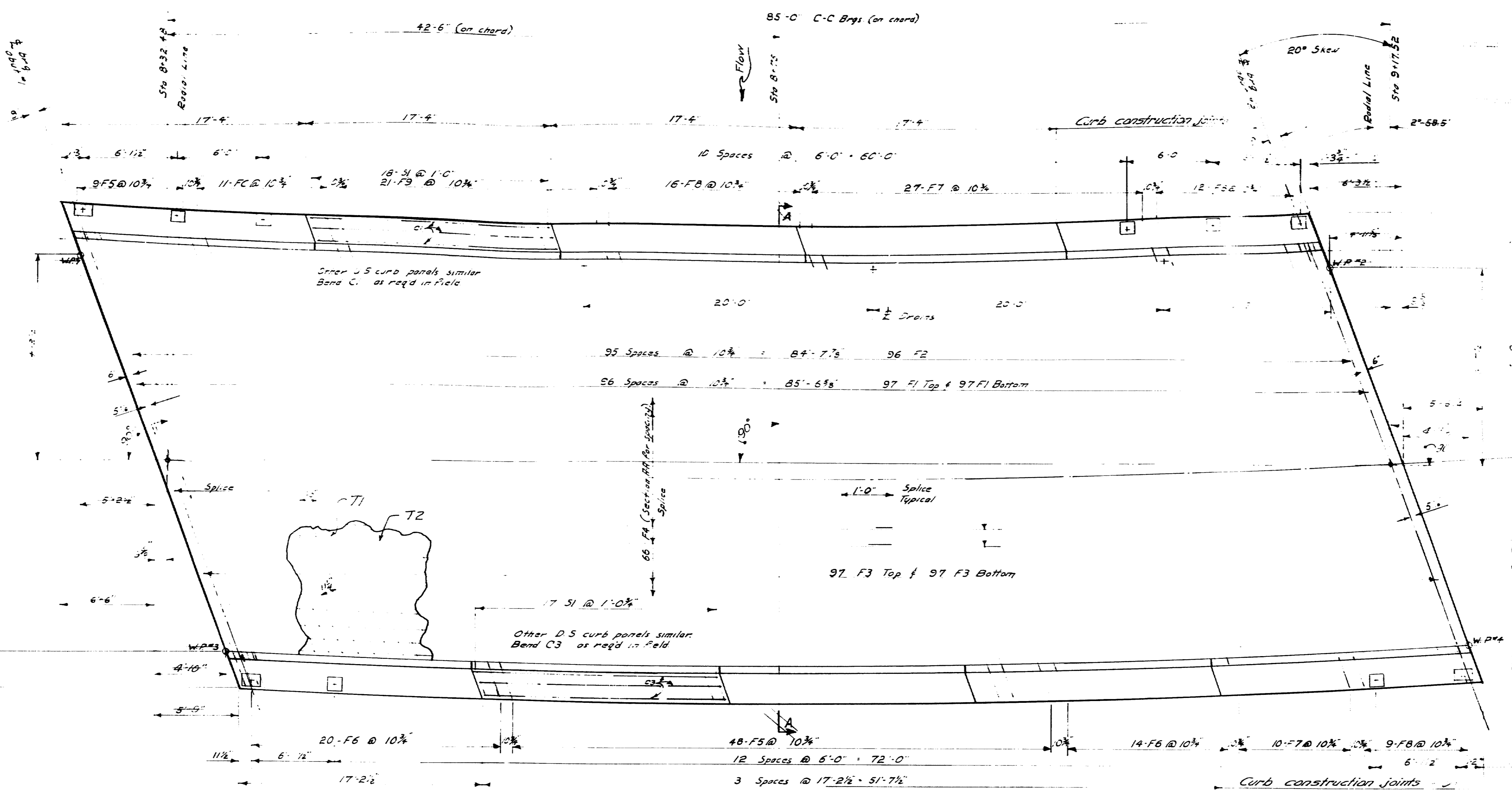


CURB LOCATION			
Chord Connecting W.P.#1 to W.P.#2		Chord Connecting W.P.#3 to W.P.#4	
Distance	Offset (ft)	Distance	Offset (ft)
9.320	0.743	9.25	0.387
17.842	0.421	17.704	0.688
26.364	0.191	26.157	0.902
34.886	0.051	34.610	1.031
43.408	0.001	43.063	1.074
51.930	0.041	51.516	1.022
60.452	0.172	59.969	0.201
68.974	0.393	68.422	0.288
77.496	0.705	76.875	0.397
86.018	1.107	85.328	0



-GENERAL NOTES-

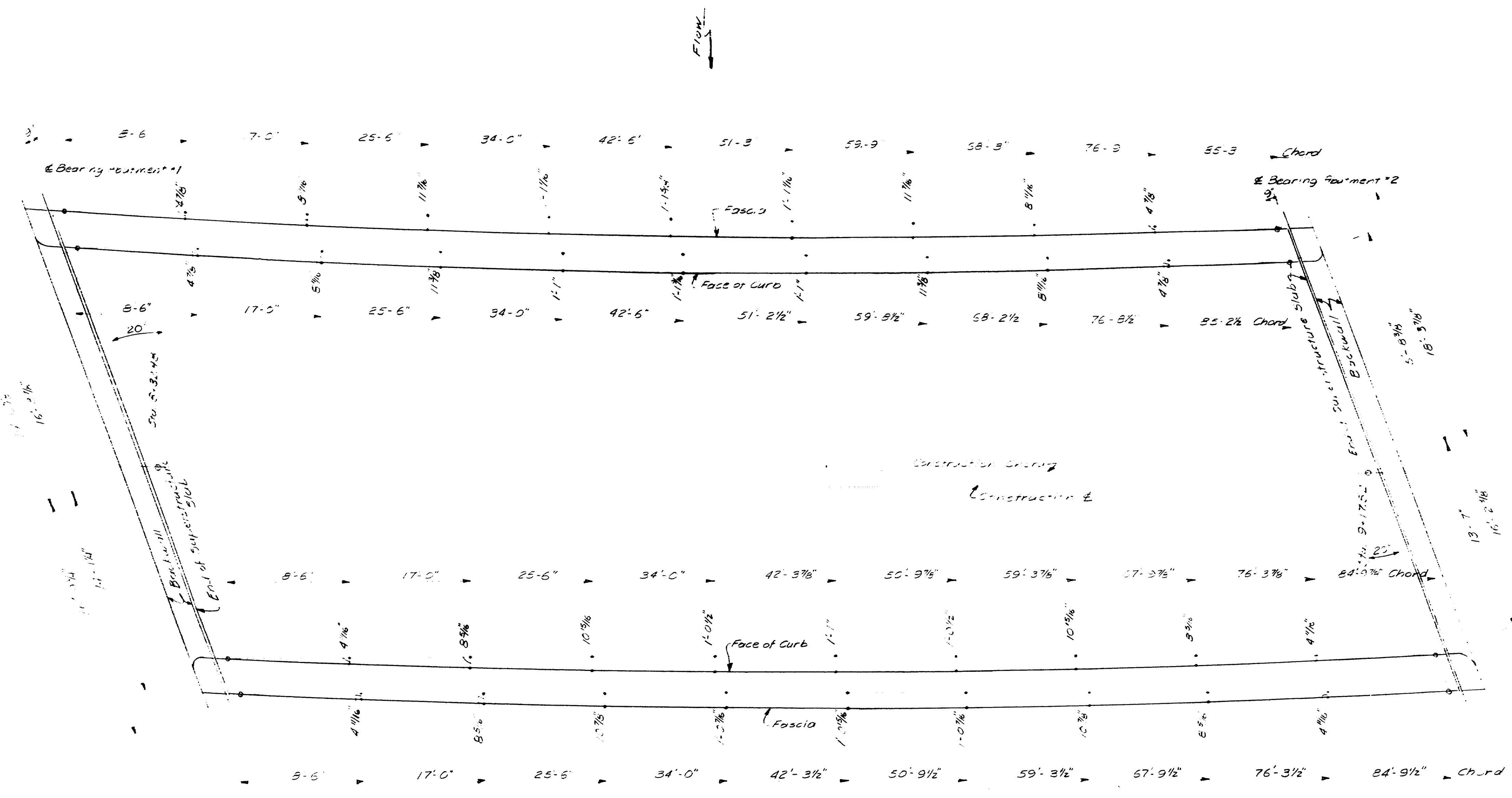
- Concrete for curbs will not be placed until concrete superstructure slab has been in place for a minimum of seven days. During the seven day period granite curbs may be placed but hand equipment only will be allowed on slab.
- Break bond at curb construction joints by painting concrete with suitable grade of asphalt paint.
- Form V-Groove on outside face of curb and slab at each curb joint. Granite curb need not be broken at these construction joints.
- Reinforcing bars to be set on curve by series of chords.
- Striggers to be set parallel to chord.



NOTE: There shall be a construction joint in the granite bridge curb at all construction joints in the concrete curb. Lengths of individual stones for curb shall not be greater than six (6) feet.

DESIGN: E.I.N.	BRIDGE NO. 5781
TRACE: B.T.A.	SURVEY: PLO.
CHECK: H.R.S.	
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
SWEETSER BRIDGE	
OVER ROYAL RIVER	
IN THE TOWN OF GRAY	
CUMBERLAND COUNTY	
SUPERSTRUCTURE	
SHEET 9 OF 9 AUGUSTA, MAINE FEB. 1962	

S. P. B. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



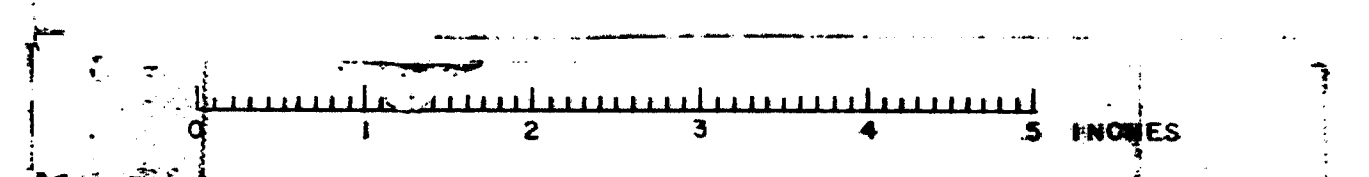
SUPERSTRUCTURE SLAB LAYOUT

DESIGN - T. H. K.	BRIDGE NO.
TRACE -	SURVEY -
CHECK - A. J. F.	PLOT -

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

SWEETSER BRIDGE
OVER
ROYAL RIVER
IN THE TOWN OF
GRAY
CUMBERLAND COUNTY
REVISED SUPERSTRUCTURE LAYOUT
SHEET 9 OF 10 AUGUSTA, MAINE AUG 1963

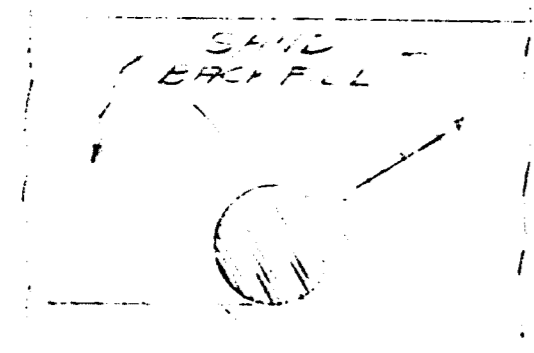
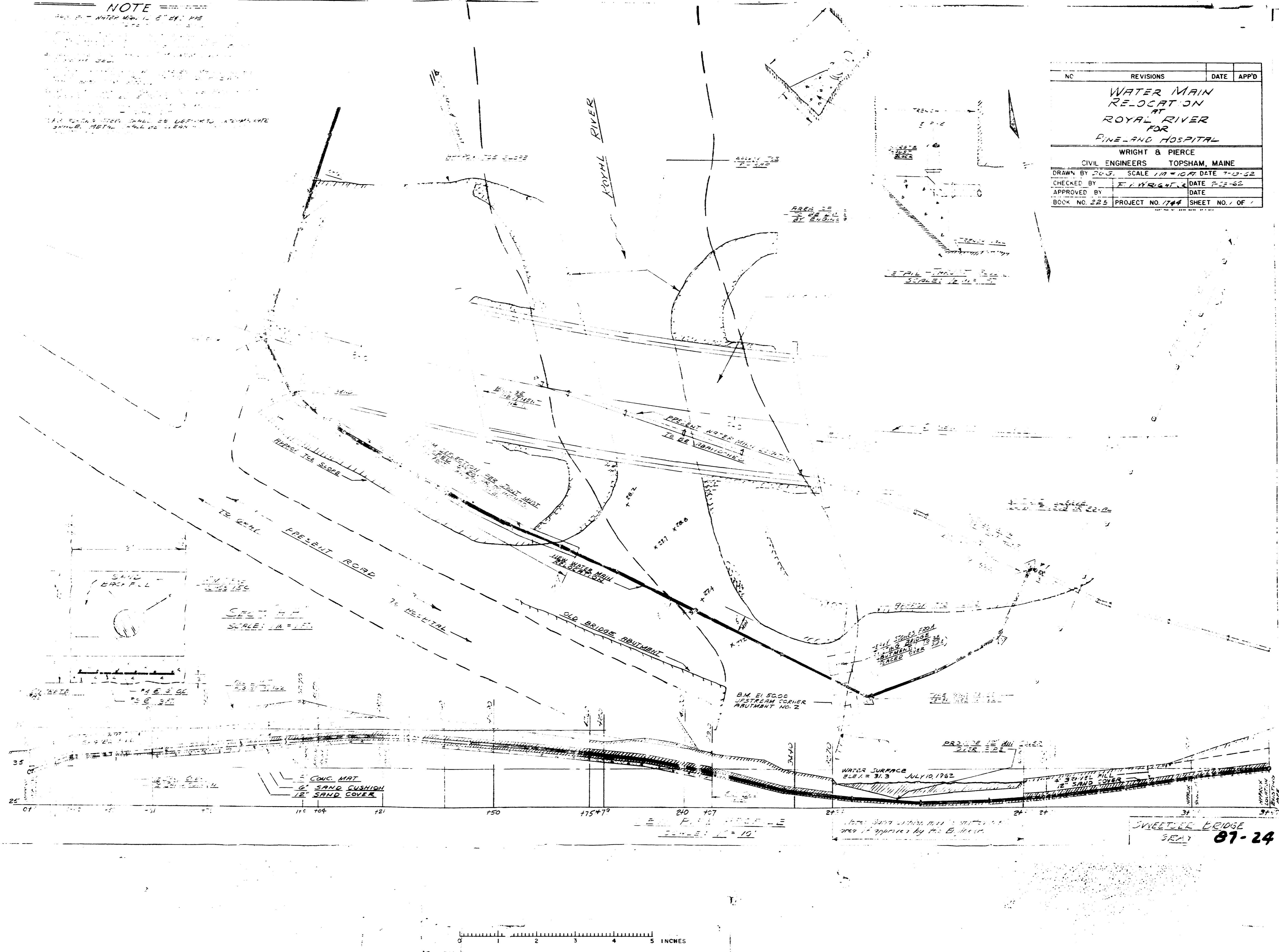
87-23



NOTE

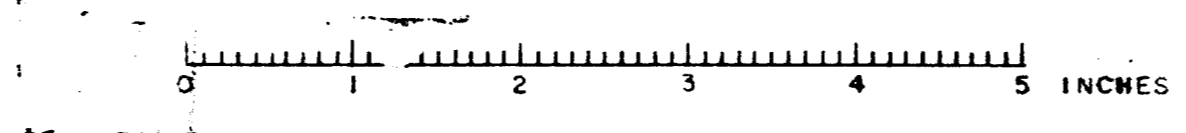
1. ALL SPACES UNDER SHALL BE DEFINED AS UNFINISHED SPACE. METAL SHALL BE CLEAN.

NO	REVISIONS	DATE	APP'D
WATER MAIN RELOCATION AT ROYAL RIVER FOR PINELAND HOSPITAL			
WRIGHT & PIERCE CIVIL ENGINEERS TOPSHAM, MAINE			
DRAWN BY: S.G.S.		SCALE: 1/4" = 10' DATE: 7-13-62	
CHECKED BY: E.J. WRIGHT		DATE: 7-23-62	
APPROVED BY:		DATE:	
BOOK NO. 225	PROJECT NO. 1744	SHEET NO. 1 OF 1	



SECTION A-A
SCALE: 1/4" = 1' 0"

CONC. MAT.
6" SAND CUSHION
12" SAND COVER

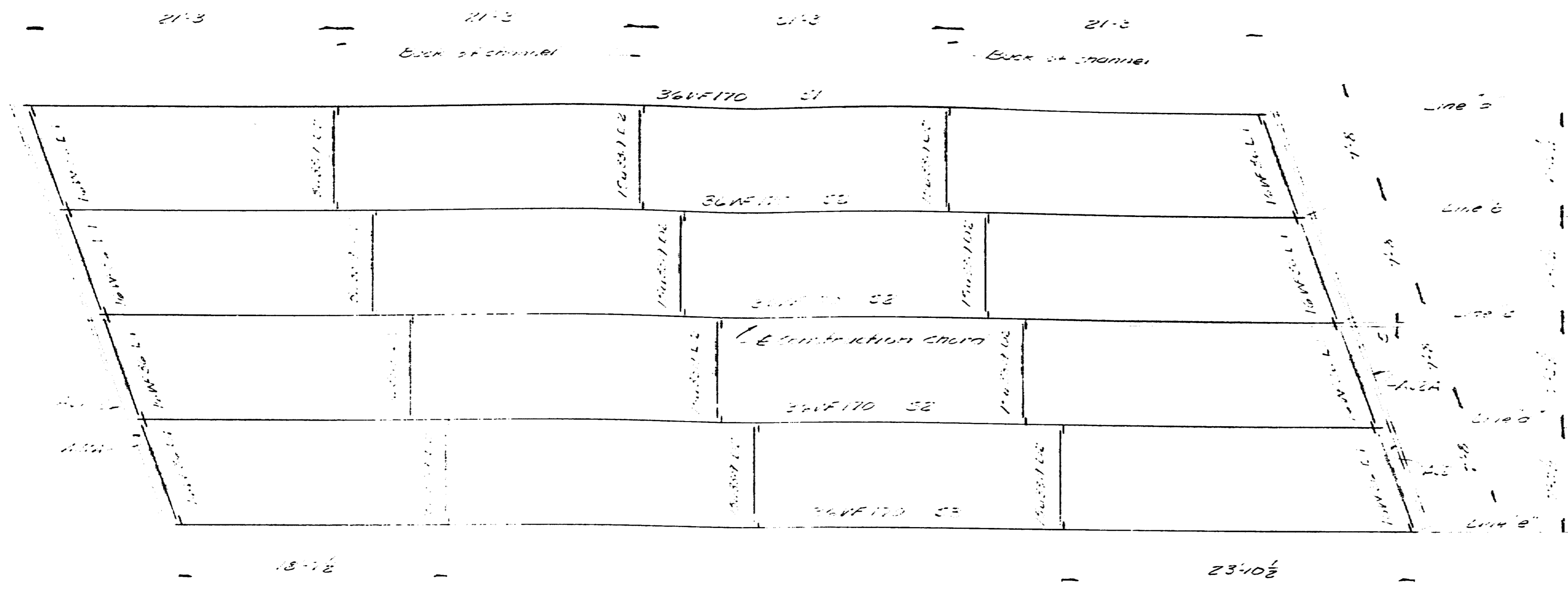


SWEETSER BRIDGE
SEAL 87-24

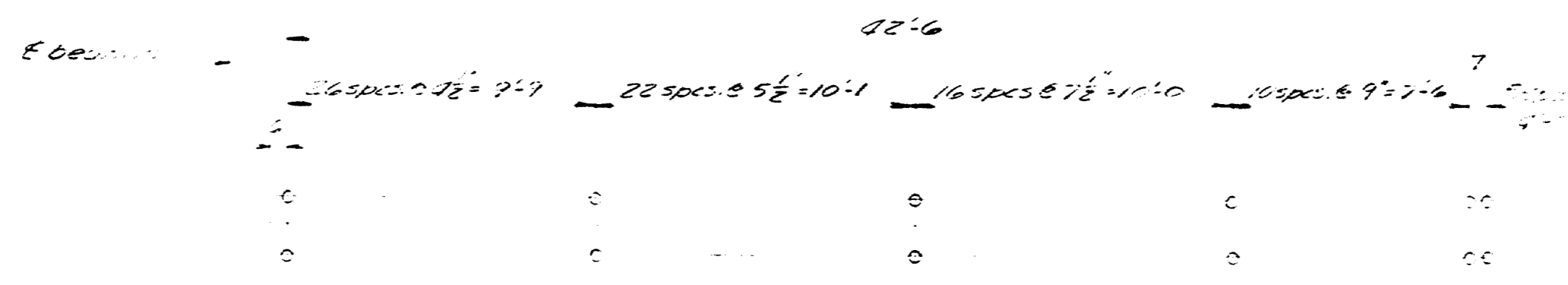
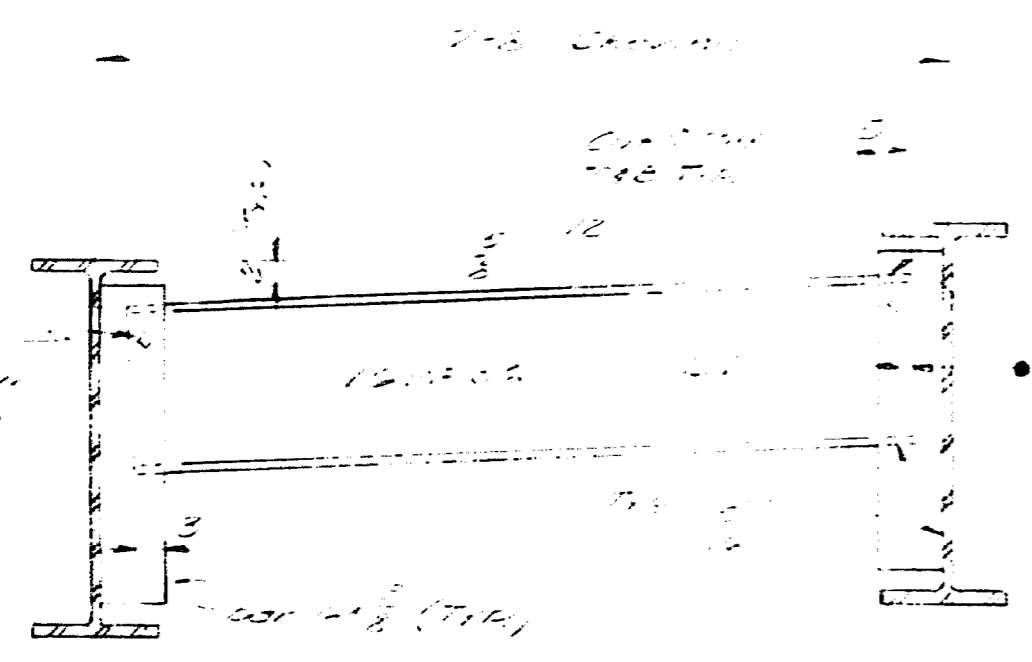
E Bearing EXPANSION
 ABUT #1

85-0 CIRC BEARING

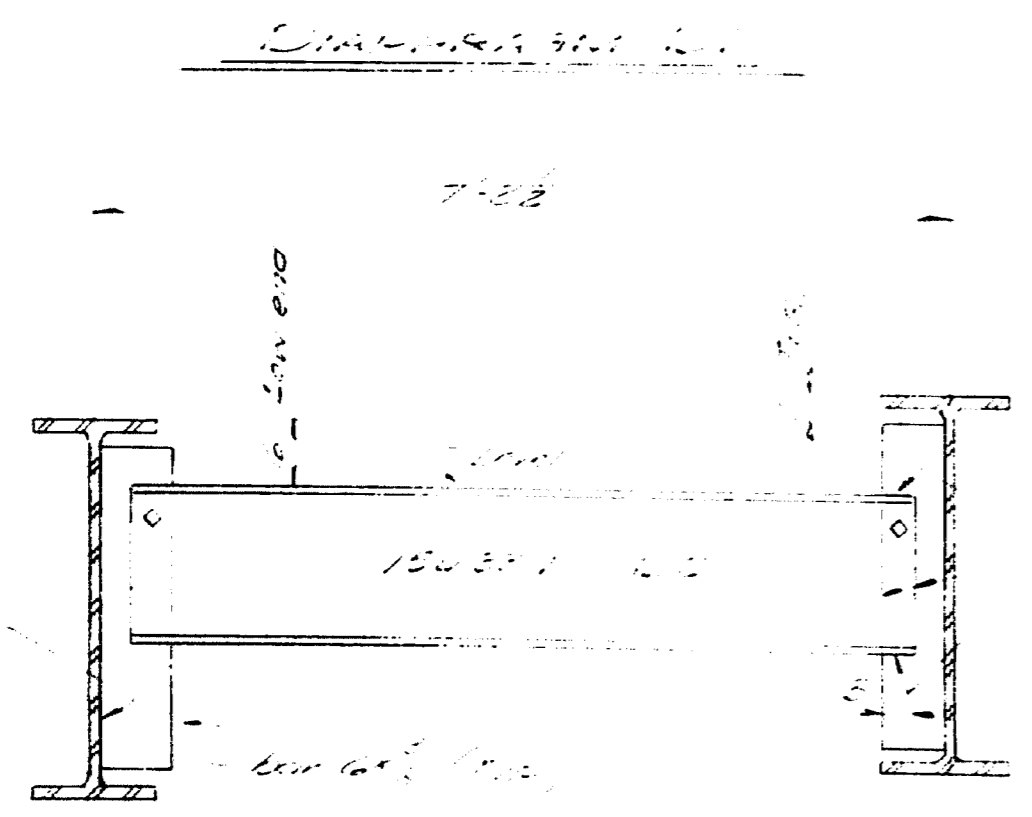
E Bearing Fixed
 ABUT #2



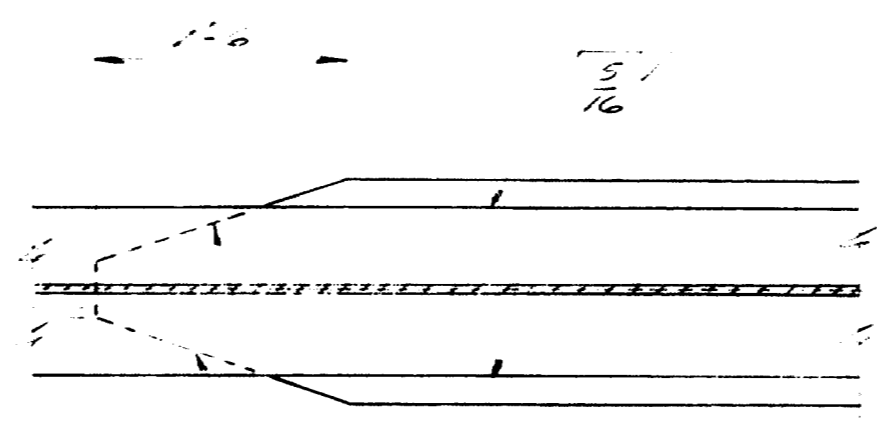
ERECTION DIAGRAM



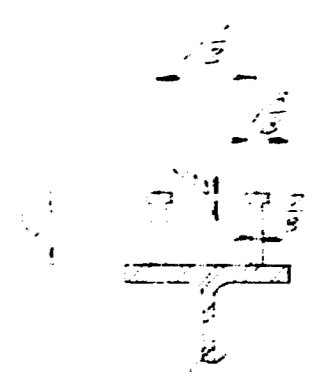
STUD LAYOUT
51, 52 & 53



DIAPHRAGM #2



COVER PLATE DETAIL
TYPICAL



STUD
51, 52 & 53

- NOTES:
- FIELD STUDS: 1/2" DIA. STEEL
 - FIELD STUDS: SUPPLY WITH 3/4" DIA. WELDING ROD.
 - FIELD STUDS: 1/2" DIA. WELDING ROD.
 - FIELD STUDS: 1/2" DIA. WELDING ROD.
 - FIELD STUDS: 1/2" DIA. WELDING ROD.

BRIDGE #5781	
ERECTION DIAGRAM	
STUD LAYOUT & COVER PLATE DETAIL	
Contract: Weston Manufacturing Company	
11th Portland St. Bangor	
SWEETSER BRIDGE	
GRAY, MAINE.	
CUSTOMER	C.H. GOODRICH
DESIGNER	M.S.H.C. BRIDGE DIV.
ORDER NO	Verbal 62-329-E1

