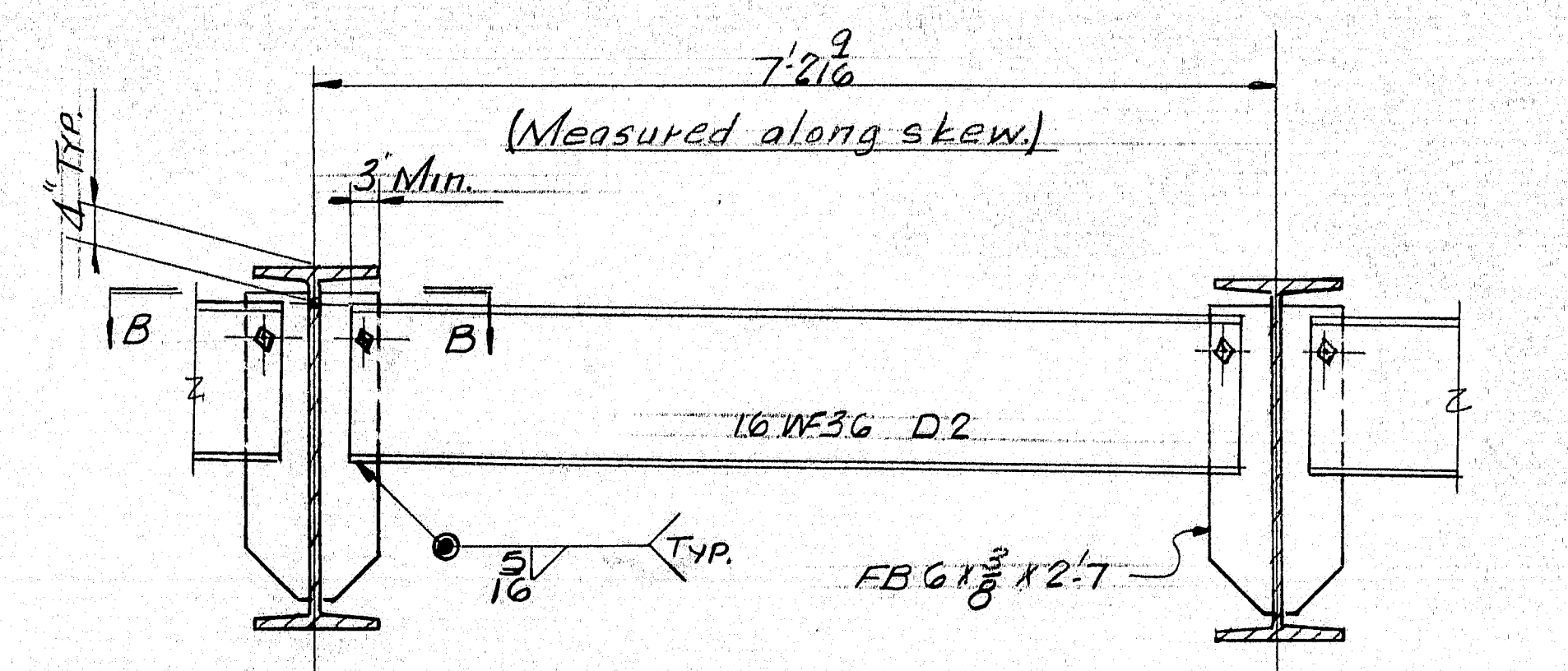
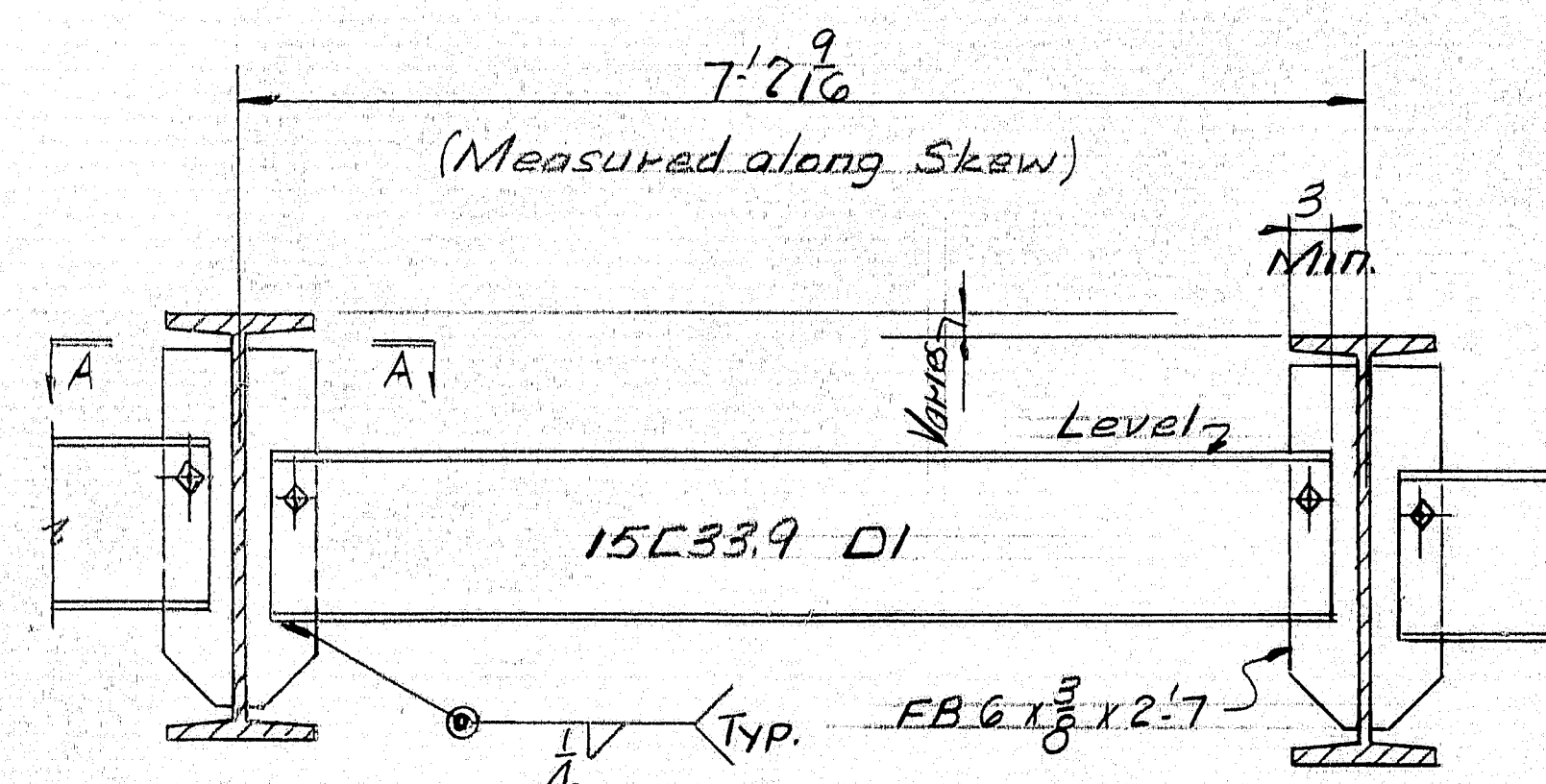
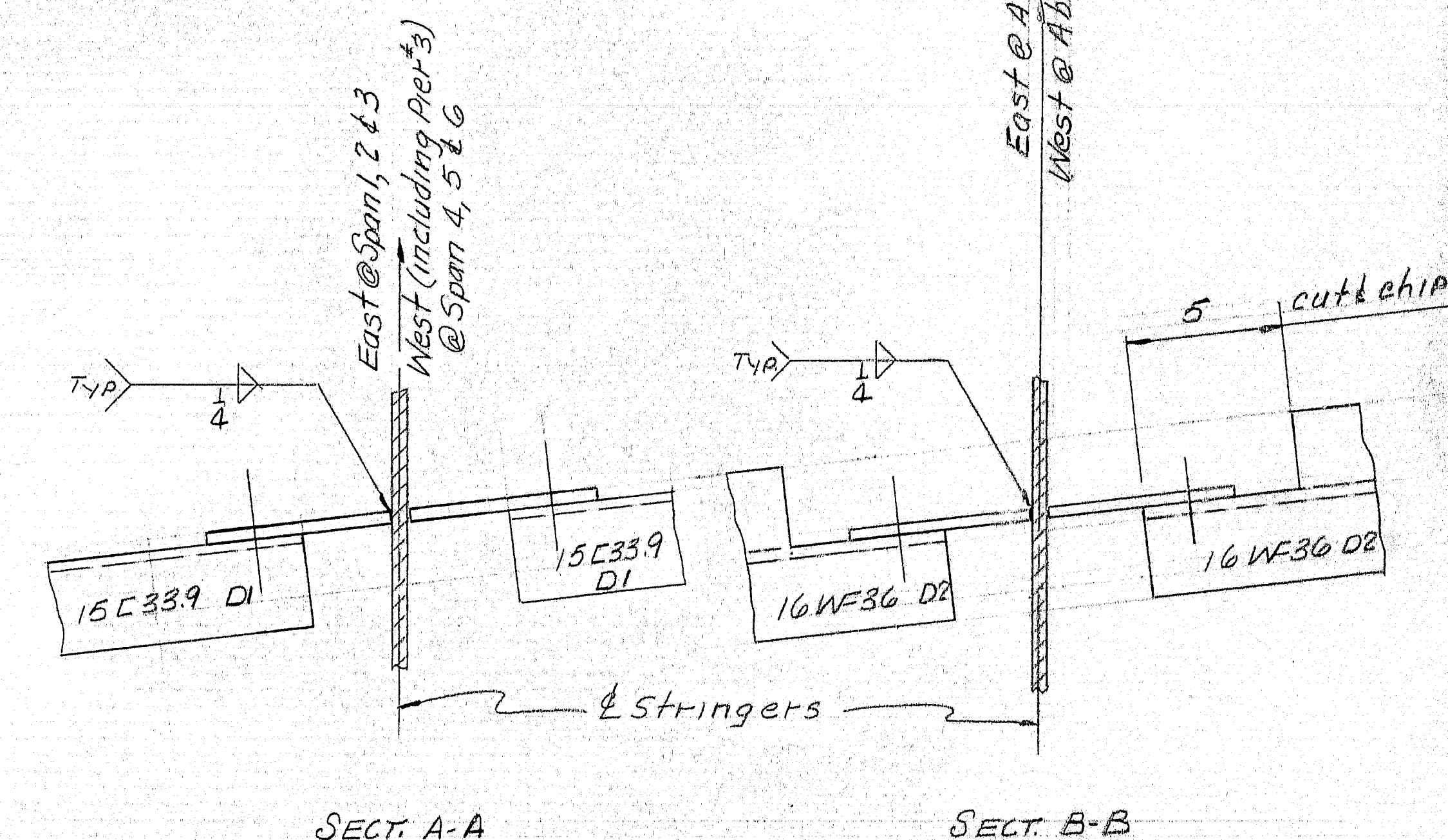


### ERECTION DIAGRAM

#### NOTES:

- 1- Plug Form bracket holes (For Fleming Brackets) with  $\frac{3}{8} \times 0.4$  Long carriage bolts. Heads to be on outside and are to be completely covered.
- 2- Letter of compliance required for electrodes and flux.



PROJECT No. 1-95-8 (G1)

ERECTION DIAGRAM

Bancroft & Martin Inc.

South Portland 7, Maine

LINCOLN SPUR OVER I-95

(TR-RS) PENOBSCOT COUNTY, ME.

CUSTOMER DIANCHETTE BROS., INC.

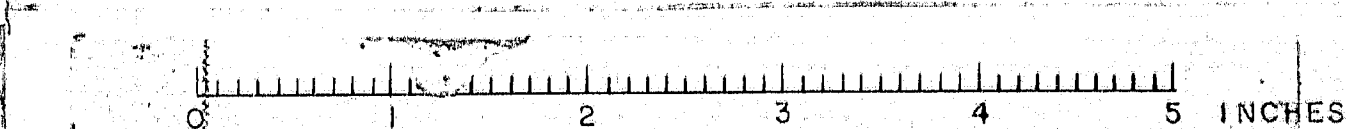
DESIGNER MAINE S.H.C. - BRIDGE DIV.

ORDER NO. VERBAL DWG. NO. 65-131-EI

APPROVED 7-27-65

94-22













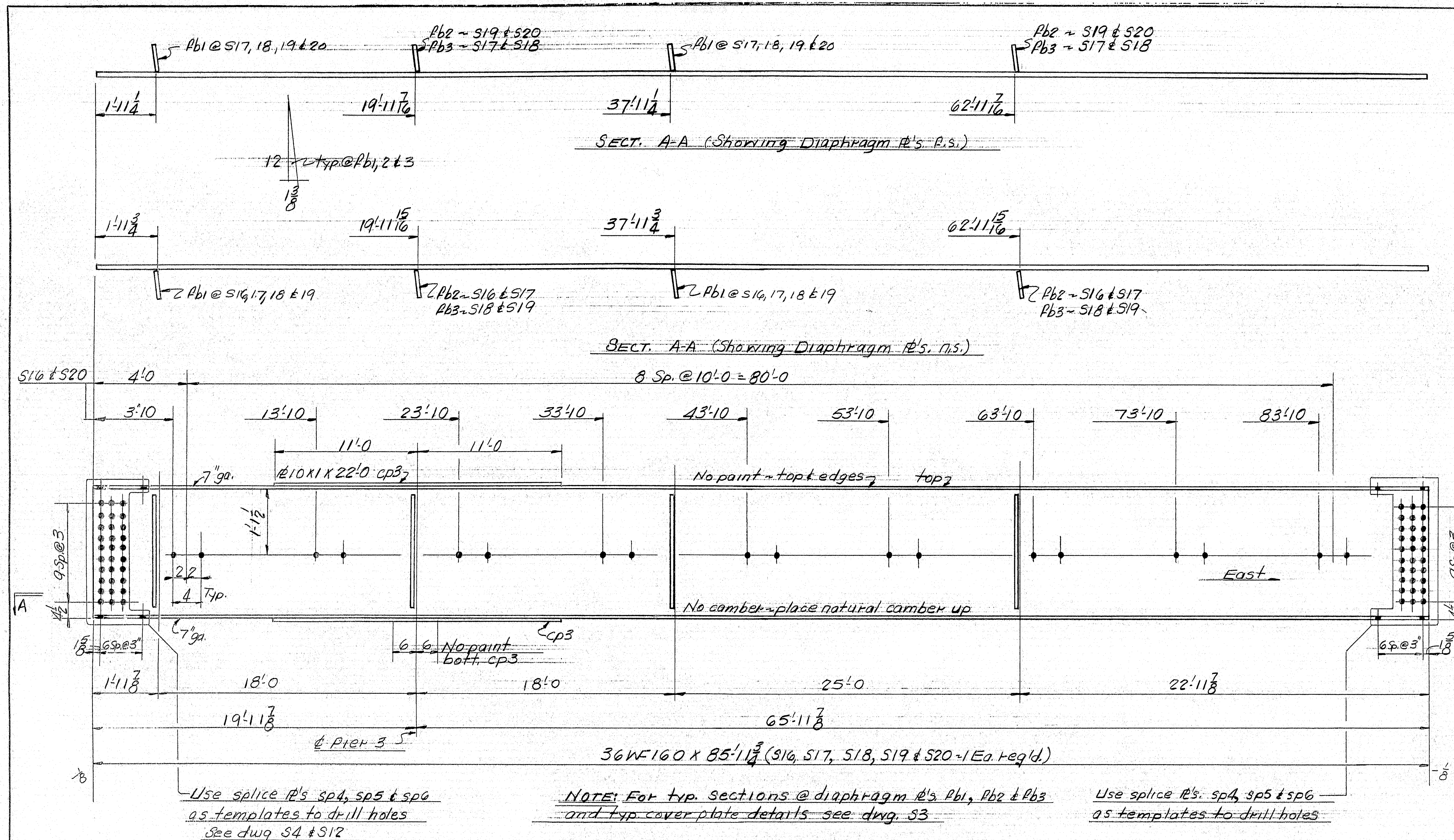












SHIP		BILL OF MATERIAL				DWG. NO. 65-131-S6
MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS
S16	1		36 WF 160	85' 11 3/8"		
S17	1		DO	85' 11 3/8"		
S18	1		DO	85' 11 3/8"		
S19	1		DO	85' 11 3/8"		
S20	1		DO	85' 11 3/8"		
		16	Pbi	FB 6 x 8	2' 7"	
		8	Pbz	DO	2' 7"	
		8	Pbs	DO	2' 7"	
		10	CP3	10 x 1	22' 0"	
						A-36 Steel

I 702-103.2

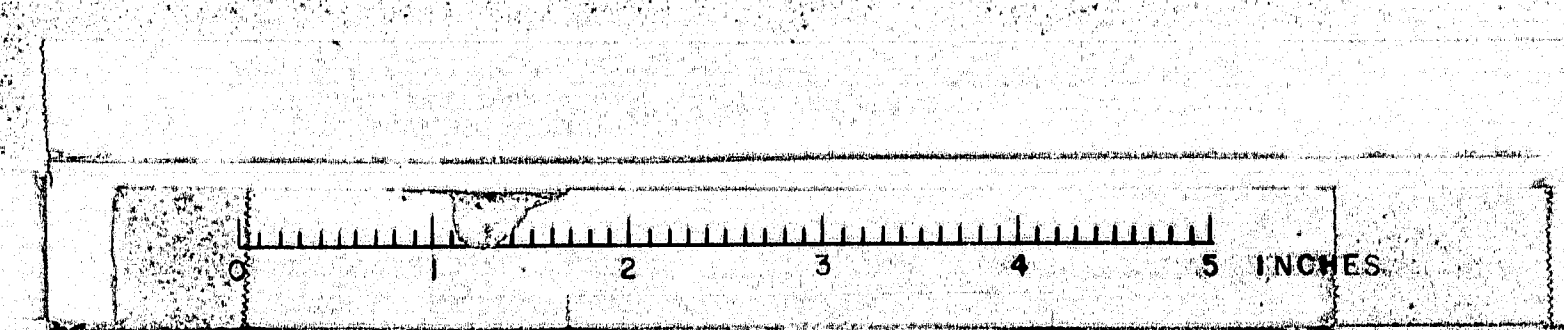
SHOP CONNECTIONS: Welded ~ E70 Rod  
FIELD CONNECTIONS: Welded & Bolted  
HOLES: 1/2" Ø  
PAINT: Red lead per M.S.H.C. Specs. & as noted.

Splice HOLES ARE FOR HIGH TENSILE BOLTS  
They are to be free from burrs and shall not be painted on any surface within 5" of such open holes.

PROJECT NO. 1-95-8 (61)  
STRINGER DETAILS SPAN 4  
Bancroft & Martin Inc.  
South Portland 7, Maine  
LINCOLN SPUR OVER I-95  
(T.R.B.) PENOBSCOT COUNTY, ME.

CUSTOMER: CIANCHETTE BROS., INC.  
DESIGNER: MAINE SHG. BRIDGE DIV.  
ORDER NO. VERBAL  
DWG. NO. 65-131-S6

94-28



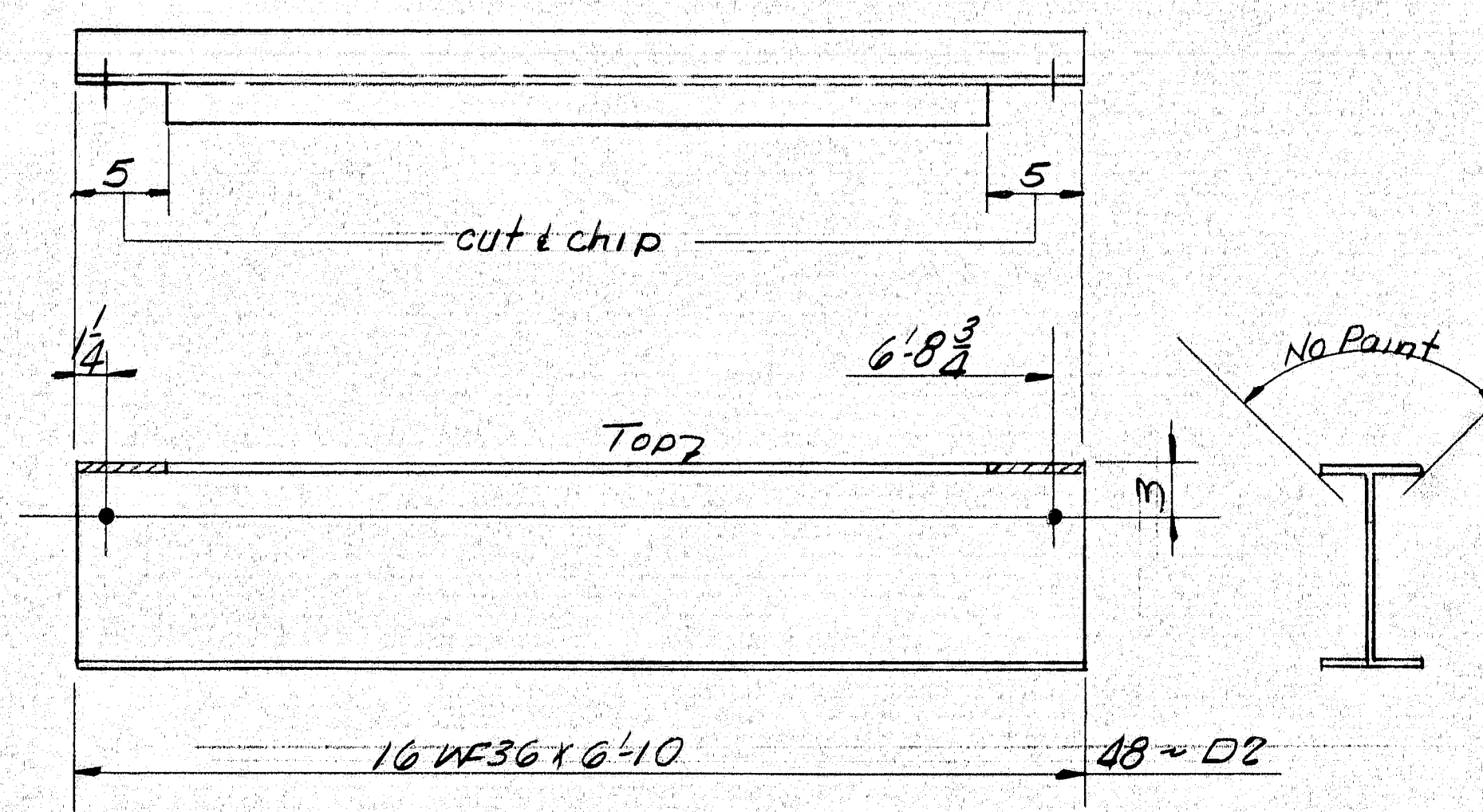
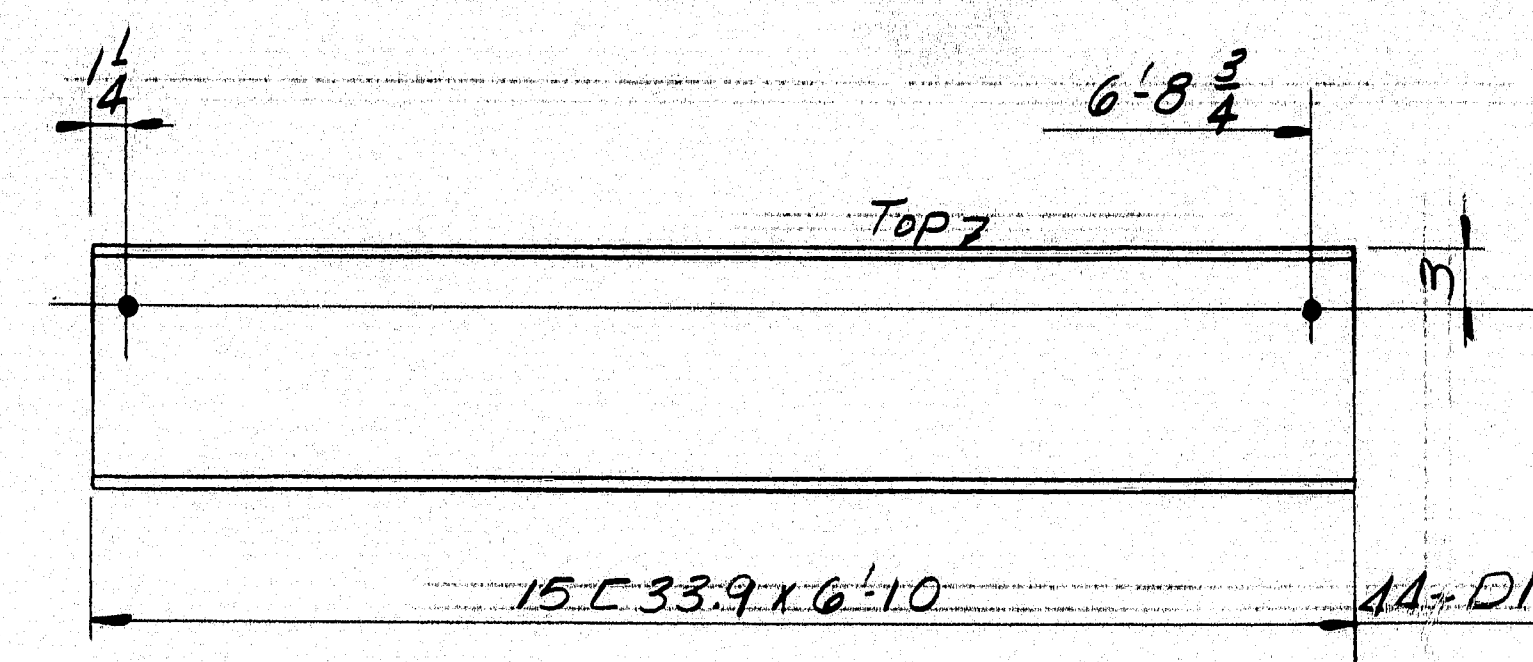












NOTE:  
No Paint within 5" ea. end D1 & D2

SHIP		BILL OF MATERIAL				DWG. NO. 65-131-59
MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS
D1	44		15C33.9	6'10"		
D2	48		16WF36	6'10"		
Field	193		7/8" M.Bolts	0	2	
Steel A-36						

ITEM 702-103.2

SHOP CONNECTIONS:  
FIELD CONNECTIONS: Bolted 7/8" M.Bolts  
HOLES: 15/16"  
PAINT: Red lead per M.S.H.C. Spec's  
# as noted.

PROJECT No. 1-95-B (61)  
DIAPHRAGM DETAILS

Bancroft & Martin Inc.  
South Portland 7, Maine

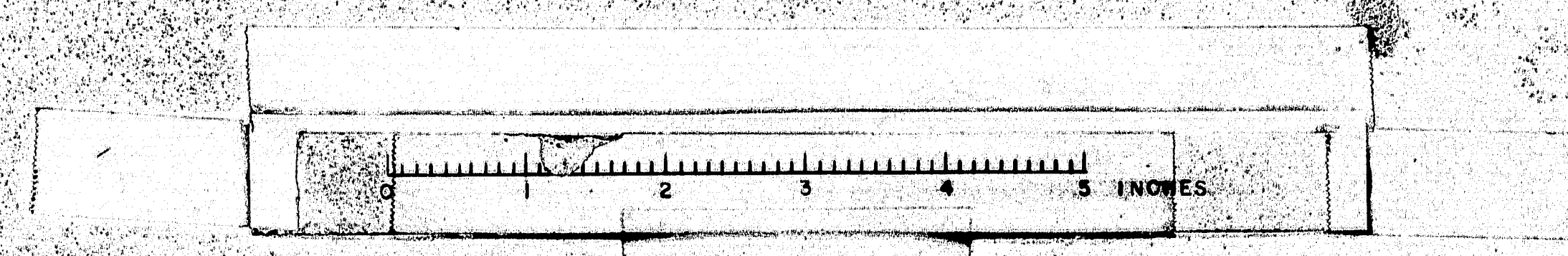
LINCOLN SPUR OVER I-95  
(72-R3) PENOBSCOT COUNTY, ME.

CUSTOMER: CIANCHETTE BROS., INC.  
DESIGNER: MAINE S.H.C. - BRIDGE DIV.

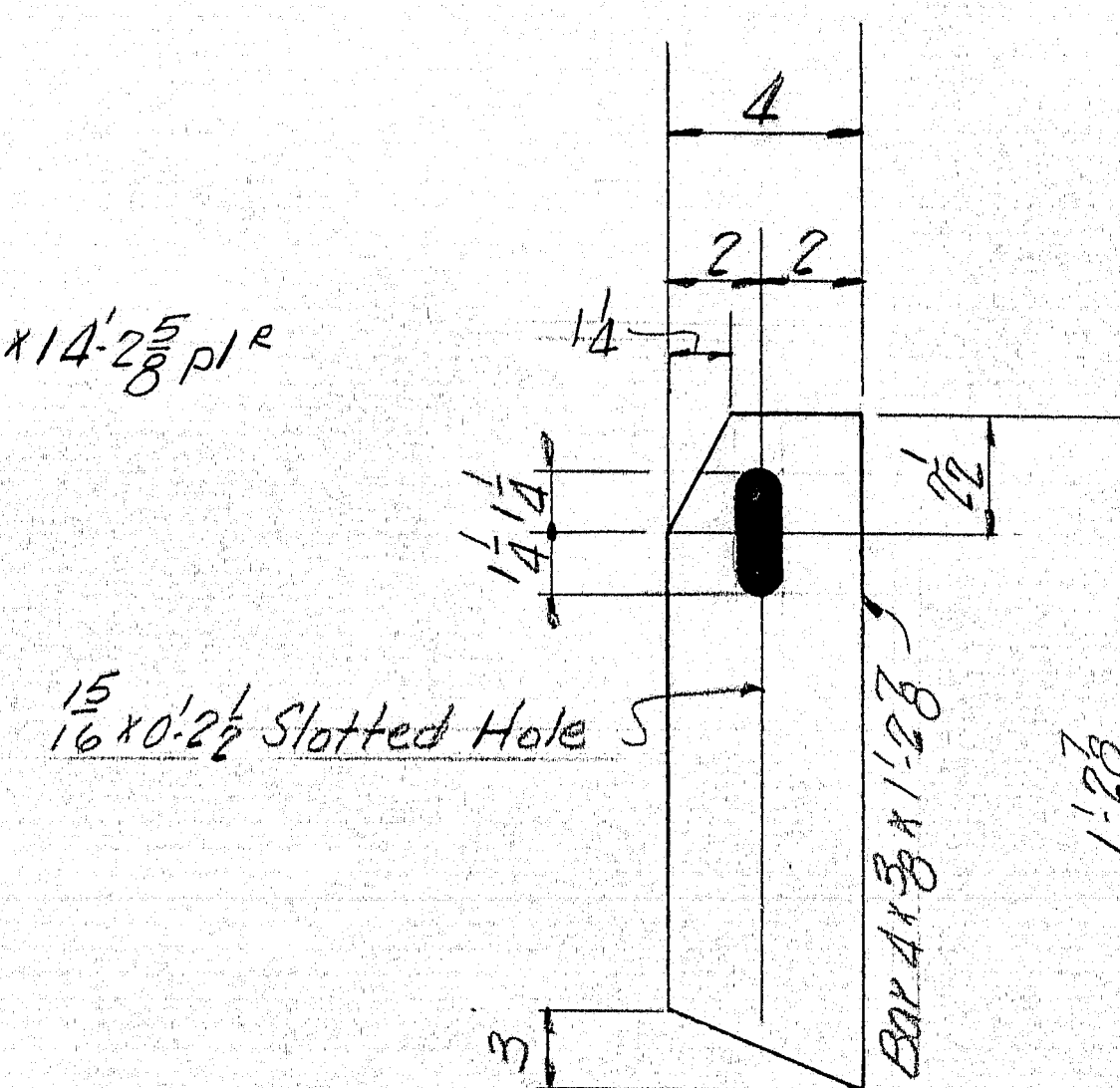
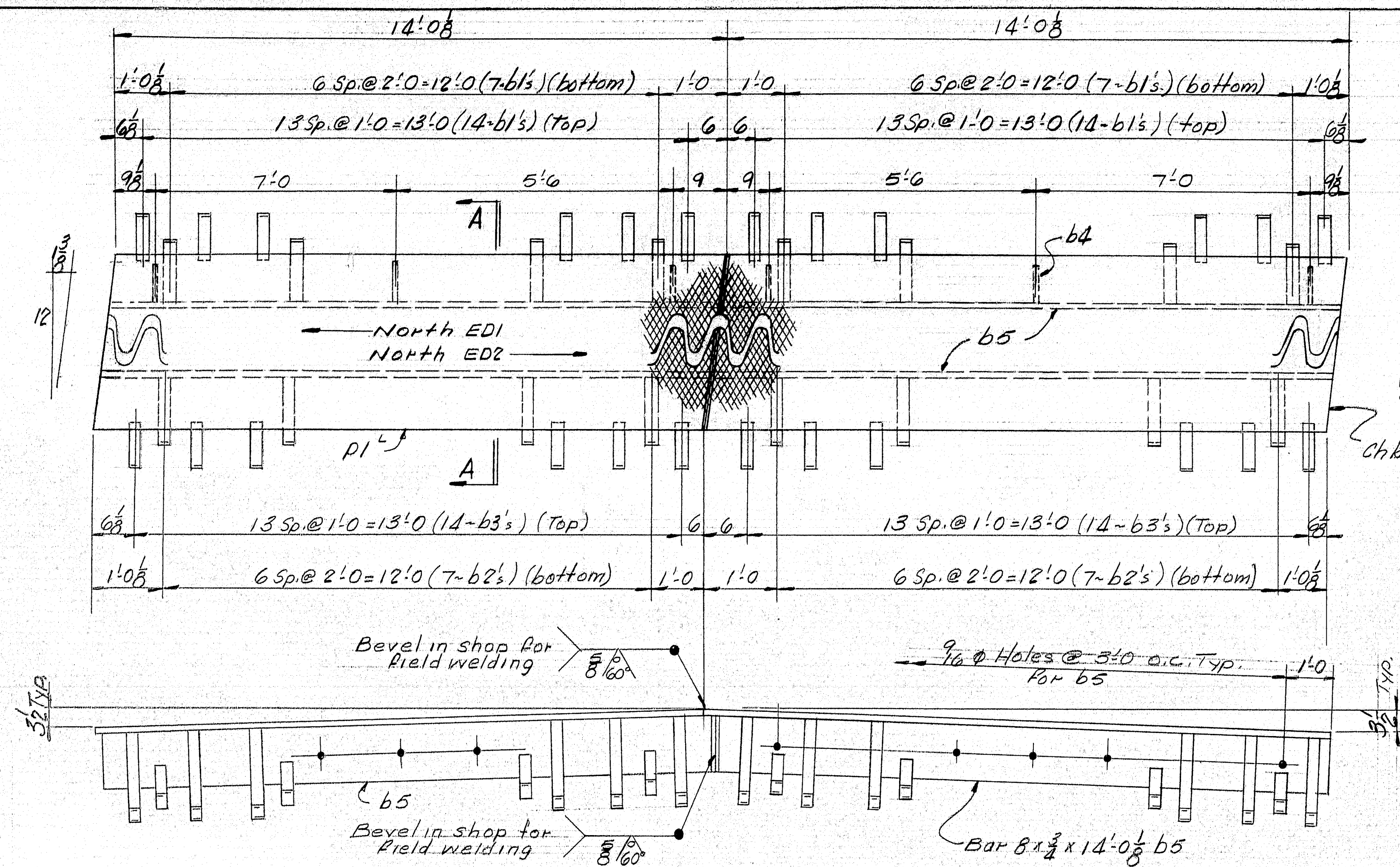
DRAWN	630-65 EGM
REVISION	
REVISION	
REVISION	

ORDER NO. VERBAL DWG. NO. 65-131-59

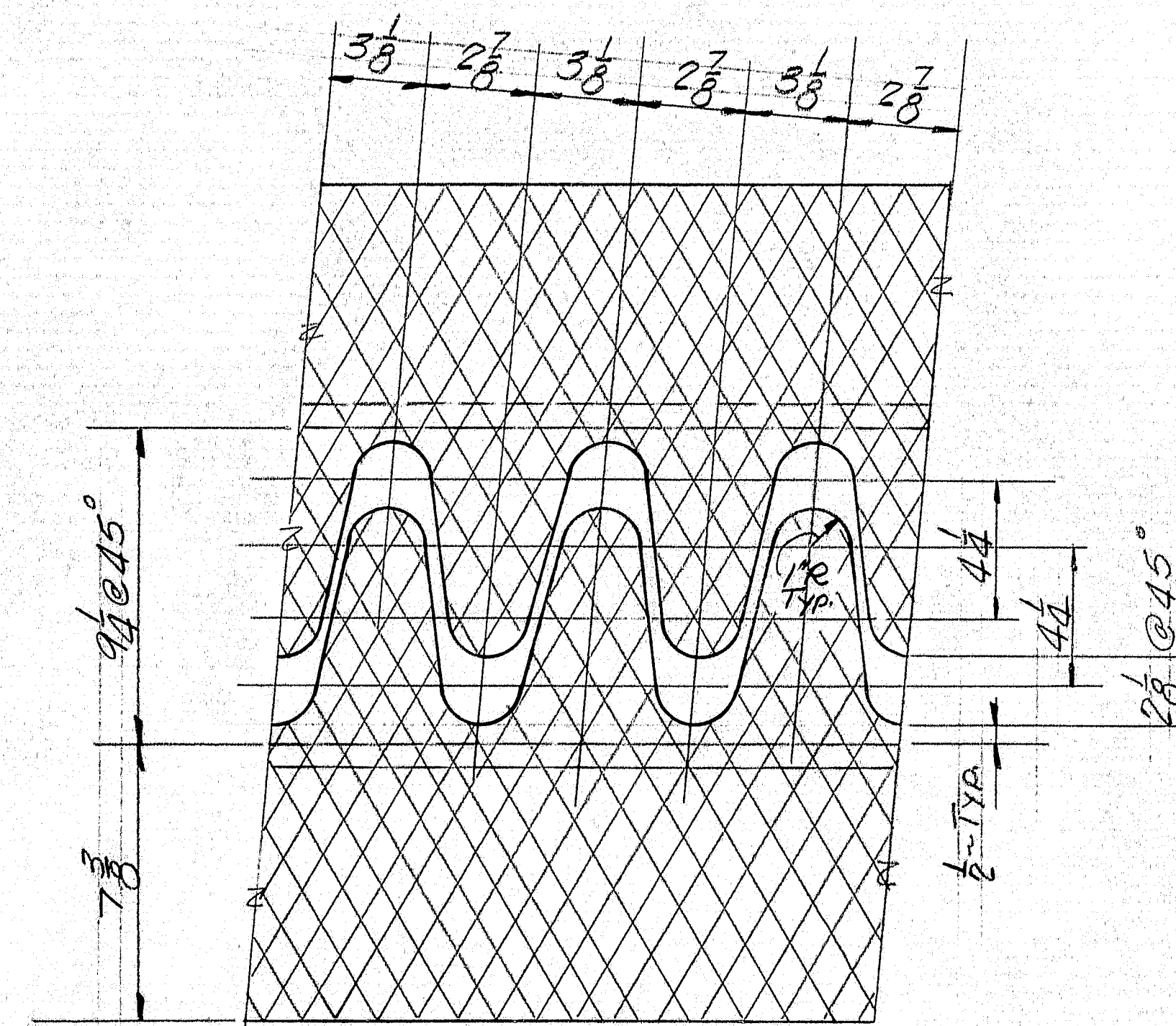
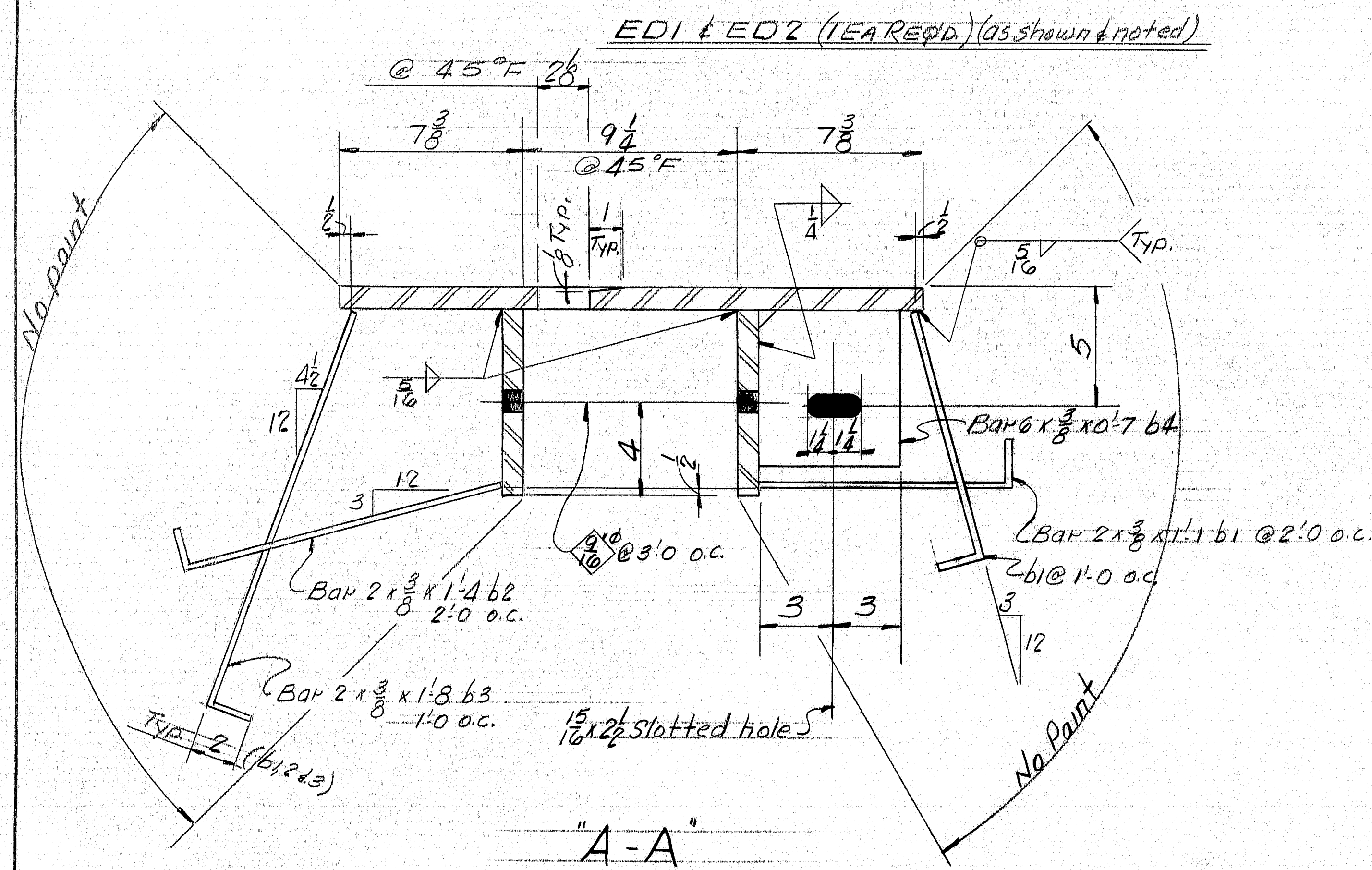
94-31







b6 ~ 12 REQ'D. (No paint)  
Bolt to b5 for shipment with  
3/8 x 0.25 H.S. Bolts  
Field weld to top of diaphragm.



CUTTING DIAGRAM  
Cut From 22 x 1 non skid pl. & match mark.

SHIP		BILL OF MATERIAL				DWG. NO. 65-131-S10
MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS
ED1	1		Shop Assy			(4 parts)
ED2	1		DO			(4 parts)
	2	PIR	R 22 x 1	14'-2 3/8"		Chkd. R.
	2	PIR	R 22 x 1	14'-2 3/8"		Chkd. R.
	84	b1	Bar 2 x 3/8	1	1	Bent
	28	b2	Bar 2 x 3/8	1	4	Bent
	56	b3	Bar 2 x 3/8	1	8	Bent
	12	b4	Bar 6 x 3/8	0	7	
	8	b5	Bar 8 x 3/4	14'-0 1/2"		
	12	b6	Bar 4 x 3/8	1	28	
	12	Shop	3/8 H.S. Bolts	0	2 1/2	
	12	Shop	Hard Washer			
						A36 Steel

ITEM 702-103.2

SHOP CONNECTIONS: Welded & Bolted  
FIELD CONNECTIONS: Welded  
HOLES: as noted  
PAINT: Red lead per M.S.H.C. Specs. and as noted.

PROJECT No. 1-95-R (61)  
EXPANSION DAM DETAILS

Bancroft & Martin Inc.  
South Portland 7, Maine

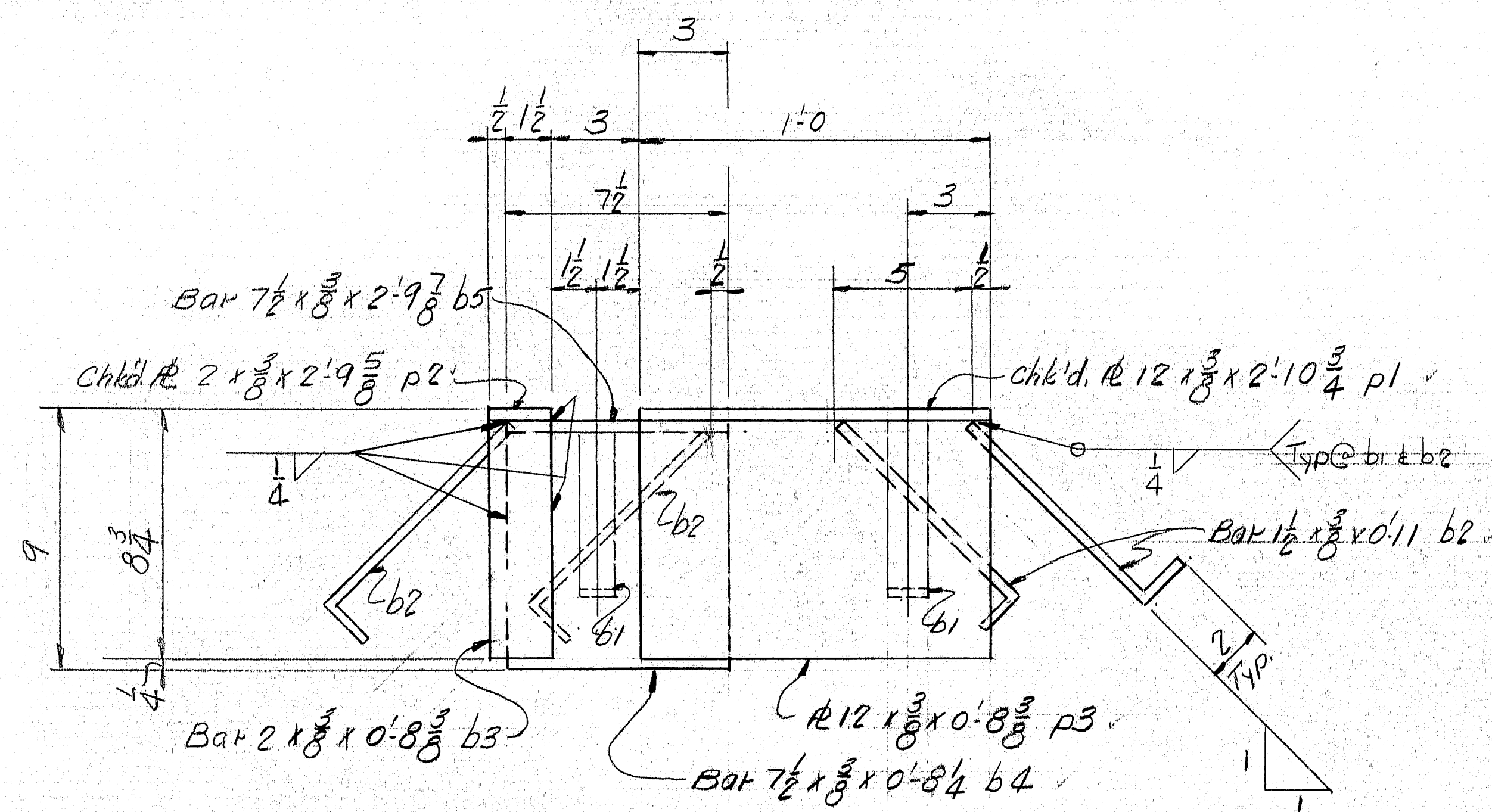
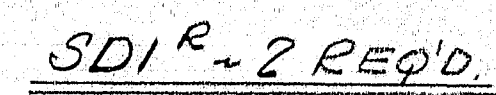
LINCOLN SPUR OVER I-95  
(12-R8) PENOBSCOT COUNTY, ME.

CUSTOMER: CIANCHETTE BROS., INC.  
DESIGNER: MAINE STATE BRIDGE DIV.

ORDER NO. VERBAL DWG. NO. 65-131-S10

DRAWN	71-65	RGM.
REVISION		
REVISION		
REVISION		

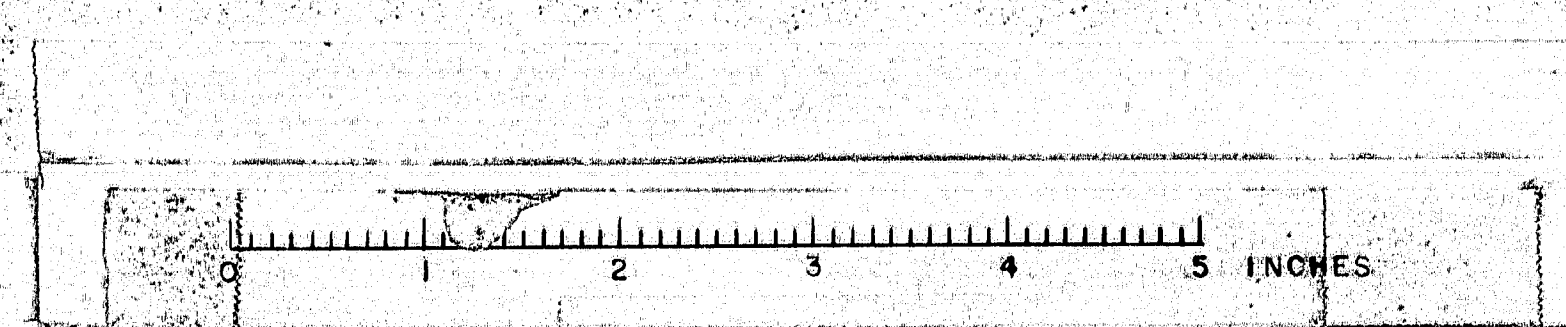




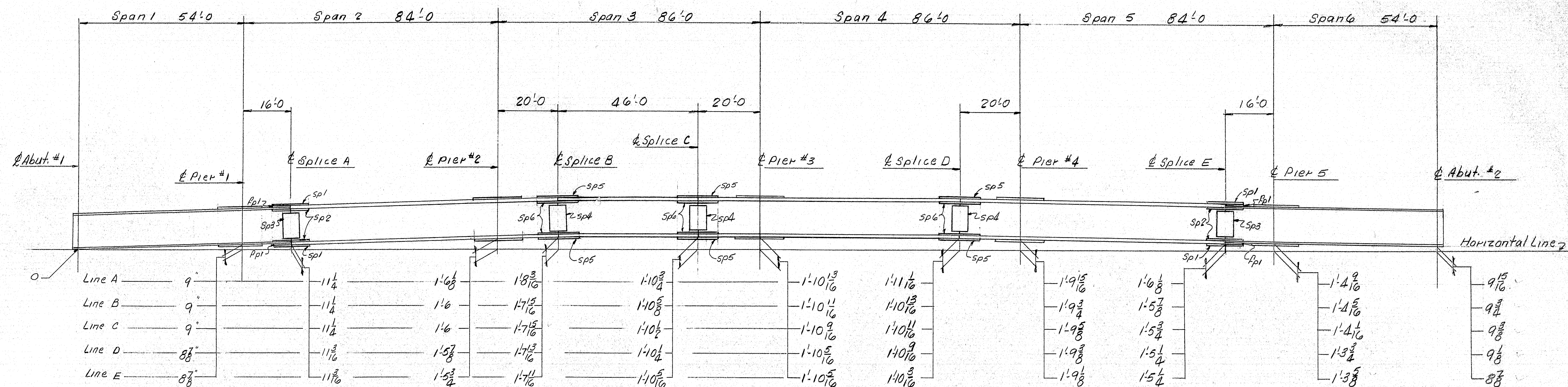
2-2  
3-3 <sub>2</sub> opp hand

DRAWN	7-2-65	RGM	CUSTOMER	CIANCHETTE BROS., INC.
REVISION			DESIGNER	MAINE S.H.G. BRIDGE DIV.
REVISION			ORDER NO.	VERBAL
REVISION			DWG. NO.	65-131-S11

94-33

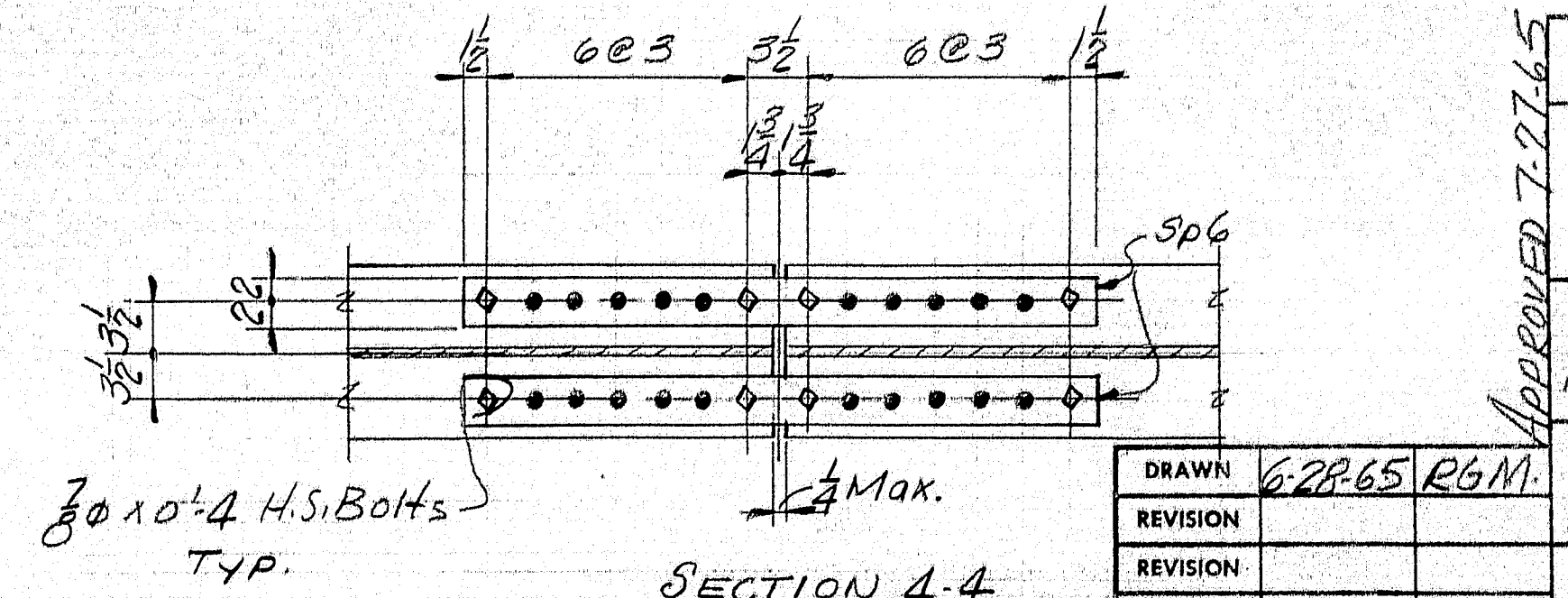
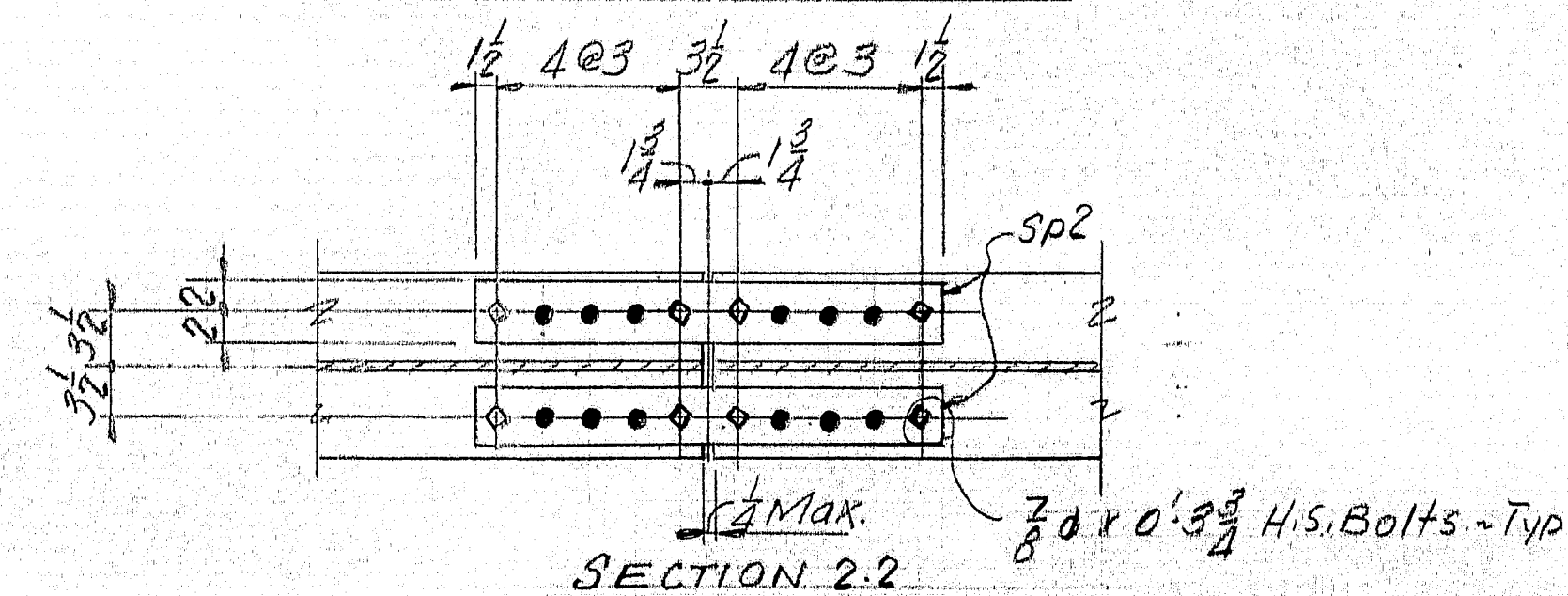
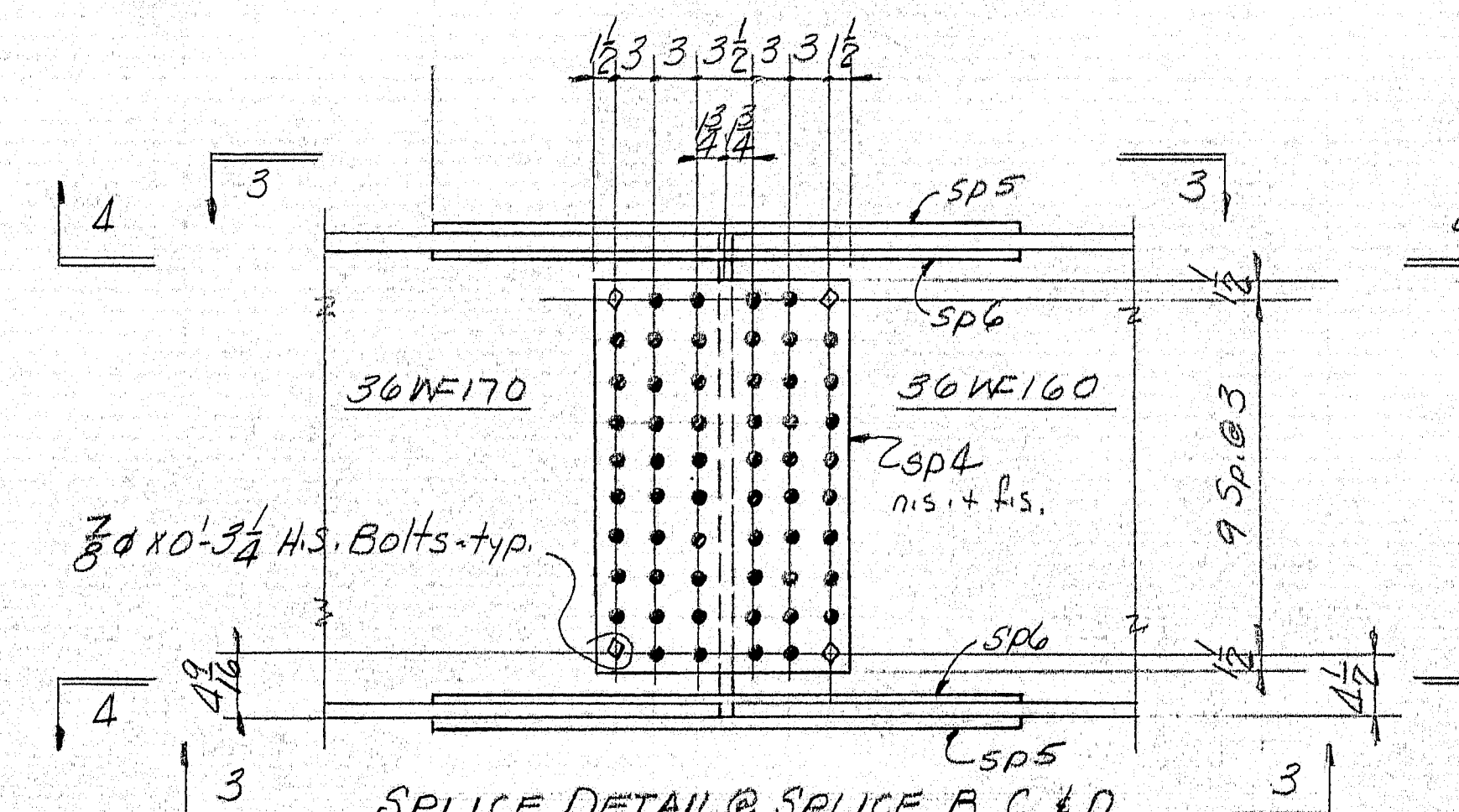
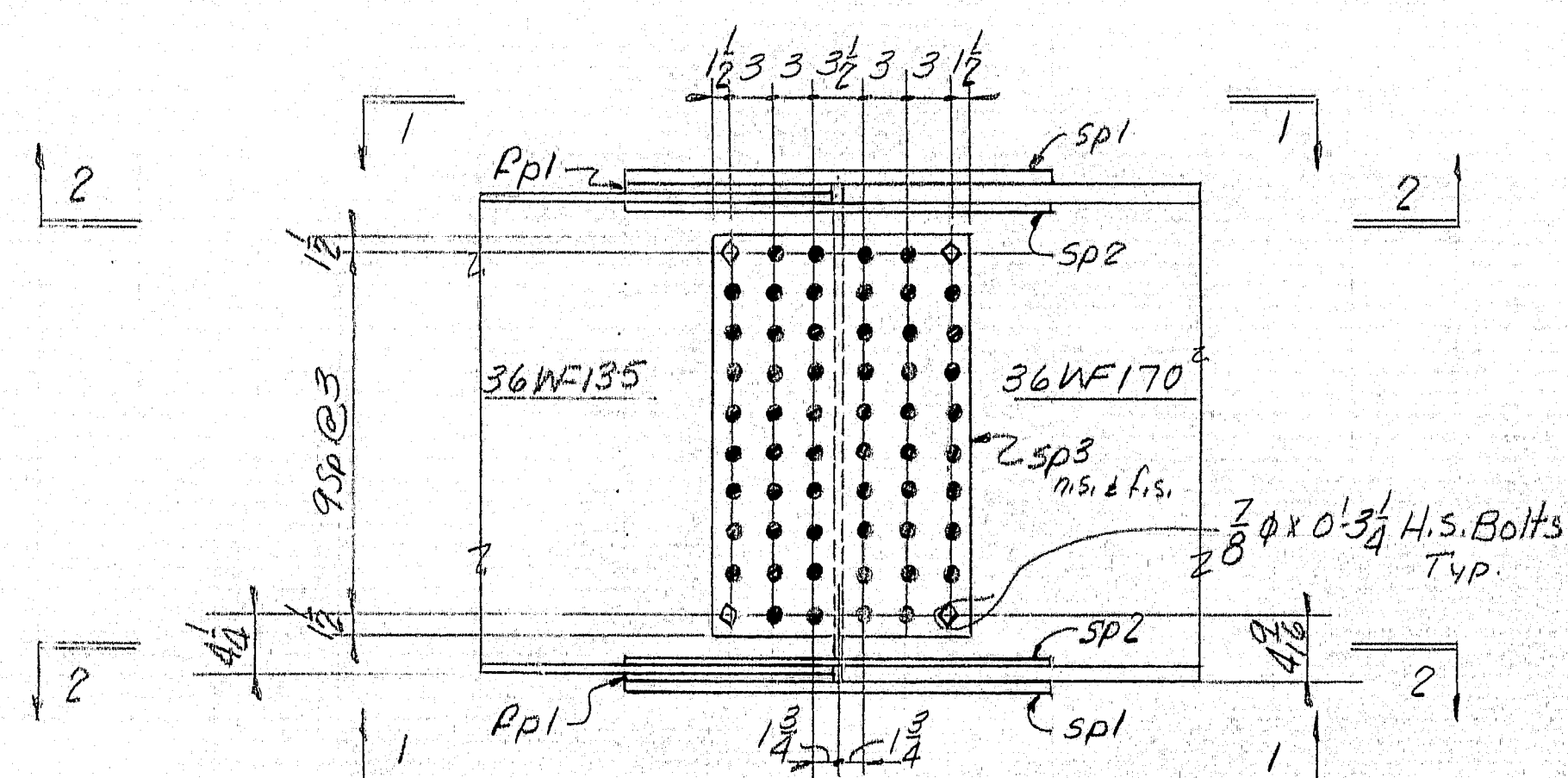
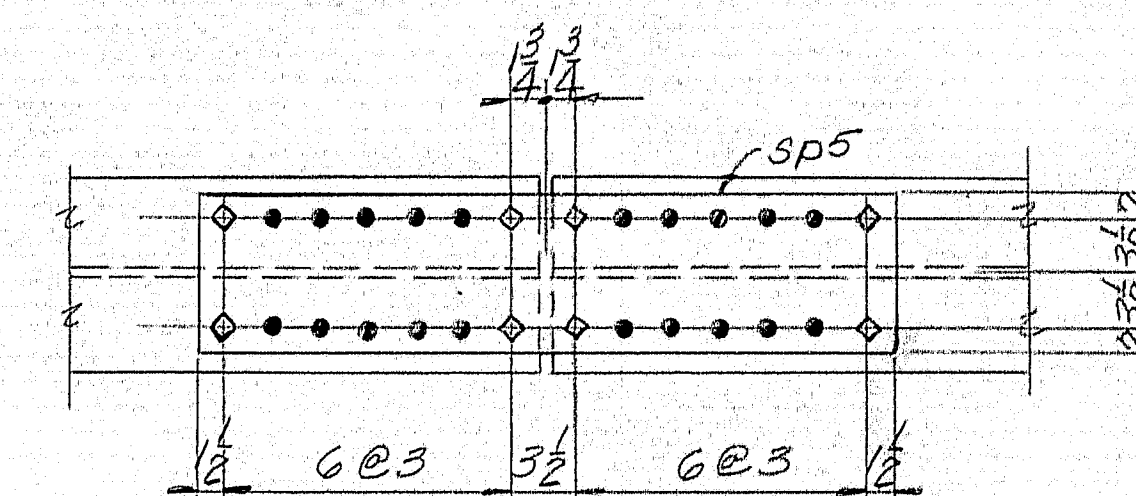
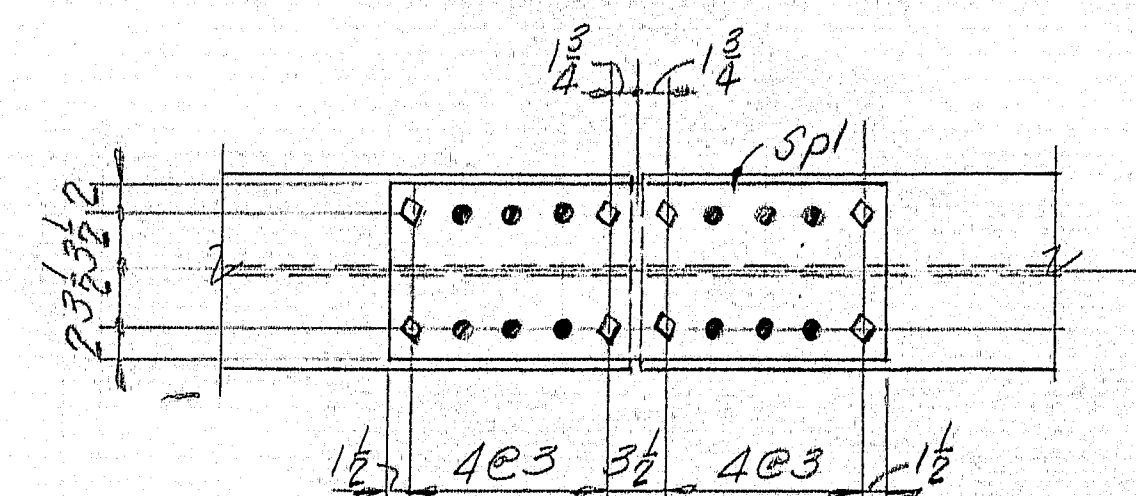






NOTE: Vertical dimensions taken to the bottom of the stringers. Where one stringer is larger, the dimensions are to the bottom of the larger stringer.

SHOP LAYOUT DIAGRAM



Approved 7-27-65

SHOP LAYOUT DIAGRAM

Bancroft & Martin Inc.  
South Portland 7, Maine

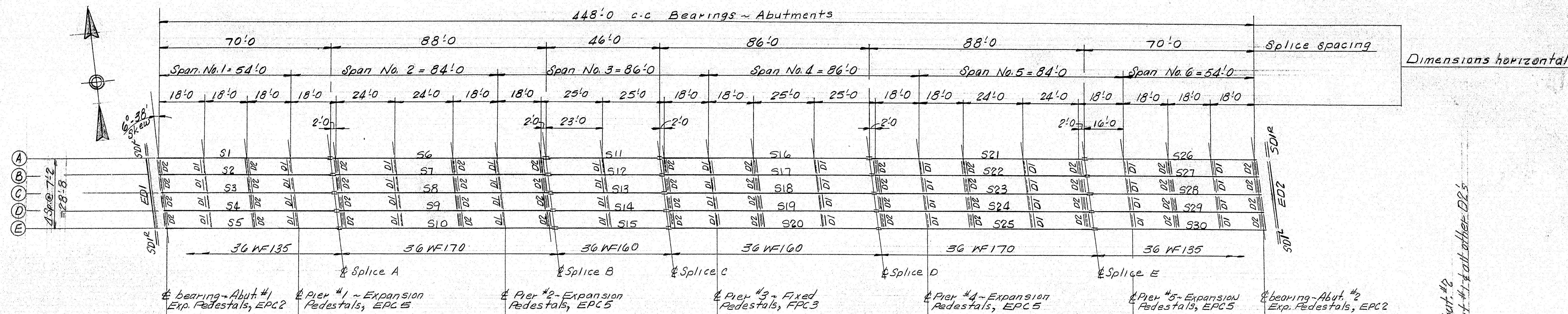
LINCOLN SPUR OVER I-95  
(T-2-RB) PENOBSCOT COUNTY, ME.

CUSTOMER: GIANCHETTE BROS., INC.  
DESIGNER: MAINE S.H.C. BRIDGEDIV.

ORDER NO. VERBAL DWG. NO. 65-131-S12

DRAWN	62R-65 RGM
REVISION	
REVISION	
REVISION	

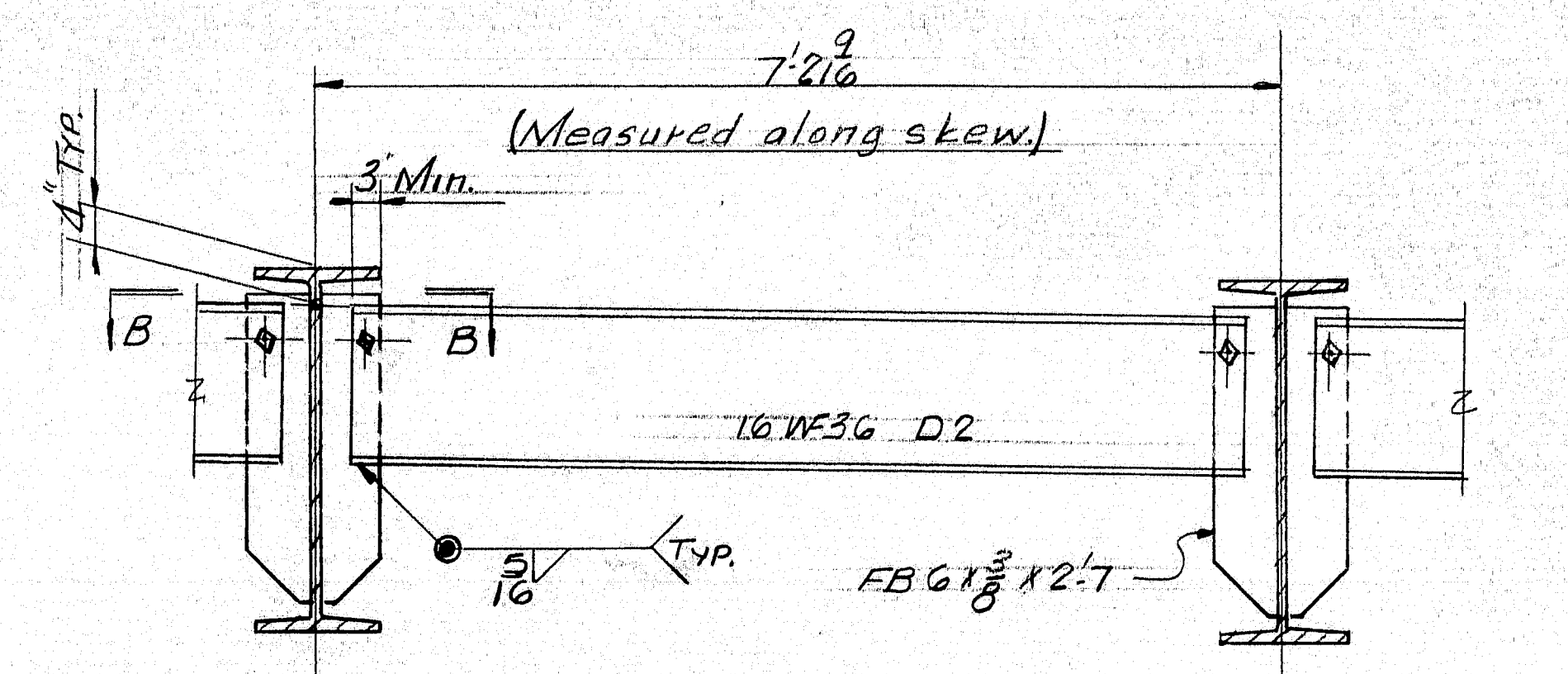
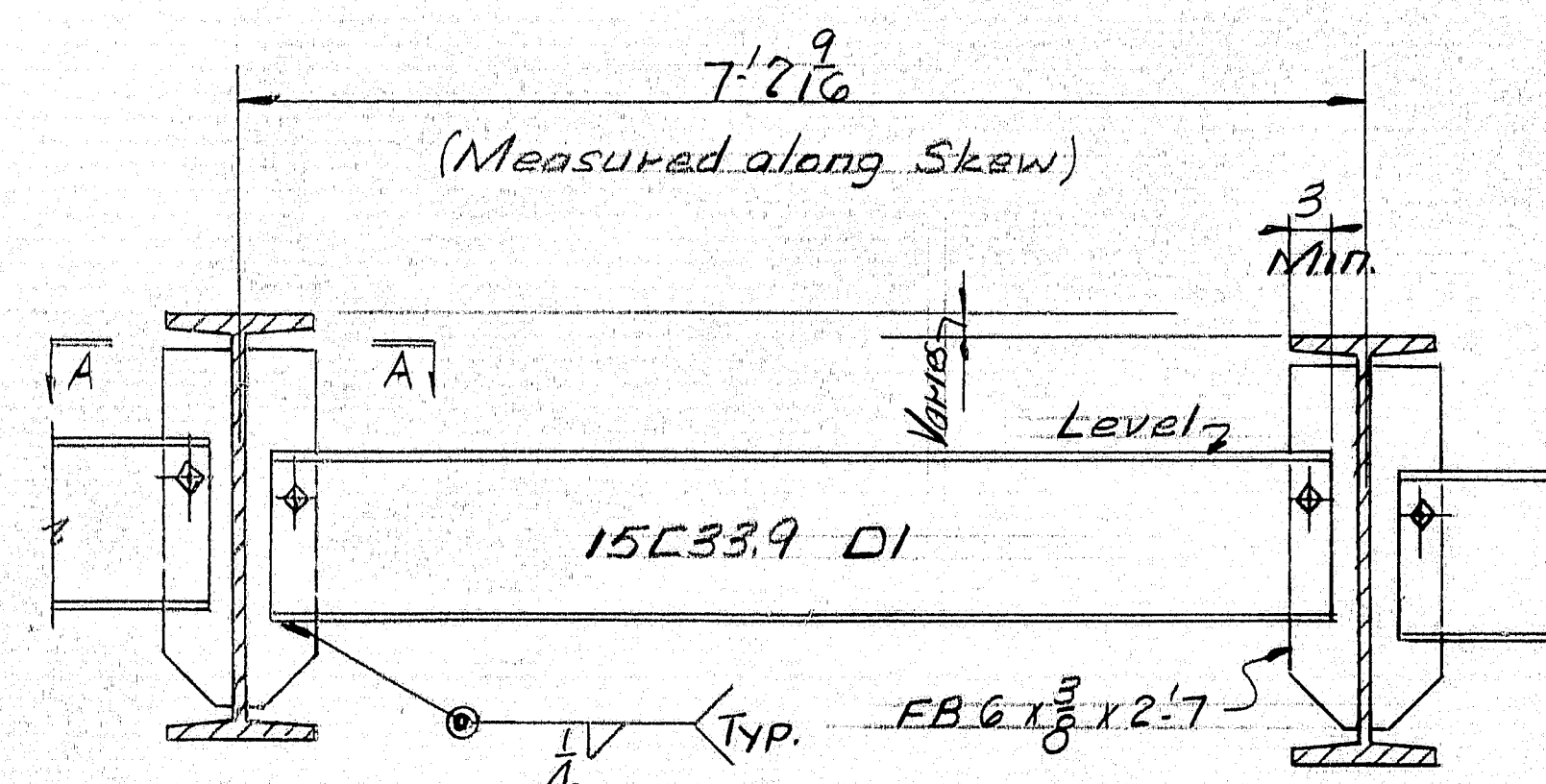
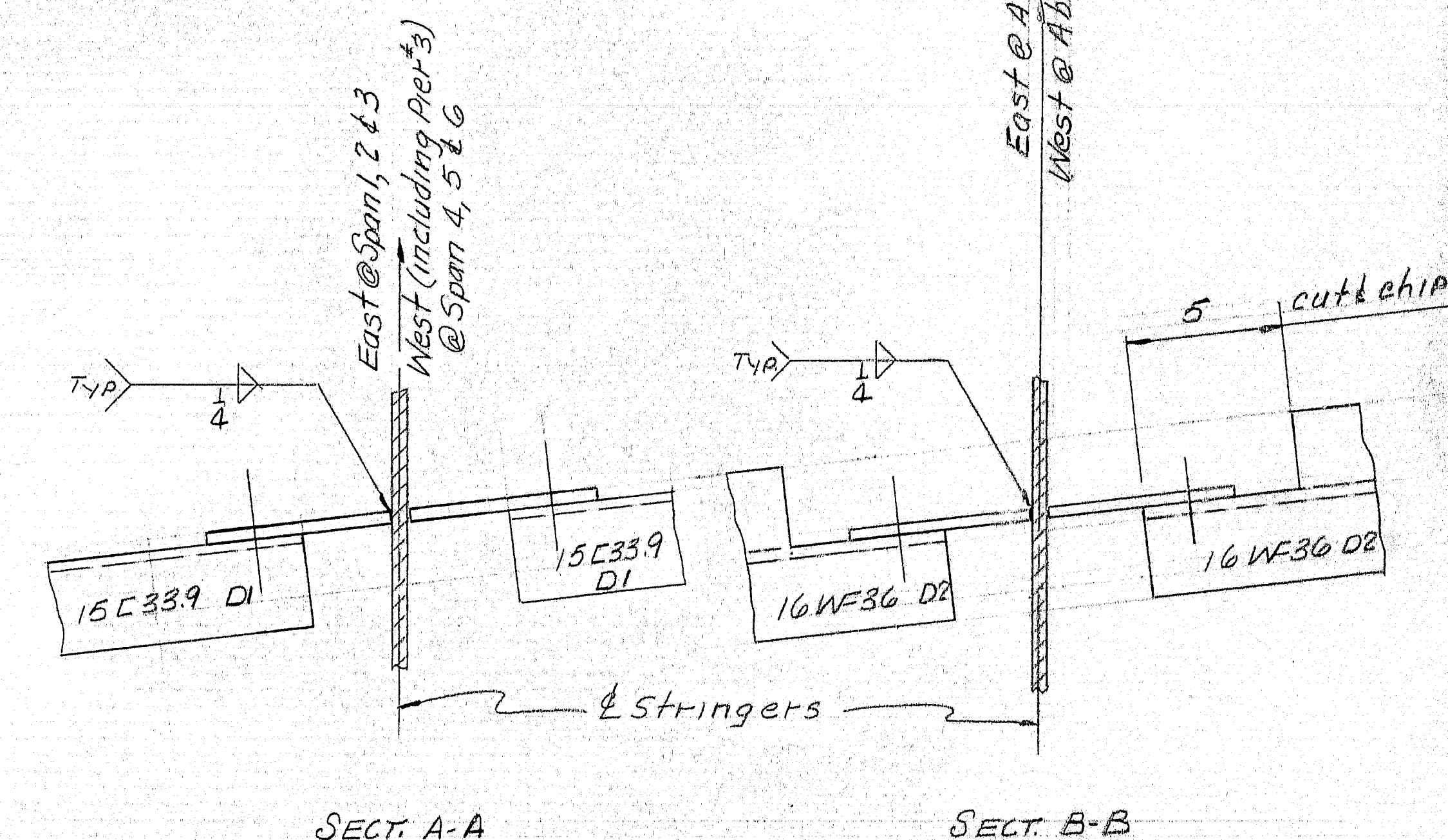




### ERECTION DIAGRAM

#### NOTES:

- 1- Plug Form bracket holes (For Fleming Brackets) with  $\frac{3}{8} \times 0.4$  Long carriage bolts. Heads to be on outside and are to be completely covered.
- 2- Letter of compliance required for electrodes and flux.



PROJECT No. 1-95-8 (G1)

ERECTION DIAGRAM

Bancroft & Martin Inc.

South Portland 7, Maine

LINCOLN SPUR OVER I-95

(TR-RS) PENOBSCOT COUNTY, ME.

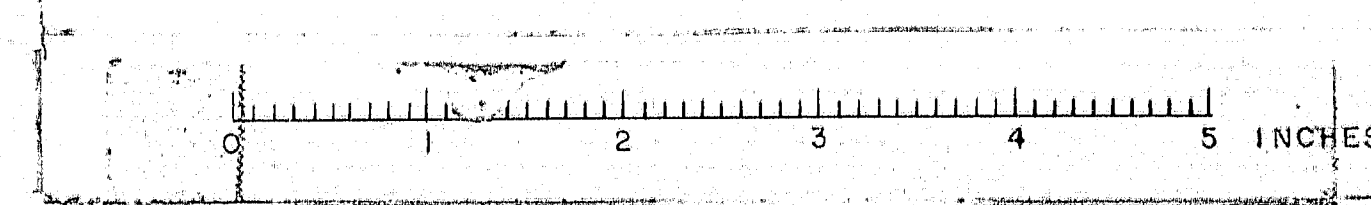
CUSTOMER DIANCHETTE BROS., INC.

DESIGNER MAINE S.H.C. - BRIDGE DIV.

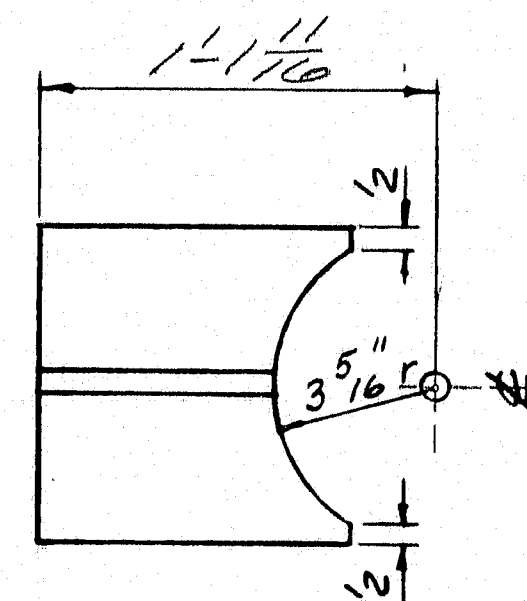
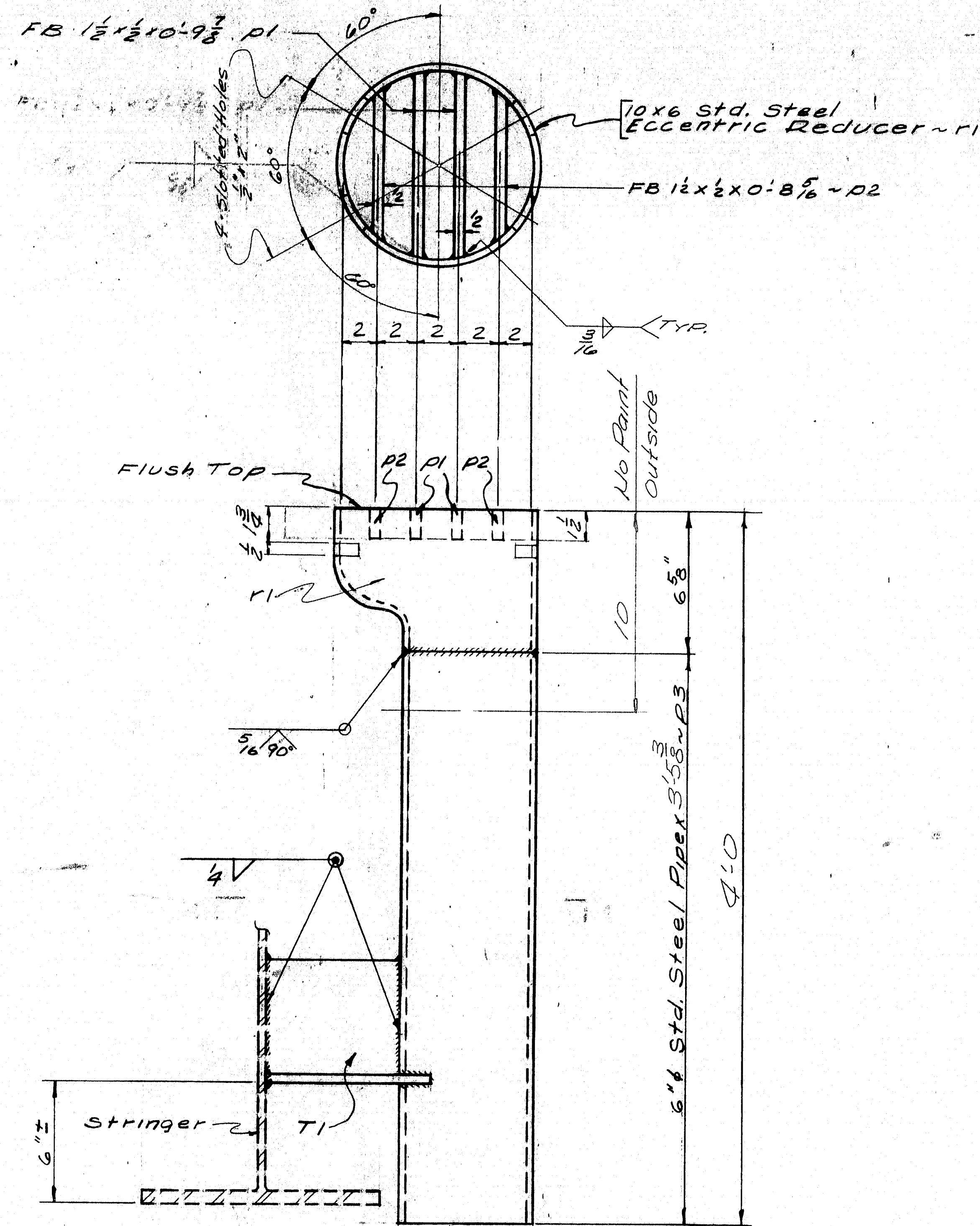
ORDER NO. VERBAL DWG. NO. 65-131-EI

94-22









ST 6 WF 13.5 X 0'-11 1/2\"/>

DRAIN DRI ~ 10-REQ'D.

NOTE: SEE STATE'S DWGS. FOR DRAIN LOCATION

SHIP		BILL OF MATERIAL				DWG. NO. 65-137-82
MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS
DR1	16		Shop Assy	—		
T1	16		ST6 WF 13.5	0 11 1/2		
						</

SHOP CONNECTIONS: WELDED  
 FIELD CONNECTIONS: WELDED  
 HOLES: \_\_\_\_\_  
 PAINT: PER ME. STATE SPECS.  
 RED LEAD & OIL & AS NOTED

#### DRAIN DETAILS

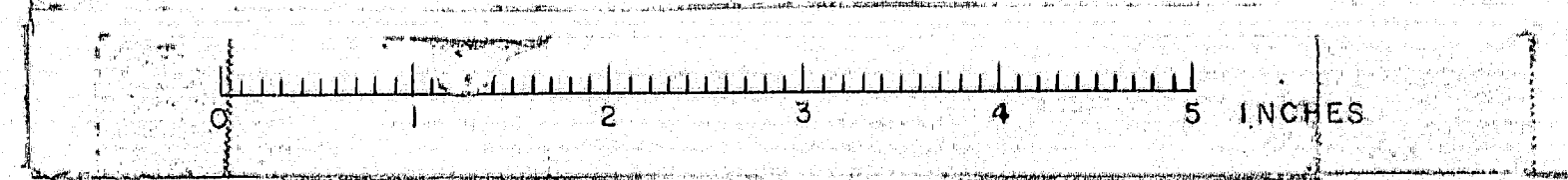
Bancroft & Martin Inc.  
 South Portland, Maine

LINCOLN SPUR OVER I-95  
 T2 R3  
 PENOBSCOT COUNTY, MAINE

CUSTOMER: LAURENTE BROS. INC.  
 DESIGNER: M.S.H.C.

ORDER NO. Verbal DWG. NO. 94-24

DRAWN	6-9-03 H.L.
REVISION	
REVISION	
REVISION	



94-24

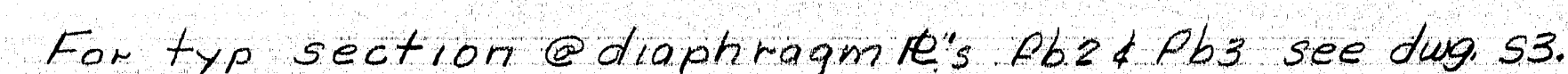
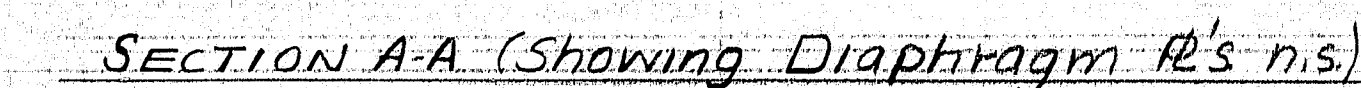












I 702-103.2

# 95 noted.

PROJECT NO. 1-95-8 (6)

STRINGER DETAILS SPAN

Bancroft & Martin Inc.

South Portland 7, Maine

LINCOLN SPUR OVER I-95  
(T2-R8) PENOBSCOT COUNTY, ME

CUSTOMER GIANCHETTE BROS., INC.  
DESIGNER MAINE S.H.C. BRIDGE DIV.

ORDER NO. <u>VERBAL</u>	DWG. NO. <u>65-131-35</u>
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94:27

94: 27





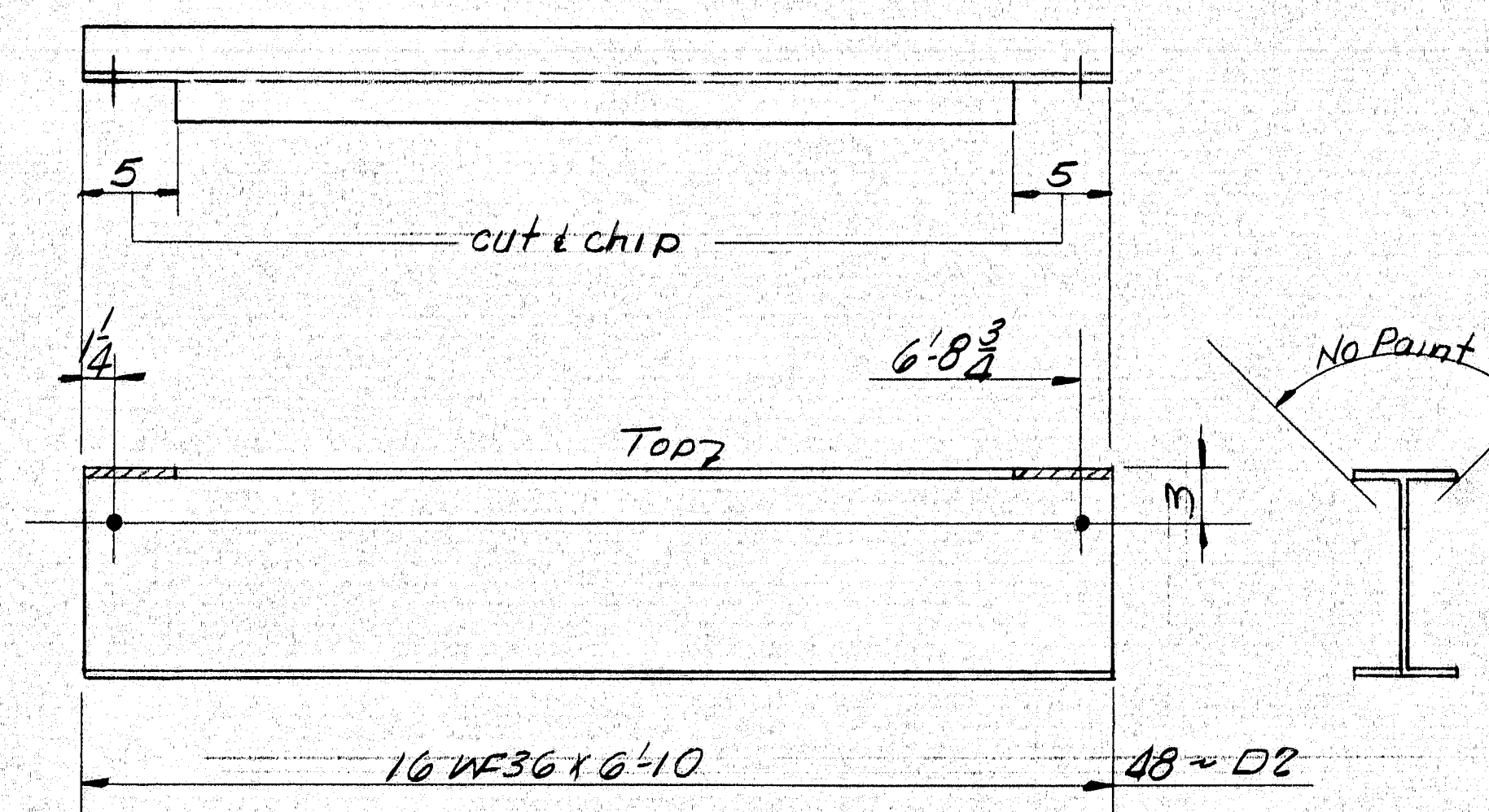












No Paint within 5" ea. end D1 & D2

ITEM 702-103.2

SHOP CONNECTIONS:  
FIELD CONNECTIONS: Bolted  $\frac{3}{4}$ " M.Bolts  
HOLES: 130  
PAINT: Red lead per M.S.H.C. Spec's  
# as noted.

PROJECT NO. 1-95-B (61)  
DIAPHRAGM DETAILS

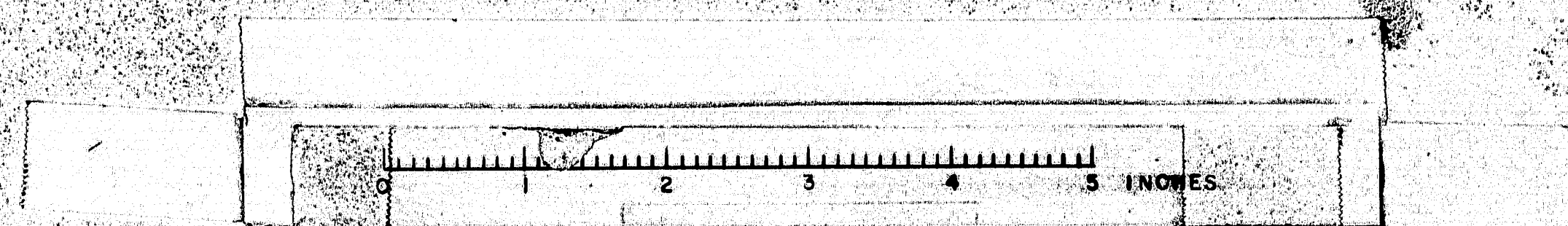
*Bancroft & Martin Inc.*  
*South Portland 7, Maine*

LINCOLN SPUR OVER I-95  
(T2-RB) PENOBSCOT COUNTY, ME.

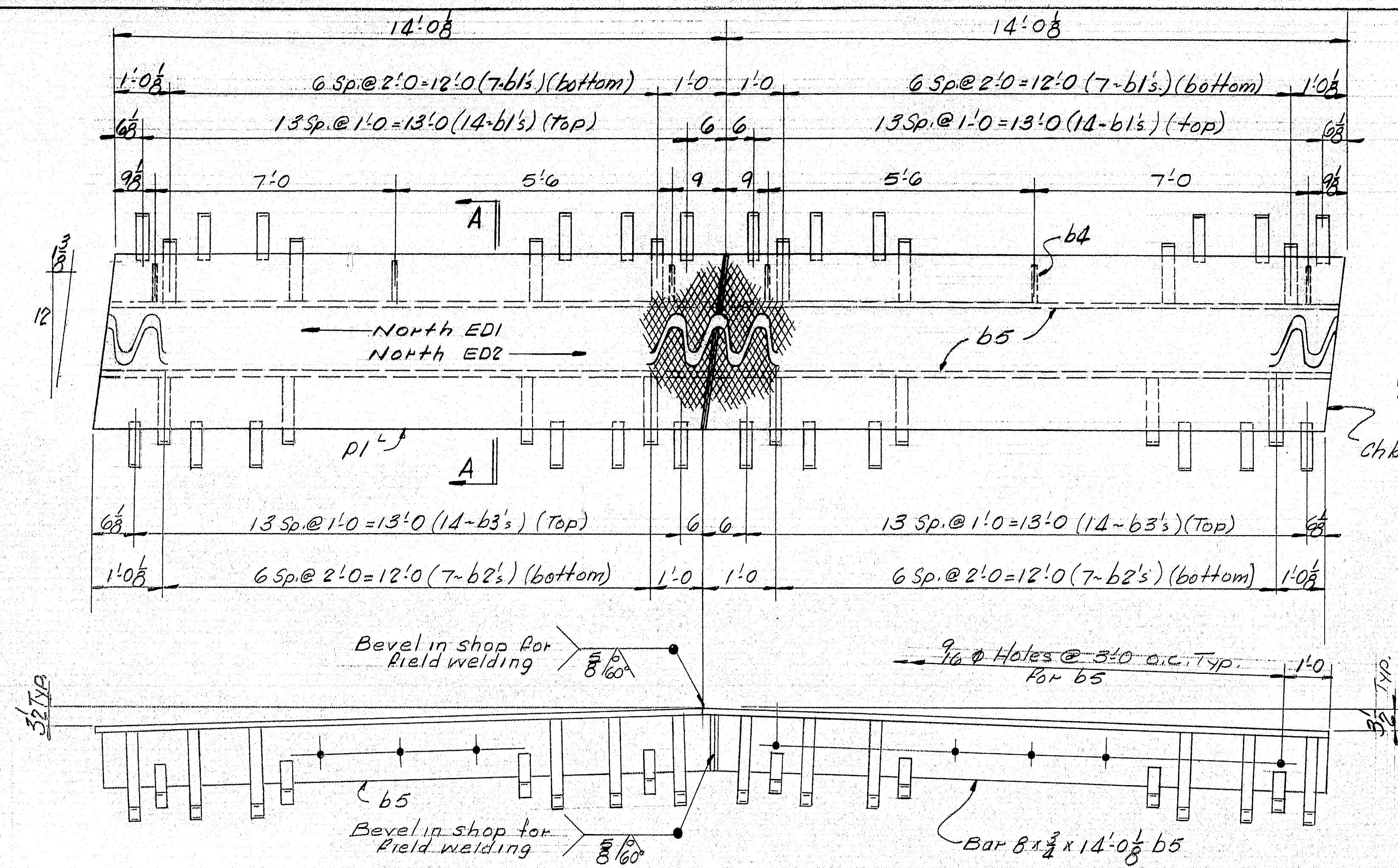
CUSTOMER GIANCHETTE BROS., INC.  
DESIGNER MAINE S.H.C. - BRIDGE DIV.

ORDER NO.	VERBAL	DWG. NO.	62-131-59
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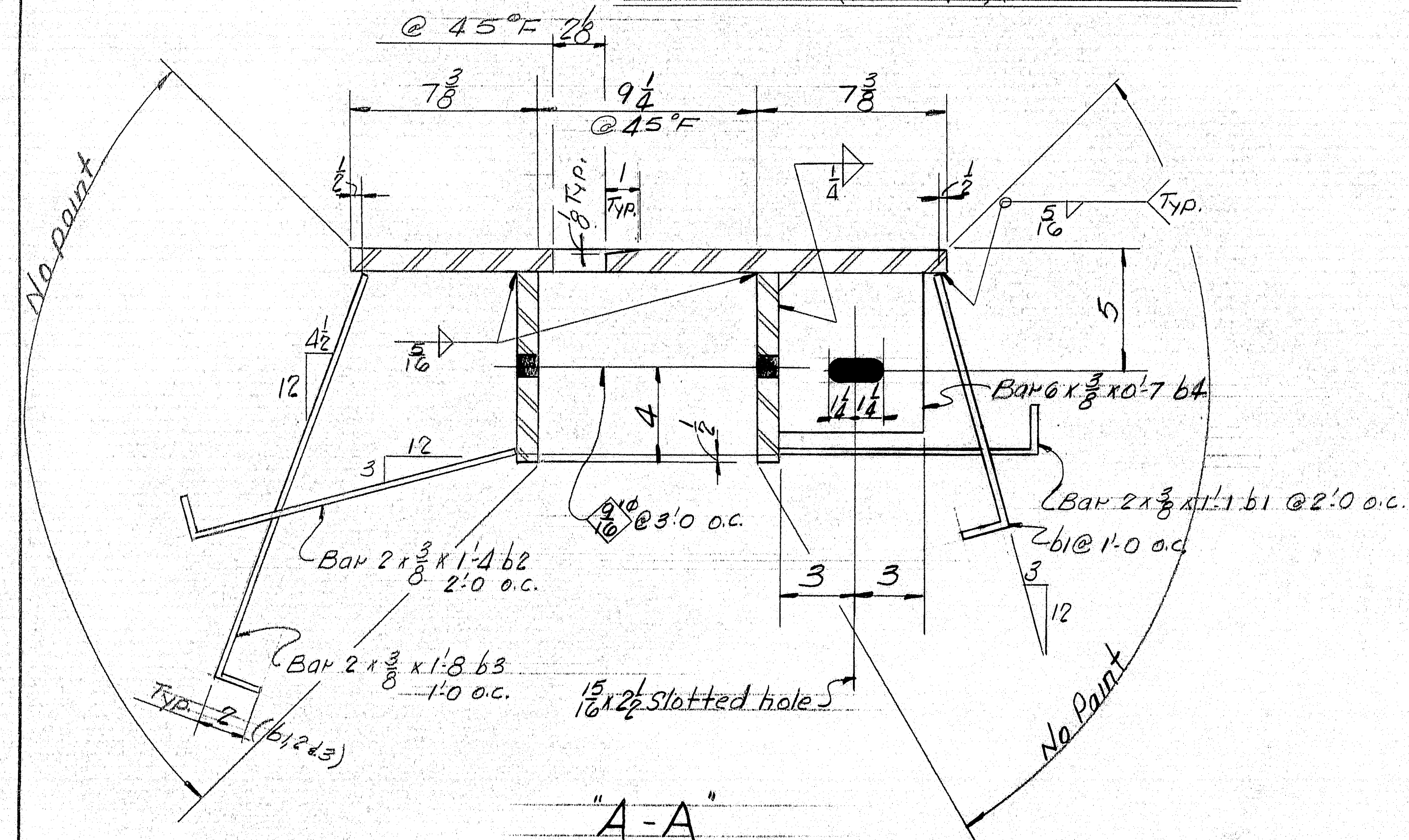
94-31



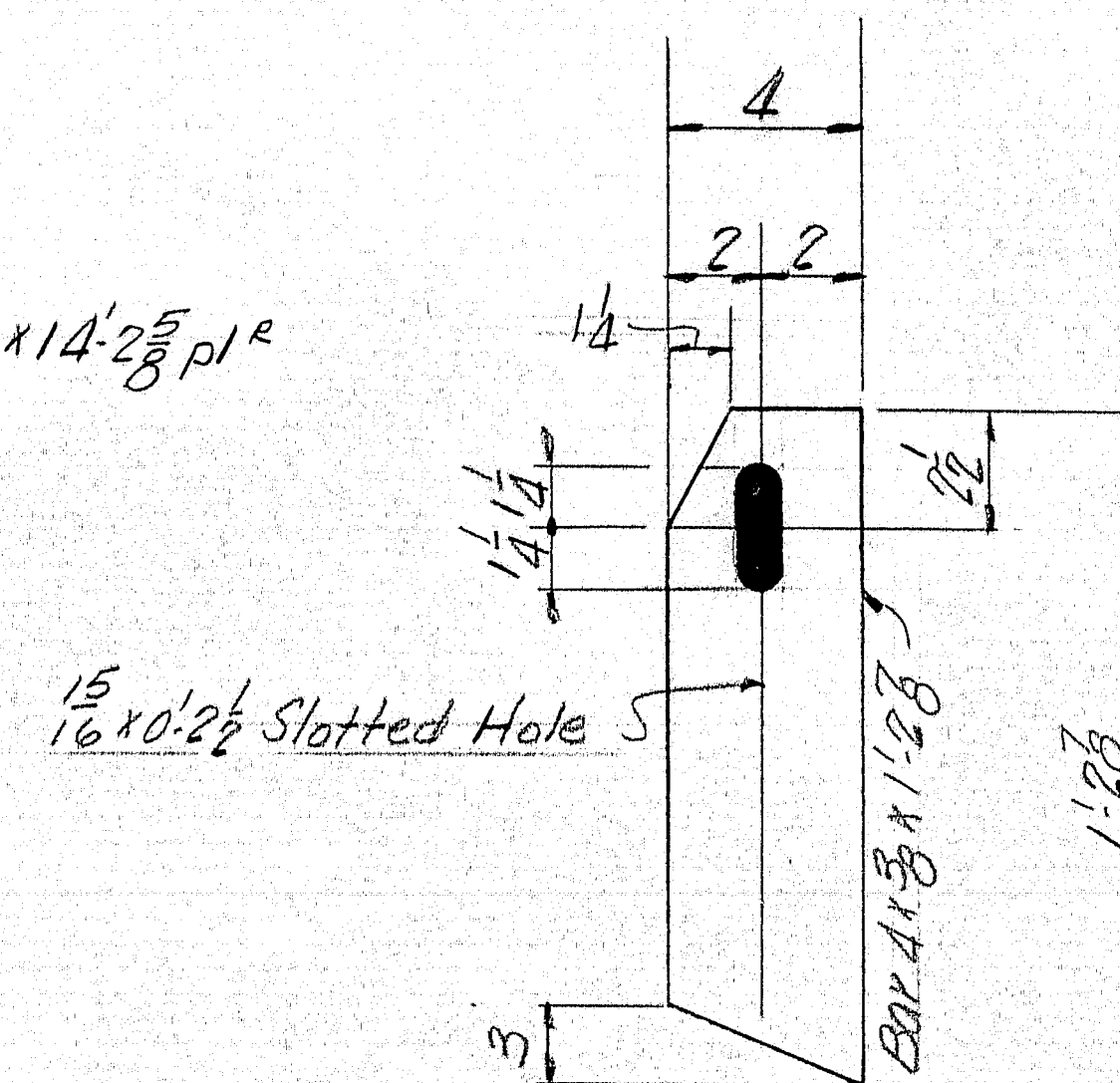




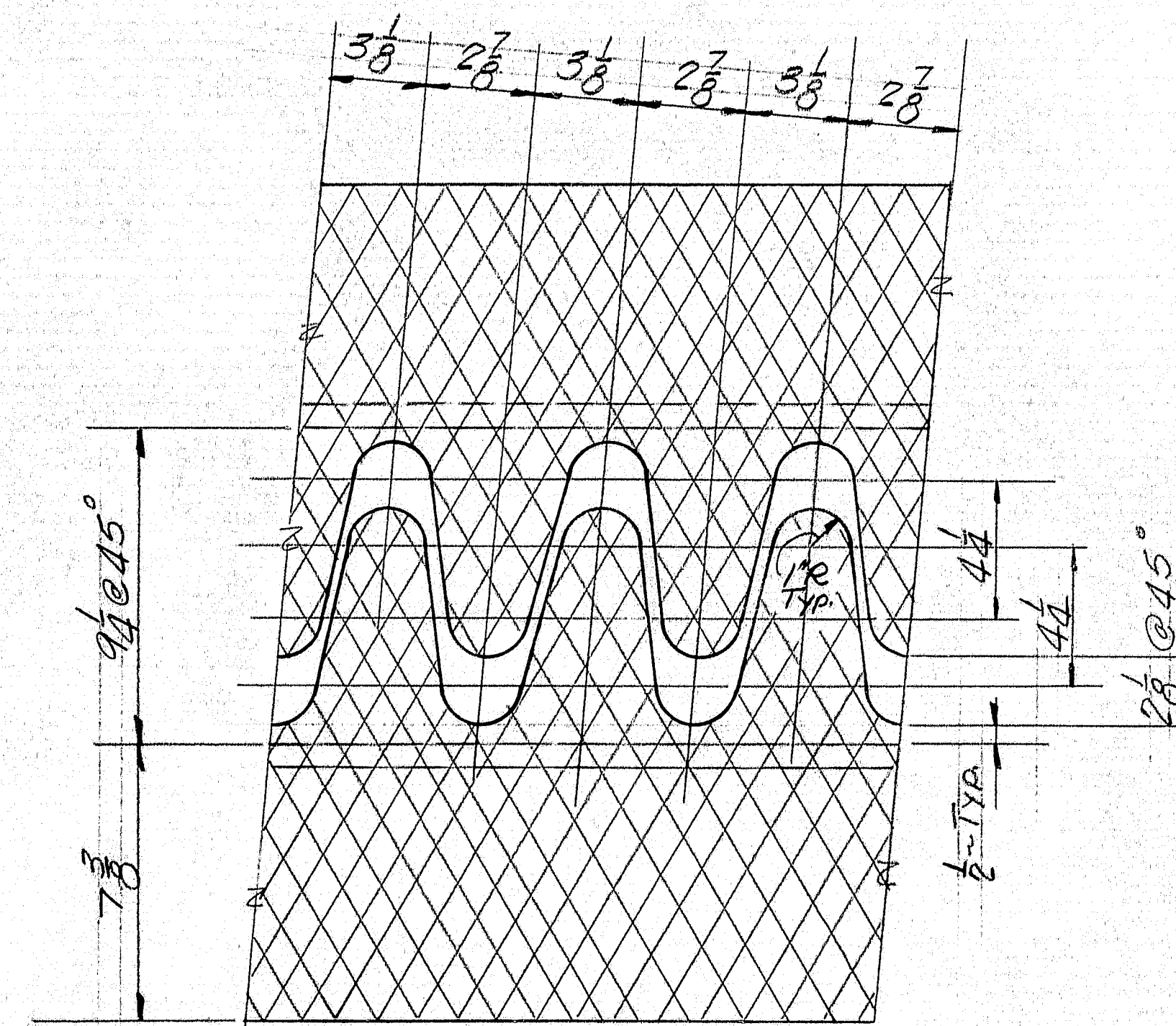
ED1 & ED2 (IEAREQ'D) (as shown & noted)



"A-A"



b6 ~ 12 REQ'D. (No paint)  
Bolt to b5 for shipment with  
3/8 x 0.25" H.S. Bolts  
Field weld to top of diaphragm.



CUTTING DIAGRAM

Cut From 22 x 1 non skid pl & match mark

SHIP		BILL OF MATERIAL				DWG. NO. 65-131-S10
MARK	NO.	MARK	SHAPE	LENGTH	WT.	REMARKS
ED1	1		Shop Assy			(4 parts)
ED2	1		DO			(4 parts)
	2	pl	R 22 x 1	14' 2 3/8"		Chkd. R.
	2	pl	R 22 x 1	14' 2 3/8"		Chkd. R.
	84	b1	Bar 2 x 3/4	1	1	Bent
	28	b2	Bar 2 x 3/4	1	4	Bent
	56	b3	Bar 2 x 3/4	1	8	Bent
	12	b4	Bar 6 x 3/8	0	7	
	8	b5	Bar 8 x 1/2	14' 0 1/2"		
	12	b6	Bar 4 x 3/8	1	28	
	12	Shop	3/8 H.S. Bolts	0	2 1/4	
	12	Shop	Hard Washer			
						A36 Steel

ITEM 702-103.2

SHOP CONNECTIONS: Welded & Bolted  
FIELD CONNECTIONS: Welded  
HOLES: as noted  
PAINT: Red lead per M.S.H.C. Specs.  
and as noted.

PROJECT No. 1-95-R (61)  
EXPANSION DAM DETAILS

Bancroft & Martin Inc.  
South Portland 7, Maine

LINCOLN SPUR OVER I-95  
(12-R8) PENOBSCOT COUNTY, ME.

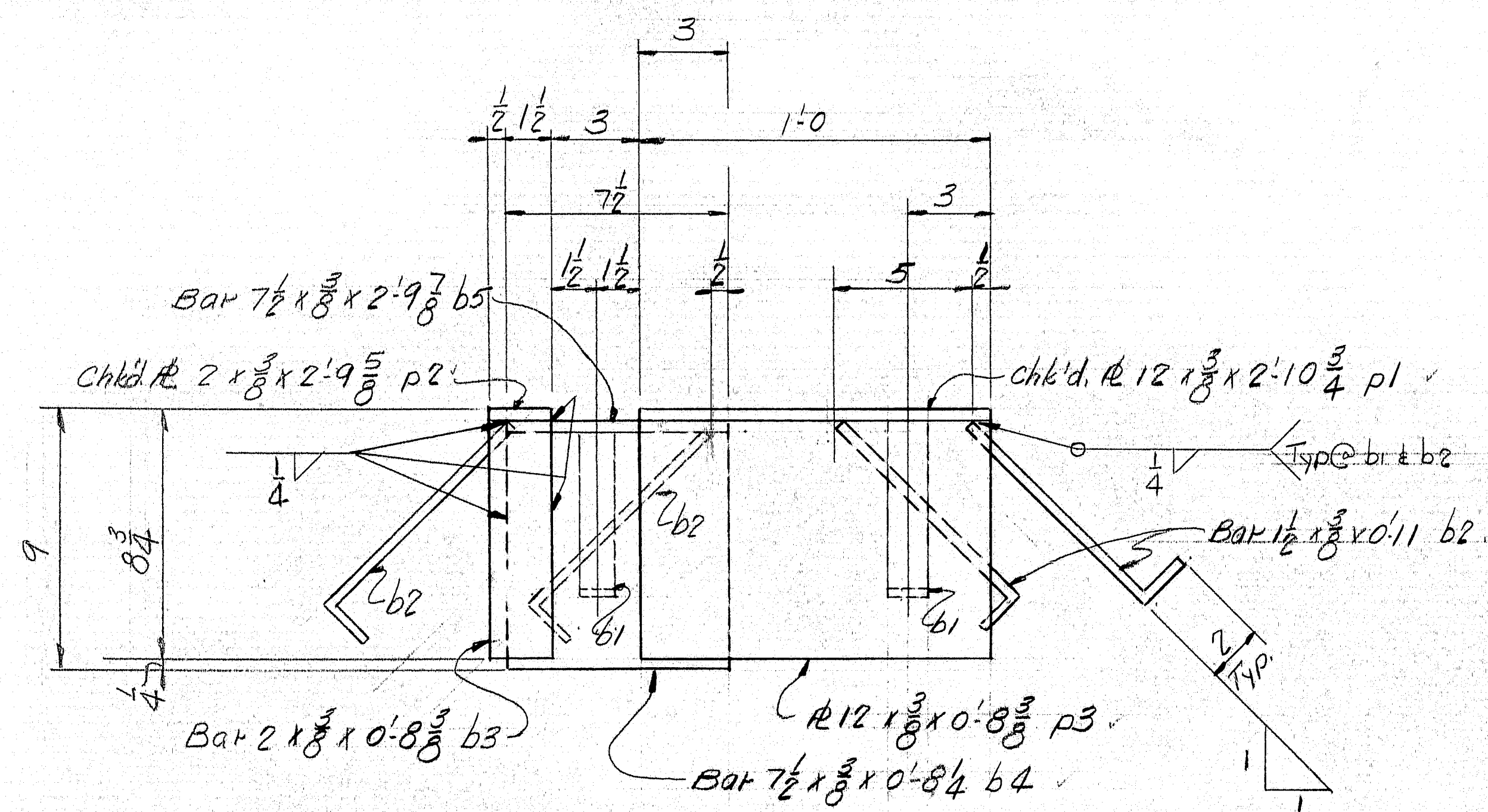
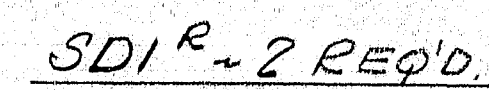
CUSTOMER: CIANCHETTE BROS., INC.  
DESIGNER: MAINE STATE BRIDGE DIV.

ORDER NO. VERBAL DWG. NO. 65-131-S10

DRAWN	71-65	RGM.
REVISION		
REVISION		
REVISION		

94-32





2-2  
3-3 = opp hand

ITEM 702-103.2

HOLES: --  
PAINT: Red lead per M.S. H.C. Spec's.  
and as noted.

PROJECT NO. 1-25-8(61)

5 SIDEWALK EXPANSION DAM

*Bancroft & Martin Inc.*

*Bancroft & Martin Inc.*  
*South Portland 7, Maine*

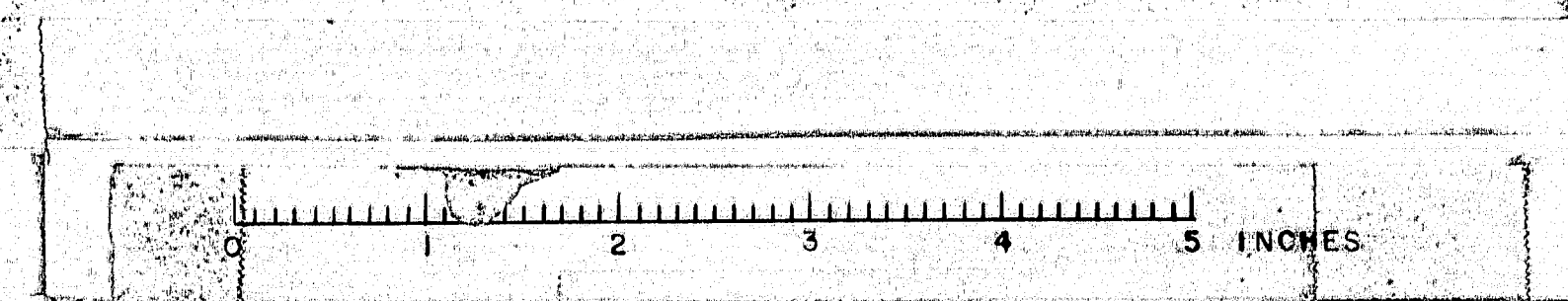
PROV  
LINCOLN SPUR OVER I-95  
(T2-R8) PENOBSCOT COUNTY, ME

CUSTOMER CIANCHETTE BROS., INC.  
DESIGNER MAINE S.H.G. BRIDGE DIV.

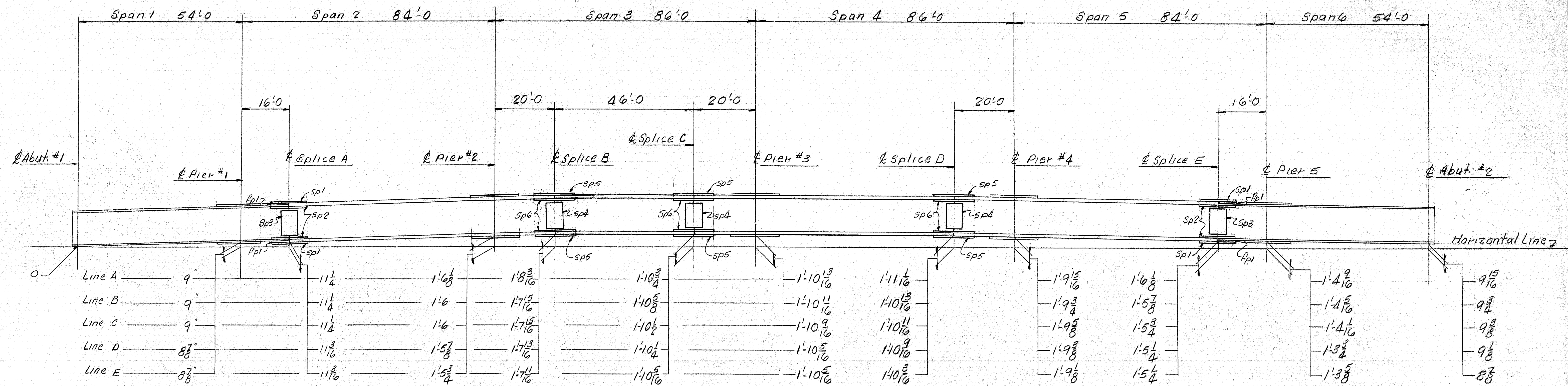
ORDER NO.	<u>VERBAL</u>	DWG. NO.	<u>65131-S11</u>
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94-33

94-33

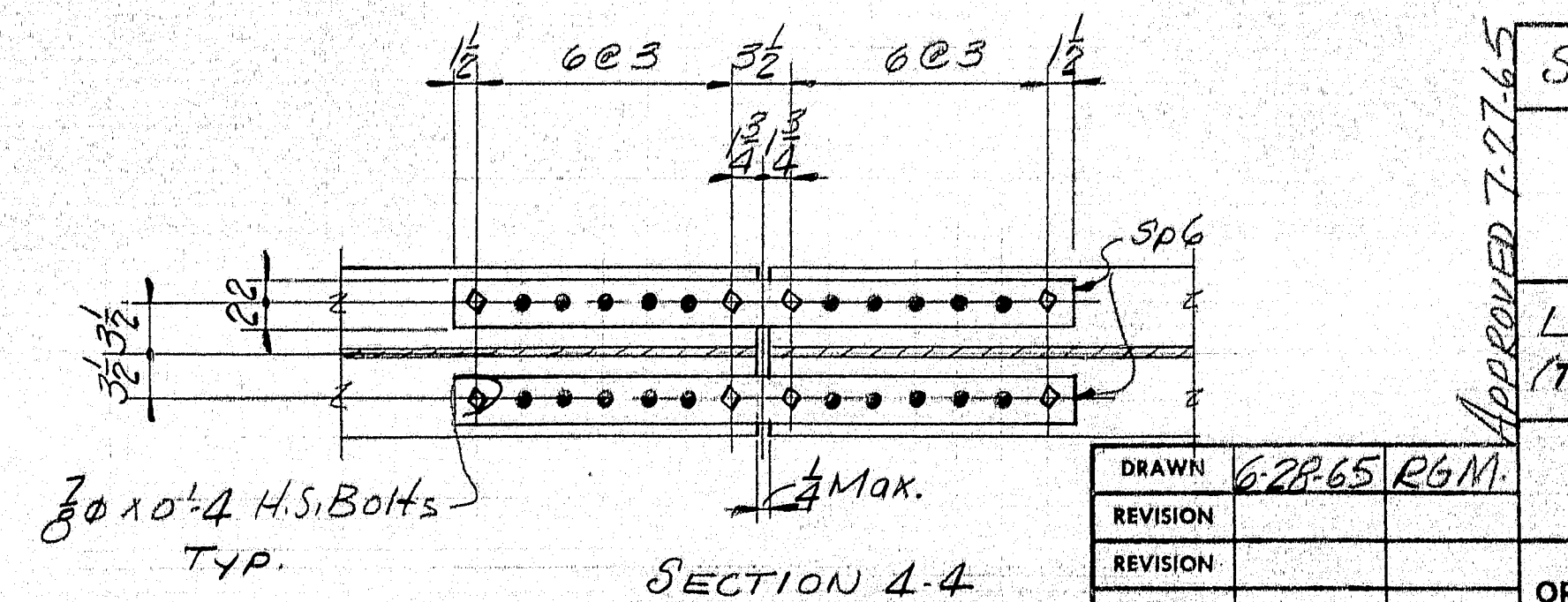
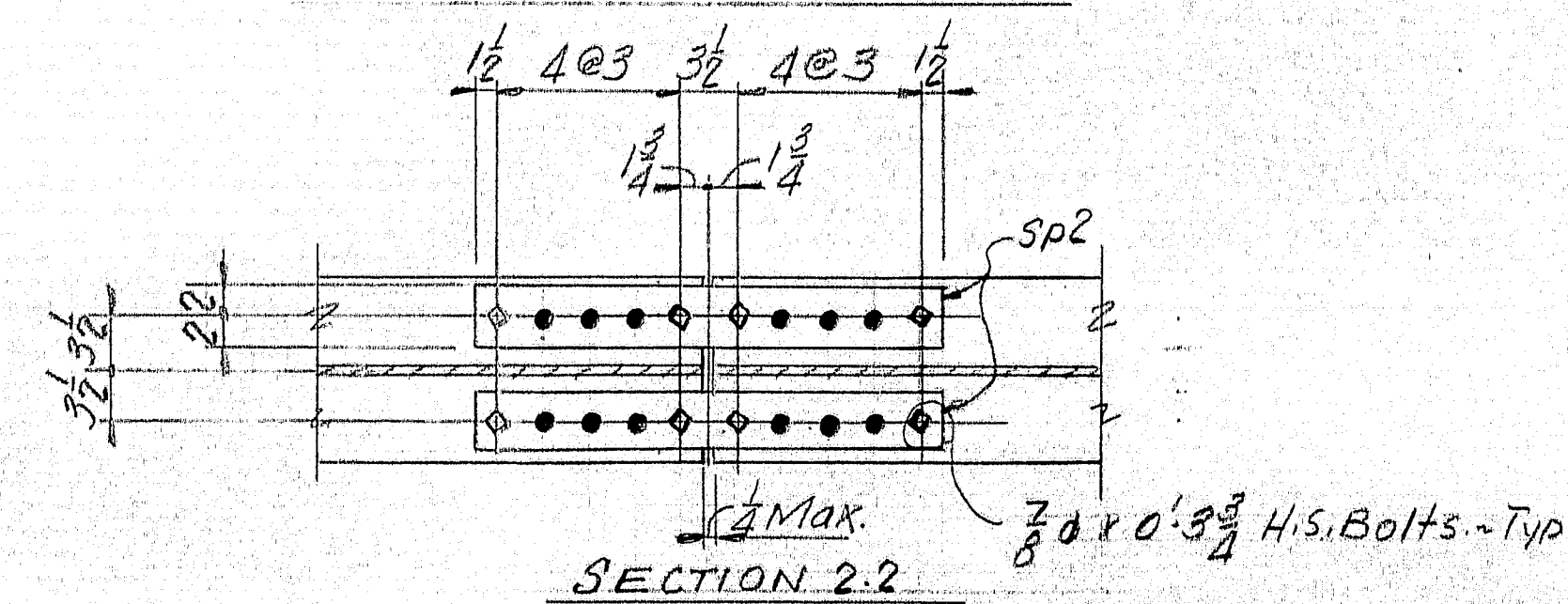
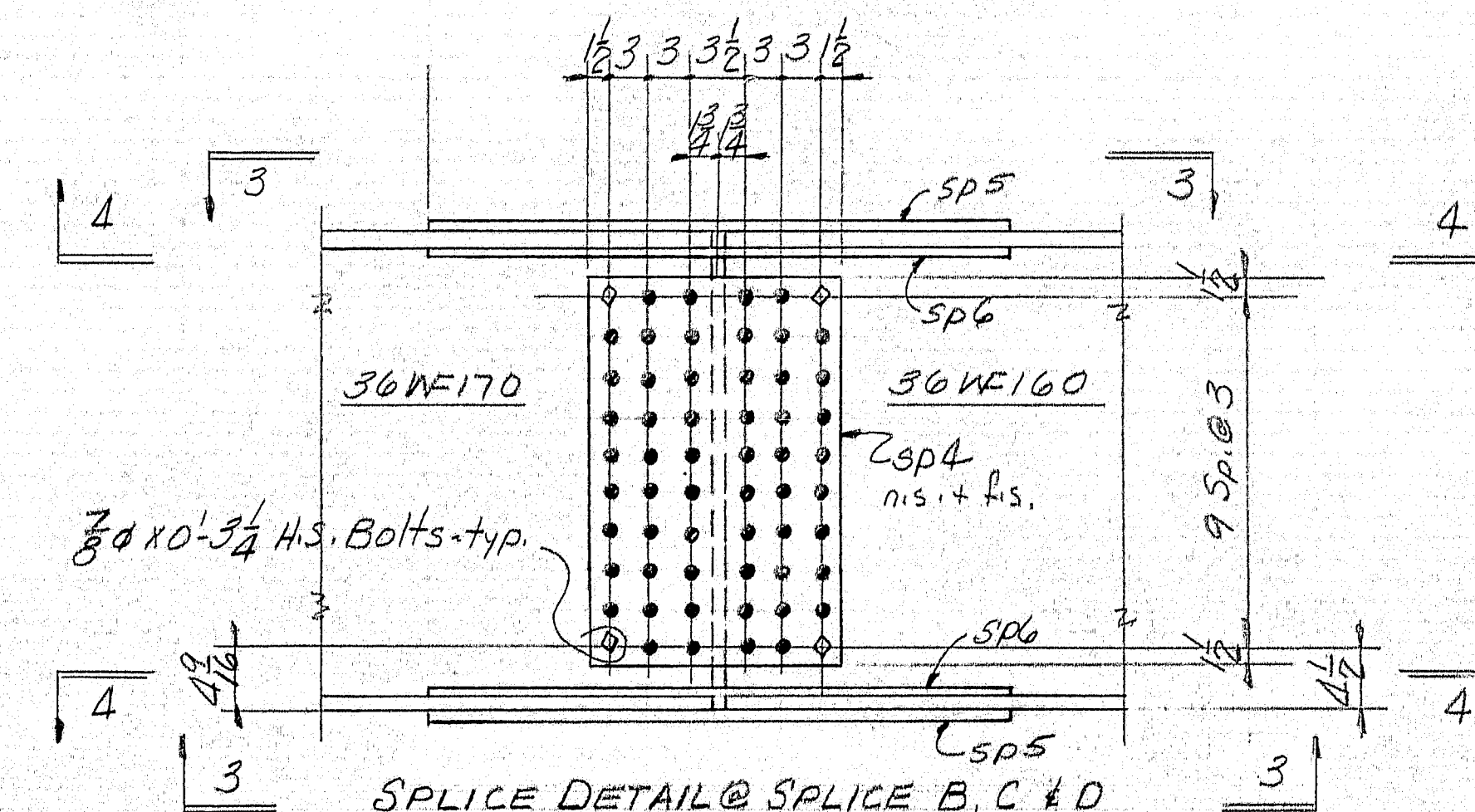
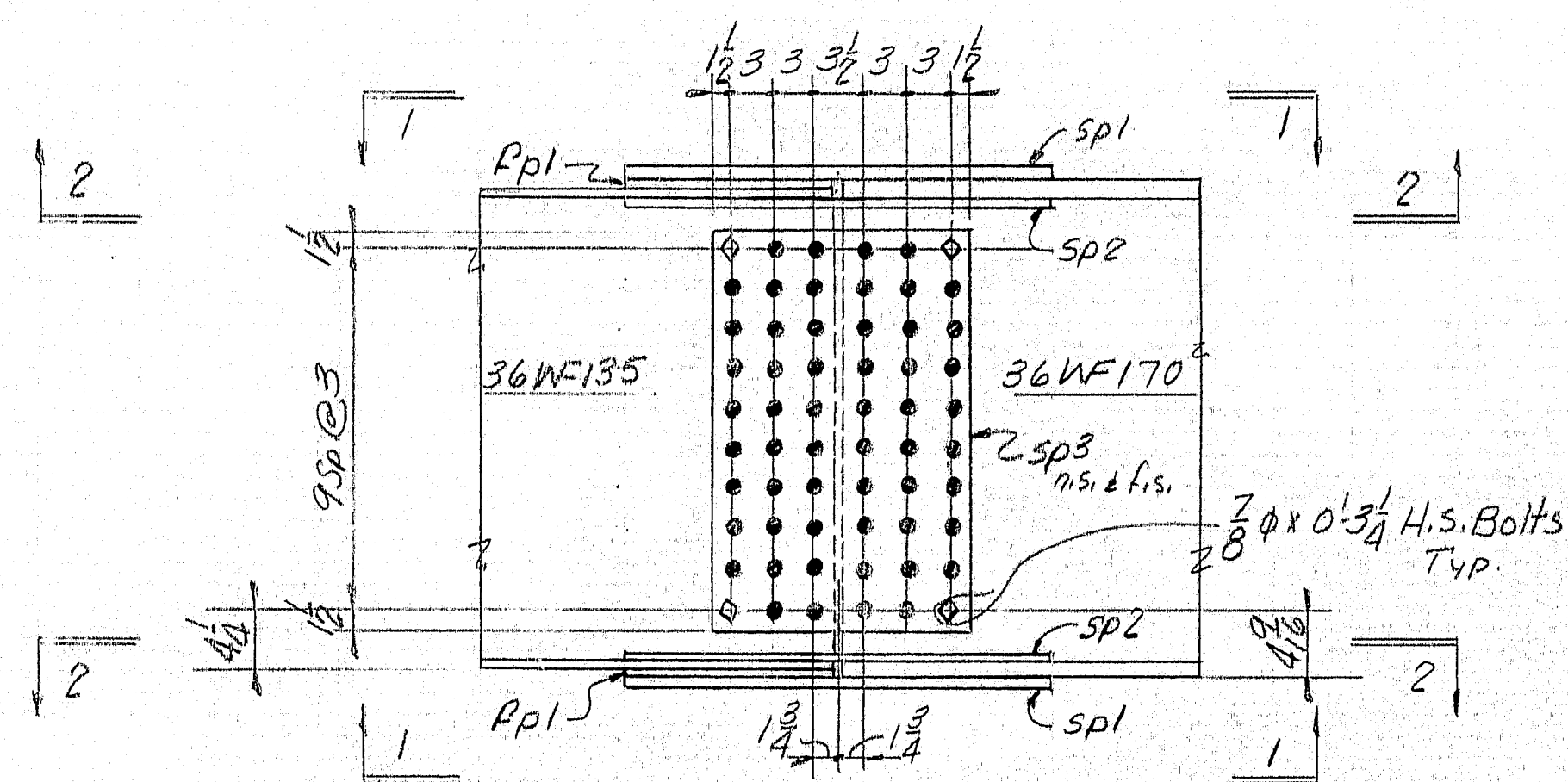
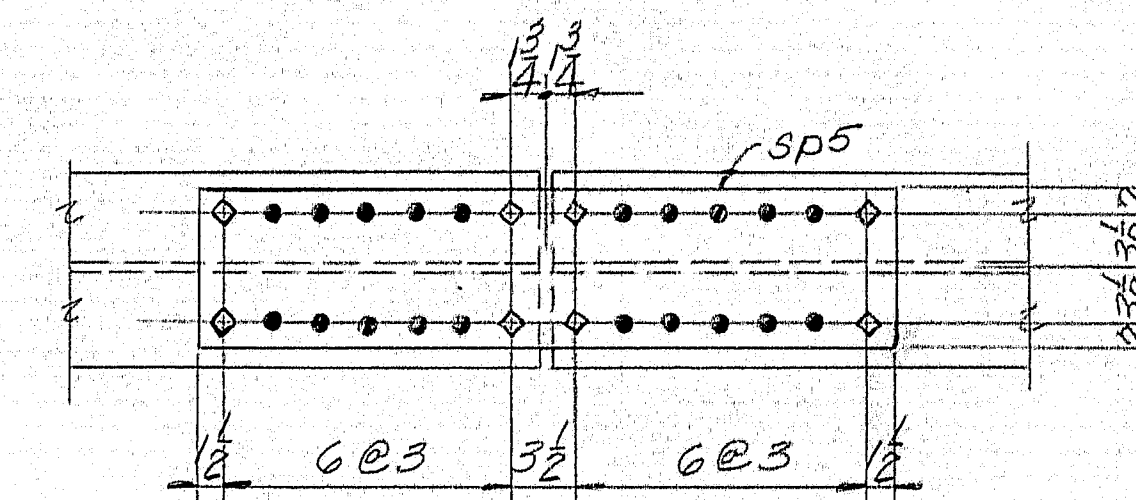
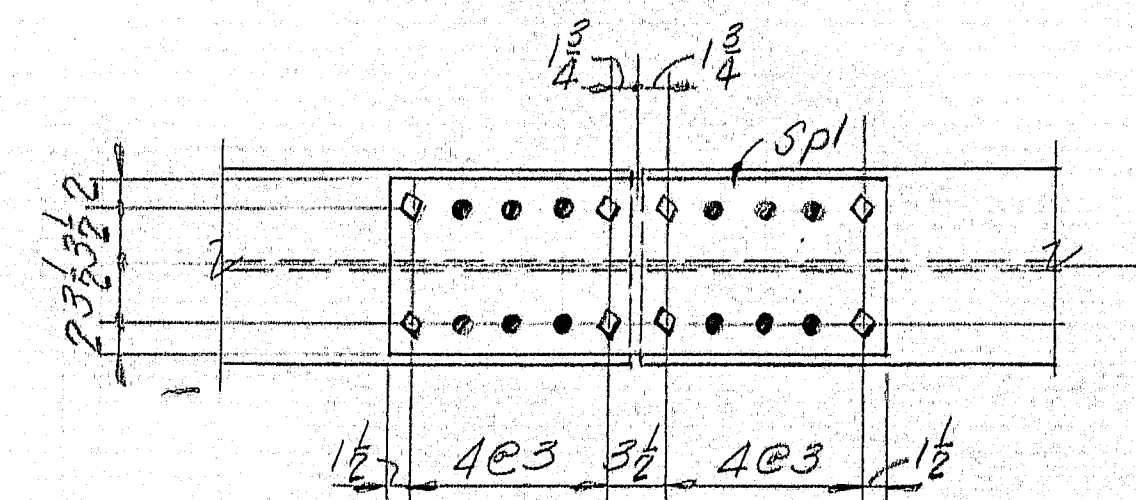






NOTE: Vertical dimensions taken to the bottom of the stringers. Where one stringer is larger, the dimensions are to the bottom of the larger stringer.

SHOP LAYOUT DIAGRAM



Approved 7-27-65

SHOP LAYOUT DIAGRAM

Bancroft & Martin Inc.  
South Portland 7, Maine

LINCOLN SPUR OVER I-95  
(T-2-RB) PENOBSCOT COUNTY, ME.

CUSTOMER: GIANCHETTE BROS., INC.  
DESIGNER: MAINE S.H.C. BRIDGEDIV.

ORDER NO. VERBAL DWG. NO. 65-131-S12

DRAWN	62R-65 RGM
REVISION	
REVISION	
REVISION	



# INDEX OF SHEETS

SHEET NO	DESCRIPTION
1	GENERAL PLAN
2	CROSS SECTION
3	FOUNDATION SURVEY
4	BORING DETAILS
5	ABUTMENTS NO. 1 & NO. 2
6	ABUTMENT DETAILS & APPROACH SLAB
7	SLOPE PAVING
8	PIERS 1, 2, 4 & 5
9	PIER 3
10	ERECTION DIAGRAM & BLOCKING
11	SUPERSTRUCTURE
12	REINFORCING STEEL SCHEDULE

## STANDARD DETAILS

BD101-64	BEARING PEDESTALS
BD103-64	BEAM SPLICE
BD104-64	DIAPHRAGMS; ARMORED JOINTS; SHEAR CONNECTORS; DRAINS
BD105-64	EXPANSION DAMS
BD107-64	STEEL RAIL
BD108-64	ALUMINUM RAIL

ENGINEERS FIELD OFFICES  
Note - See Sheet "6" for Estimate of Quantities

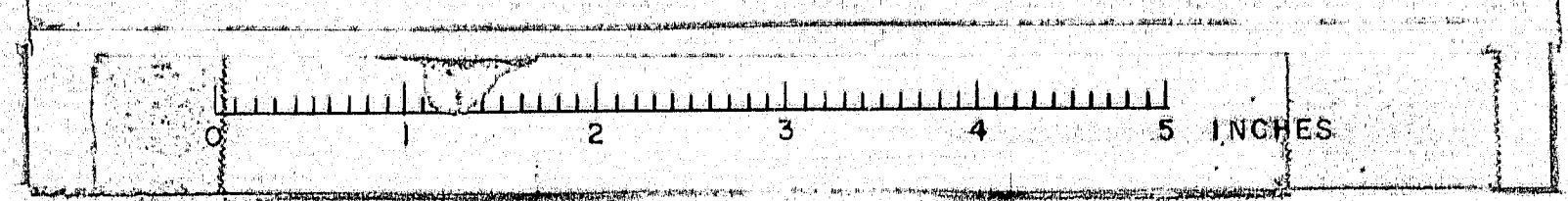
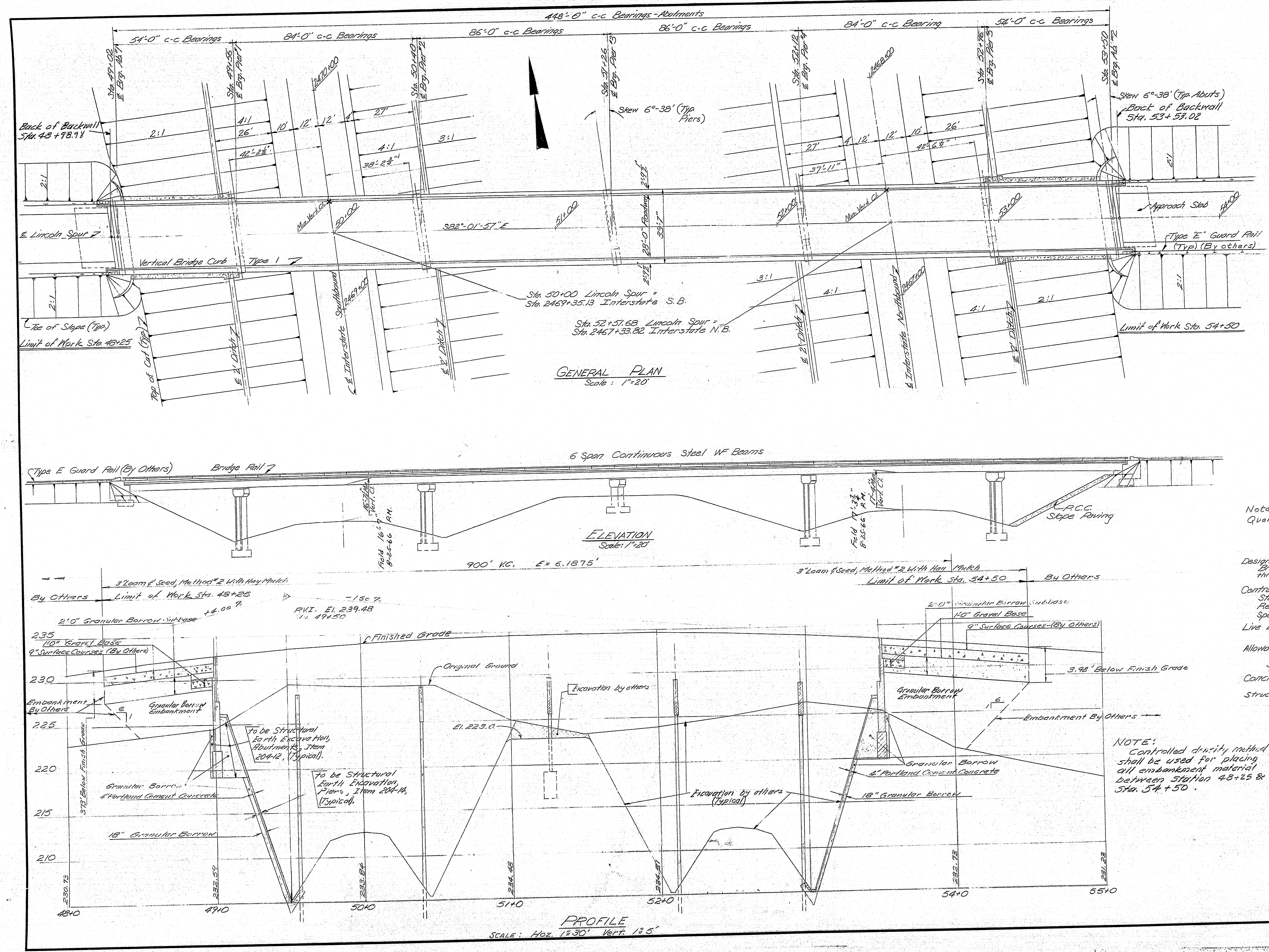
## SPECIFICATIONS

Design: AASHTO Standard Specifications for Highway Bridges, 1961 with Interim Specifications, 1961 thru 1964.  
Contract: State of Maine, State Highway Commission Standard Specifications for Highways & Bridges, Revision of January 1955, and Supplemental Specifications, February 1960.  
Live Loading: HS20-44  
Allowable Stresses: Concrete -  $f_c = 1800$  psi  $f_t = 10$  psi  
Reinforcing Steel - Intermediate Grade  $f_y = 20,000$  psi  
Structural Steel - A36 = 20,000 psi  
Concrete Classification: All concrete - Class "A", except slope paving - class "Y".  
Structural Steel Classification: ASTM A36, unless otherwise noted on the Standard Details.

NOTE:  
Controlled density method shall be used for placing all embankment material between Station 48+25 & Sta. 54+50.

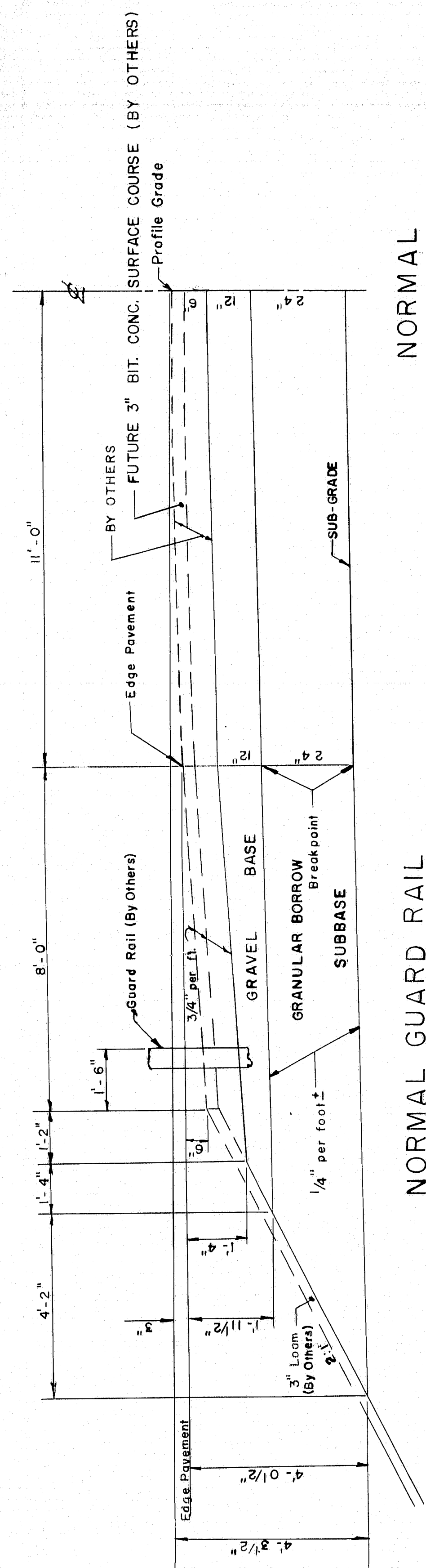
DESIGN - LLR TRACE - ALL CHECK - NMS	BRIDGE NO. SURVEY - PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
LINCOLN SPUR OVER INTERSTATE 95 IN T2 R8 PENOBSCOT COUNTY GENERAL PLAN	
SHEET 1 OF 12 AUGUSTA, MAINE JAN. 1965	

95-163





ALL 12-4-64

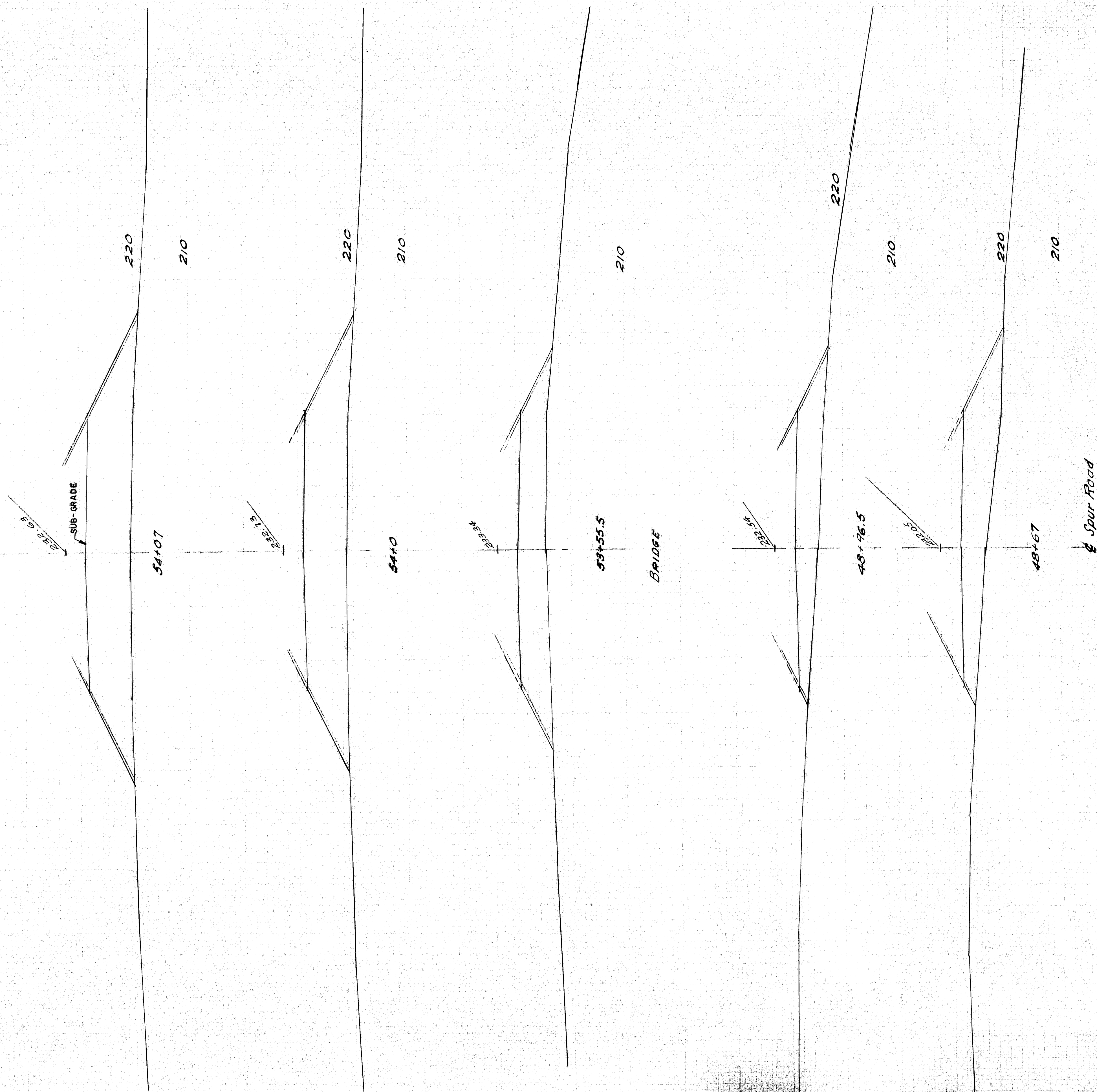
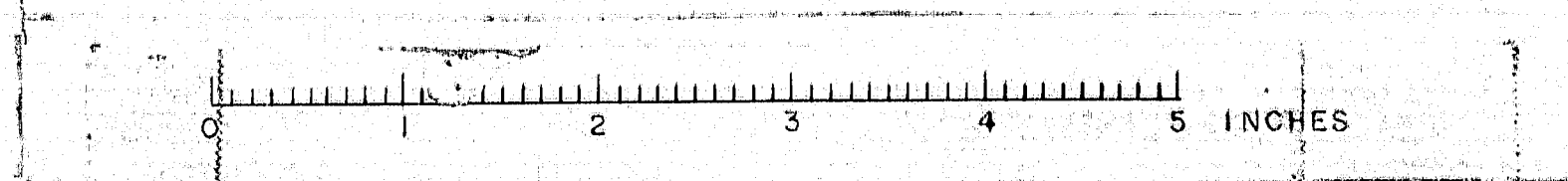


12" GRAVEL BASE COURSE = 28.61 C.Y. PER 100 L.F.  
24" GRANULAR BORROW SUBBASE = 93.22 C.Y. PER 100 L.F.

12" GRAVEL BASE COURSE = 81.48 C.Y. PER 100 L.F.  
24" GRANULAR BORROW SUBBASE = 162.96 C.Y. PER 100 L.F.

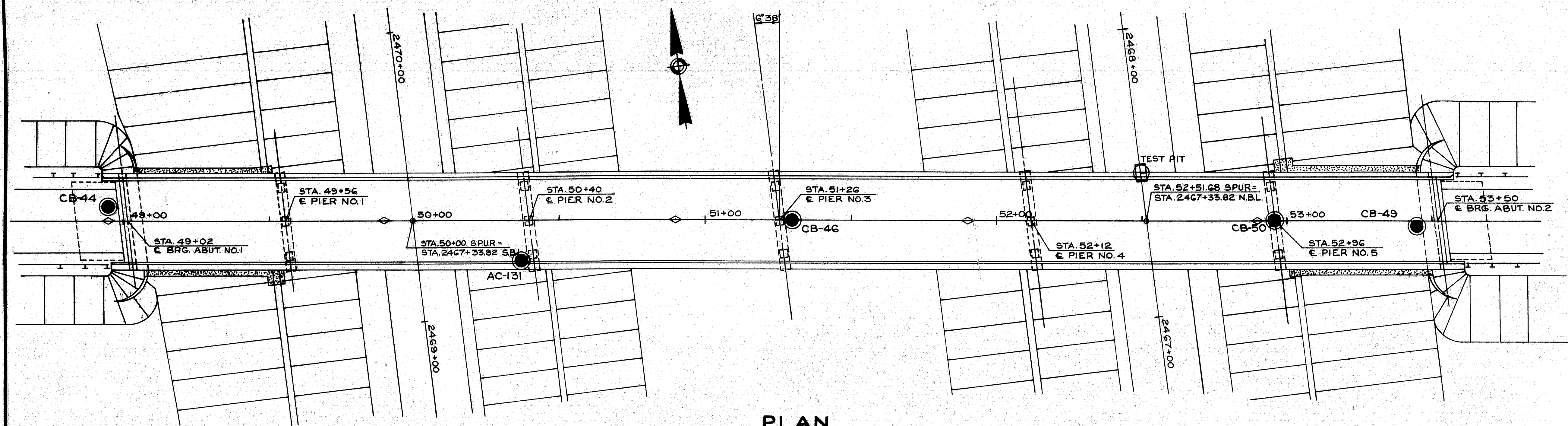
### TYPICAL APPROACH SECTION - SPUR ROAD

(ONE HALF SECTION SHOWN, SECTION IS SYMMETRICAL ABOUT CENTER LINE)

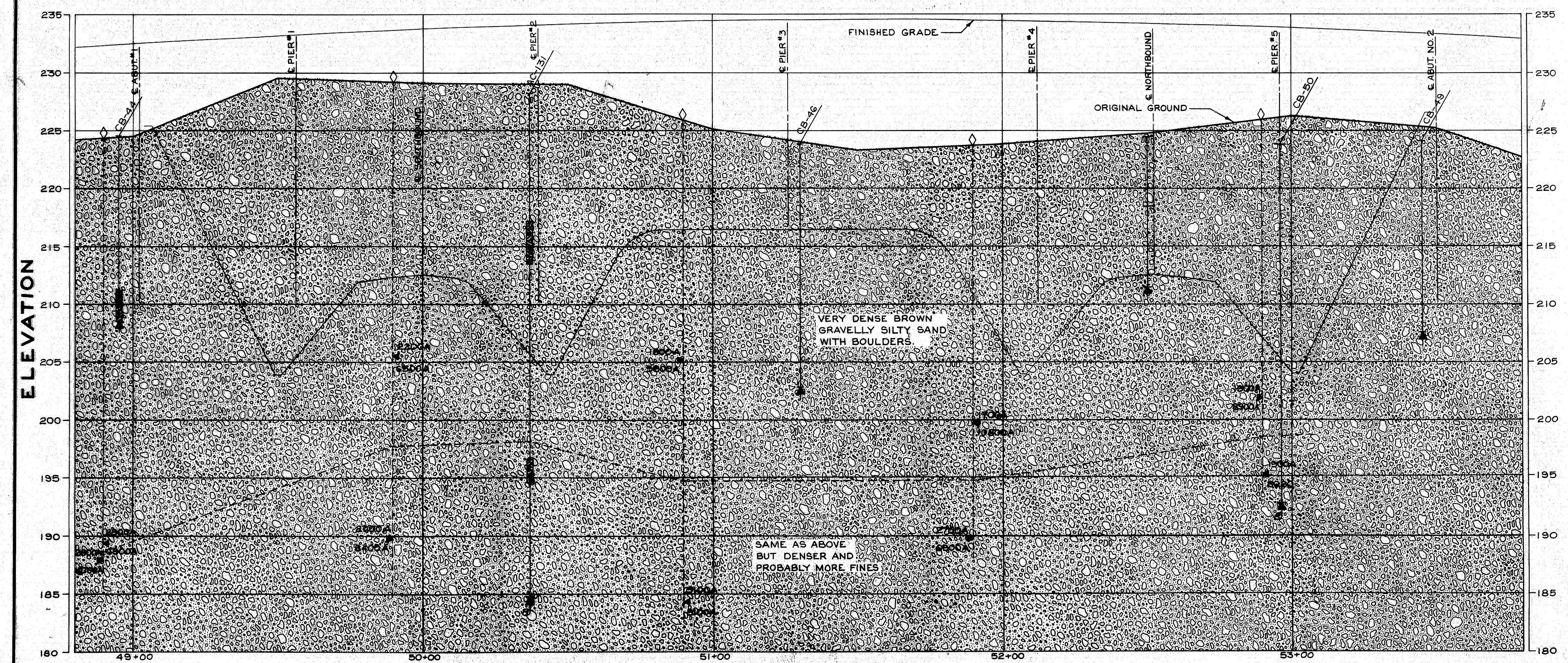


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-8 (61)	16	26





**PLAN**  
SCALE 1" = 20'



**PROFILE**  
SCALE: VERT. 1" = 5' HORIZ. 1" = 20'

- LEGEND**
- PLAN NOTES
  - ROD SOUNDING
  - WASH BORING
  - TEST PIT
  - SEISMIC: SHOT LOCATION
  - PROFILE NOTES
  - SEISMIC: CHANGE IN VELOCITY (FT./SEC.) & 19000 PROBABLE CHANGE IN MATERIAL
  - BOTTOM OF EXPLORATION
  - REFUSAL

DESIGN—  
TRACE—  
CHECK—

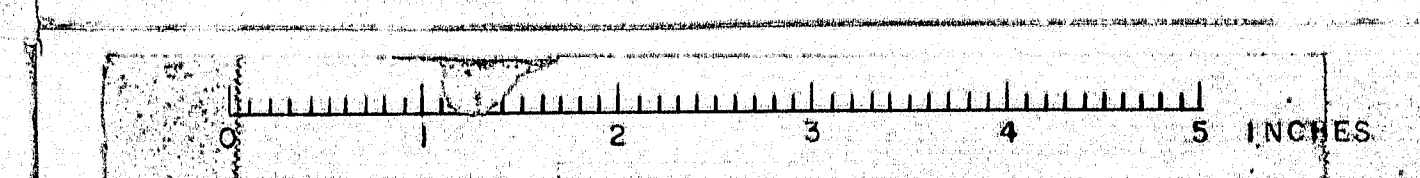
BRIDGE NO.  
SURVEY—  
PLOT—

STATE HIGHWAY COMMISSION  
BRIDGE DIVISION

**LINCOLN SPUR**  
OVER  
**INTERSTATE 95**  
IN  
**T2 R8**  
**PENOBSCOT COUNTY**  
FOUNDATION SURVEY

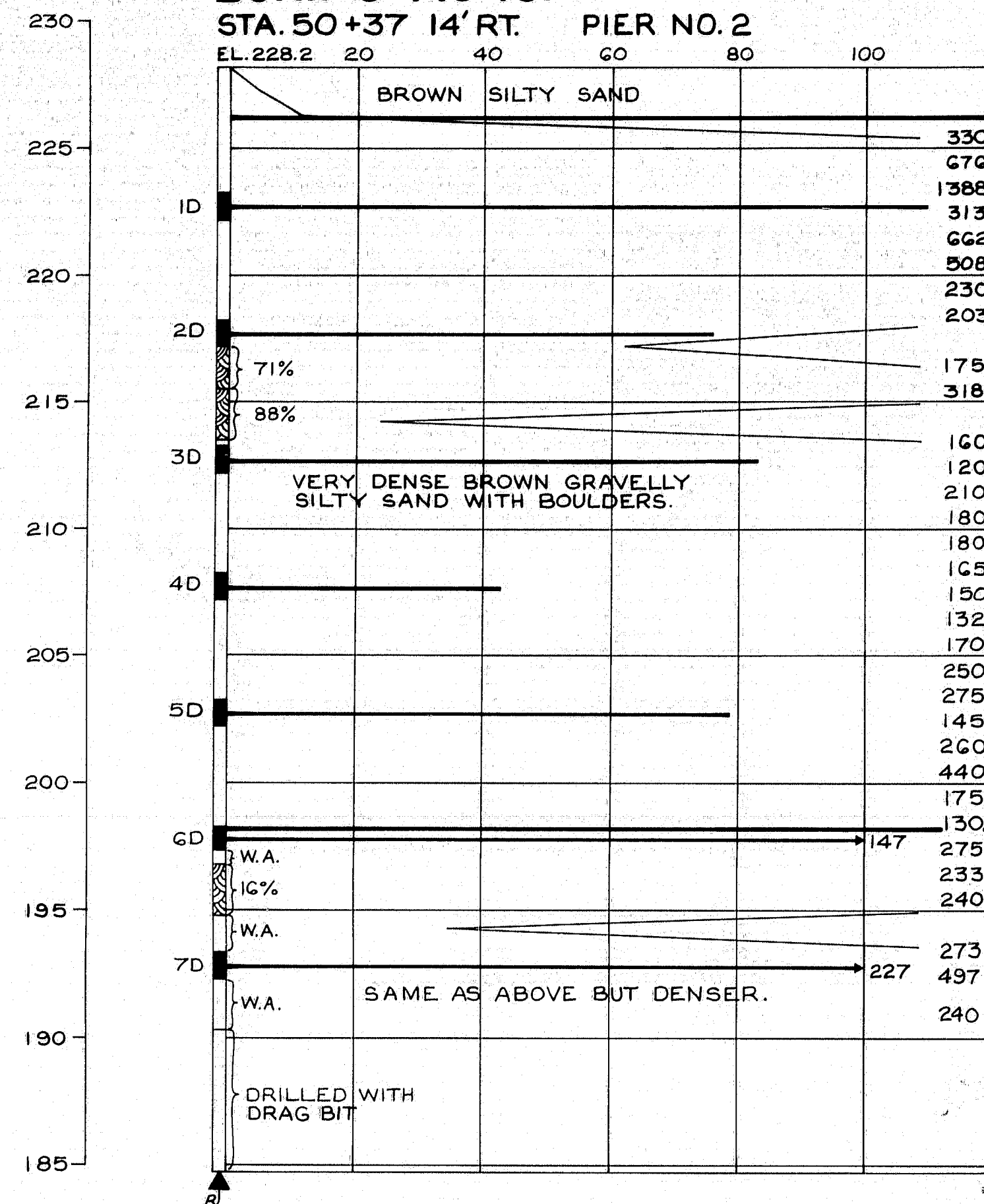
SHEET 3 OF 12 AUGUSTA, MAINE

95-165

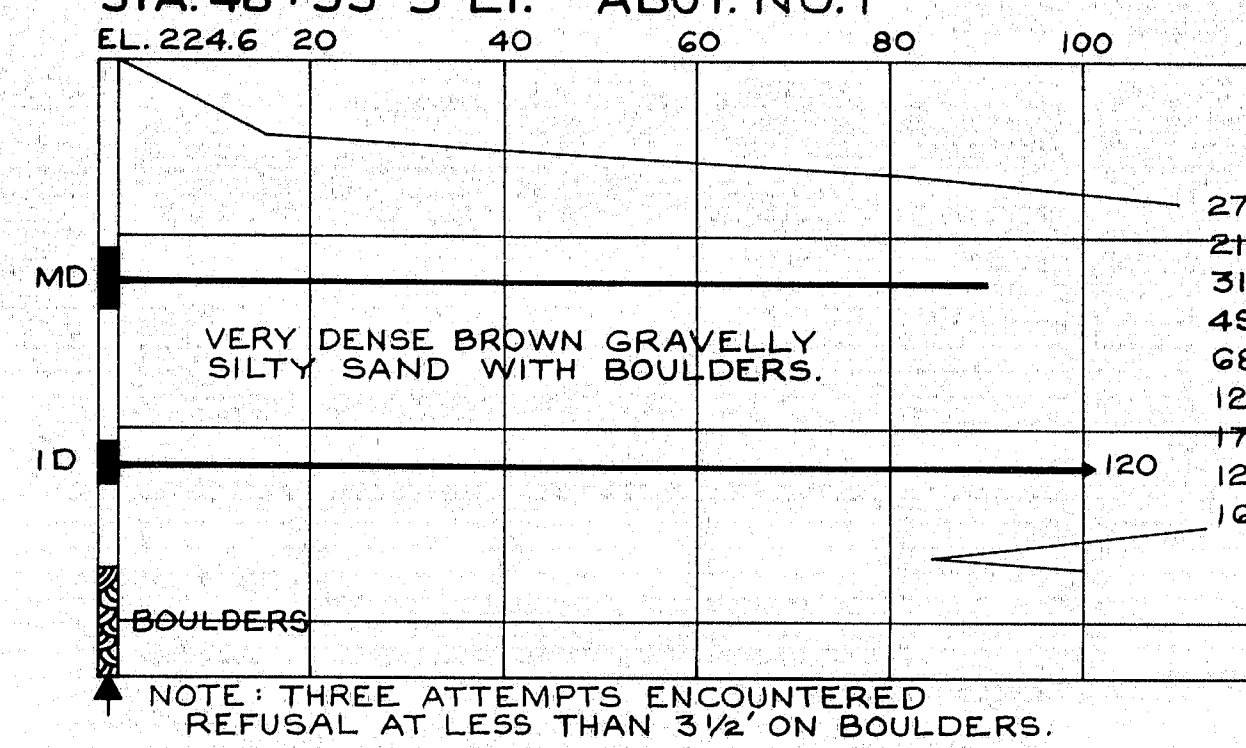




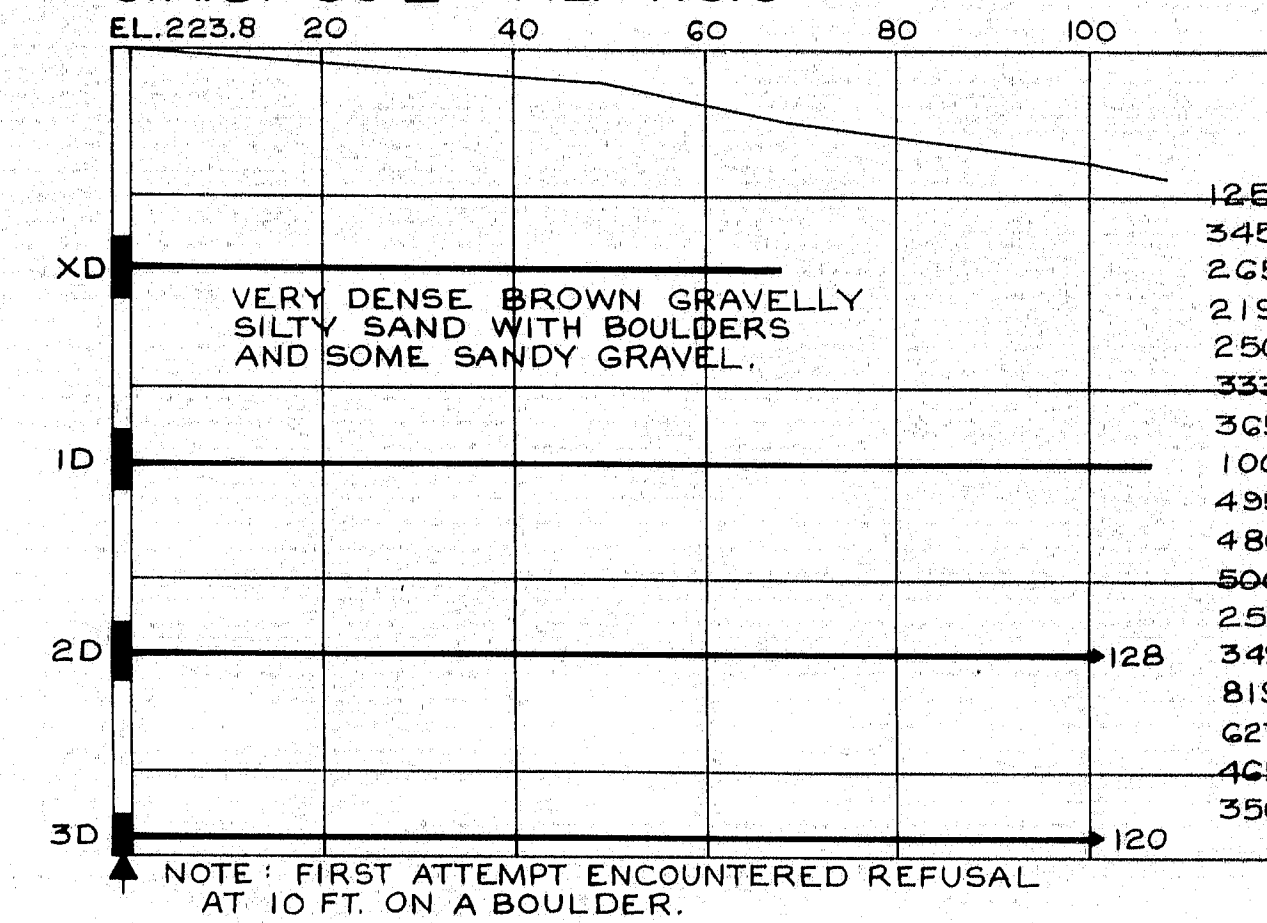
**BORING AC-131**  
STA. 50+37 14' RT. PIER NO. 2



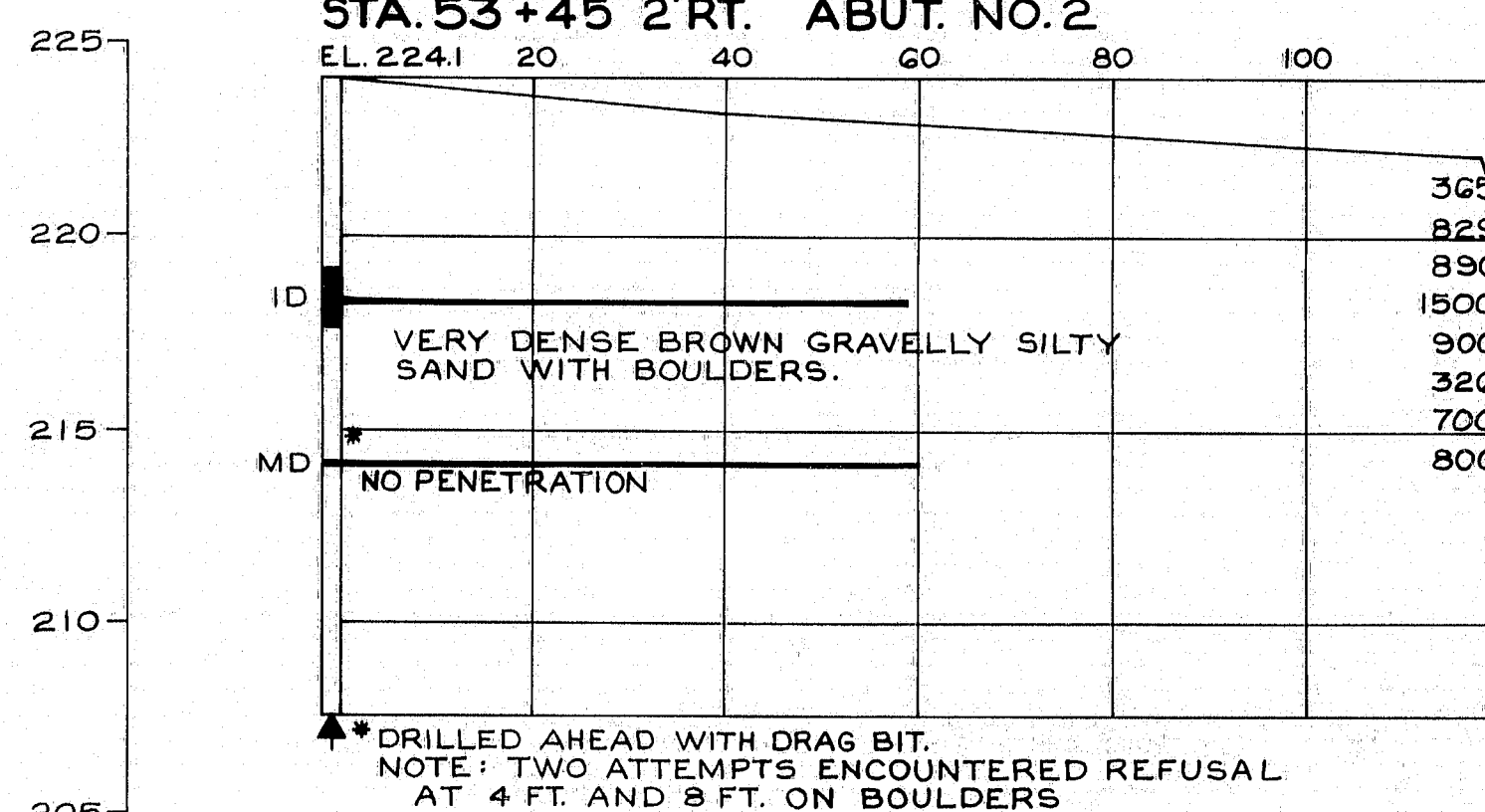
**BORING CB-44**  
STA. 48+95 5' LT. ABUT. NO. 1



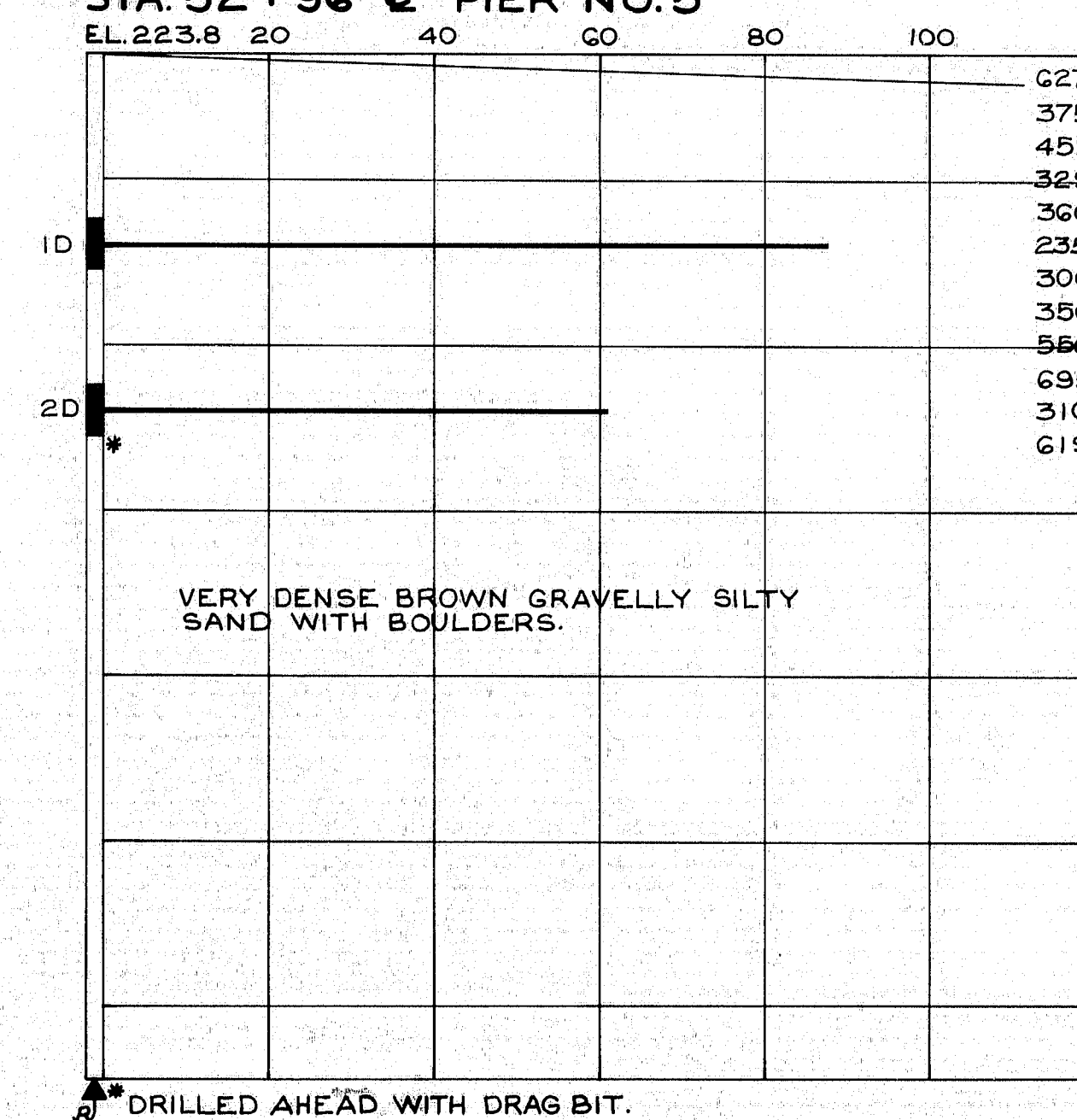
**BORING CB-46**  
STA. 51+30 2' PIER NO. 3



**BORING CB-49**  
STA. 53+45 2' RT. ABUT. NO. 2



**BORING CB-50**  
STA. 52+96 2' PIER NO. 5

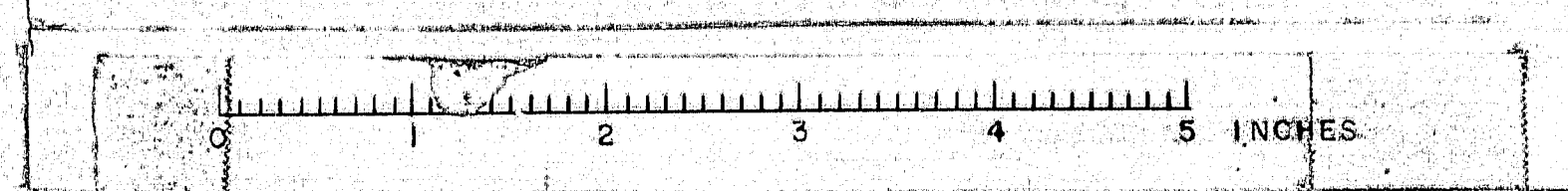


### BORING NOTES

- Casing size 2 1/2"
- WA. Washed ahead.
- All samples are made ahead of casing.
- Number of blows required to drive extra heavy casing one foot with 400 ft. lbs. of energy per blow.
- Location of sample or sample attempt.
- Number and type of dry sample.
- ID S & H Sampler #1290's
- MD Unsuccessful sample attempt and type of sampler.
- Number of blows required to drive spoon one foot with 350 ft. lbs. of energy per blow.
- Bottom of boring (May not be bottom of soil strata).
- 90% Locations cored by diamond bit and per cent recovery of rock.

DESIGN- TRACE- CHECK-	BRIDGE NO. SURVEY- PLOT-
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
LINCOLN SPUR OVER	
INTERSTATE 95 IN	
T2 R8 PENOBSCOT COUNTY	
BORING DETAILS	
SHEET 4 OF 12 AUGUSTA, MAINE	

95-166





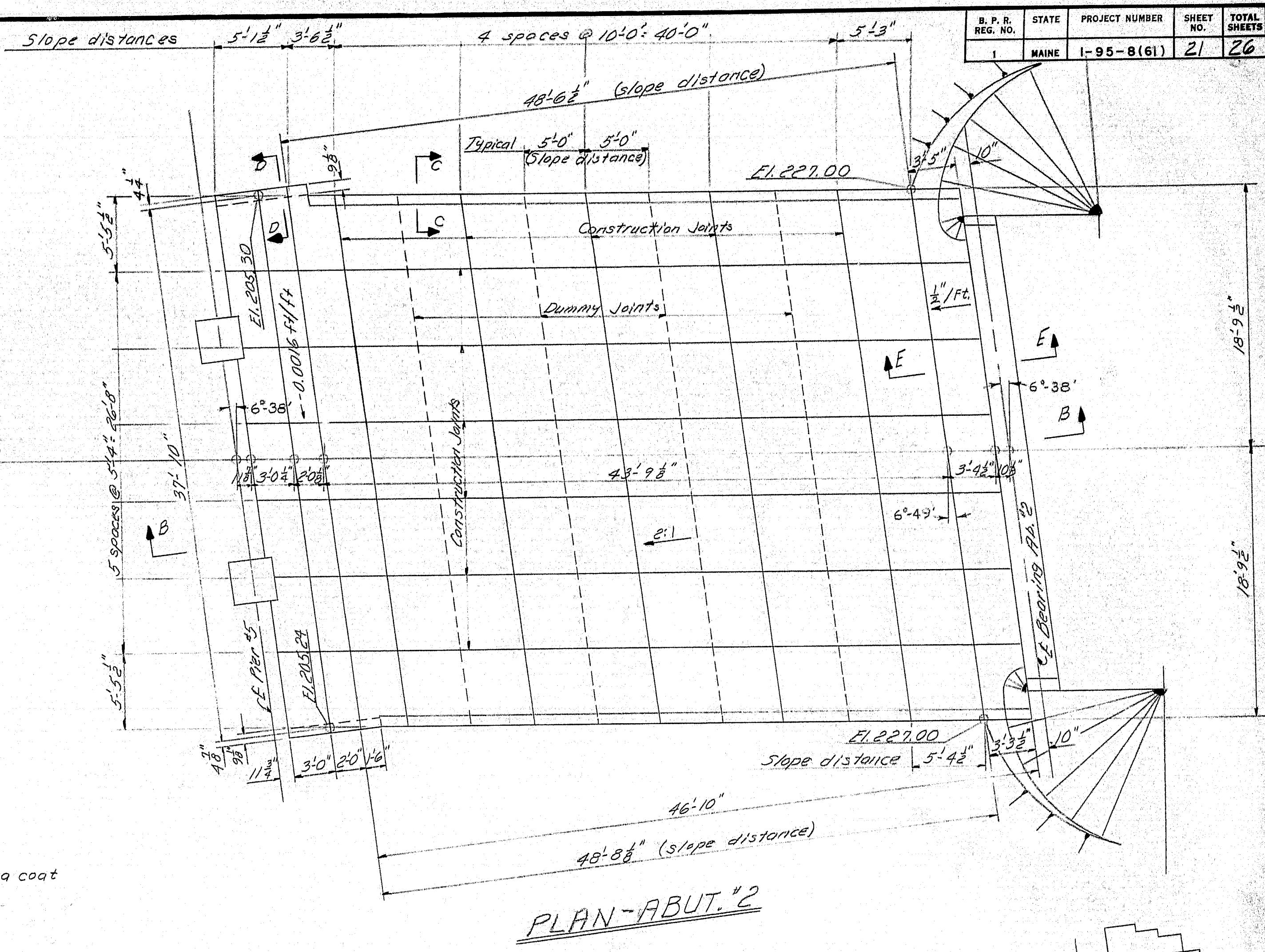
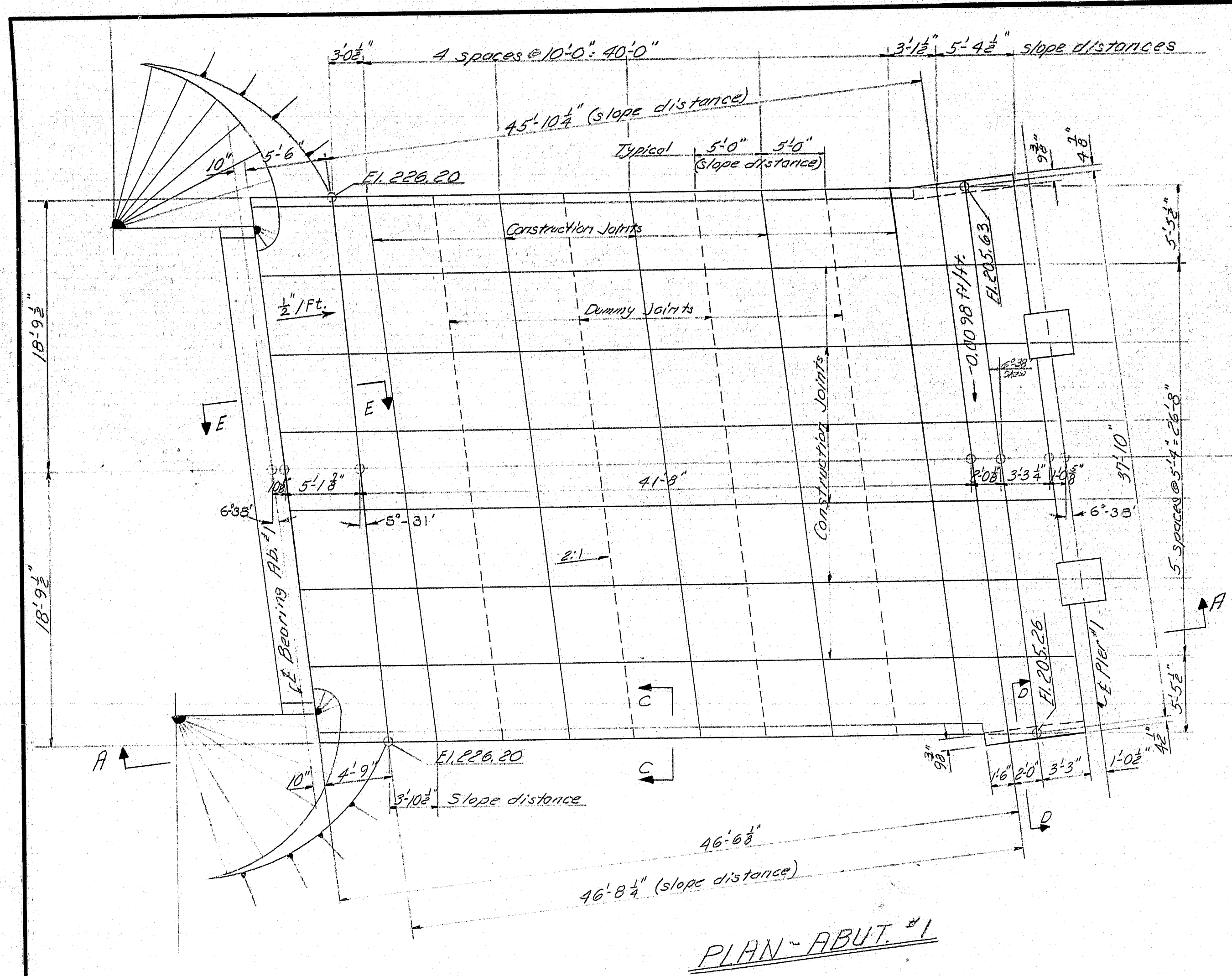




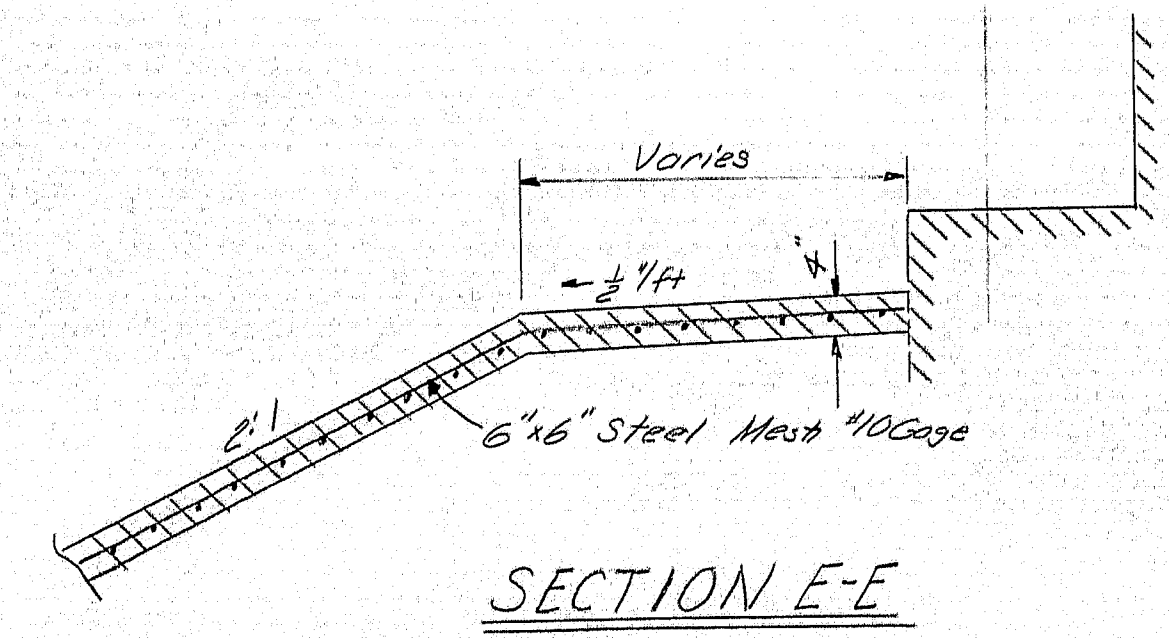
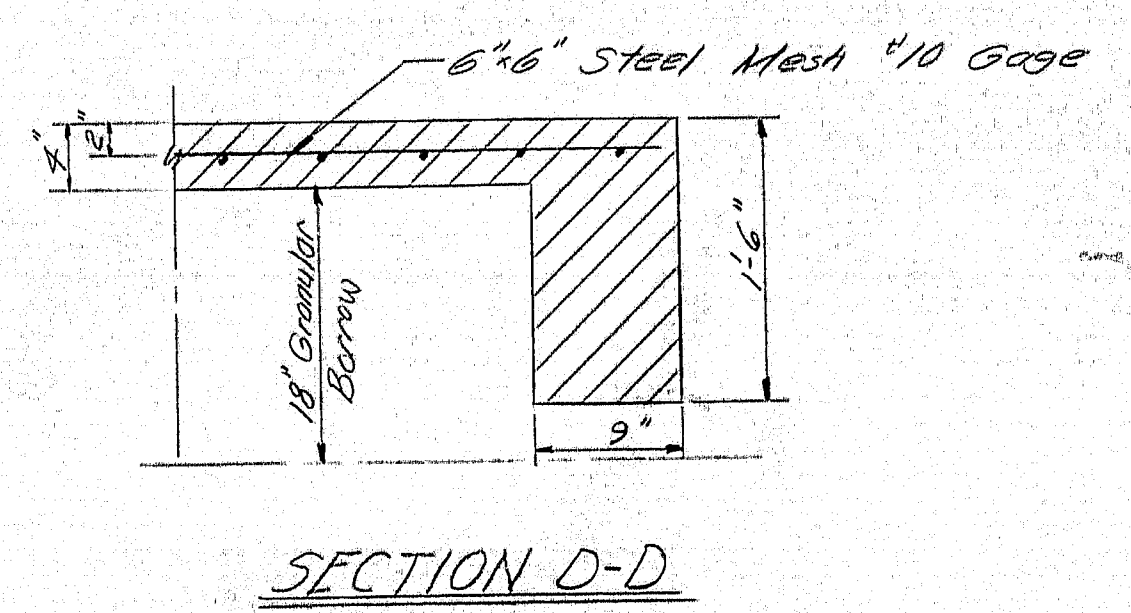
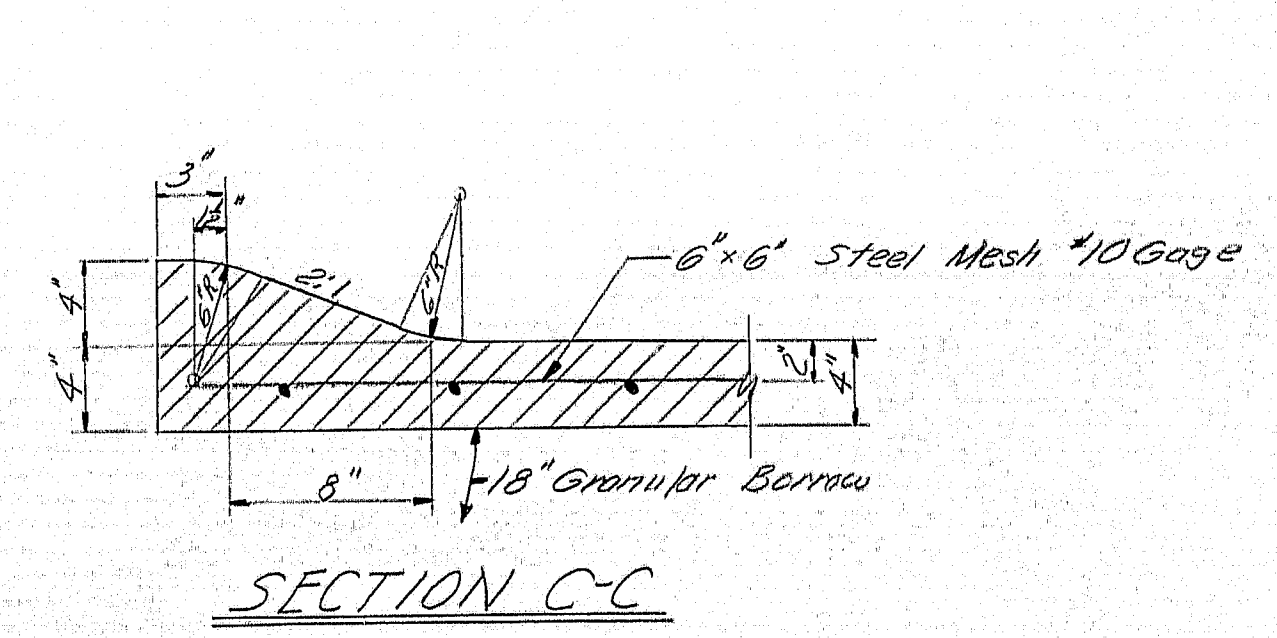
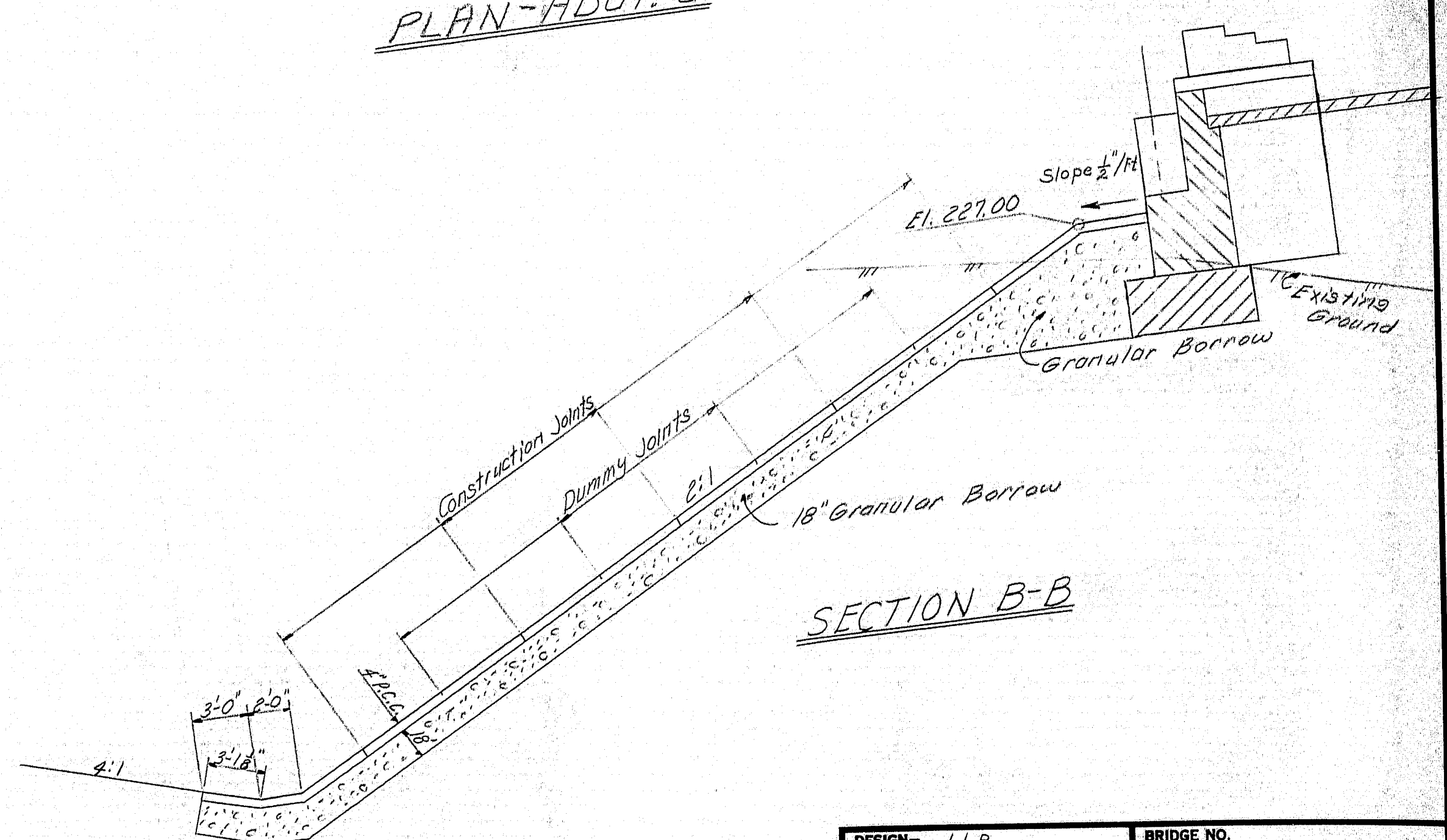
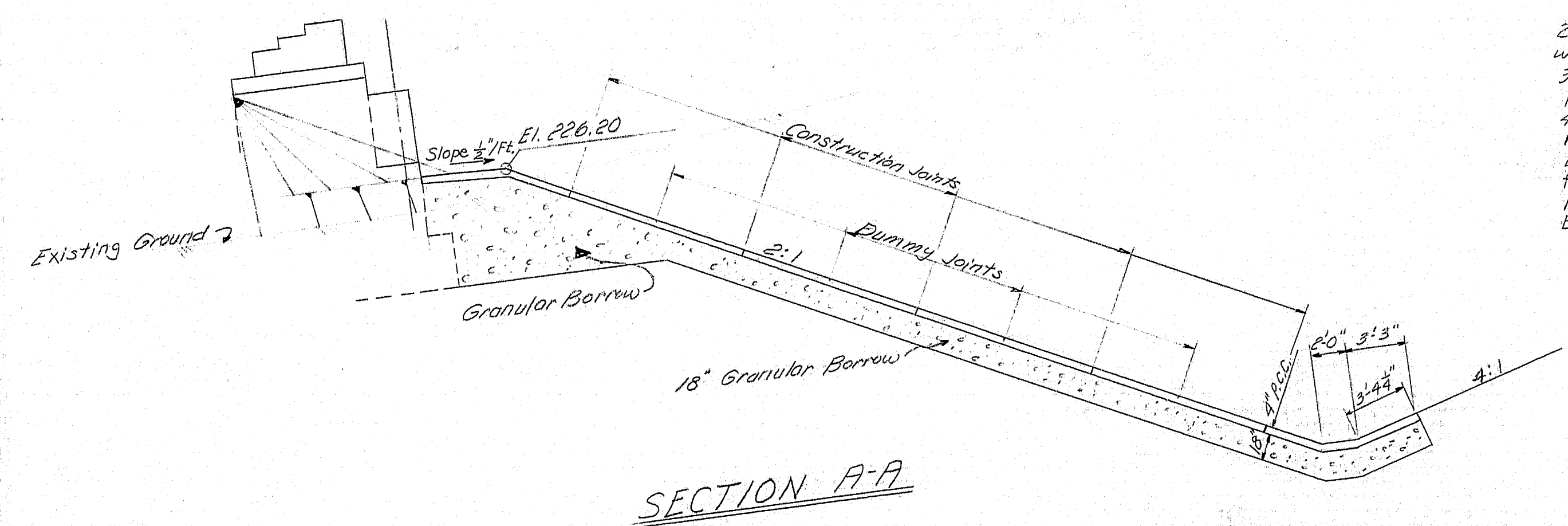




B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-8(61)	21	26

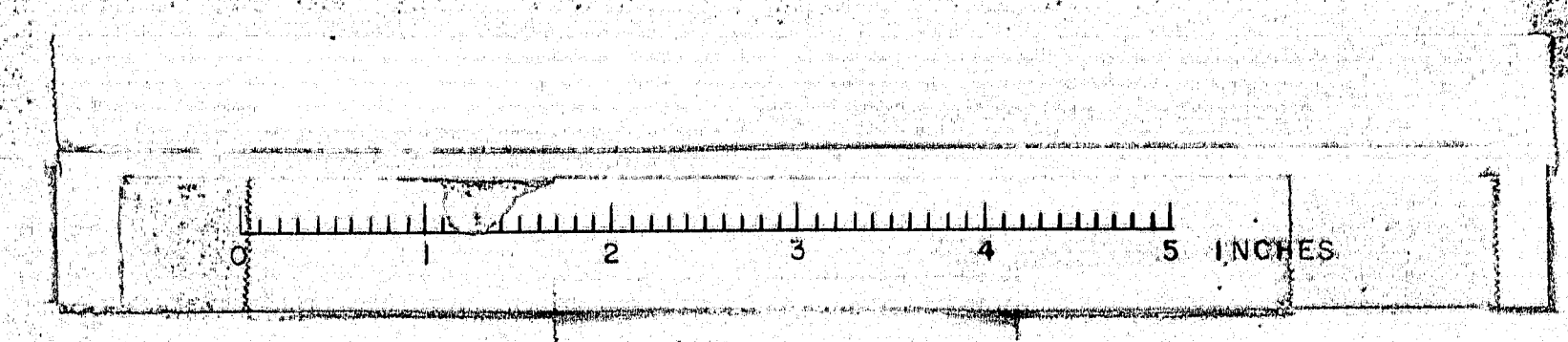


- NOTES**
1. Break bond at Construction Joints with a coat of asphalt paint.
  2. Dummy Joints shall be made with a side-walk edging tool to a depth of 2\".
  3. Reinforce with #10 gage 6"x6" steel mesh, not to pass through construction joints.
  4. The 18" of Granular Borrow under the Slope Paving may be reduced or omitted if, in the opinion of the Engineer, the existing material is suitable. Payment for excavation for Granular Borrow under Slope Paving to be made under Item 204-14, "Structural Earth Excavation, Piers."



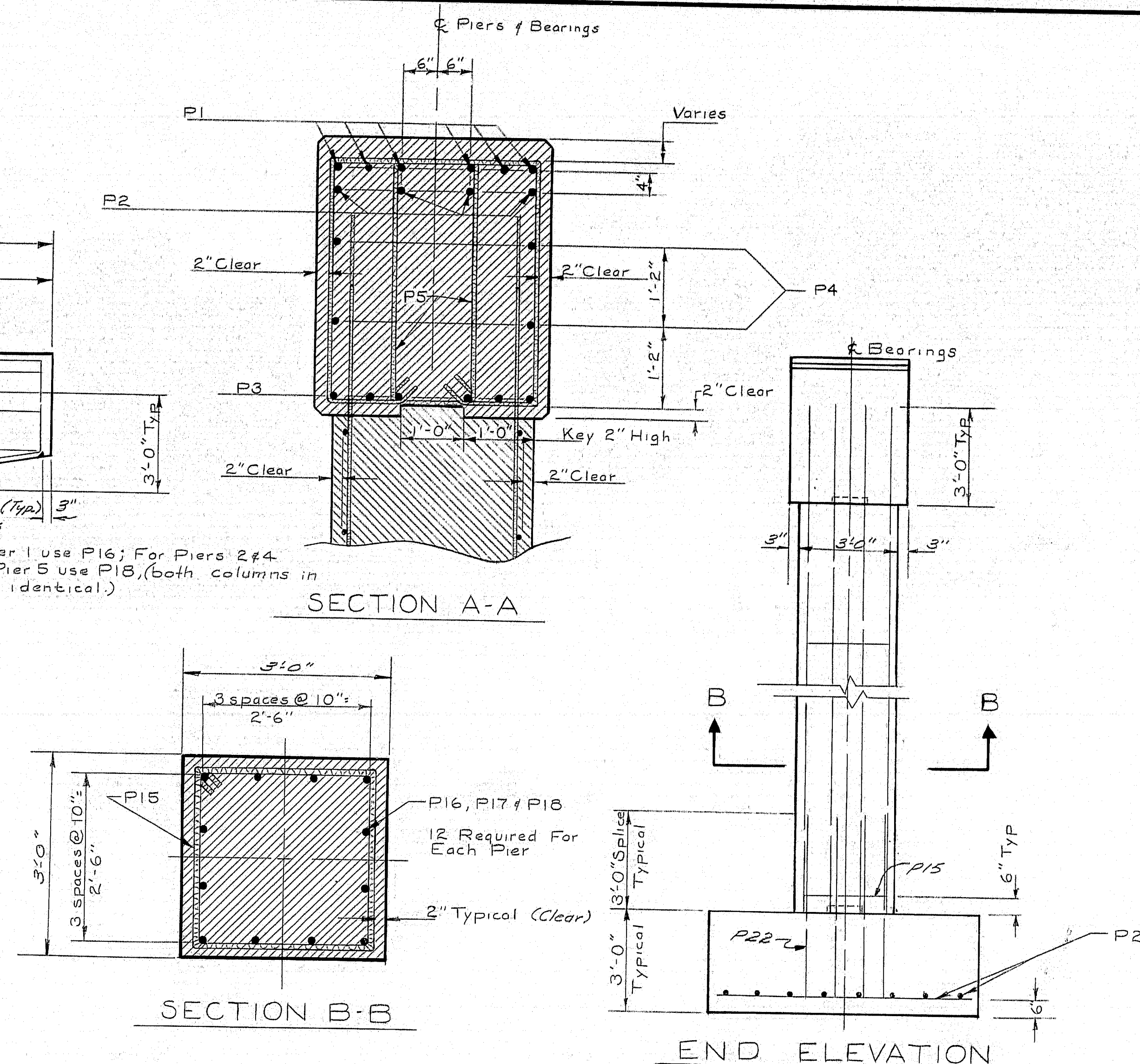
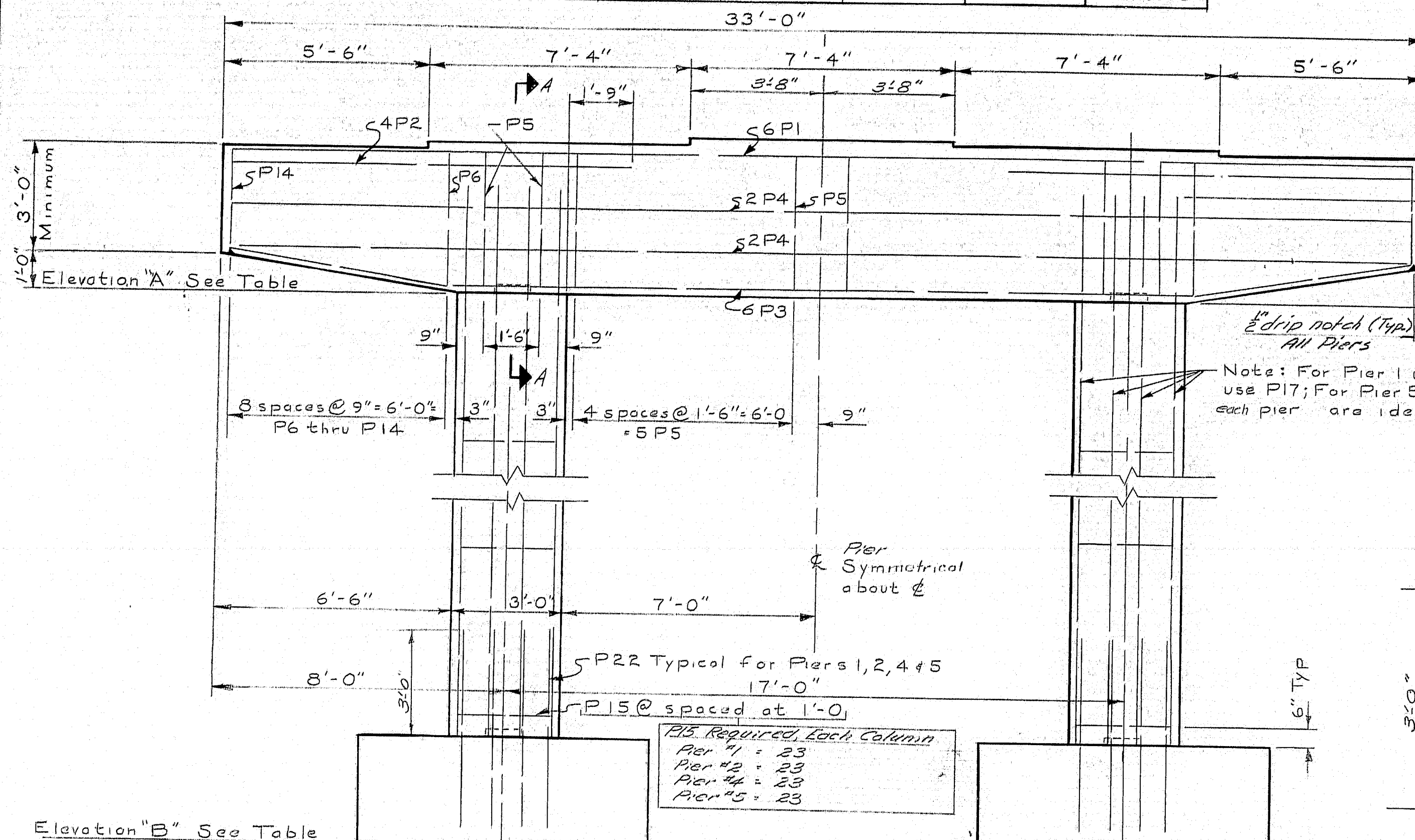
DESIGN- TRACE- CHECK-	LL.R. L.H.R. A.H.R.	BRIDGE NO. SURVEY- PLOT-
STATE HIGHWAY COMMISSION BRIDGE DIVISION		
LINCOLN SPUR OVER INTERSTATE 95 IN T2 R8 PENOBSCOT COUNTY SLOPE PAVING		
SHEET 7 OF 12 AUGUSTA, MAINE JAN. 1965		

95-169

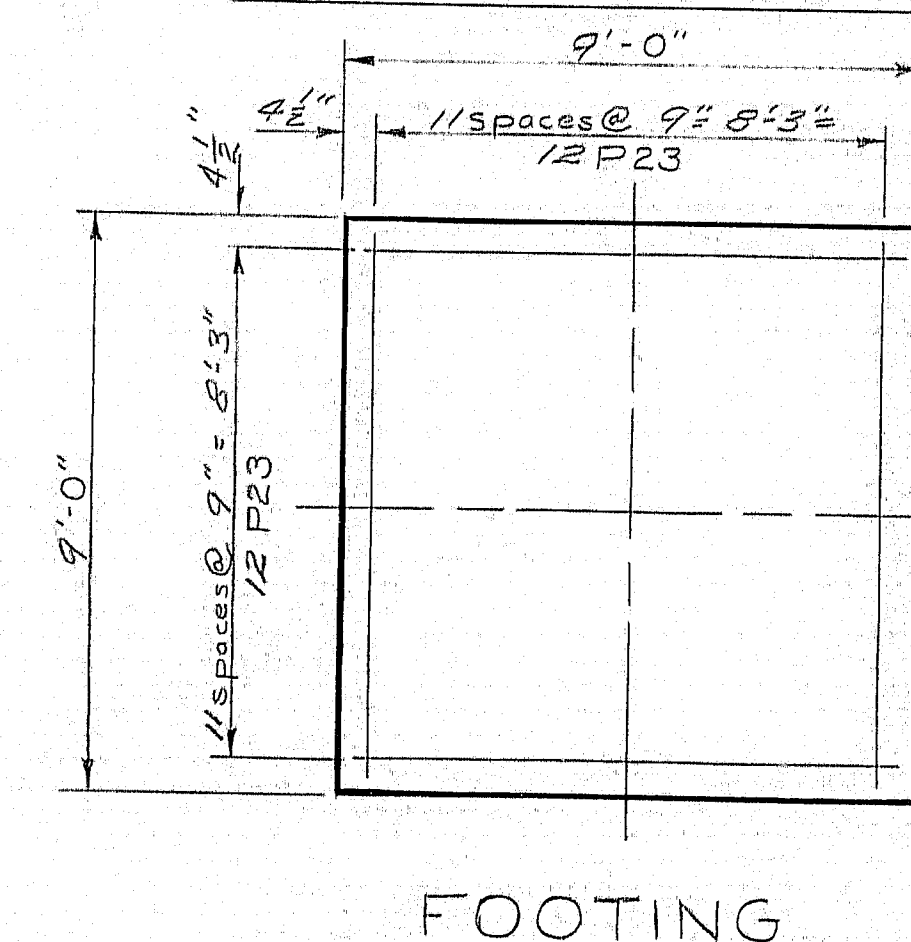
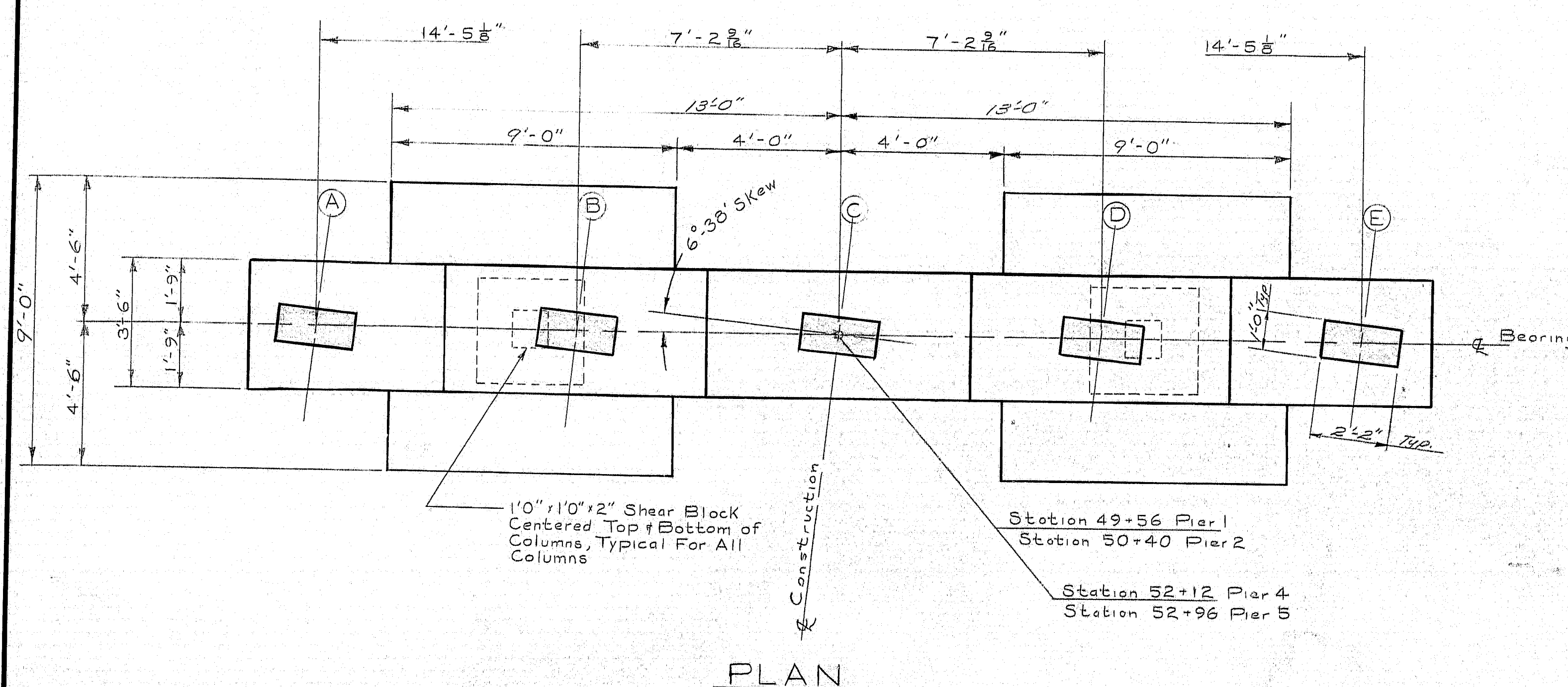




BRIDGE SEAT ELEVATIONS					
	A	B	C	D	E
PIER 1	227.90	228.06	228.22	228.08	227.94
PIER 2	228.64	228.79	228.95	228.81	228.66
PIER 4	228.96	229.10	229.25	229.10	228.94
PIER 5	228.53	228.67	228.81	228.65	228.50



	Pier 1	Pier 2	Pier 4	Pier 5
Elevation "A"	223.90	224.64	224.94	224.50
Elevation "B"	198.30	197.90	198.13	198.20



- GENERAL PIER NOTES
1. Chamfer all exposed edges of concrete 3/4"
  2. Place reinforcing steel to clear anchor bolts.
  3. Reinforcing steel to have 12" of cover unless otherwise noted.
  4. Max. Footing Pressure = 4.0 Tons/sq. foot

DESIGN - J.H.K. & ALL.  
TRACE - J.H.K.  
CHECK - J.H.K.

BRIDGE NO. SURVEY - 107

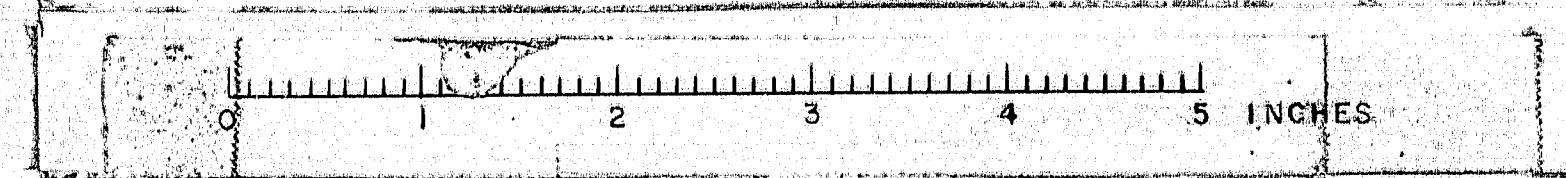
STATE HIGHWAY COMMISSION  
BRIDGE DIVISION

LINCOLN SPUR  
OVER  
INTERSTATE 95  
IN  
T2 R8  
PENOBSCOT COUNTY

PIERS NO. 1, 2, 4, & 5

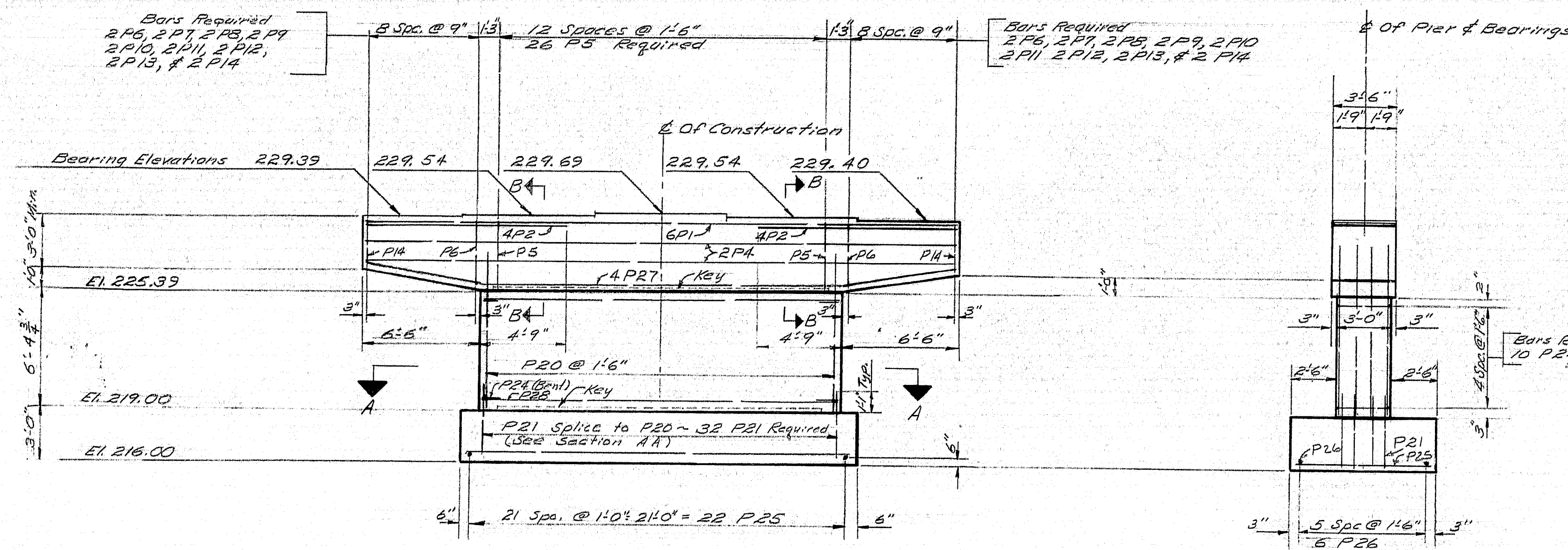
SHEET 8 OF 12 AUGUSTA, MAINE FEB. 1965

95-170



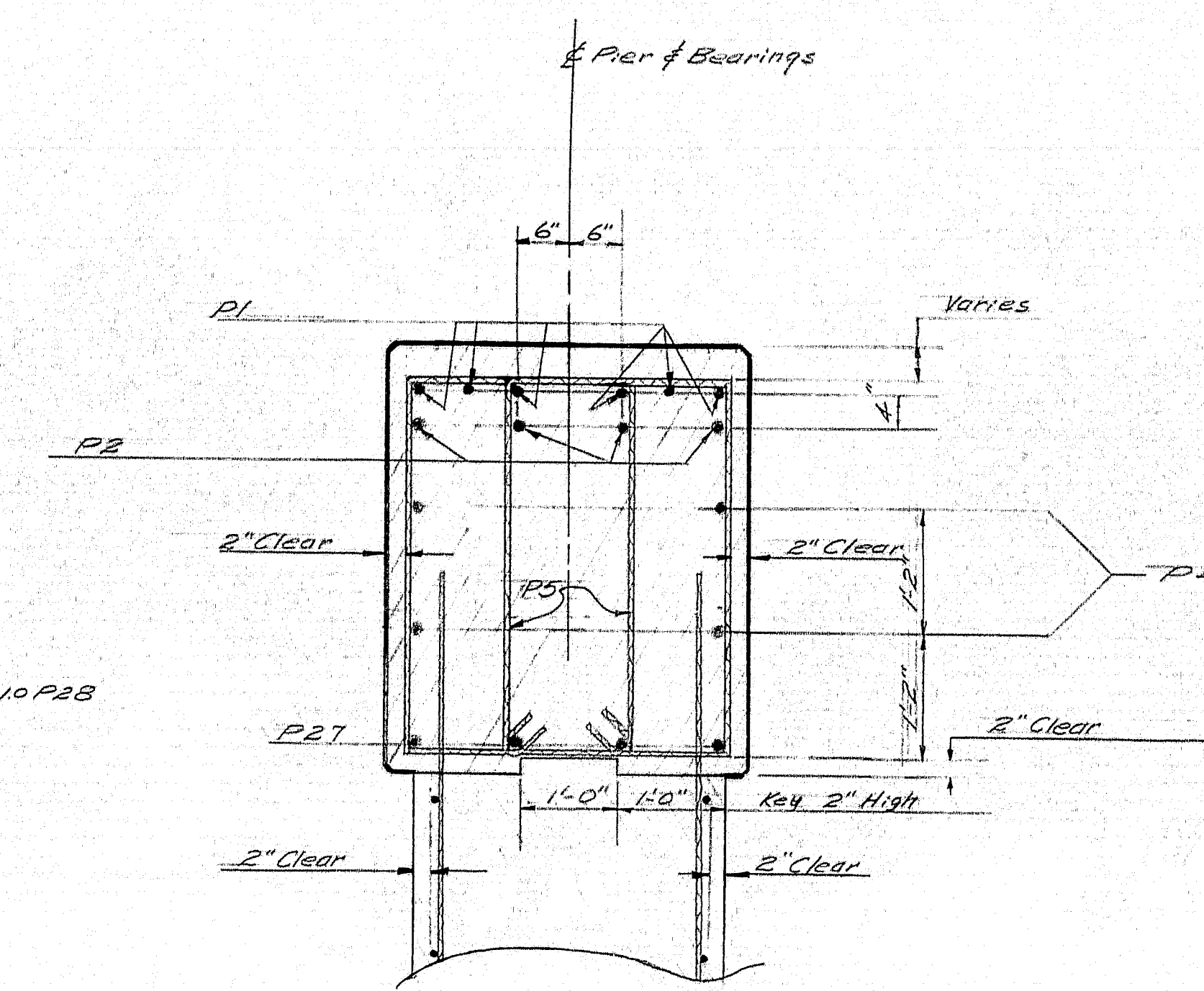


S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-8 (61)	23	26

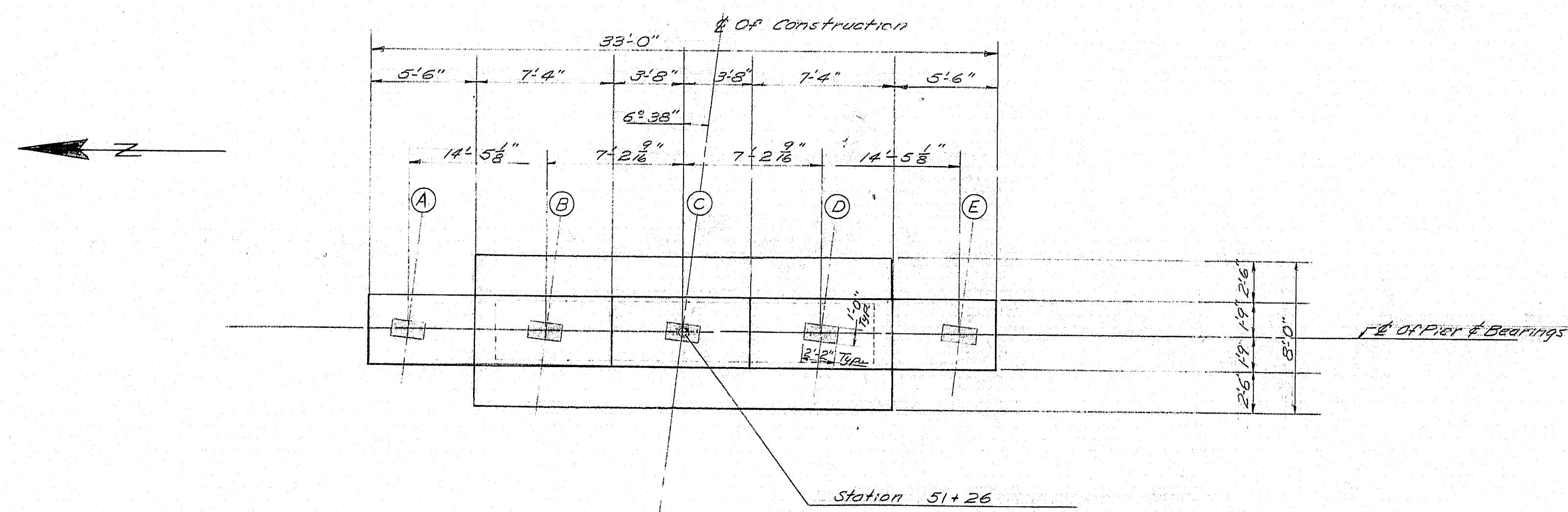


ELEVATION

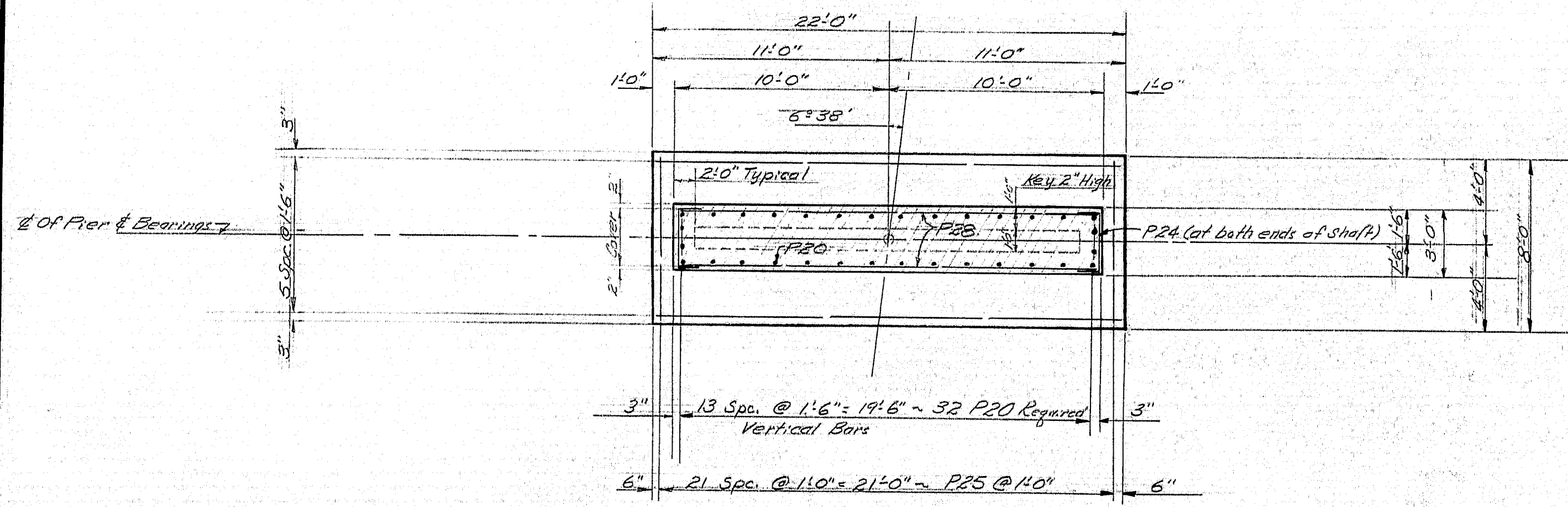
END ELEVATION



SECTION BB



PLAN

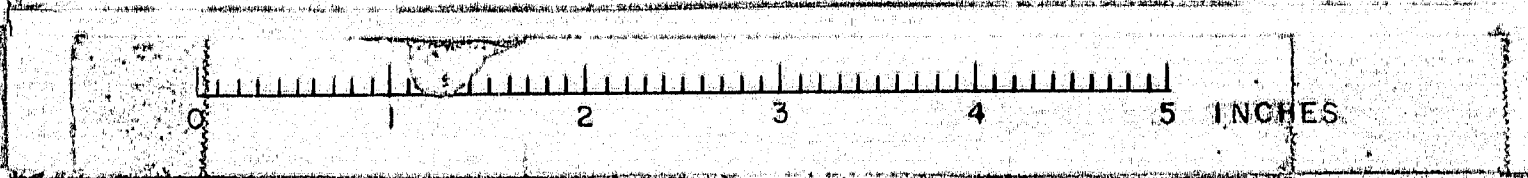


SECTION AA

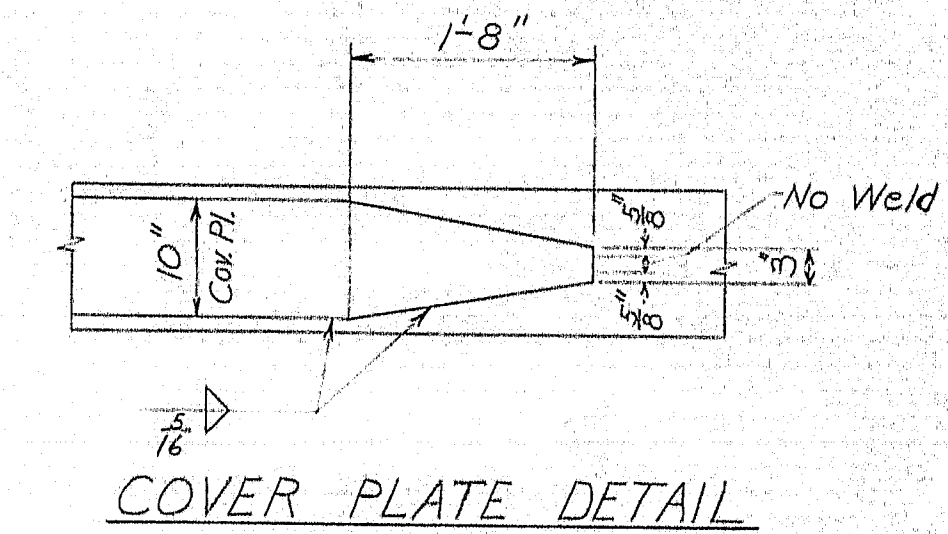
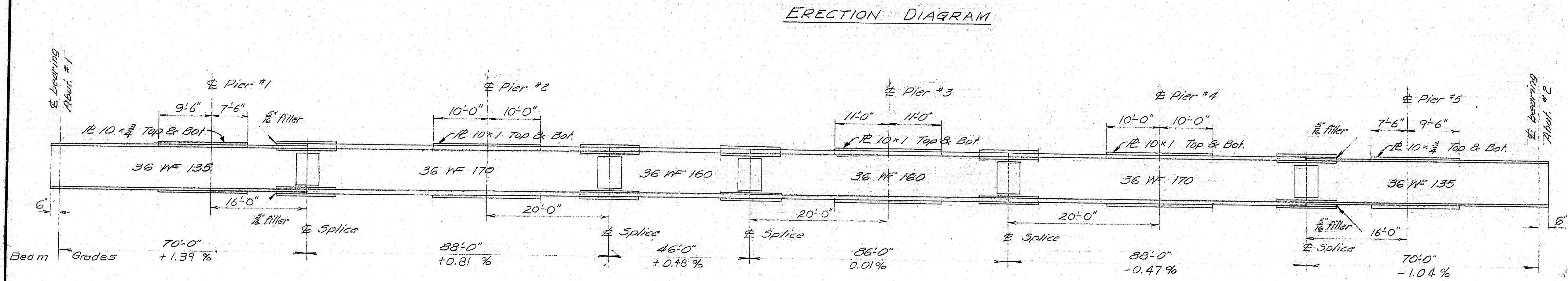
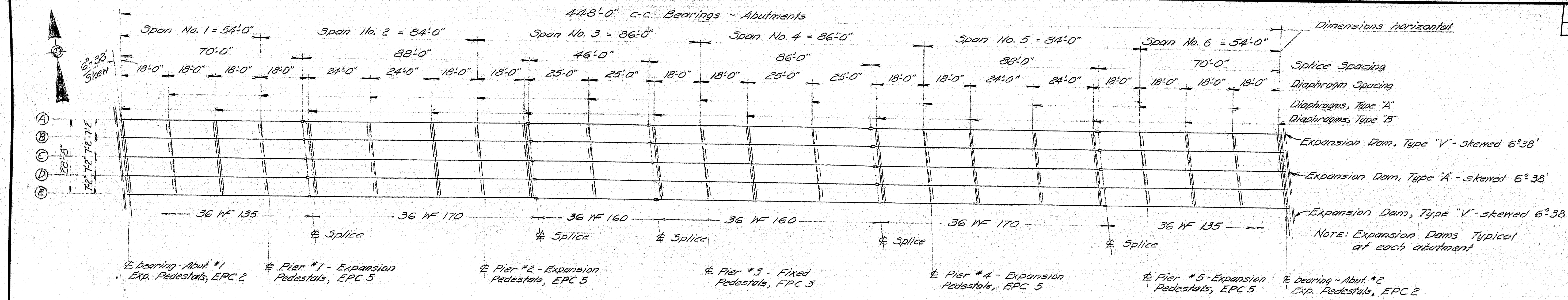
- GENERAL PIER NOTES
1. Chamfer all exposed edges of concrete  $\frac{3}{4}$ "
  2. Place reinforcing steel to clear anchor bolts.
  3. Reinforcing steel to have 2" of cover unless otherwise noted.
  4. Max. Footing Pressure = 4.0 Tons/sq. foot

DESIGN - ALL	BRIDGE NO.
TRACE - ALL	SURVEY -
CHECK - AHR	PLOT -
STATE HIGHWAY COMMISSION	
BRIDGE DIVISION	
LINCOLN SPUR	
OVER	
INTERSTATE 95	
IN	
T2 R8	
PENOBSCOT COUNTY	
PIER NO. 3	
SHEET 9 OF 12 AUGUSTA, MAINE FEB. 1965	

95-171







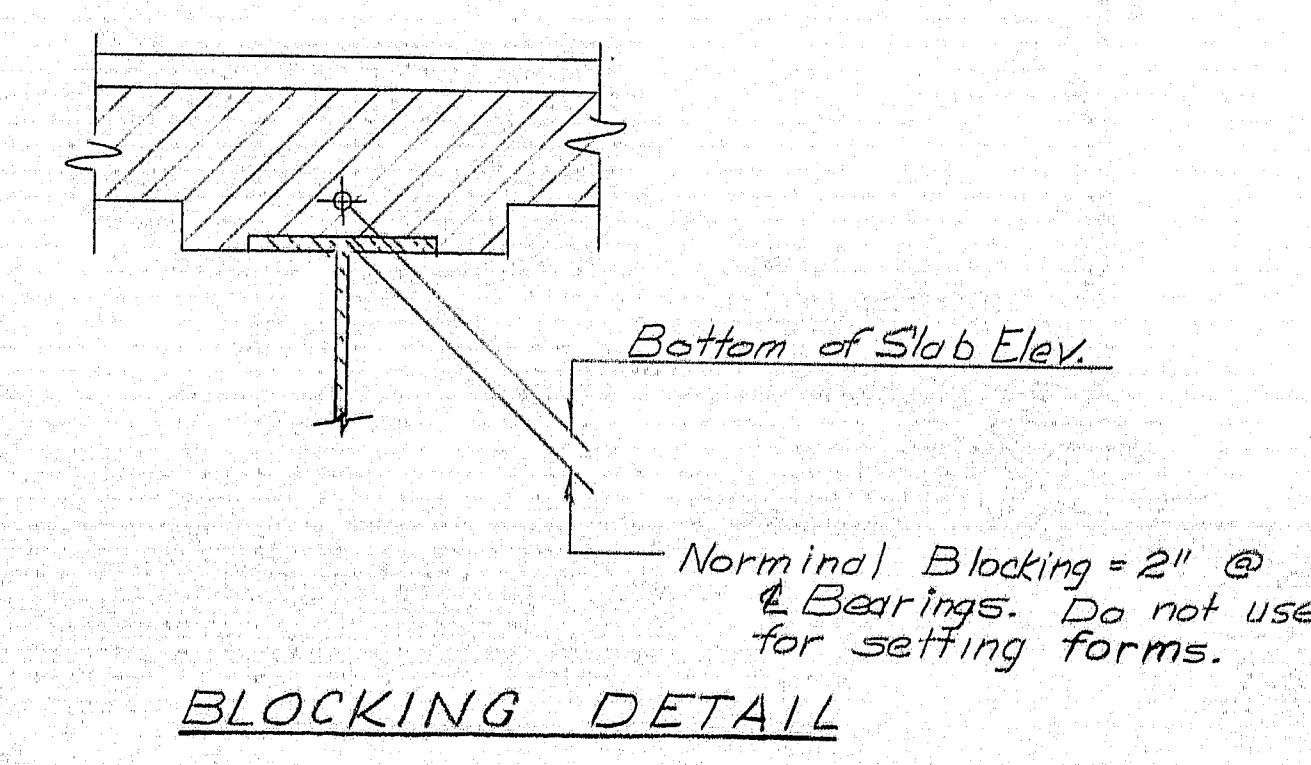
**SPECIFICATIONS**  
 Fabrication & Erection: State of Maine Standard Specifications, Highway & Bridges, Revision of Jan. 1956 and supplements.  
 Design & Detail: A.A.S.H.O. Standard Specifications of 1961, and Interim Specifications, 1961, 1962, 1963 and 1964.  
 All Structural Steel shall be A36 except as shown on Standard Details.

**BLOCKING TABLE**

BOTTOM OF SLAB ELEVATIONS																					
LINE	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A
231.53	231.69	231.85	231.72	231.58	231.75	231.91	232.07	232.12	232.29	232.46	232.65	232.81	232.96	233.07	233.16	233.24	233.35	233.46	233.54	233.66	233.77
232.28	232.44	232.60	232.78	232.94	233.11	233.23	233.31	233.40	233.51	233.61	233.70	233.74	233.76	233.78	233.81	233.84	233.85	233.88	233.91	233.94	233.97
232.65	232.81	232.96	233.07	233.16	233.24	233.35	233.46	233.54	233.59	233.61	233.62	233.66	233.69	233.70	233.71	233.72	233.73	233.74	233.75	233.76	233.77
233.09	233.20	233.31	233.39	233.44	233.46	233.47	233.51	233.54	233.55	233.56	233.57	233.58	233.59	233.60	233.61	233.62	233.63	233.64	233.65	233.66	233.67
233.41	233.52	233.62	233.70	233.75	233.77	233.78	233.79	233.80	233.81	233.82	233.83	233.84	233.85	233.86	233.87	233.88	233.89	233.90	233.91	233.92	233.93

BOTTOM OF SLAB ELEVATIONS										
LINE	A	B	C	D	E	A	B	C	D	E
233.41	233.52	233.62	233.70	233.75	233.77	233.78	233.79	233.80	233.81	233.82
233.55	233.66	233.76	233.84	233.89	233.91	233.92	233.93	233.94	233.95	233.96
233.70	233.81	233.91	234.00	234.05	234.07	234.08	234.09	234.10	234.11	234.12
233.55	233.66	233.76	233.84	233.89	233.91	233.92	233.93	233.94	233.95	233.96
233.40	233.51	233.61	233.69	233.74	233.76	233.77	233.78	233.79	233.80	233.81

**Note:**  
 In order that the roadway slab will conform to the profile and cross sections shown on these plans the accompanying table of Elevations is given. Elevations for the bottom of slab which are computed to compensate for dead load deflections, must be set before slab forms are started.

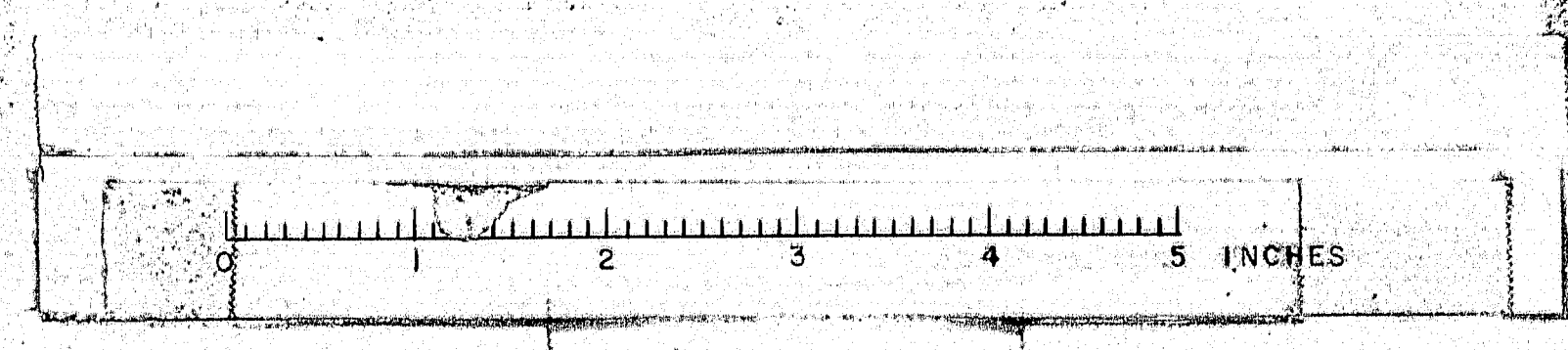


**REFERENCES**  
 Splice - See Standard Details BD 103-64  
 Diaphragms - See Standard Details BD 104-64  
 Pedestals - See Standard Details BD 101-64  
 Expansion Dams - See Standard Details BD 105-64  
 Drains - Sheet 11 & BD-104-64

**PEDESTALS**  
 10-EPC2 required  
 20-EPC5 required  
 5-FPC3 required

DESIGN - T.H.K. TRACE - G.W.C. CHECK - A.H.P.	BRIDGE NO. SURVEY - PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
LINCOLN SPUR OVER INTERSTATE 95 IN T2 R8 PENOBSCOT COUNTY	
ERECTOR DIAGRAM & BLOCKING	
SHEET 10 OF 12 AUGUSTA, MAINE JAN. 1965	

95-172





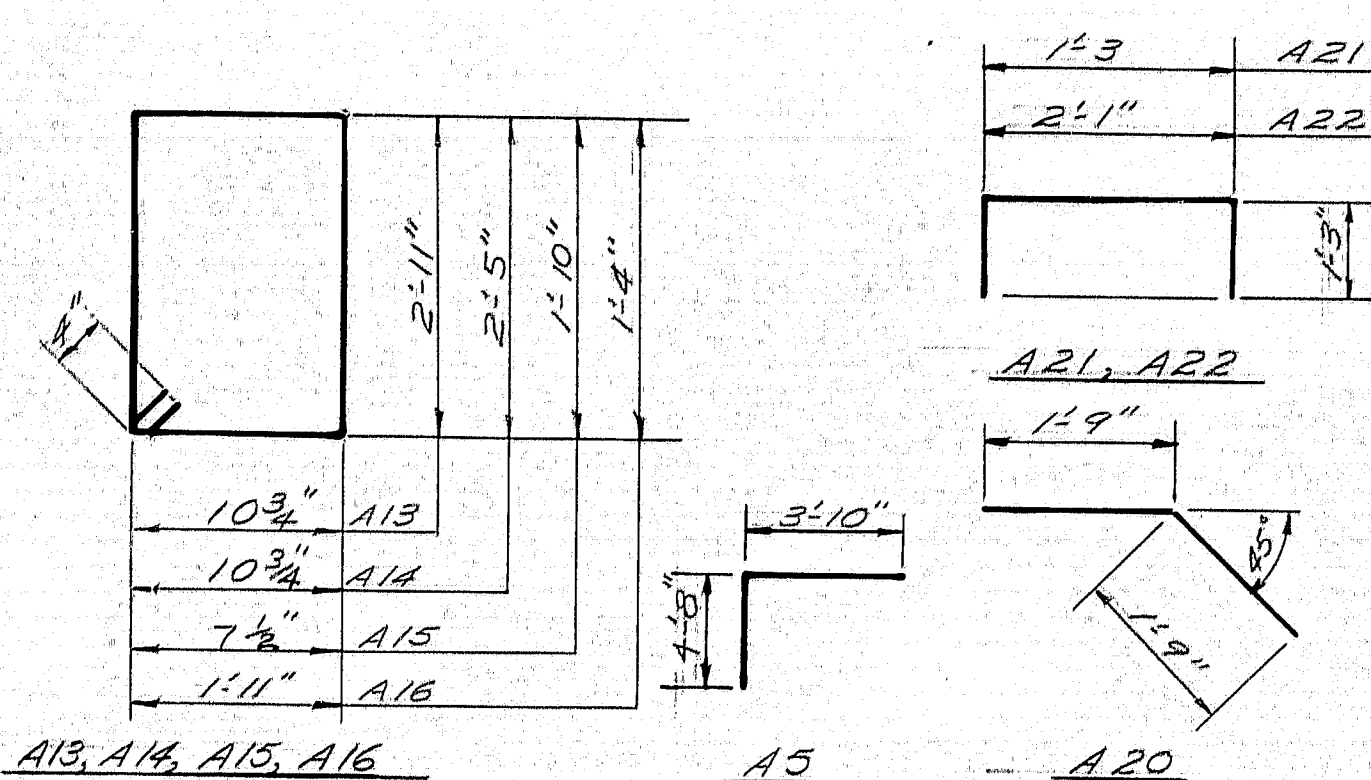




# REINFORCING STEEL SCHEDULE

B. P. H. REG. NO. 1 STATE MAINE PROJECT NUMBER 1-95-8(6.1) SHEET NO. 26 TOTAL SHEETS 26

## ABUTMENTS



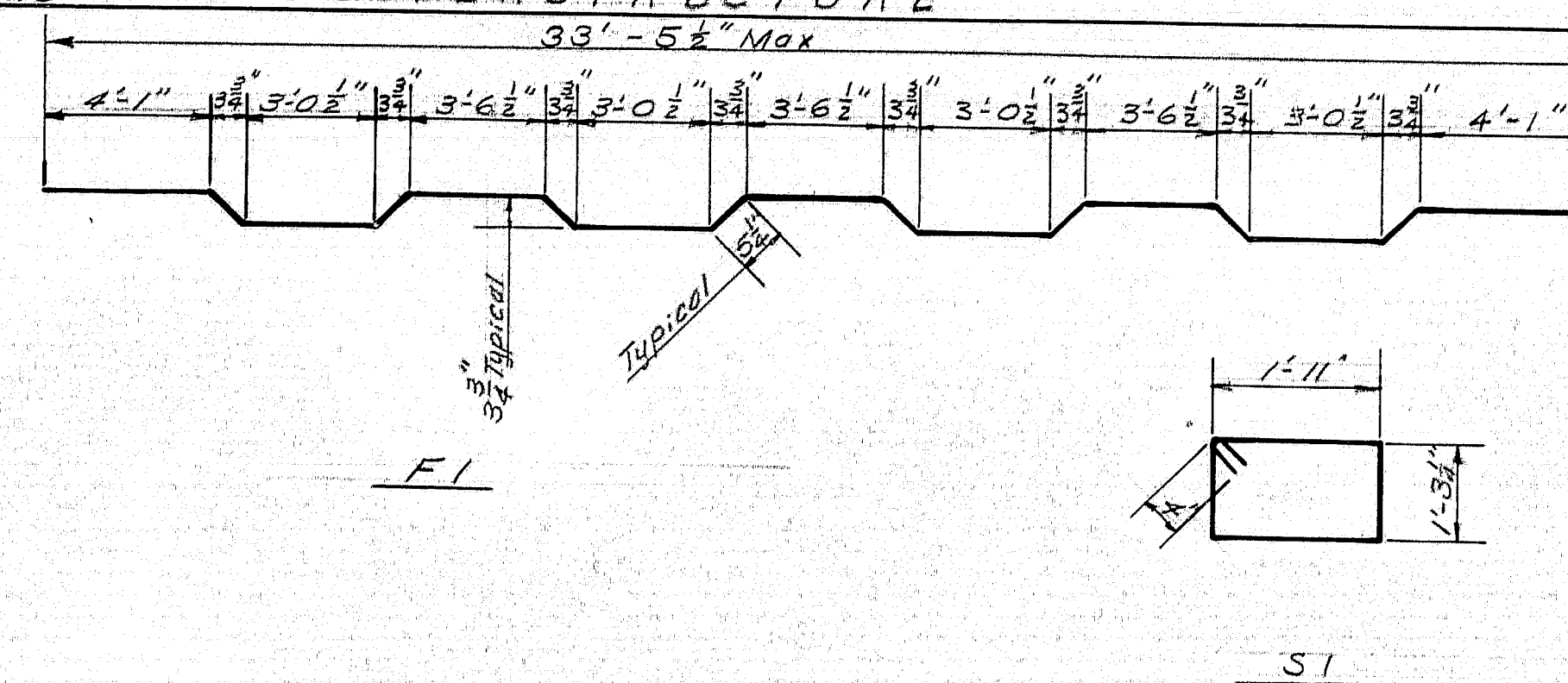
### BENT BARS

Mark	Size	Number	Length	Location
A5	#5	36	8'6"	Breastwall
A13	5	8	8'3"	Wing Walls (End Posts)
A14	5	4	7'3"	" " "
A15	5	4	5'7"	" " "
A16	5	24	7'2"	" " Curbs
A20	6	36	3'6"	Approach Slab to Backwall
A21	4	20	3'9"	Bearing Pads
A22	4	20	4'7"	Bearing Pads

### STRAIGHT BARS

Mark	Size	Number	Length	Location
A1	6	14	34'4"	Footings
A2	6	70	5'11"	"
A3	5	104	2'6"	Footings & Breastwall
A4	5	36	7'9"	"
A6	5	72	4'9"	Backwall
A7	5	40	17'3"	Breastwall
A8	4	32	17'3"	Backwall
A9	5	8	8'9"	Wingwalls
A10	5	40	9'7"	"
A11	5	44	9'0"	"
A12	5	28	6'8"	"
A17	4	16	4'8"	End Posts
A18	4	8	3'2"	"
A19	4	8	1'8"	"
A23	4	40	26'10"	Approach Slab
A24	6	216	14'8"	"

## SUPERSTRUCTURE



### BENT BARS

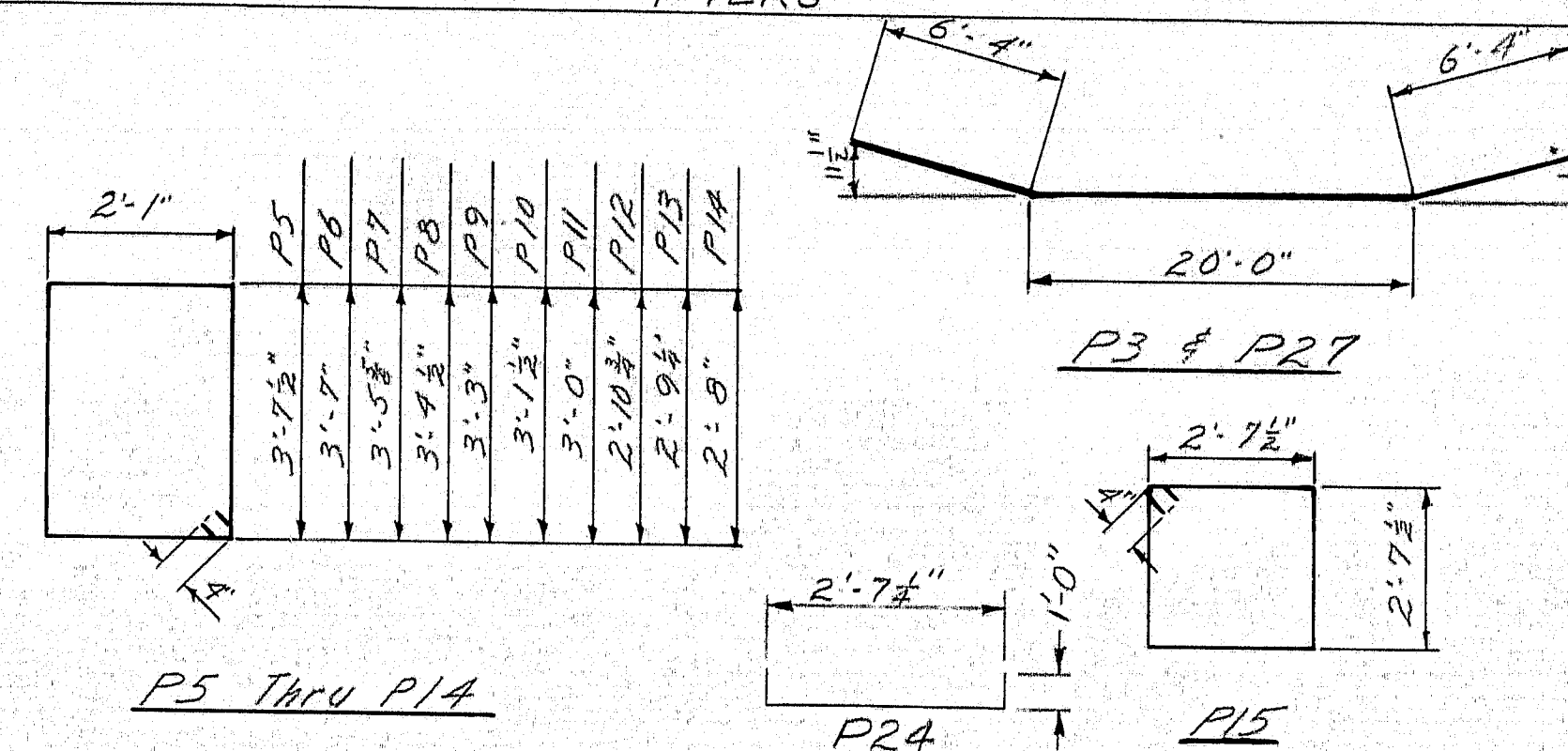
Mark	Size	Number	Length	Location
F1	#6	411	34'6"	Slab - Transverse Bars
S1	5	856	7'0"	Curbs

### STRAIGHT BARS

Mark	Size	Number	Length	Location
F2	#5	830	33'6"	Slab - Transverse Bars
L1	4	46	36'6"	Slab - Longitudinal Bars
L2	4	115	35'6"	"
L3	4	92	30'0"	"
L4	4	46	18'9"	"
L5	4	46	20'9"	"
L6	4	90	24'0"	" (Over Piers)
L7	5	72	36'6"	"
L8	5	180	35'6"	"
L9	5	144	30'0"	"
L10	5	72	18'9"	"
L11	5	72	20'9"	"
C1	5	84	12'0"	Curb
C2	5	60	17'6"	"
C3	5	36	15'6"	"

Note: All reinforcing steel to be intermediate grade. Dimensions to & of bars.

## PIERS



### BENT BARS

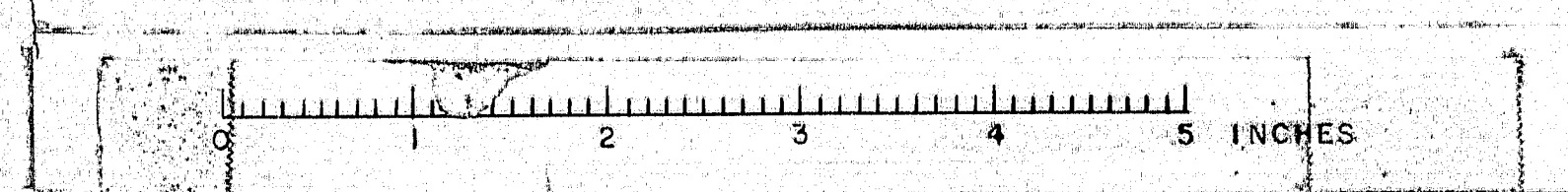
Mark	Size	Number	Length	Location
P3	#9	24	32'8"	Caps, Piers "3, 2, 4, 5"
P5	#5	138	12'1"	Stirrups - All Caps
P6	"	20	12'0"	"
P7	"	"	11'10"	"
P8	"	"	11'7"	"
P9	"	"	11'4"	"
P10	"	"	11'1"	"
P11	"	"	10'10"	"
P12	"	"	10'8"	"
P13	"	"	10'5"	"
P14	#5	20	10'2"	"
P15	#4	184	11'2"	Stirrups in Columns, Piers "1, 2, 4, 5"
P24	#5	10	4'8"	Shaft, Pier "3"
P27	#7	4	32'8"	Cap, Pier "3"

### STRAIGHT BARS

Mark	Size	Number	Length	Location
P1	#11	30	32'8"	All Pier Caps
P2	#10	40	11'0"	"
P4	#6	20	32'8"	All Pier Caps
P16	#9	24	25'8"	Vertical Bars in Columns, Pier "1"
P17	#9	48	26'9"	" " " " Piers "2, 4"
P18	#9	24	26'4"	" " " " Pier "5"
P20	#5	32	8'6"	" " " " in Shaft, Pier "3"
P21	#5	32	3'9"	Dowels, Footing to Shaft, Pier "3"
P22	#9	96	5'6"	" " " " Columns, Piers "1, 2, 4, 5"
P23	#7	192	8'6"	Footings, Piers "1, 2, 4, 5"
P25	#7	22	7'6"	Footing, Pier "3"
P26	#5	6	21'6"	"
P28	#5	10	19'8"	Shaft, Pier "3"

DESIGN - As Noted  
TRACE - AHR  
BRIDGE NO. 1  
STATE HIGHWAY COMMISSION  
BRIDGE DIVISION  
LINCOLN SPUR  
OVER  
INTERSTATE 95  
IN  
T2 R8  
PENOBSCOT COUNTY  
REINFORCING STEEL SCHEDULE  
SHEET 12 OF 12 AUGUSTA, MAINE JAN. 1965

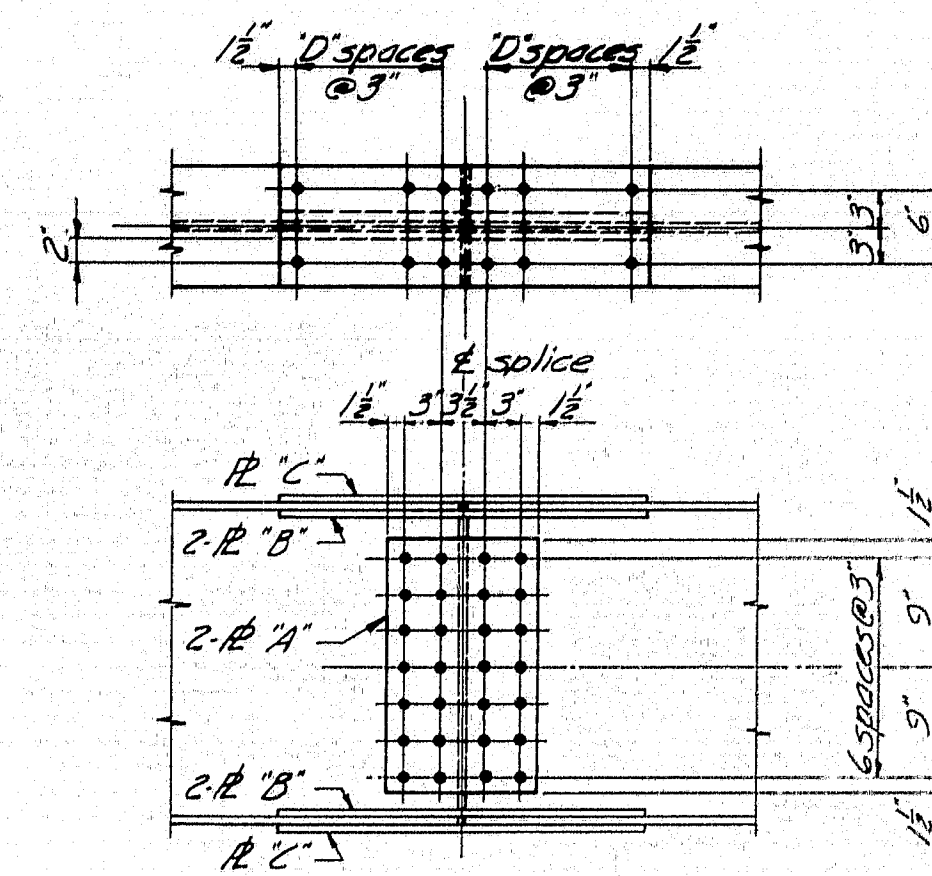
95-174



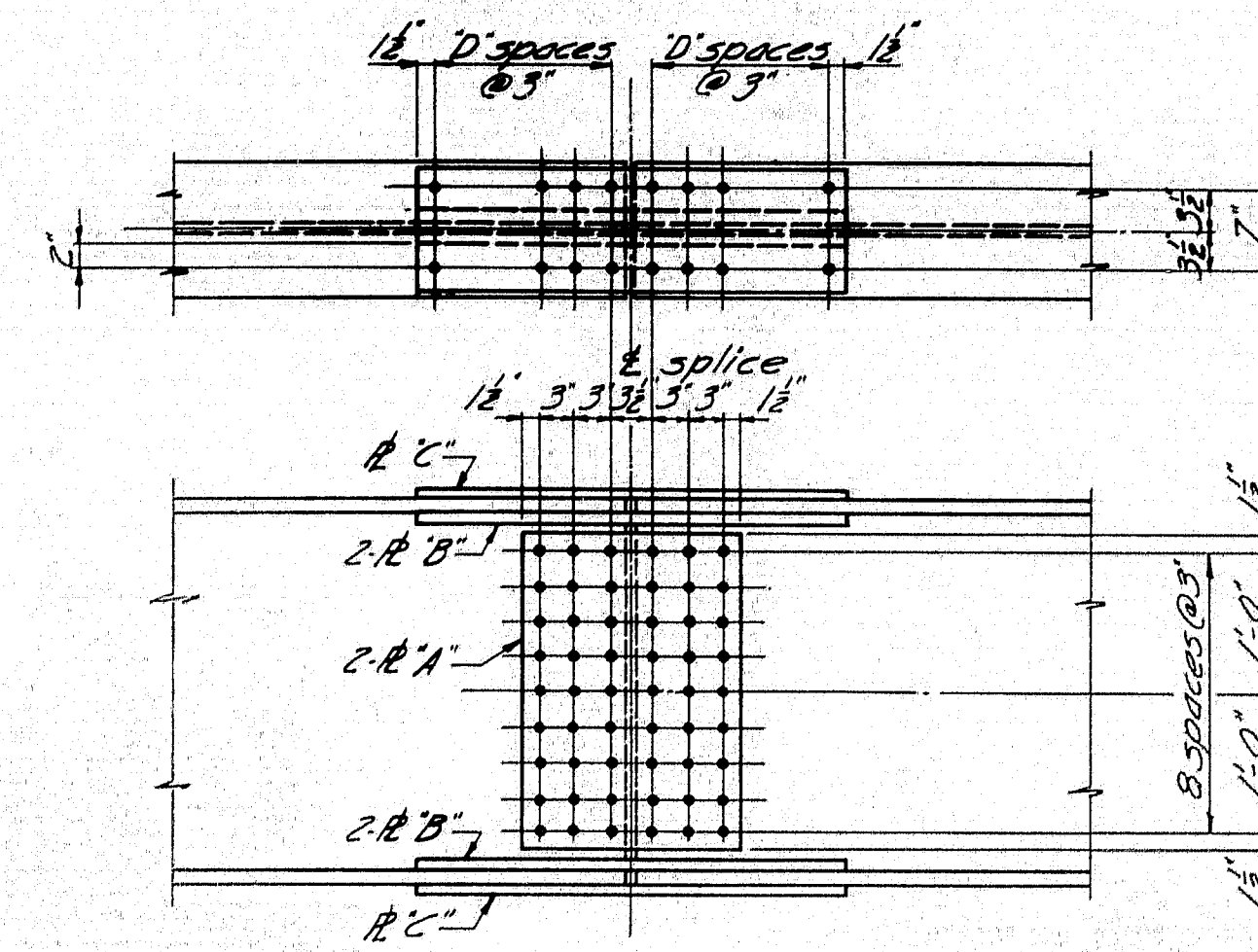




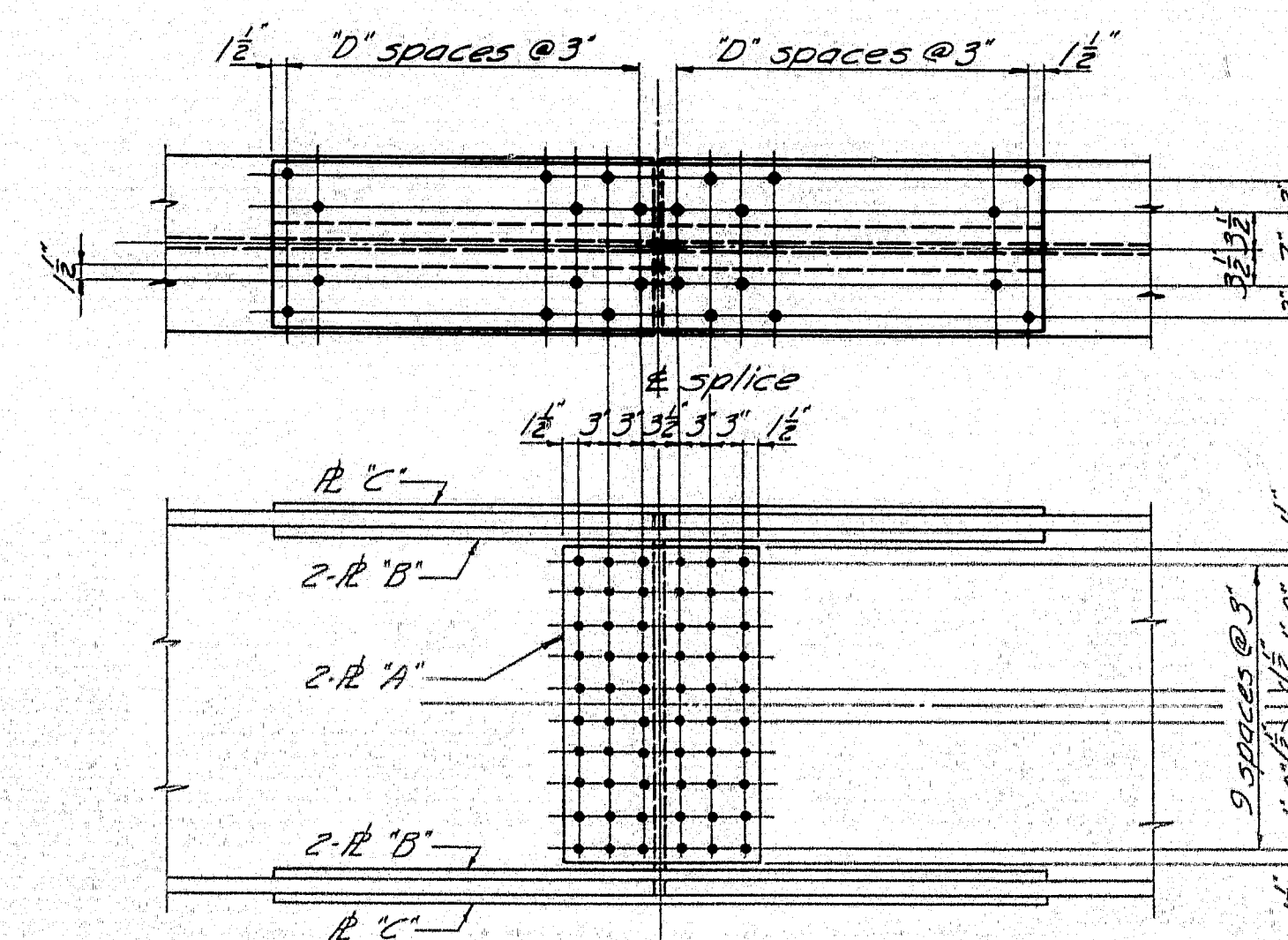




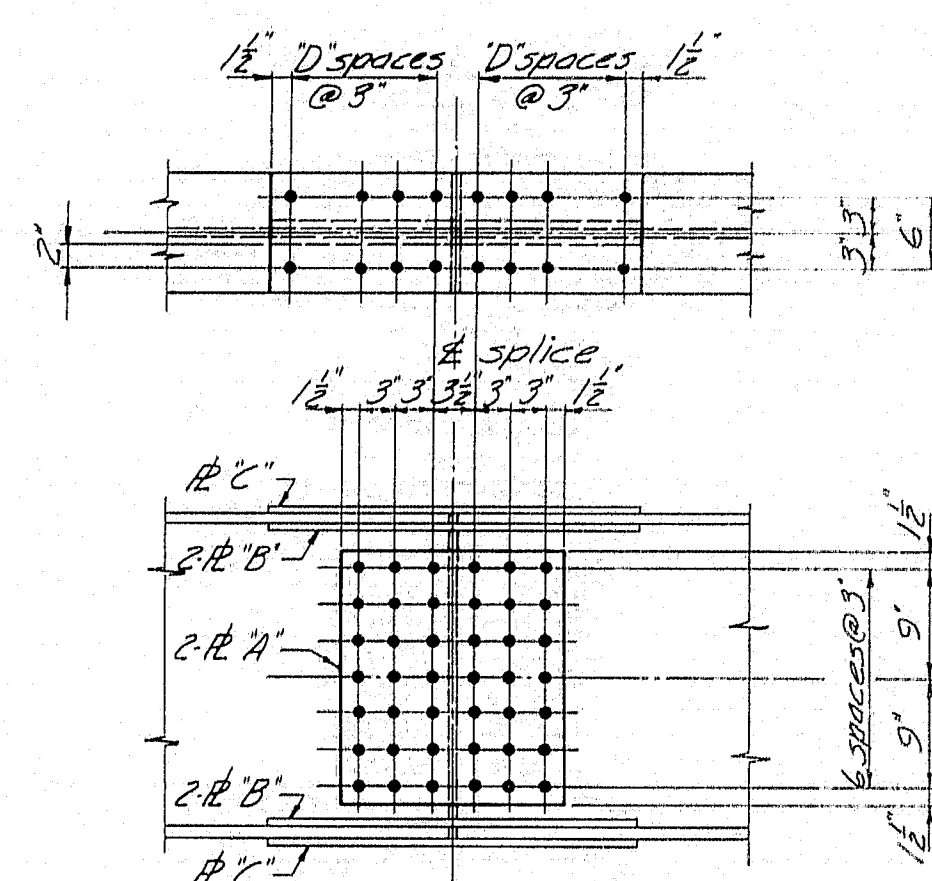
**27 WF 84**



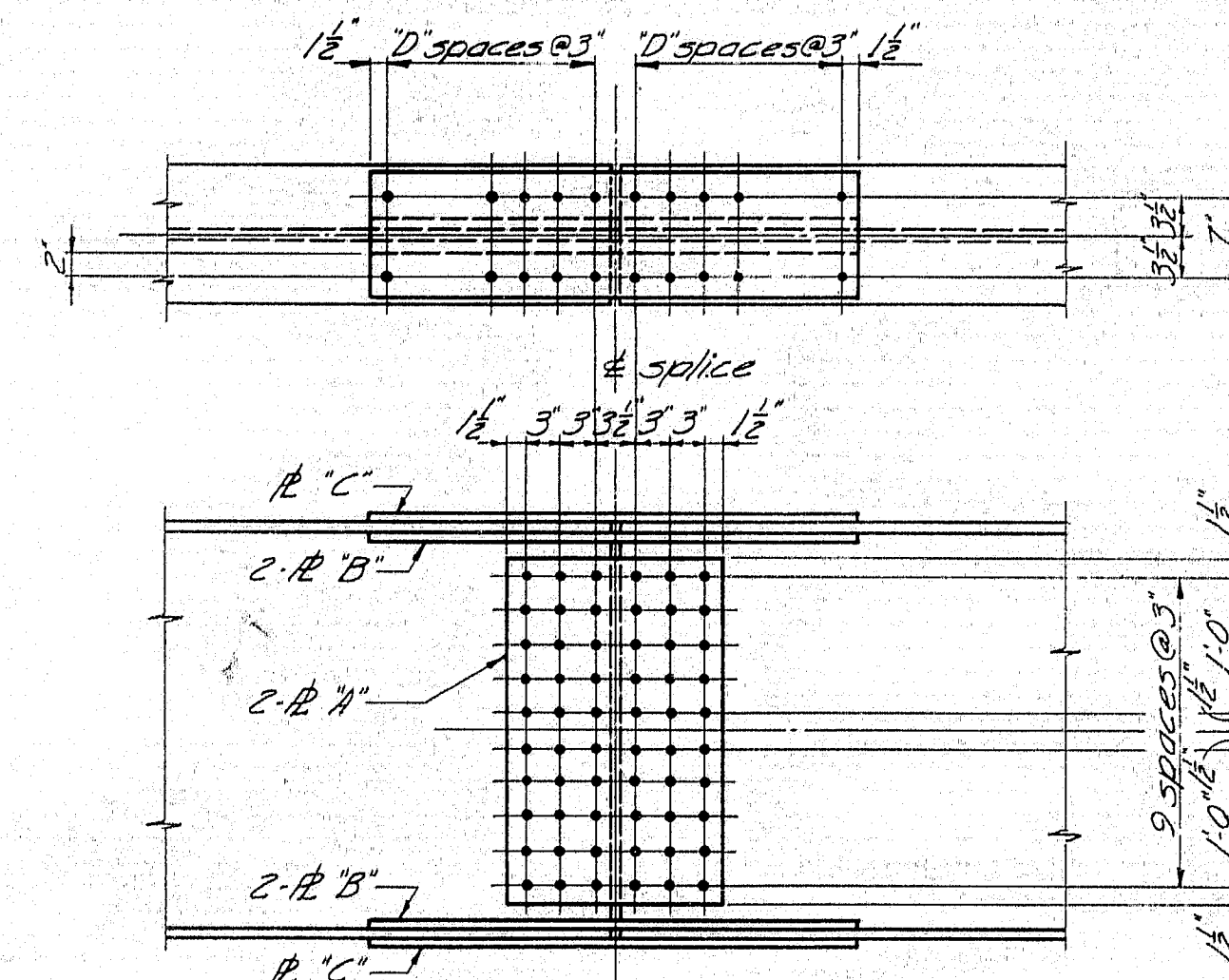
**33 WF 118, 130, 141, 152**



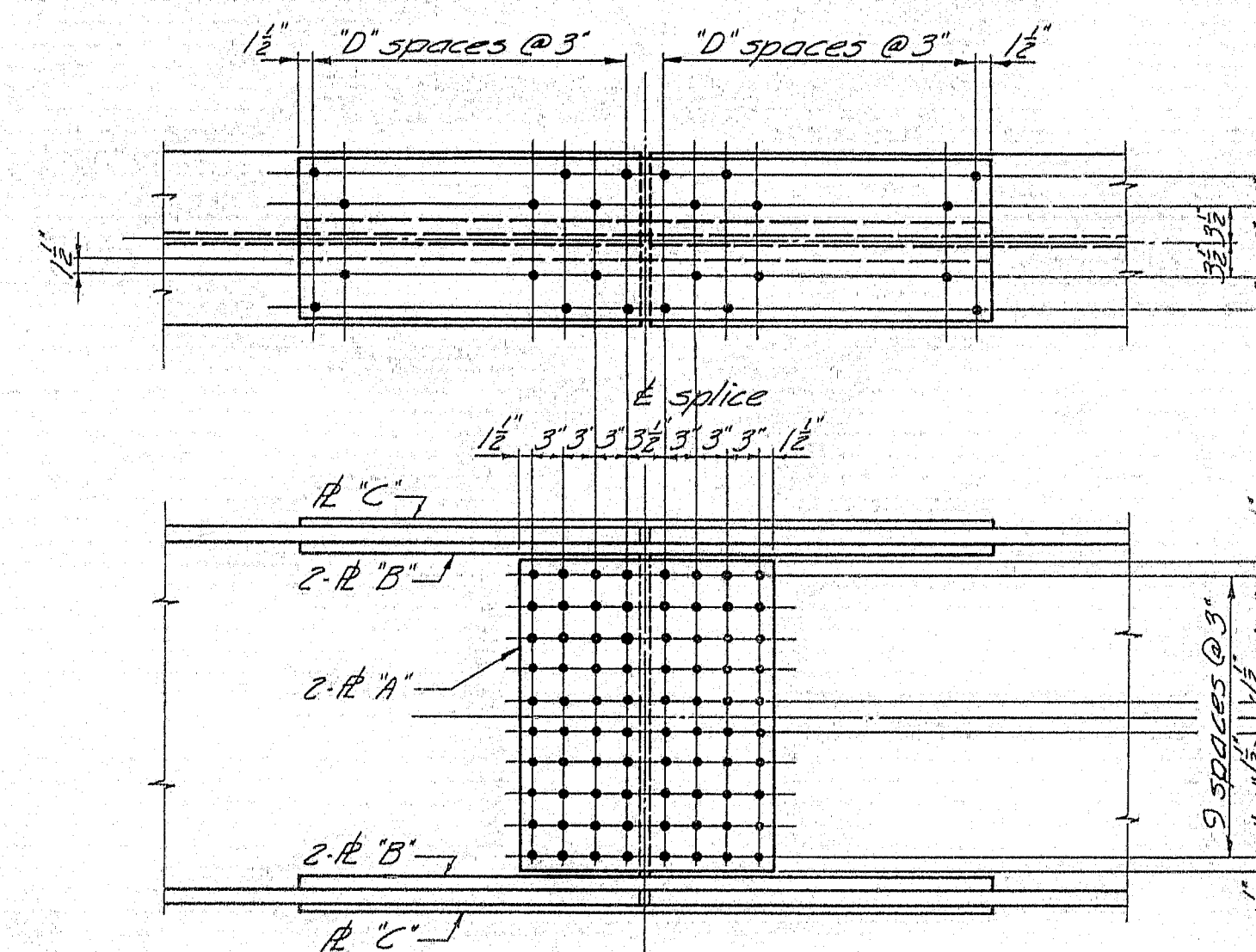
**36 WF 245, 280**



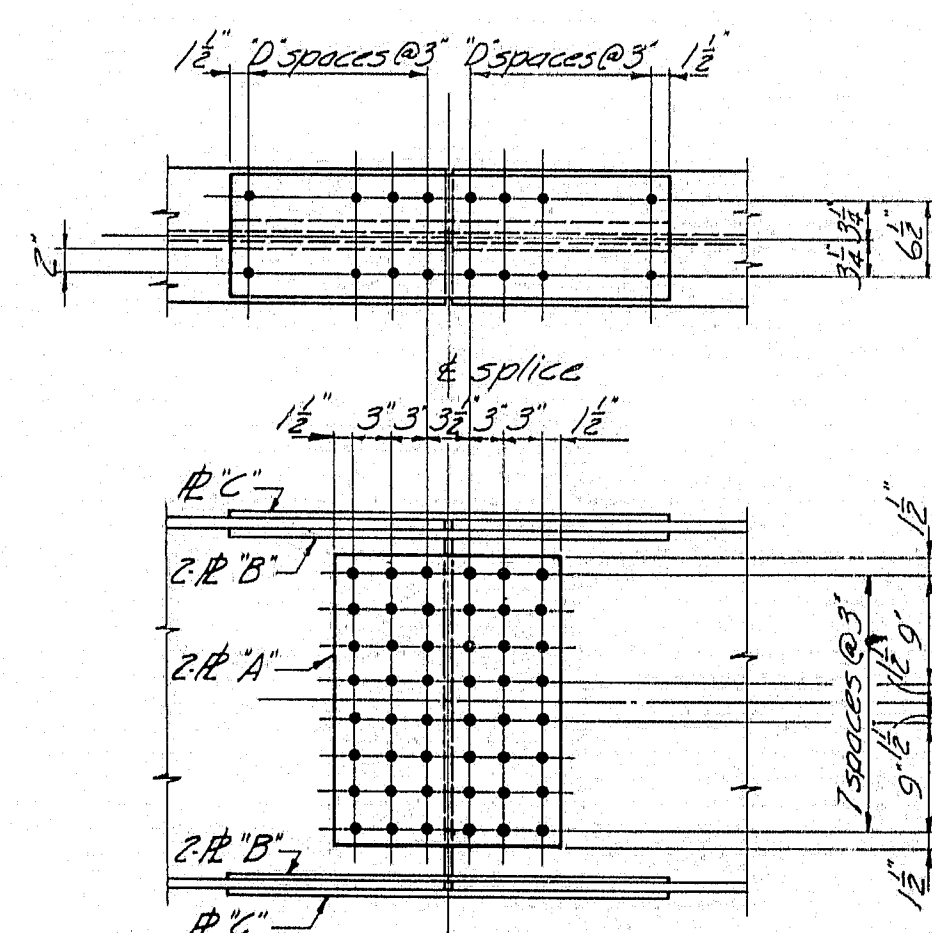
**27 WF 94, 102, 114**



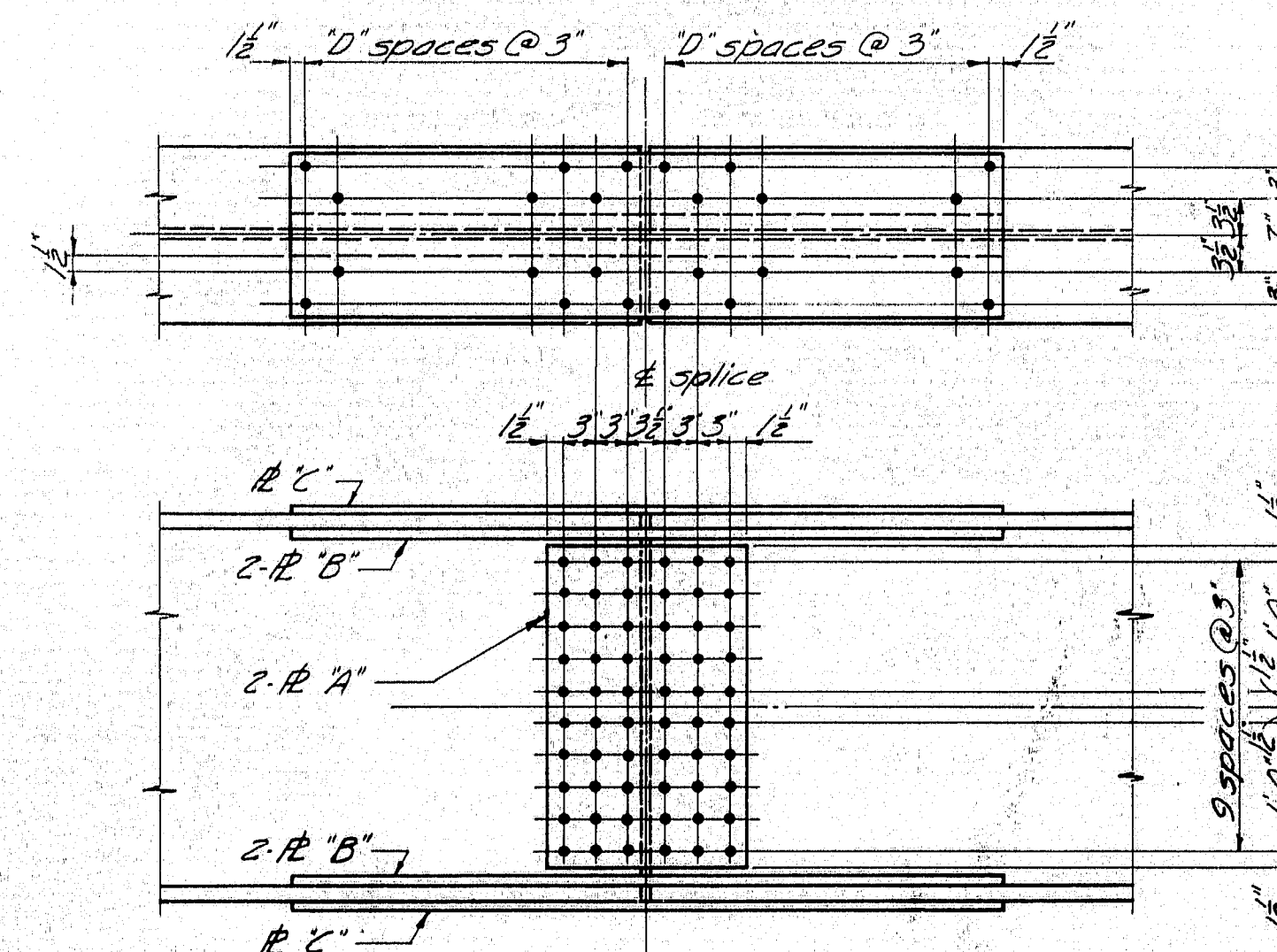
**36 WF 135, 150, 160, 170, 182, 194**



**36 WF 300**



**30 WF 99, 108, 116, 124, 132**



**36 WF 230, 260**

SPlice DESIGN, PLATES AND FLANGE HOLES							
BEAM	BEND. M.	SHEAR	PLATE "A"	PLATE "B"	PLATE "C"	"D"	
27 WF 84	3070 <sup>K</sup>	111 <sup>K</sup>	12 1/2 x 1/2	4 x 1/2	10 x 1/2	3	
27 WF 94	3520 <sup>K</sup>	119 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	3	
27 WF 102	3862 <sup>K</sup>	126 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	4	
27 WF 114	4341 <sup>K</sup>	140 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	4	
30 WF 99	3921 <sup>K</sup>	139 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	3	
30 WF 108	4360 <sup>K</sup>	147 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	4	
30 WF 116	4780 <sup>K</sup>	152 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	4	
30 WF 124	5170 <sup>K</sup>	159 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	4	
30 WF 132	5539 <sup>K</sup>	168 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	5	
33 WF 118	5287 <sup>K</sup>	164 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	4	
33 WF 130	5978 <sup>K</sup>	173 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	5	
33 WF 141	6604 <sup>K</sup>	181 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	5	
33 WF 152	7193 <sup>K</sup>	191 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	6	
36 WF 135	6473 <sup>K</sup>	191 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	4	
36 WF 150	7436 <sup>K</sup>	202 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	5	
36 WF 160	8005 <sup>K</sup>	212 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	6	
36 WF 170	8574 <sup>K</sup>	221 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	6	
36 WF 182	9204 <sup>K</sup>	237 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	7	
36 WF 194	9838 <sup>K</sup>	253 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	8	
36 WF 230	12574 <sup>K</sup>	247 <sup>K</sup>	13 1/2 x 1/2	6 x 1/2	16 x 1/2	10	
36 WF 245	13441 <sup>K</sup>	260 <sup>K</sup>	13 1/2 x 1/2	6 x 1/2	16 x 1/2	11	
36 WF 260	14330 <sup>K</sup>	276 <sup>K</sup>	13 1/2 x 1/2	6 x 1/2	16 x 1/2	12	
36 WF 280	15551 <sup>K</sup>	291 <sup>K</sup>	13 1/2 x 1/2	6 x 1/2	16 x 1/2	13	
36 WF 300	16676 <sup>K</sup>	312 <sup>K</sup>	14 1/2 x 1/2	6 x 1/2	16 x 1/2	14	

### GENERAL NOTES

1. Splice connections to be made with 5/8" high tensile strength bolts. Holes to be 1/8"  $\phi$ .
2. The design bending moment is 90% of the net resisting moment of the beam with an allowable stress of 20,000 p.s.i. The design shear is 75% of the shear strength of the gross section of the web with an allowable stress of 12,000 p.s.i.
3. If beams of different sizes are to be spliced, use splice details shown for the smaller of the beams being spliced unless otherwise directed by design details. See design details for filler thickness. Place fillers to limits of splice plates only, with no extensions.
4. See design details for slopes of beams in order to correctly fabricate bevels at the splices.

### A.S.T.M. STEEL CLASSIFICATION

High Tensile Strength Bolts..... A-325  
Splice Plates..... A-36

### DESIGN SPECIFICATIONS

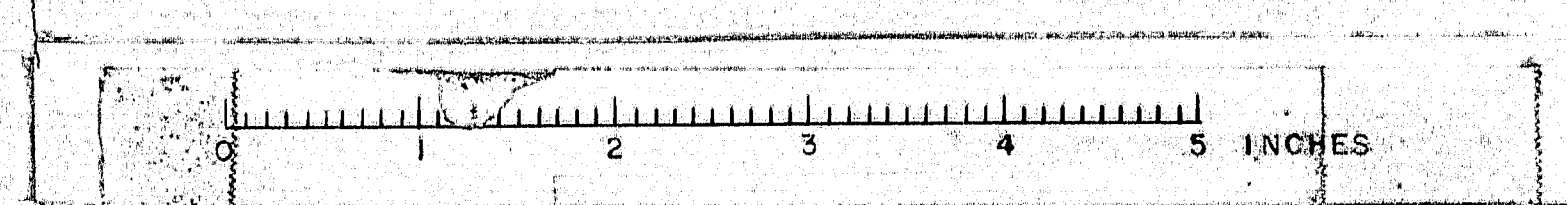
AASHTO Standard Specifications for Highway Bridges, 1961 with Interim Specifications, 1961 & 1962

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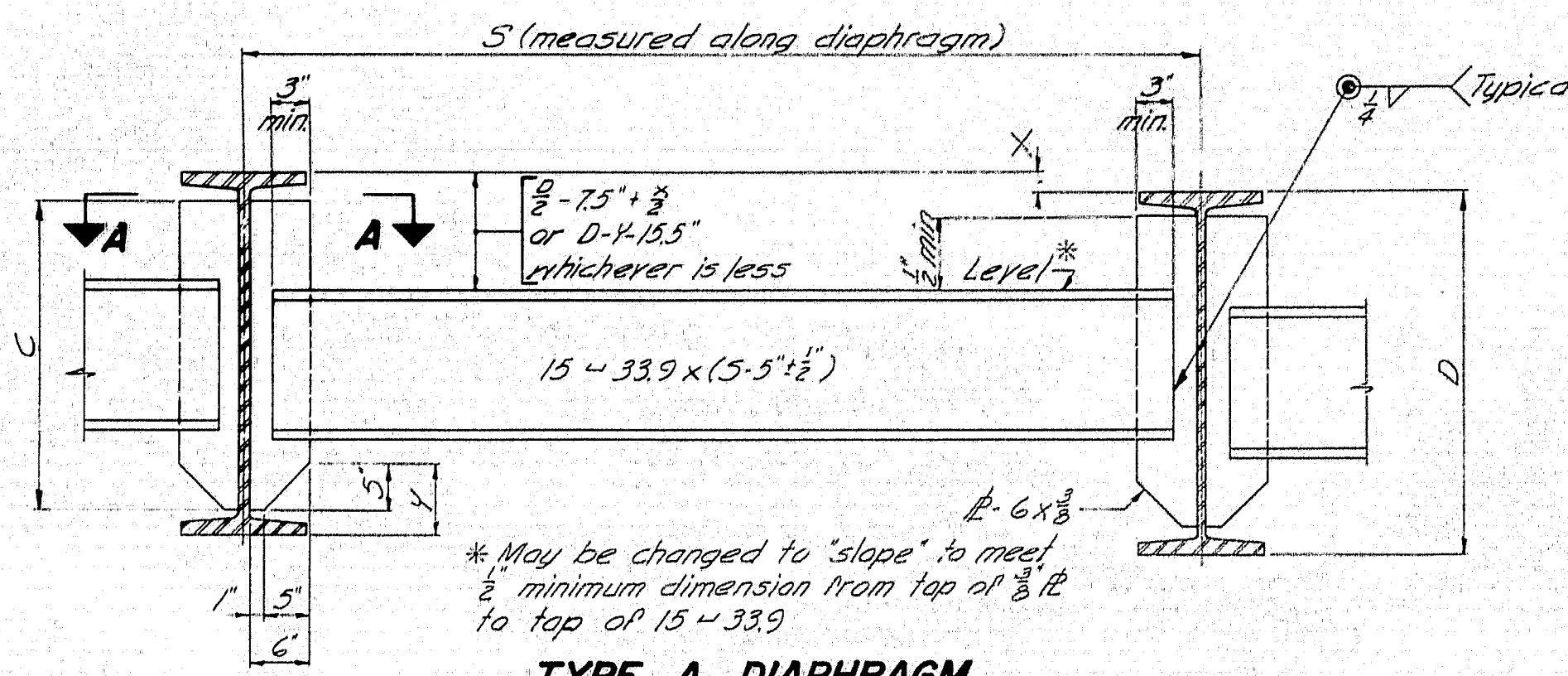
**STANDARD DETAILS**  
(BD 103-64)  
**BEAM SPLICES**

JANUARY 1964

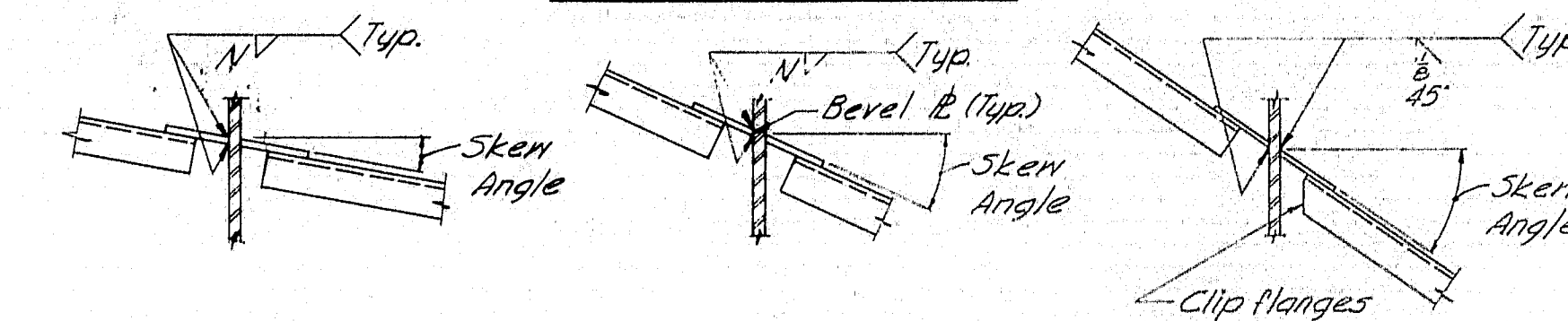
95-176







**TYPE A DIAPHRAGM**

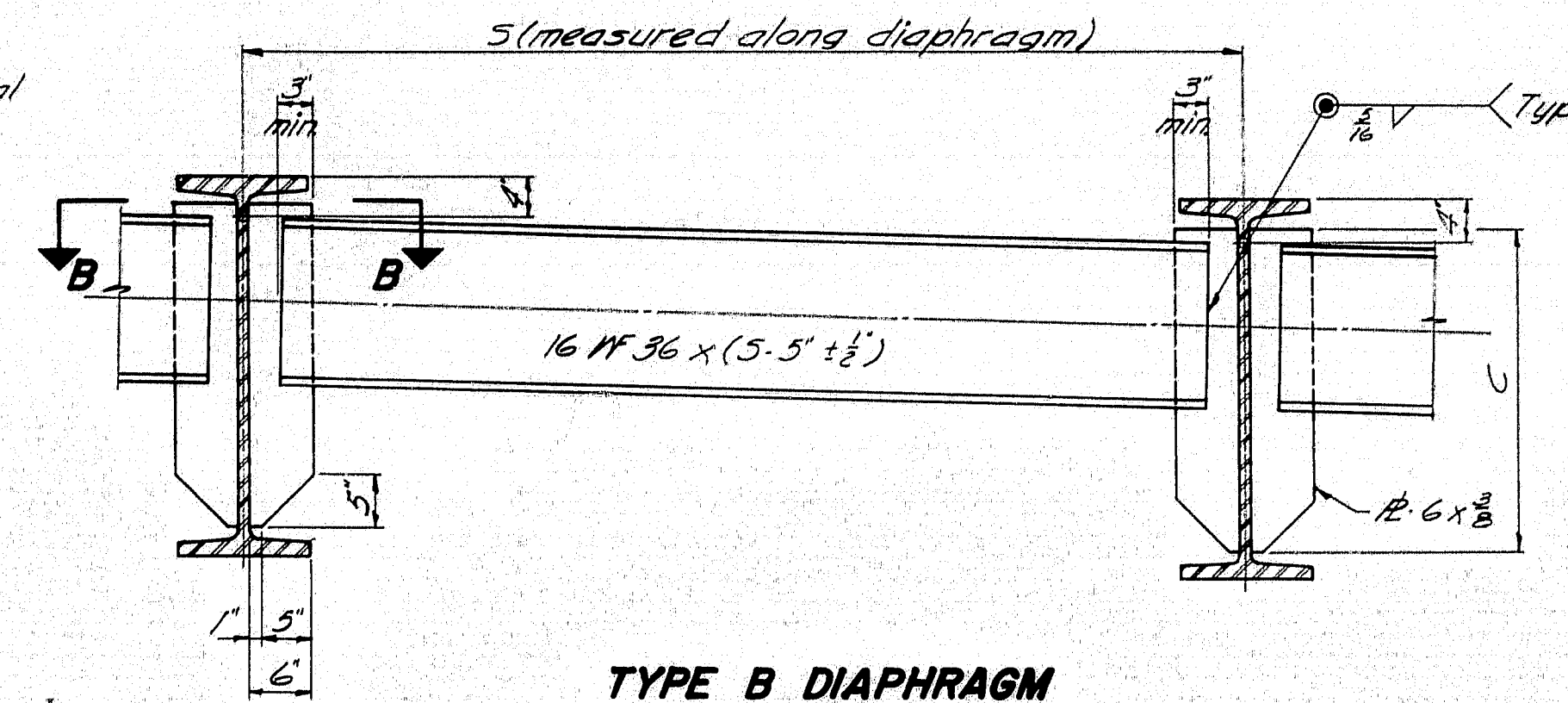


**SECTION A-A**  
Skew Angle 0° to 18°-30'

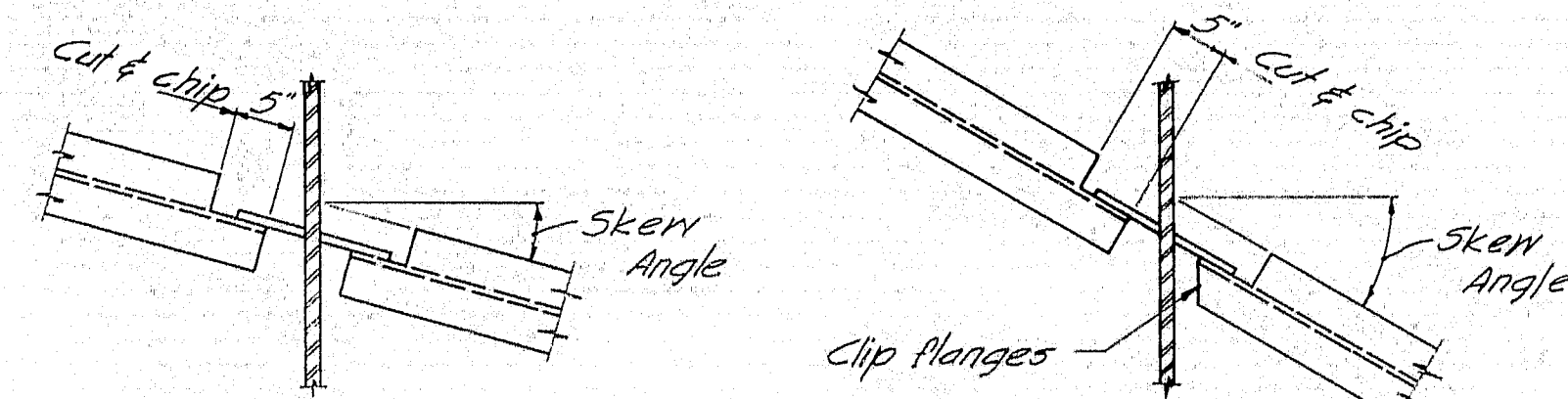
**SECTION A-A**  
Skew Angle 18°-30' to 30°-00'

**SECTION A-A**  
Skew Angle over 30°-00'

BEAM	C	N
27 WF 84 to 114 incl.	1'-11"	2'
30 WF 99 to 132 incl.	2'-2"	2'
33 WF 118 to 152 incl.	2'-5"	2'
36 WF 135 to 194 incl.	2'-7"	2'
36 WF 230 to 300 incl.	2'-6"	2'



**TYPE B DIAPHRAGM**  
Welding 6x8 plates to web same as for Type A Diaphragm.

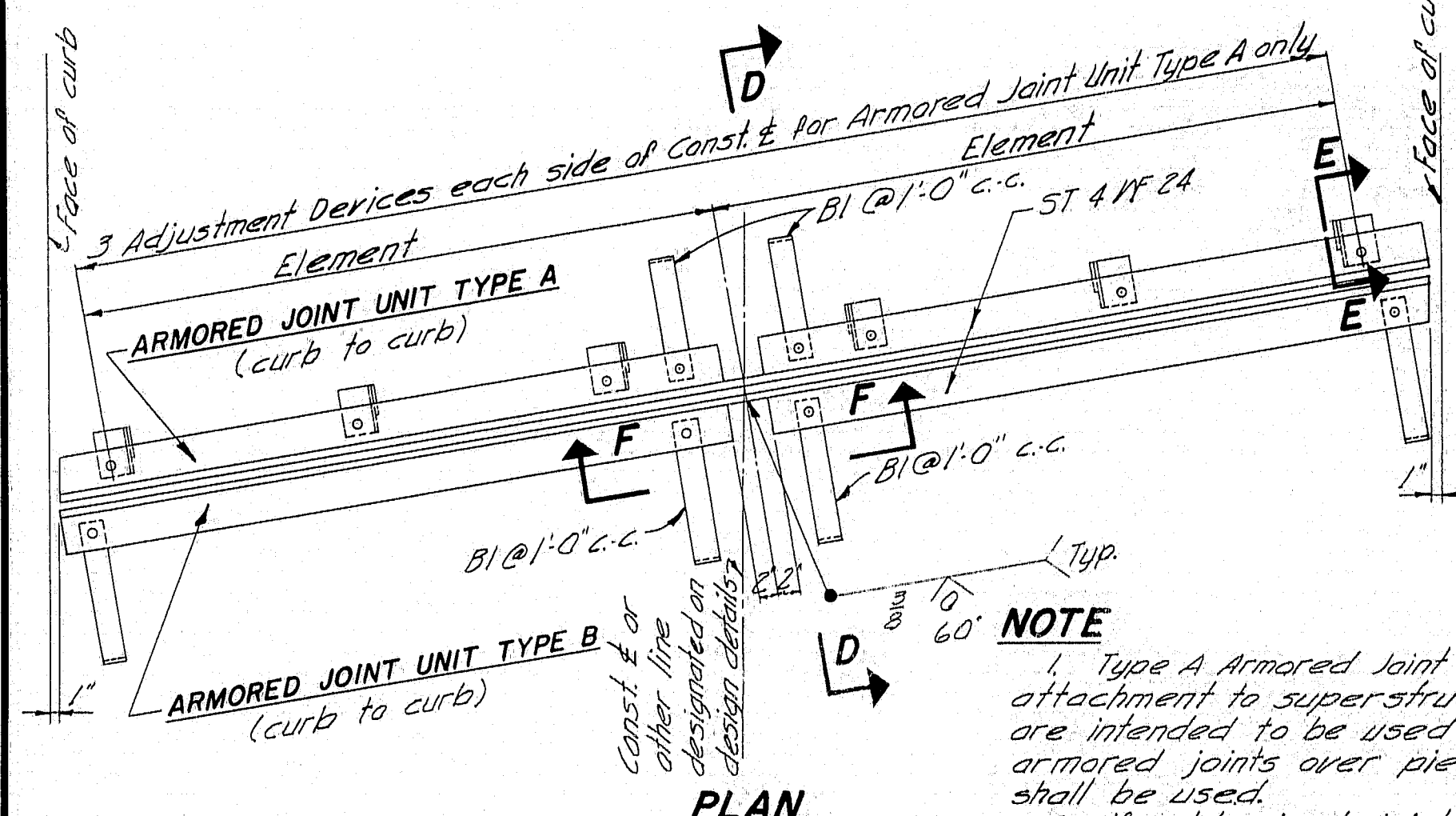


**SECTION B-B**  
Skew Angle 0° to 25°-00'

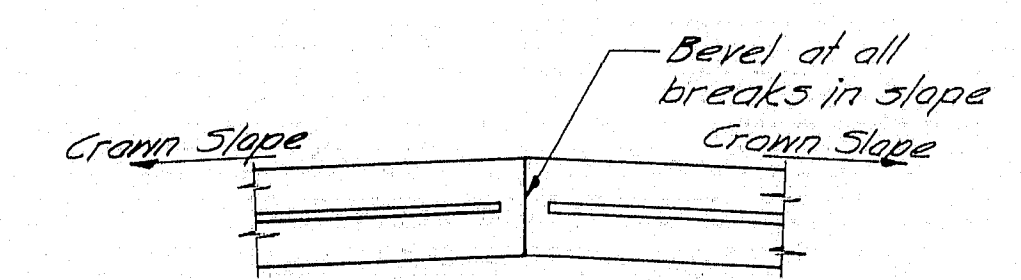
**SECTION B-B**  
Skew Angle over 25°-00'

**NOTE**  
See design details for diaphragm type, location and skew.

## DIAPHRAGMS



**PLAN**



**SECTION F-F**

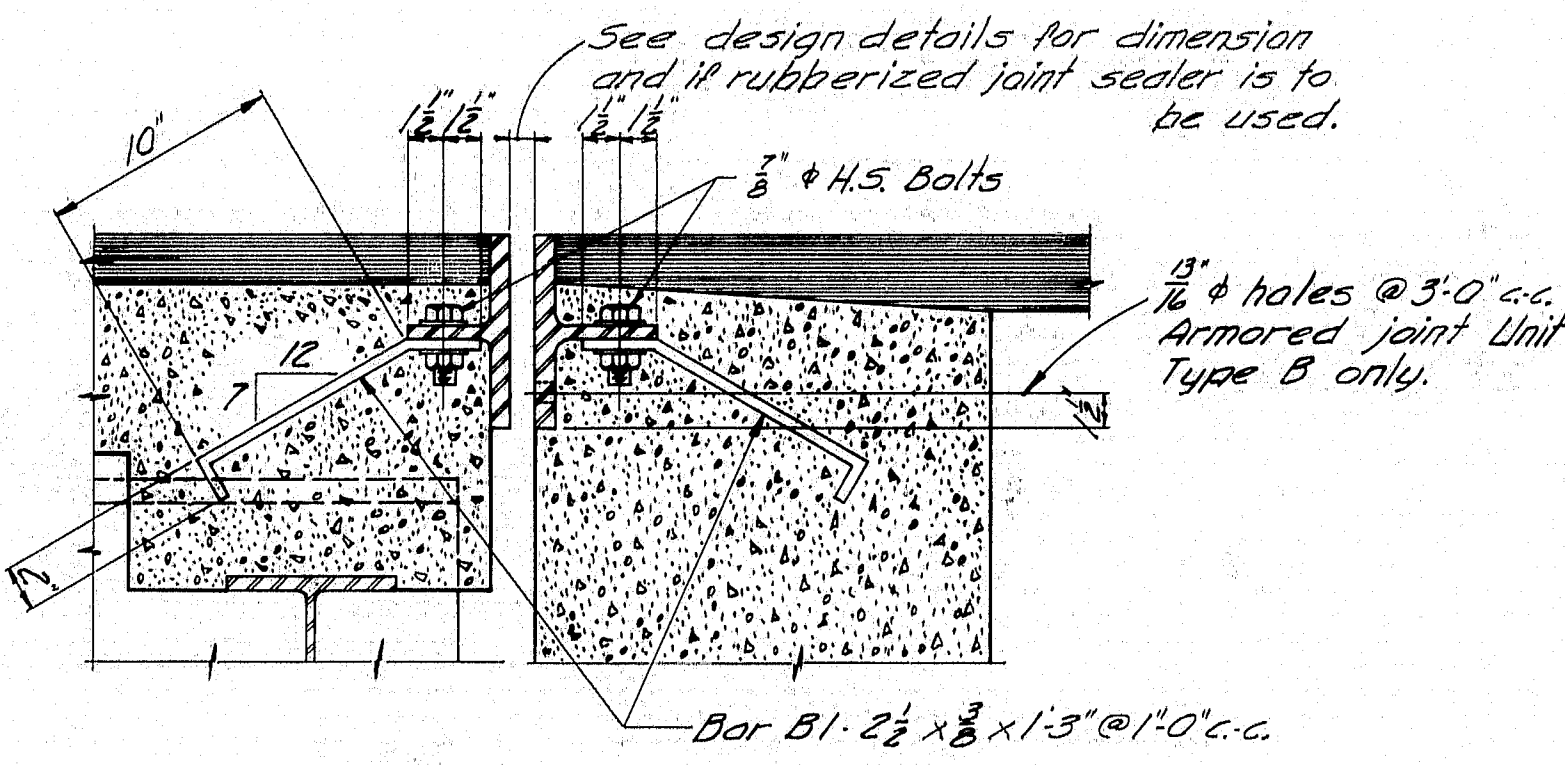
Note: See design details for Const. & to curb dimensions, skew, crown slope, slab thickness, other dimensions necessary to complete the fabrication details, and location.

## NOTE

1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over piers, two Type A Armored Joint Units shall be used.
2. If rubberized joint sealer is called for on the design details the area to which it is to be bonded shall not be painted and it shall be supported on non-bituminous material. At the Contractor's option the supporting material may be left in place or be removed. If the supporting material is left in place, it shall be compressible in accordance with specification AASHTO M 153-54. In either case bond between the supporting material and the rubberized joint sealer shall be prevented by a 1" minimum thickness of Poly-urethane foam.
3. If more elements than the two shown in the "Plan" are required by the design details, there shall be three adjustment devices for each element for Armored Joint Unit Type A and the elements of both units shall be field welded together in the same manner as shown in the "Plan".
4. Armored Joints to be paid for as Structural Steel.

## ARMORED JOINT

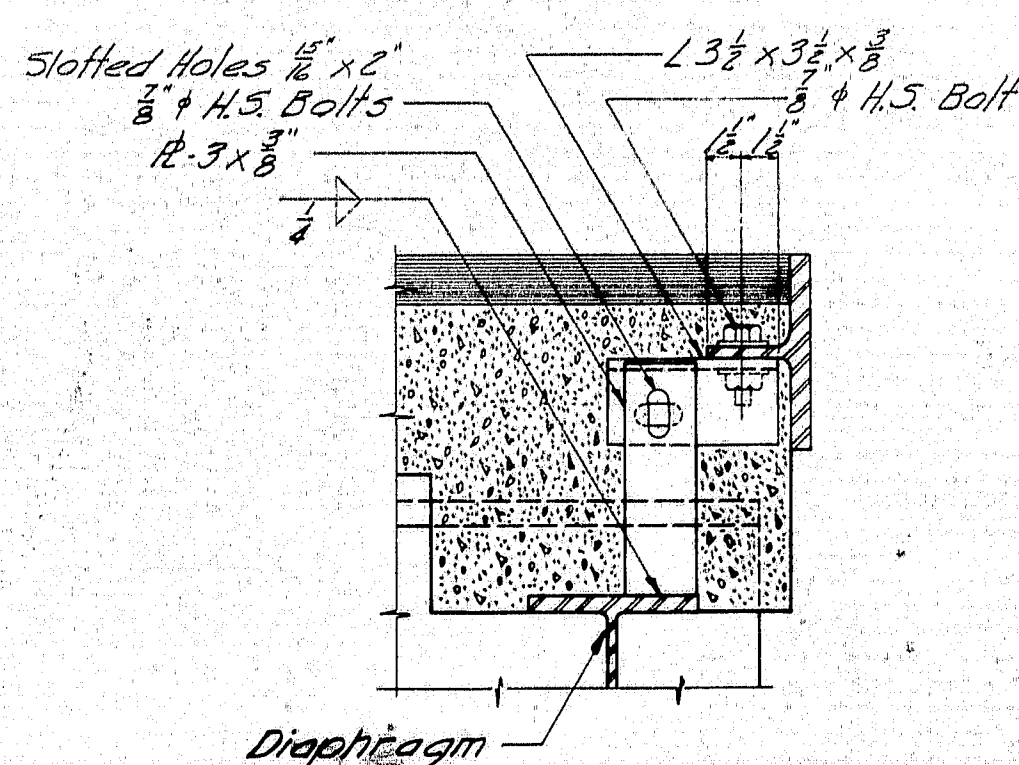
An armored joint consists of two armored joint units. See note 1.



**ARMORED JOINT UNIT TYPE A**

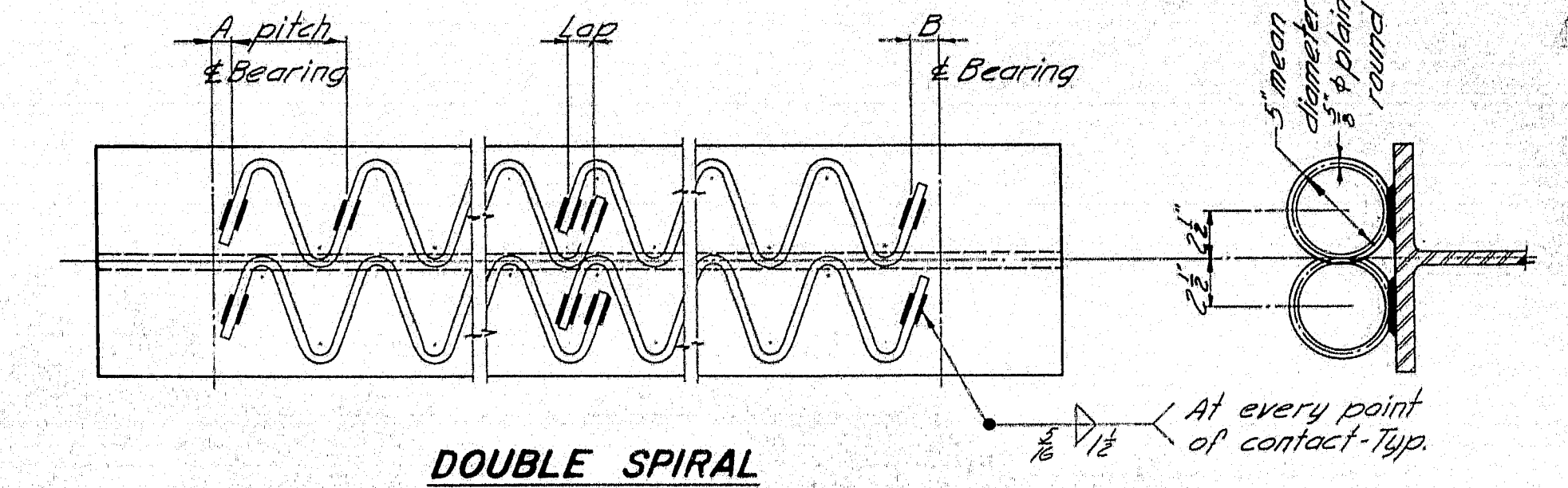
**ARMORED JOINT UNIT TYPE B**

## SECTION D-D

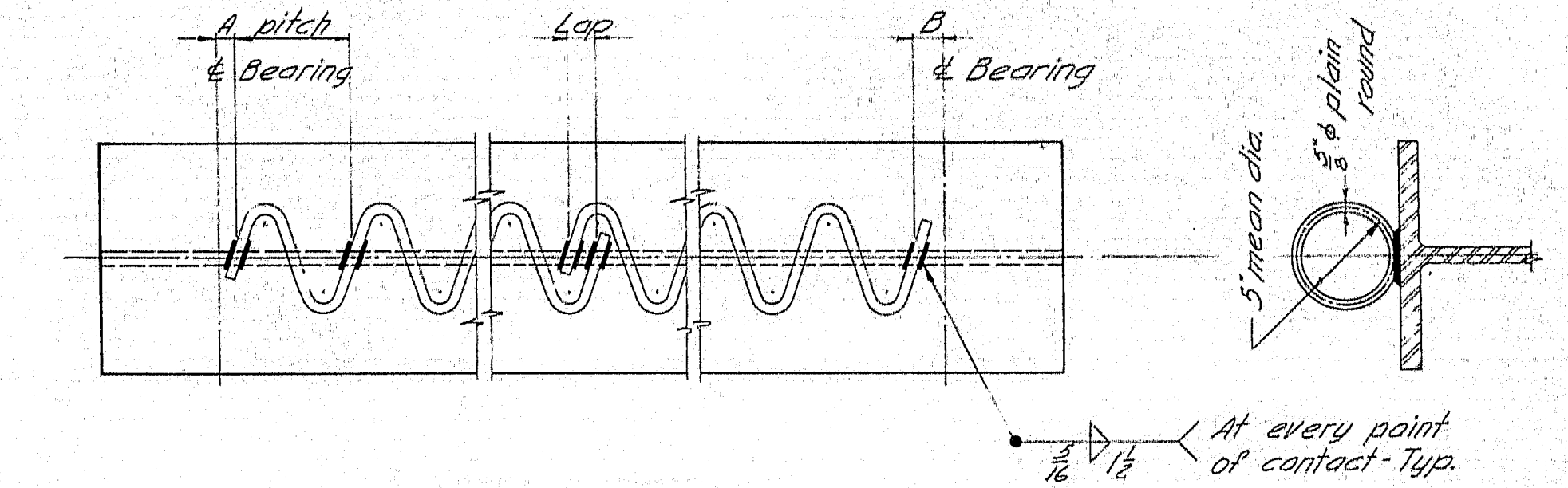


## SECTION E-E

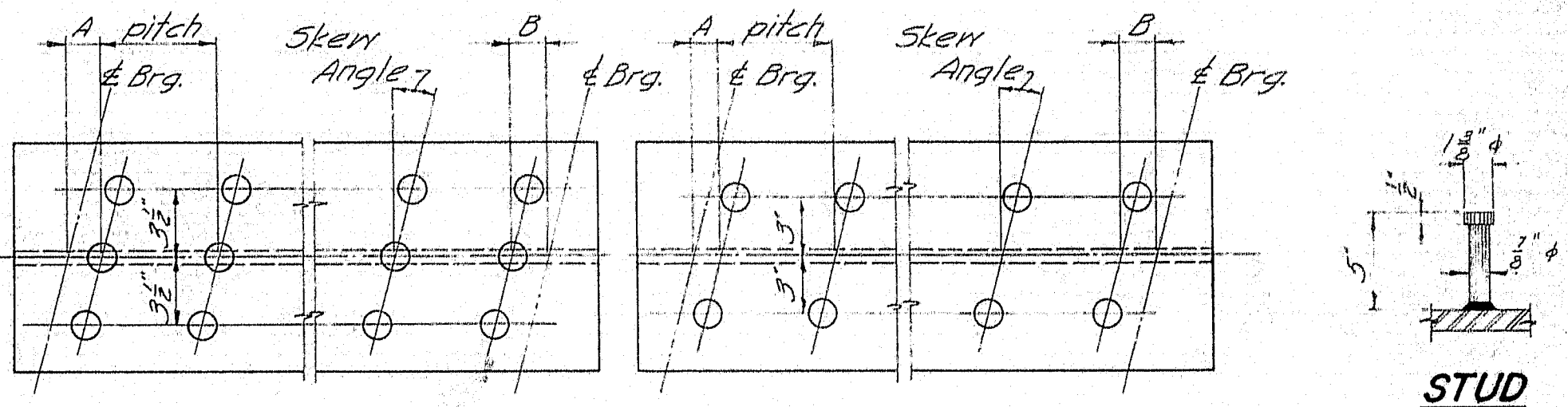
Showing Adjustment Device Armored Joint Unit Type A only - After Unit is in Final position weld 3/8" to angle with 1/2" fillet



**DOUBLE SPIRAL**



**SINGLE SPIRAL**



**TRIPLE STUDS**

**DOUBLE STUDS**

**STUD DETAIL**

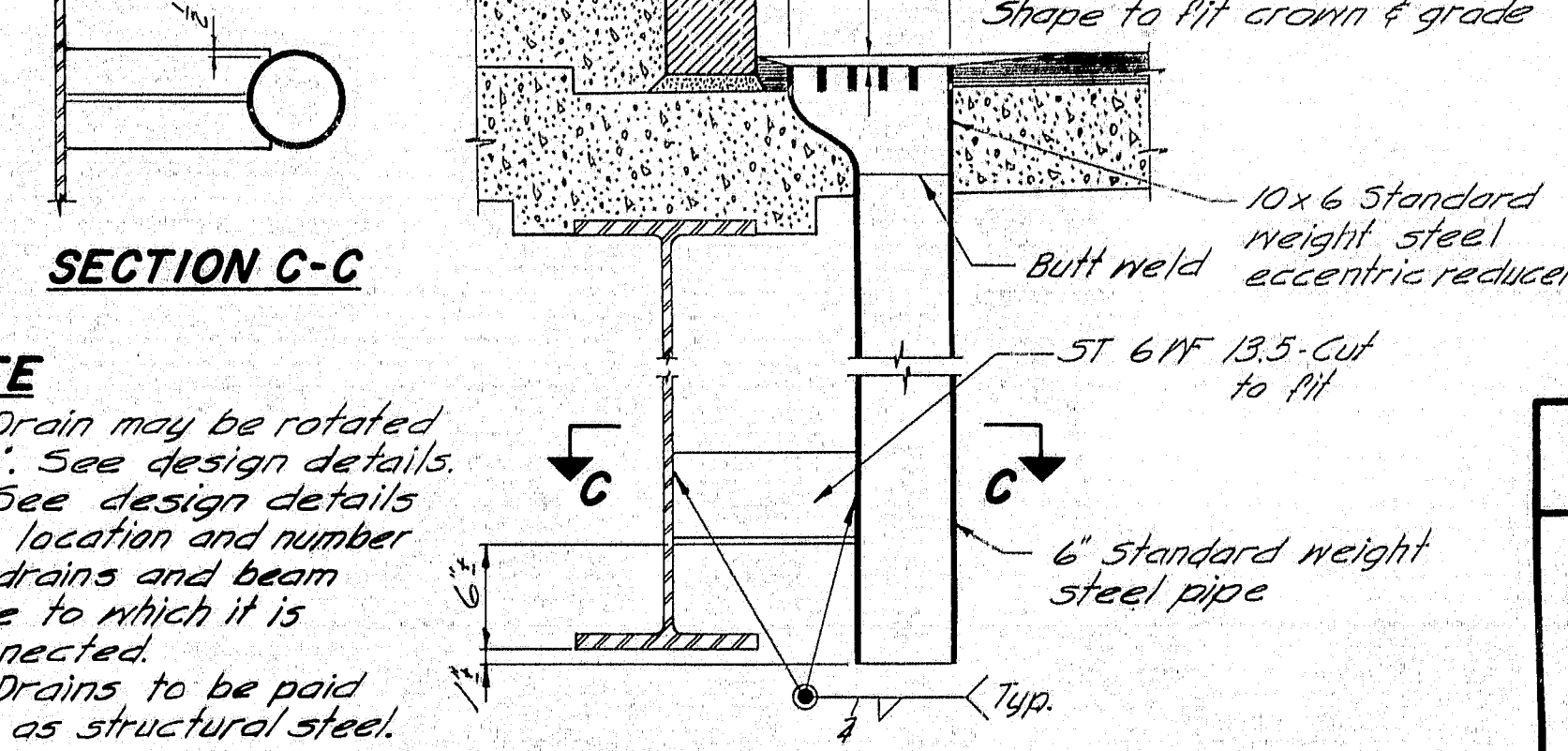
## NOTE

1. Spiral reinforcing or studs may be used at the option of the Contractor.
2. If studs are used they shall be granular or solid flux filled and automatically and welded to the top flange in the shop or field.
3. Studs are a patented product. If the Contractor elects to use them, he shall pay the royalty and payment to the contractor will be included in the lump sum price for Shear Connectors.
4. See the design details for Dimensions "A" and "B", spiral and stud pitch and Skew Angle for Studs.

## SHEAR CONNECTORS

Cut 4 holes 1/2" x 2", 1/2" from top. Do not cover with concrete or waterproofing.

## SECTION C-C



## NOTE

1. Drain may be rotated 180°. See design details.
2. See design details for location and number of drains and beam size to which it is connected.
3. Drains to be paid for as structural steel.

## DRAIN

## GENERAL NOTE

Use only those items called for on design details. In case of conflict between these Standard Details and the design details, the requirements of the design details shall be followed.

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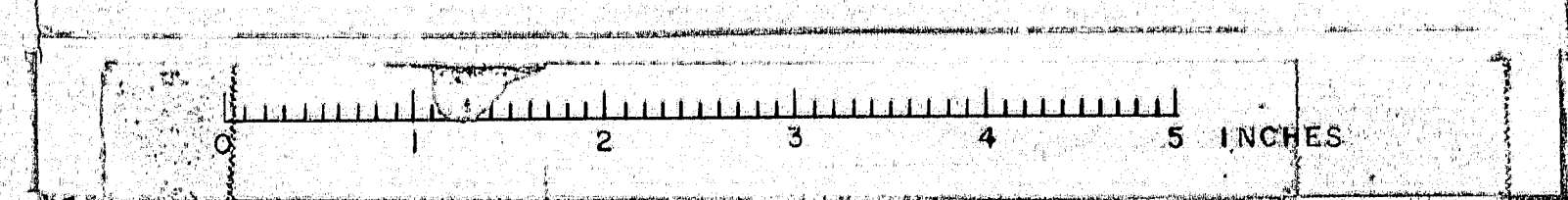
## STANDARD DETAILS

(BD 104-64)

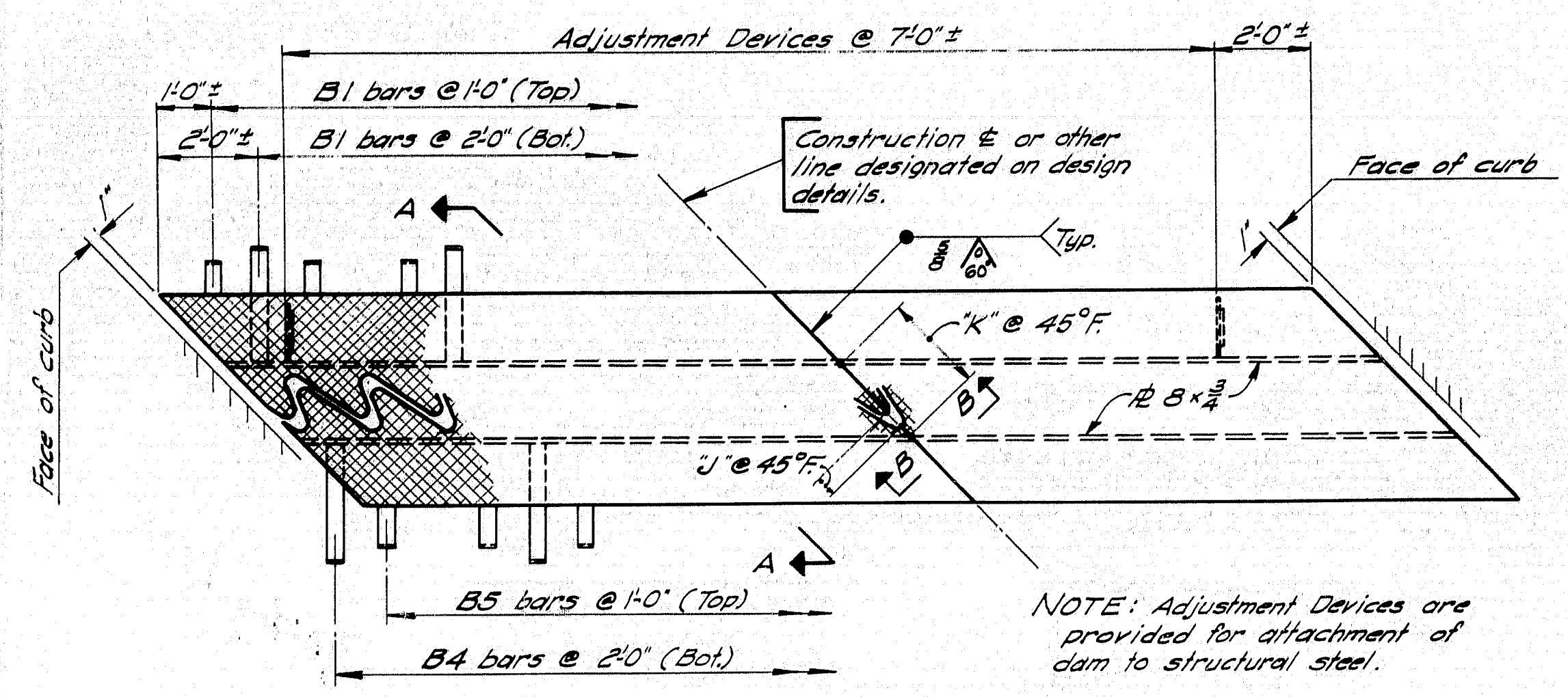
DIAPHRAGMS, ARMORED JOINT, SHEAR CONNECTORS, DRAIN

JANUARY 1964

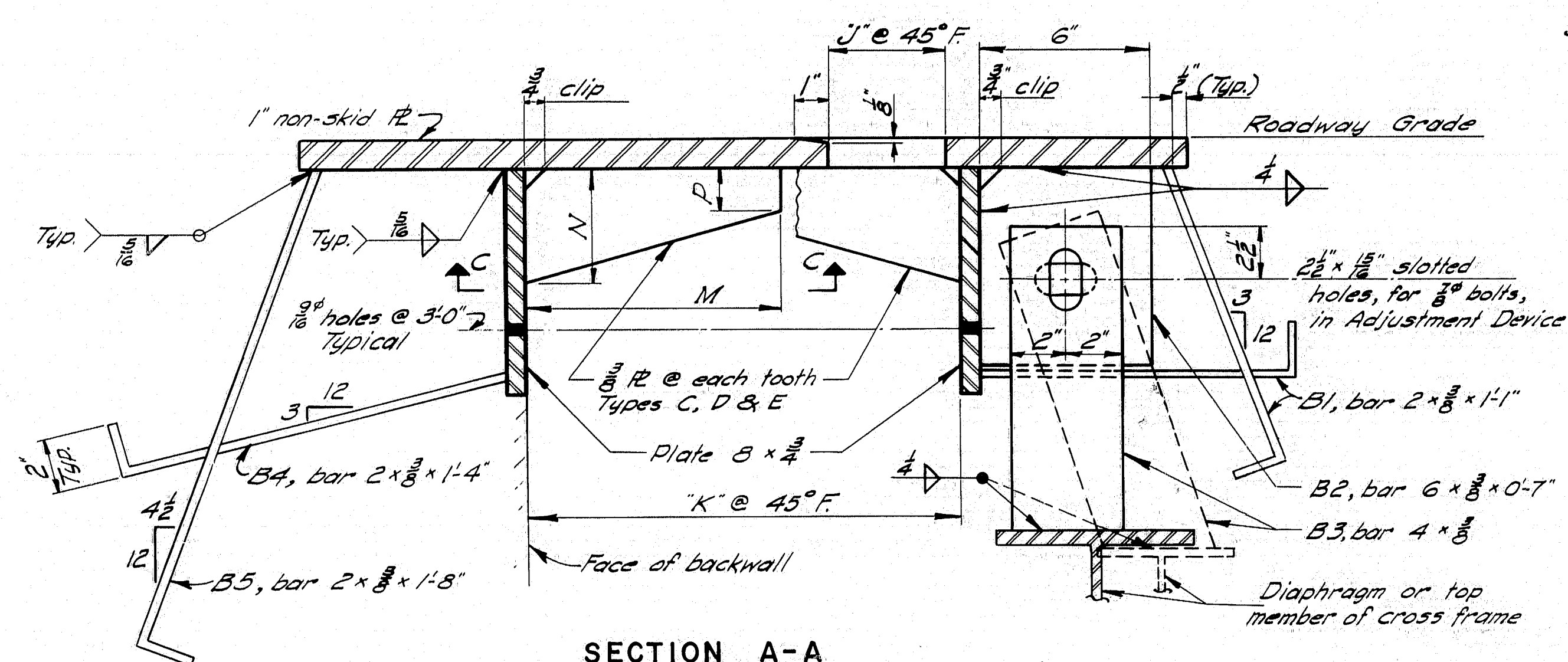
95-177





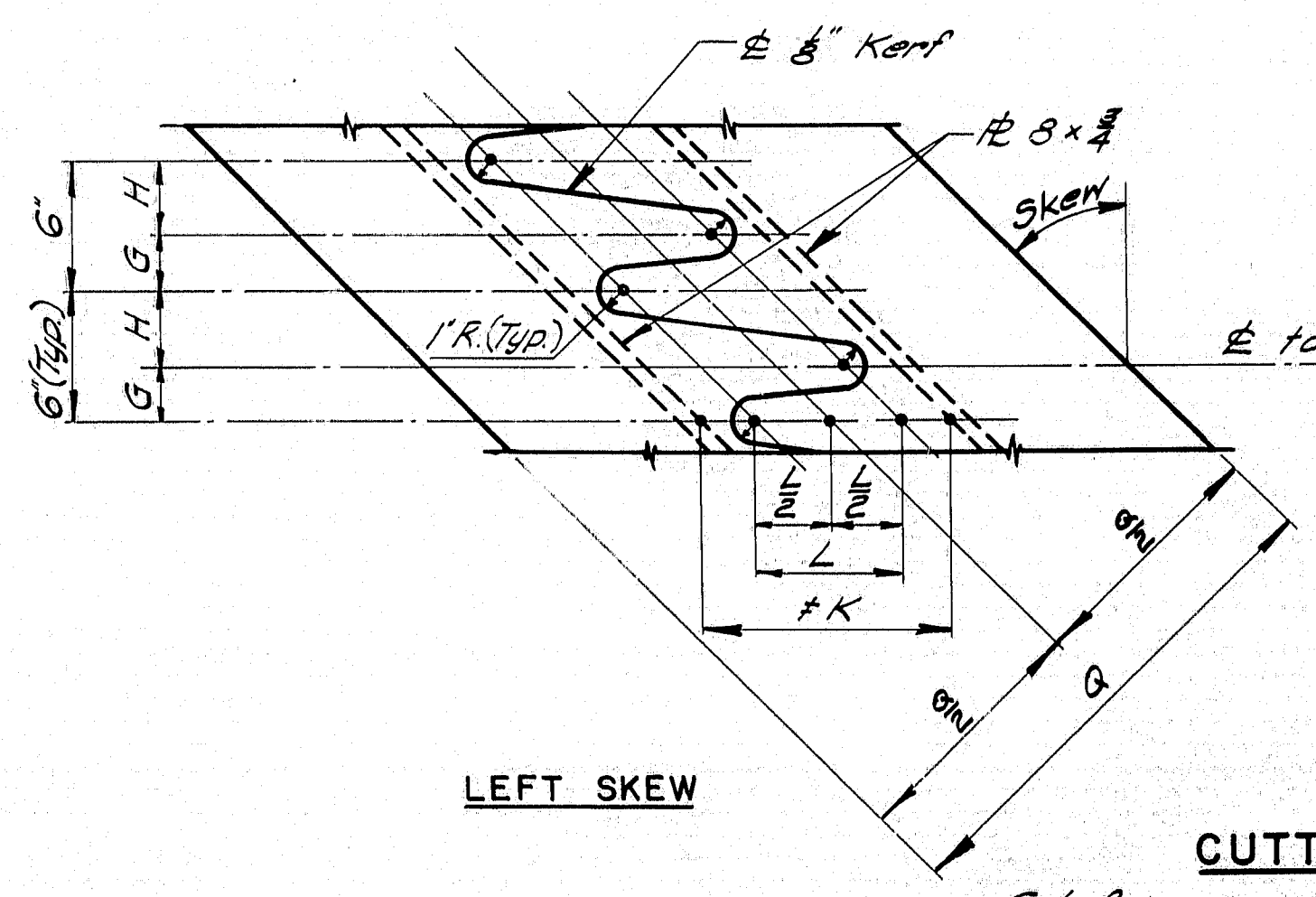


**PLAN**  
Right skew indicated

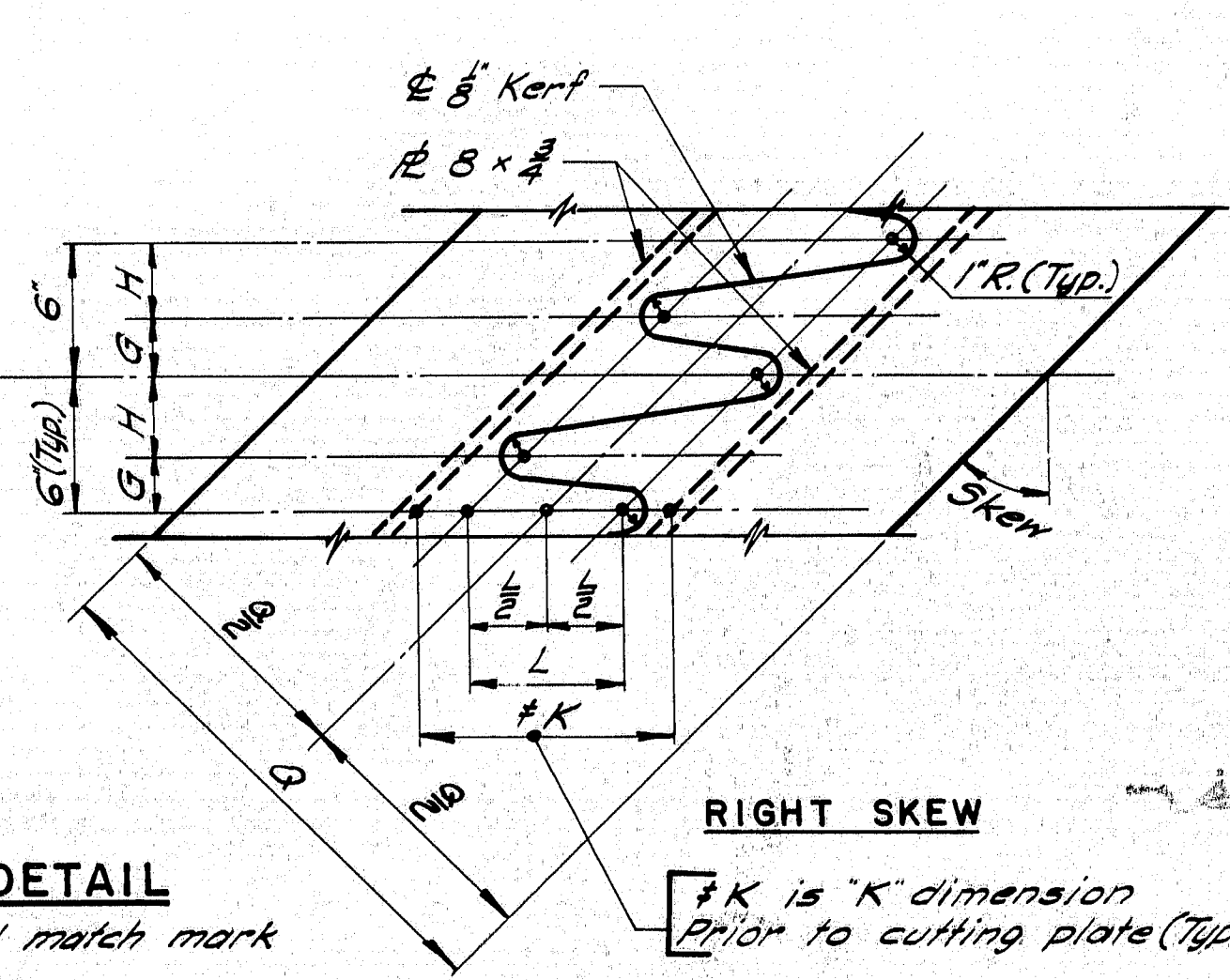


**SECTION A-A**

Bar B5 may be vertical or inclined as indicated, depending on design conditions.  
After Adjustment Device is in final position weld bars B2 to B3 with 1/4" fillet weld.

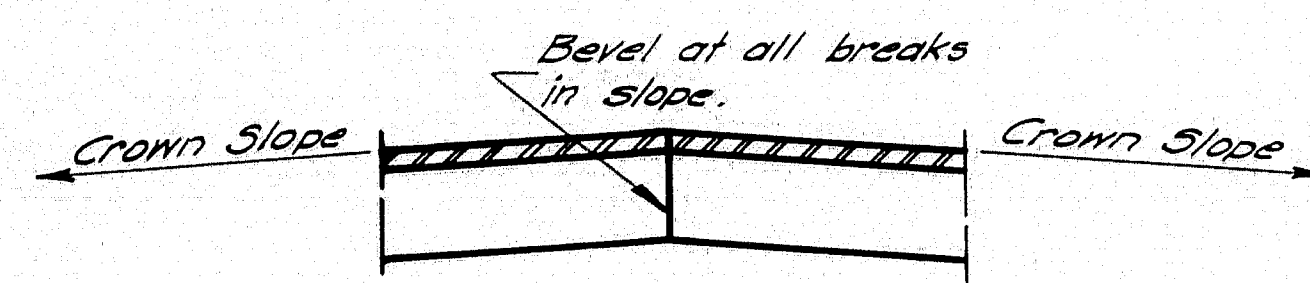


LEFT SKEW



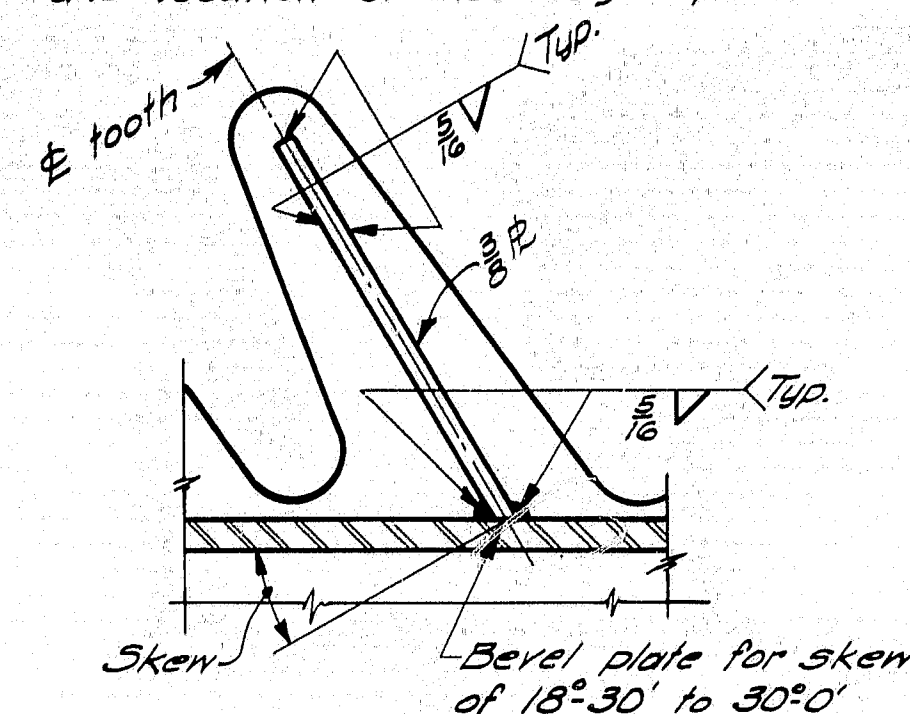
RIGHT SKEW

**ROADWAY EXPANSION DAM - DETAILS**

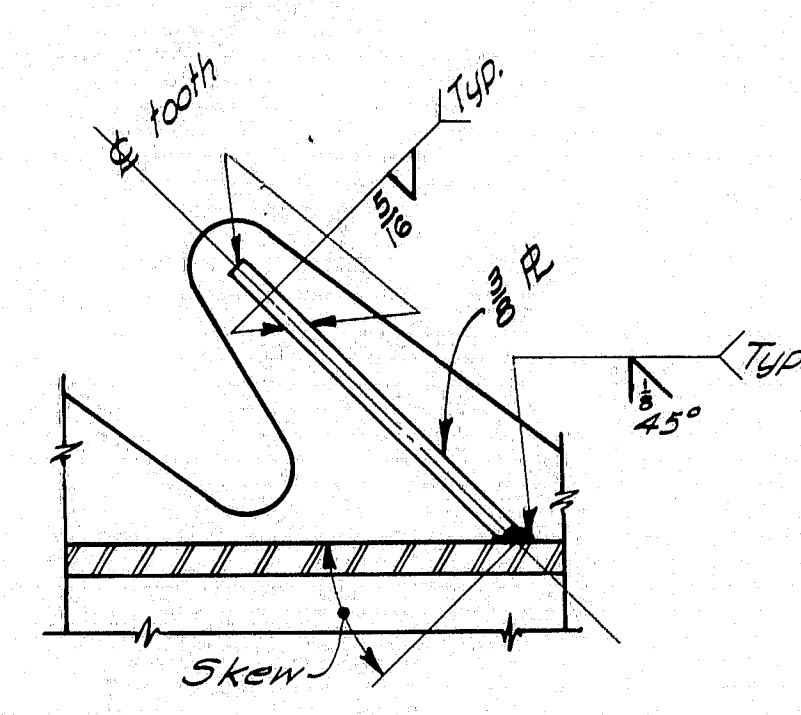


**SECTION B-B**

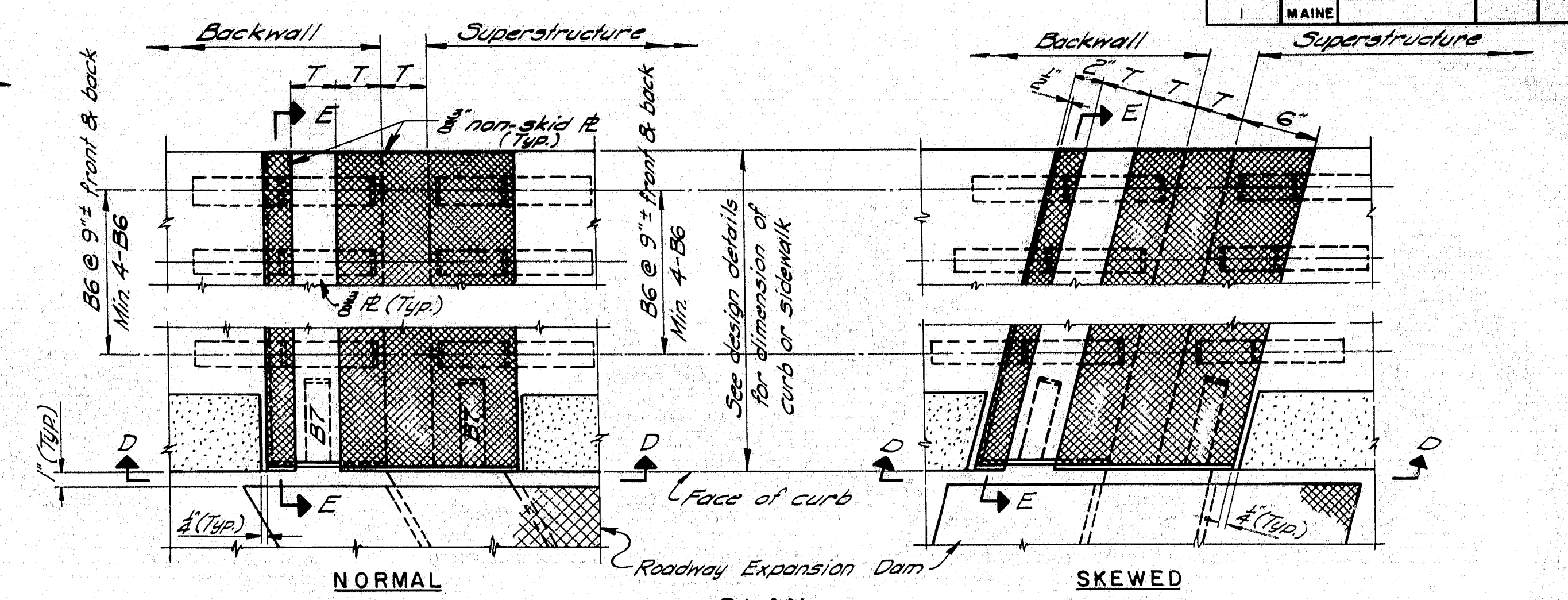
See design details for construction & to curb dimensions, skew, crown slope, slab thickness, other dimensions & angles that are necessary to complete fabrication details and location of Roadway Expansion Dam.



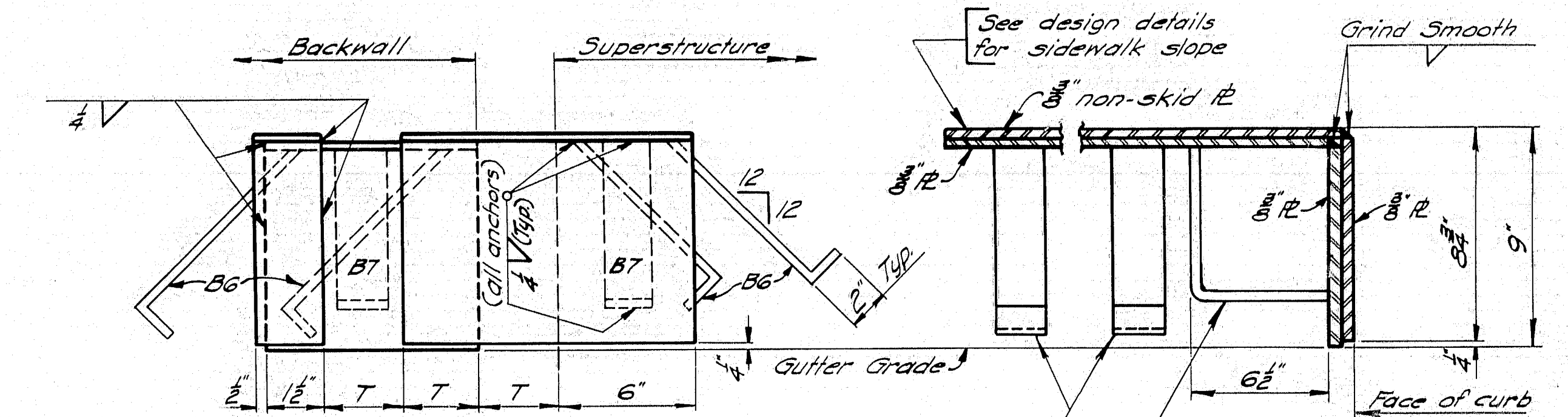
**SECTION C-C**  
Skew ~ 0° to 30°0'



**SECTION C-C**  
Skew over 30°



**PLAN**



**VIEW D-D**

**SECTION E-E**

TYPE	V	W	X	Y	Z
Exp. Length	100'-280'	280'-440'	440'-600'	600'-760'	760'-920'
T	3"	4"	5"	6"	7"

**CURB AND SIDEWALK EXPANSION DAM - DETAILS**

TABLE OF DIMENSIONS												
Type	Exp. Length	Skew	#K	L	G	H	K@45°	Ve45°	M	N	P	Q
A	100'-280'	0°-5° incl.	7"	4"	3"	3"	9"	28"	—	—	—	21"
		5°-10°	7 1/2"	4 1/2"	3 1/2"	3 1/2"	9 1/2"	28 1/2"	—	—	—	22"
		10°-20°	8"	4 1/2"	3 1/2"	3 1/2"	10"	28 1/2"	—	—	—	22"
		20°-30°	8 1/2"	5"	3 1/2"	3 1/2"	10 1/2"	28 1/2"	—	—	—	23"
		30°-40°	9"	5 1/2"	3 1/2"	3 1/2"	11"	28 1/2"	—	—	—	23"
B	280'-440'	0°-5° incl.	9"	6"	3"	3"	12"	38"	—	—	—	23"
		5°-10°	9 1/2"	6 1/2"	3 1/2"	3 1/2"	12 1/2"	38 1/2"	—	—	—	24"
		10°-20°	10"	6 1/2"	3 1/2"	3 1/2"	13"	38 1/2"	—	—	—	24"
		20°-30°	10 1/2"	7"	3 1/2"	3 1/2"	13 1/2"	38 1/2"	—	—	—	25"
		30°-40°	11"	7 1/2"	3 1/2"	3 1/2"	14"	38 1/2"	—	—	—	25"
C	440'-600'	0°-5° incl.	11 1/2"	8 1/2"	3"	3"	13 1/2"	48"	9"	4"	16"	26"
		5°-10°	12"	8 1/2"	3 1/2"	3 1/2"	14"	48"	10"	4"	16"	26"
		10°-20°	12 1/2"	9"	3 1/2"	3 1/2"	14 1/2"	48"	11"	4"	16"	26"
		20°-30°	13"	9 1/2"	3 1/2"	3 1/2"	15"	48"	12"	4"	16"	26"
		30°-40°	13 1/2"	10"	3 1/2"	3 1/2"	15 1/2"	48"	13"	4"	16"	26"
D	600'-760'	0°-5° incl.	13 1/2"	10 1/2"	3"	3"	15 1/2"	58"	11"	5"	2"	30"
		5°-10°	14"	10 1/2"	3 1/2"	3 1/2"	16"	58"	12"	5"	2"	30"
		10°-20°	14 1/2"	11"	3 1/2"	3 1/2"	16 1/2"	58"	13"	5"	2"	30"
		20°-30°	15"	11 1/2"	3 1/2"	3 1/2"	17"	58"	14"	5"	2"	30"
		30°-40°	15 1/2"	12"	3 1/2"	3 1/2"	17 1/2"	58"	15"	5"	2"	30"
E	760'-920'	0°-5° incl.	15 1/2"	12 1/2"	3"	3"	17 1/2"	68"	13"	6"	2 1/2"	36"
		5°-10°	16"	12 1/2"	3 1/2"	3 1/2"	18"	68"	14"	6"	2 1/2"	36"
		10°-20°	16 1/2"	13"	3 1/2"	3 1/2"	18 1/2"	68"	15"	6"	2 1/2"	36"
		20°-30°	17"	13 1/2"	3 1/2"	3 1/2"	19"	68"	16"	6"	2 1/2"	36"
		30°-40°	17 1/2"	14"	3 1/2"	3 1/2"	19 1/2"	68"	17"	6"	2 1/2"	36"

**GENERAL NOTES**

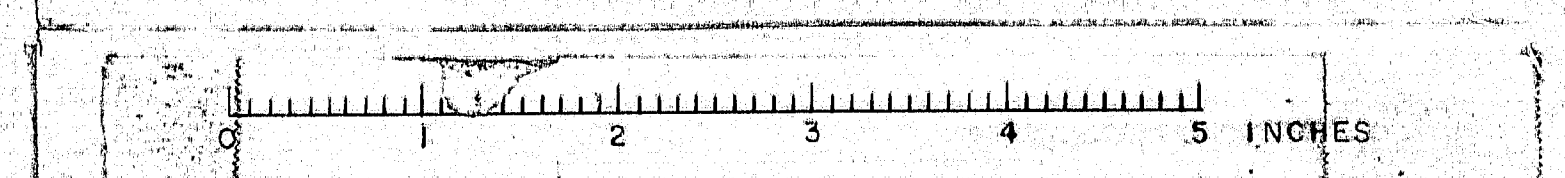
Expansion Dams to be paid for as Structural Steel.  
If there is conflict between this Standard Detail and the design details, the requirements of the design details shall be followed.  
Steel Classification: A.S.T.M. A36

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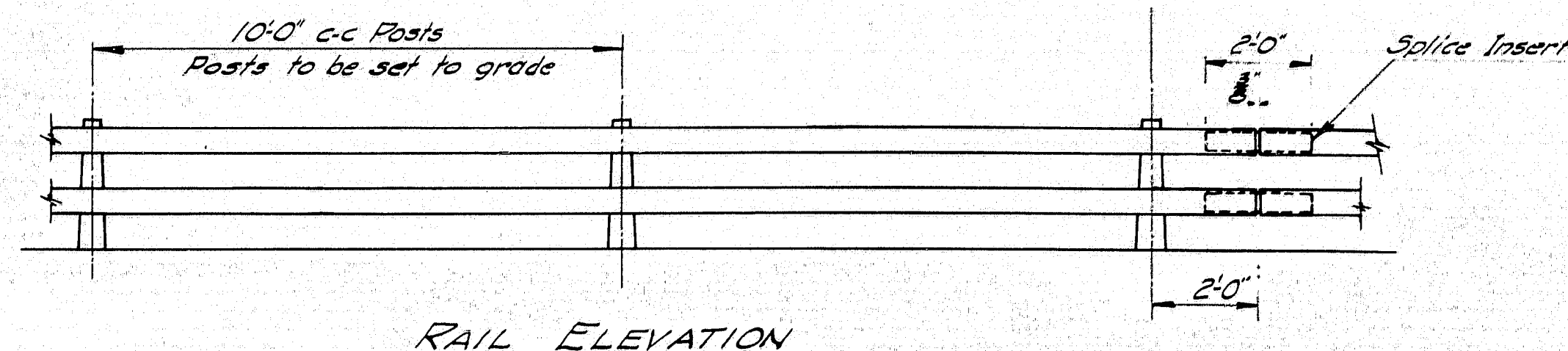
**STANDARD DETAILS**  
(BD 105 - 64)

**EXPANSION DAMS**

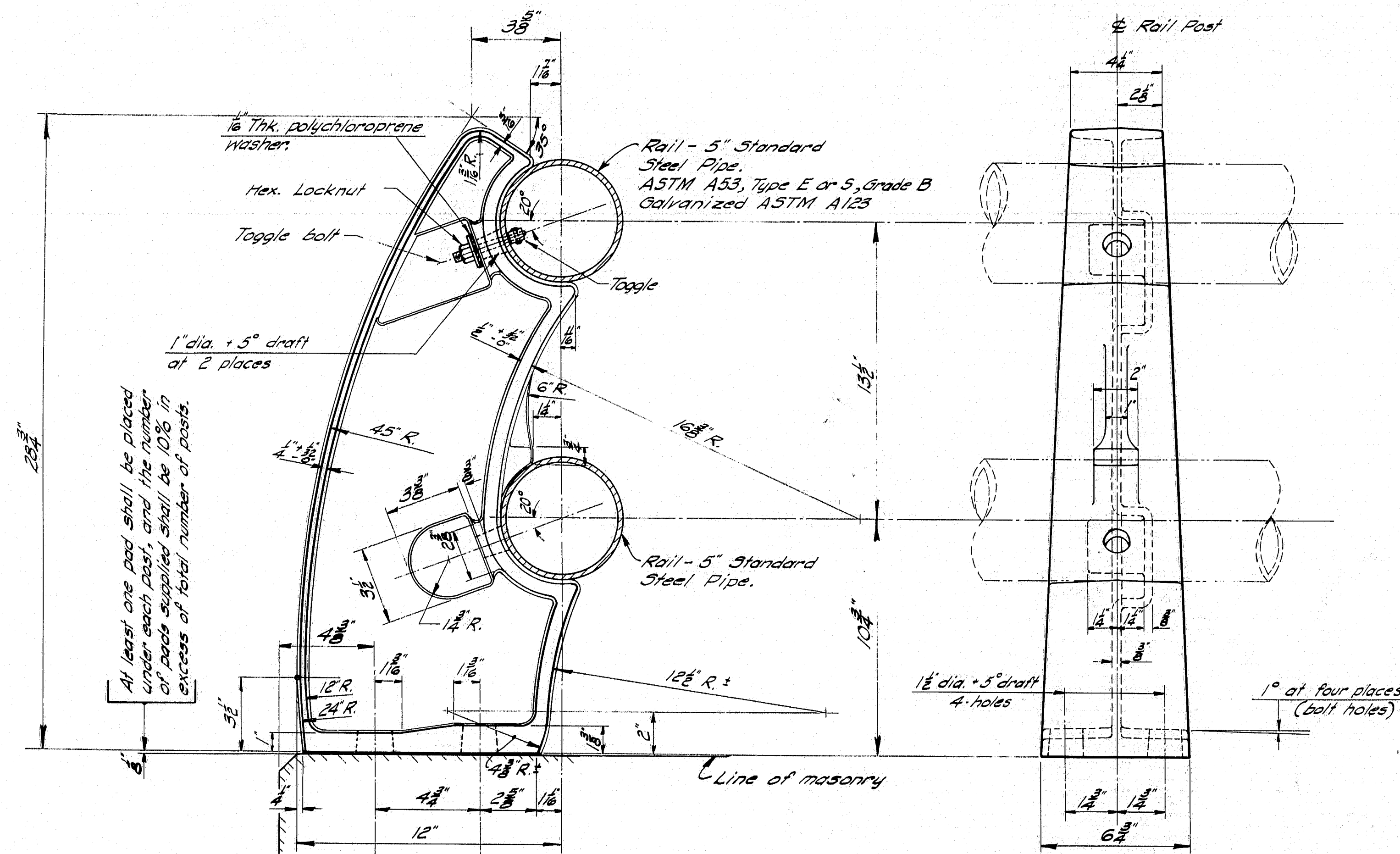
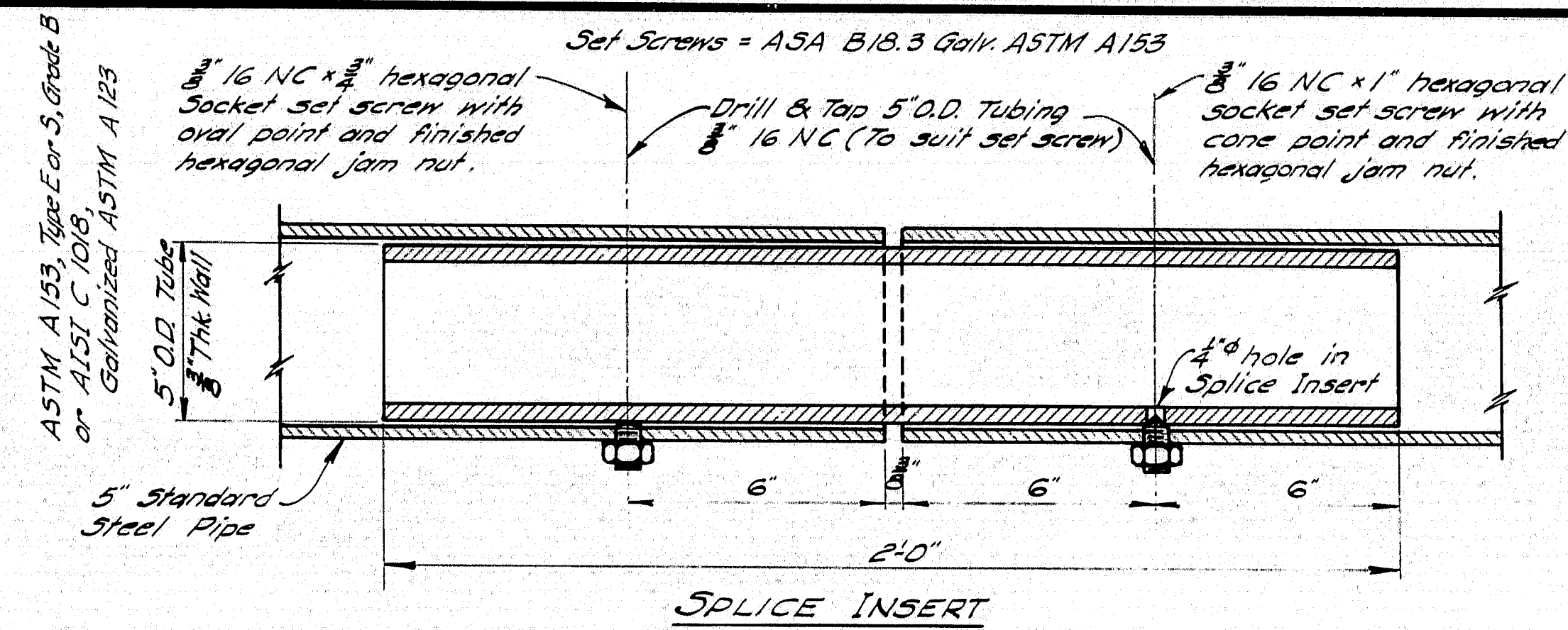
APRIL 1964



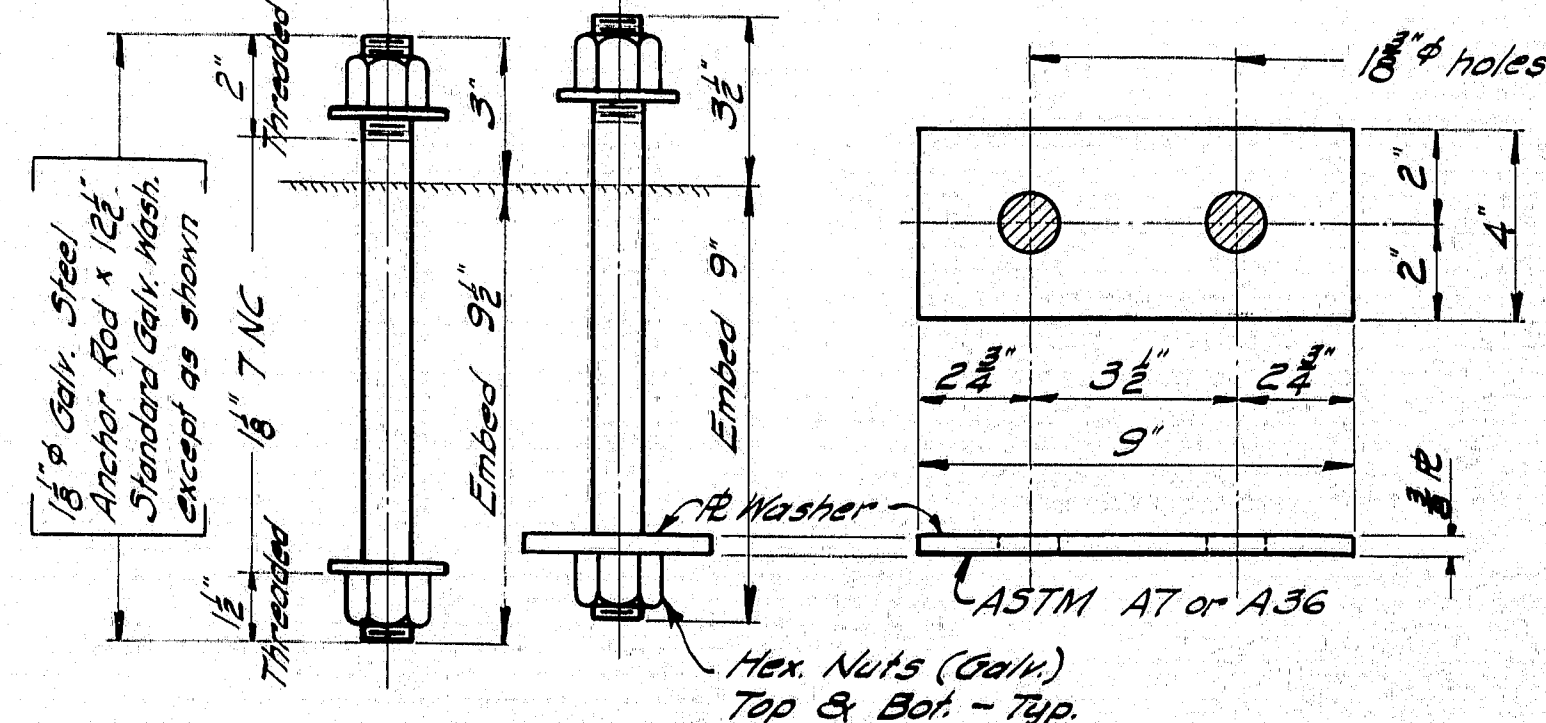




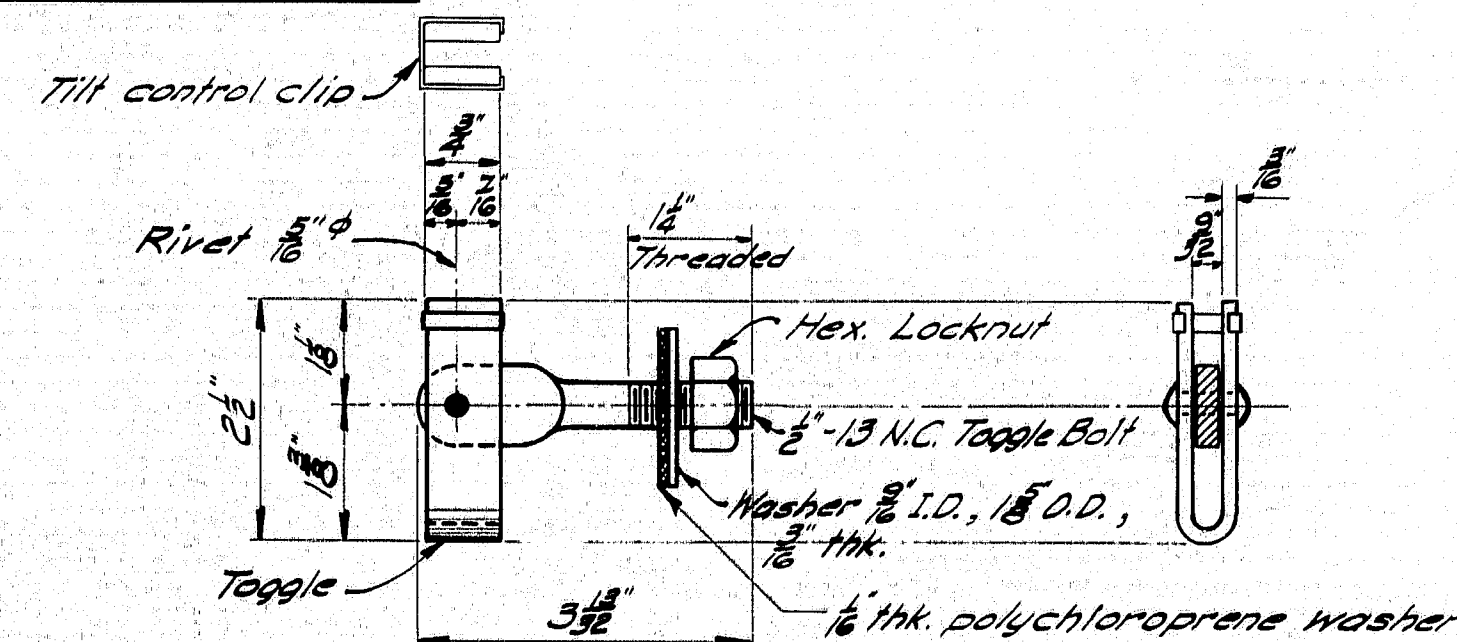
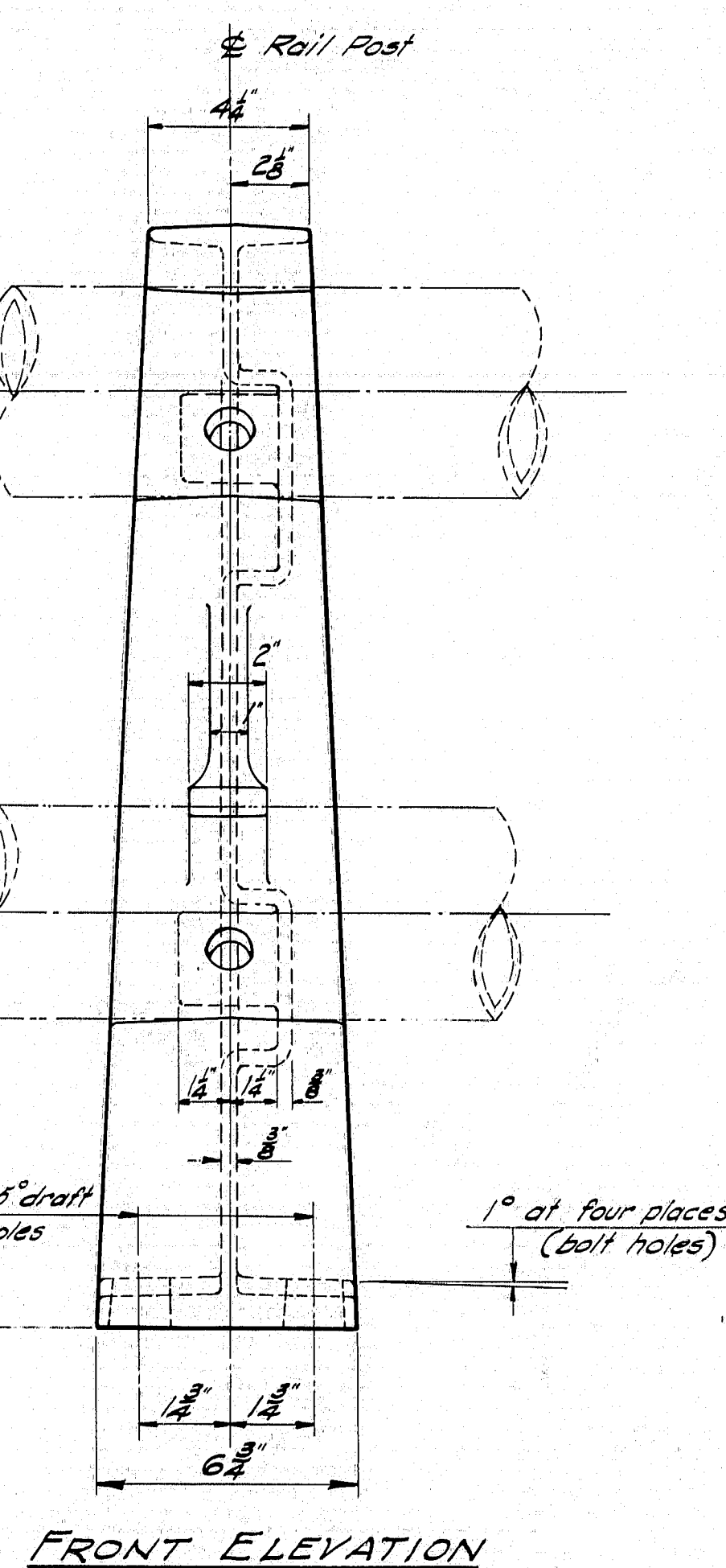
Lengths of rail shall be attached to a minimum of (4) four rail posts, wherever possible, and in any case never less than (2) two.



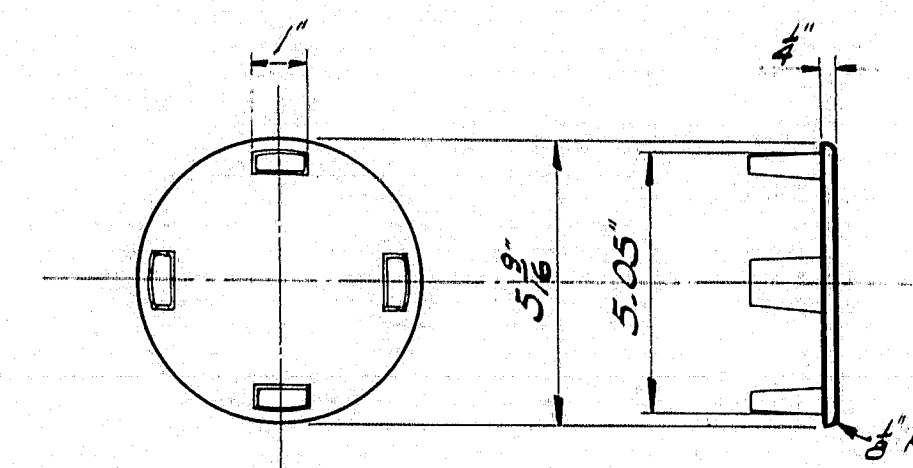
**RAIL POST**  
ASTM A27, Grade 65-35, Galvanized ASTM A153



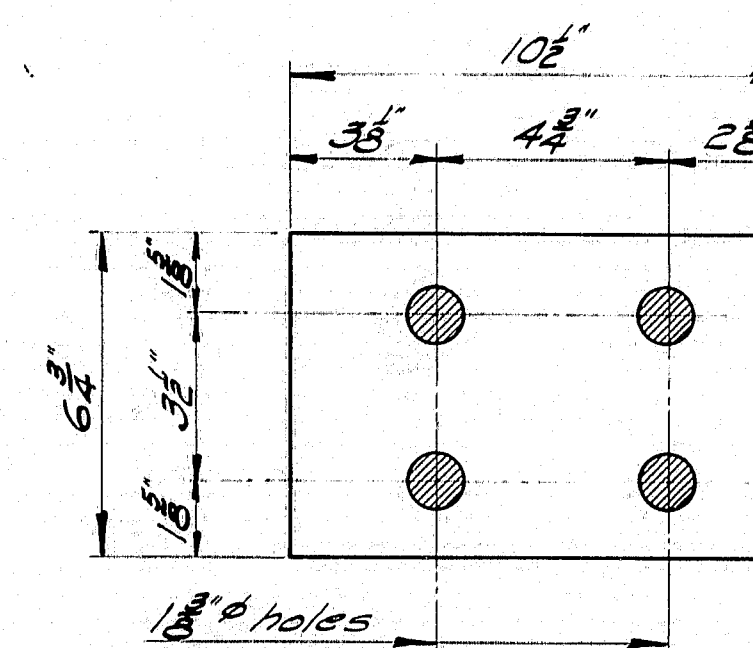
**RAIL POST ANCHORAGE**  
Bolts, Nuts, & Std. Washers = ASTM A325 Galvanized ASTM A153



**TOGGLE BOLT DETAIL**  
Cadmium Plate metal parts ASTM A165-55, Type NS, .0005" thick



**RAIL CAP**  
ASTM A27, Grade 65-35, Galv. ASTM A153



**PAD**  
At each rail post  
See Article 702-80 Supplemental Specifications of Feb. 1960.

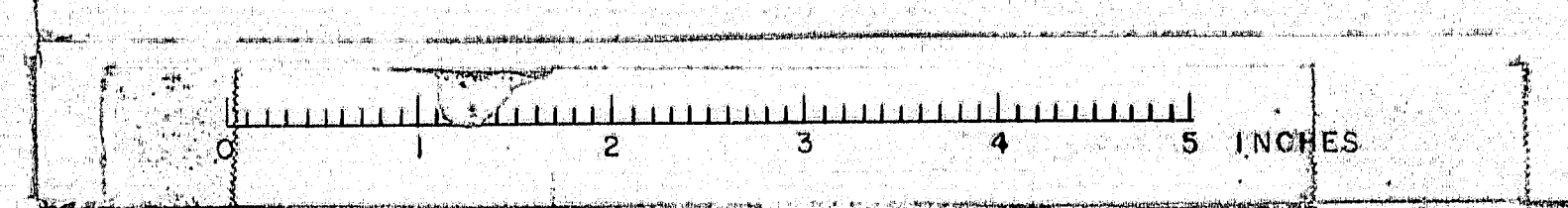
**DESIGN SPECIFICATIONS**  
A.A.S.H.O. Interim Specifications Int. I (64)

MAINE STATE HIGHWAY COMMISSION  
AUGUSTA, MAINE

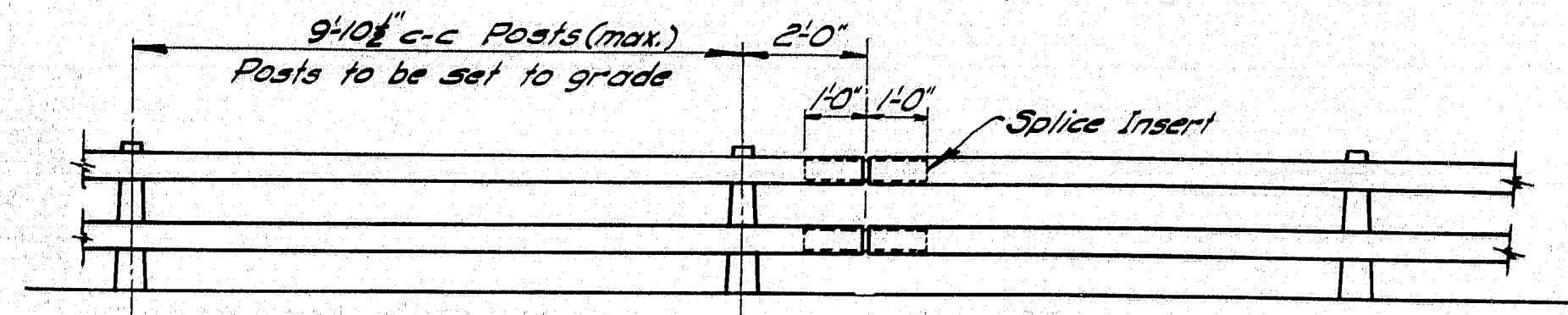
**STANDARD DETAILS**  
(BD 107 - 64)  
**STEEL RAIL**  
(2-BAR PIPE RAIL)  
CAST POST

OCT. 1964

95-179





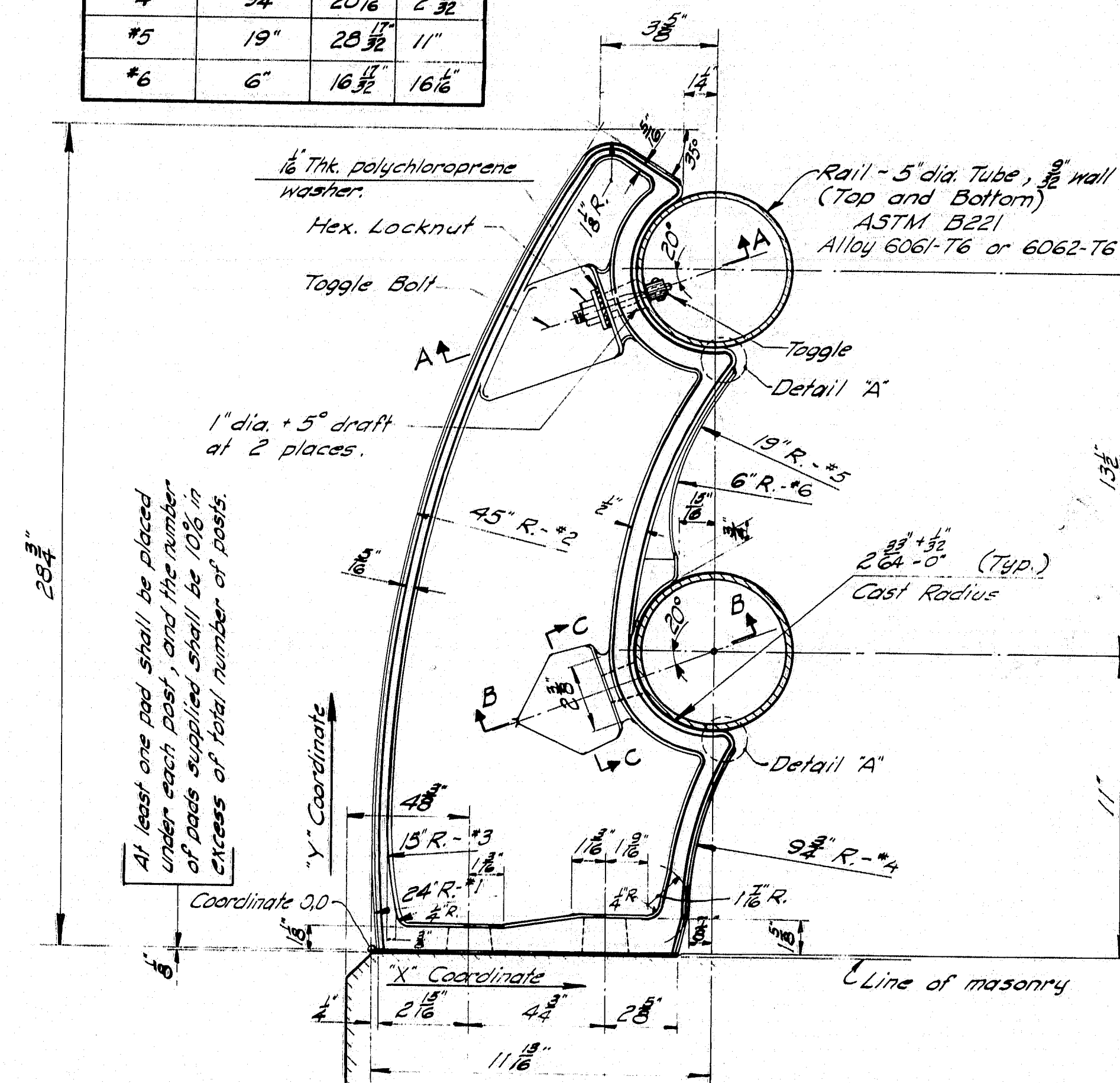


RAIL ELEVATION

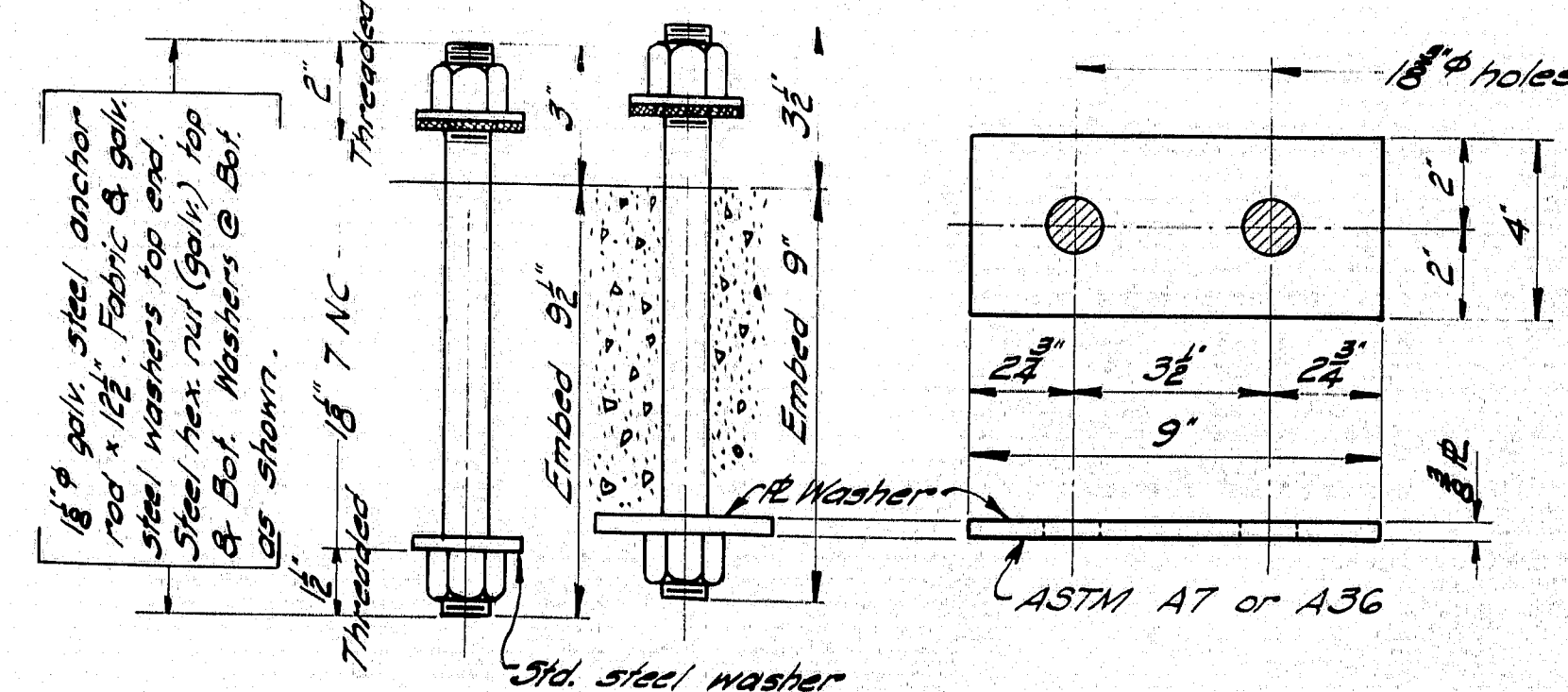
ORIGIN LOCATION-PRINCIPAL CURVES

Curve	Radius "X"	"Y"
#1	24"	3 1/2"
#2	45"	2 3/4"
#3	15"	4 3/4"
#4	9 1/2"	2 3/4"
#5	19"	11"
#6	6"	16 1/2"

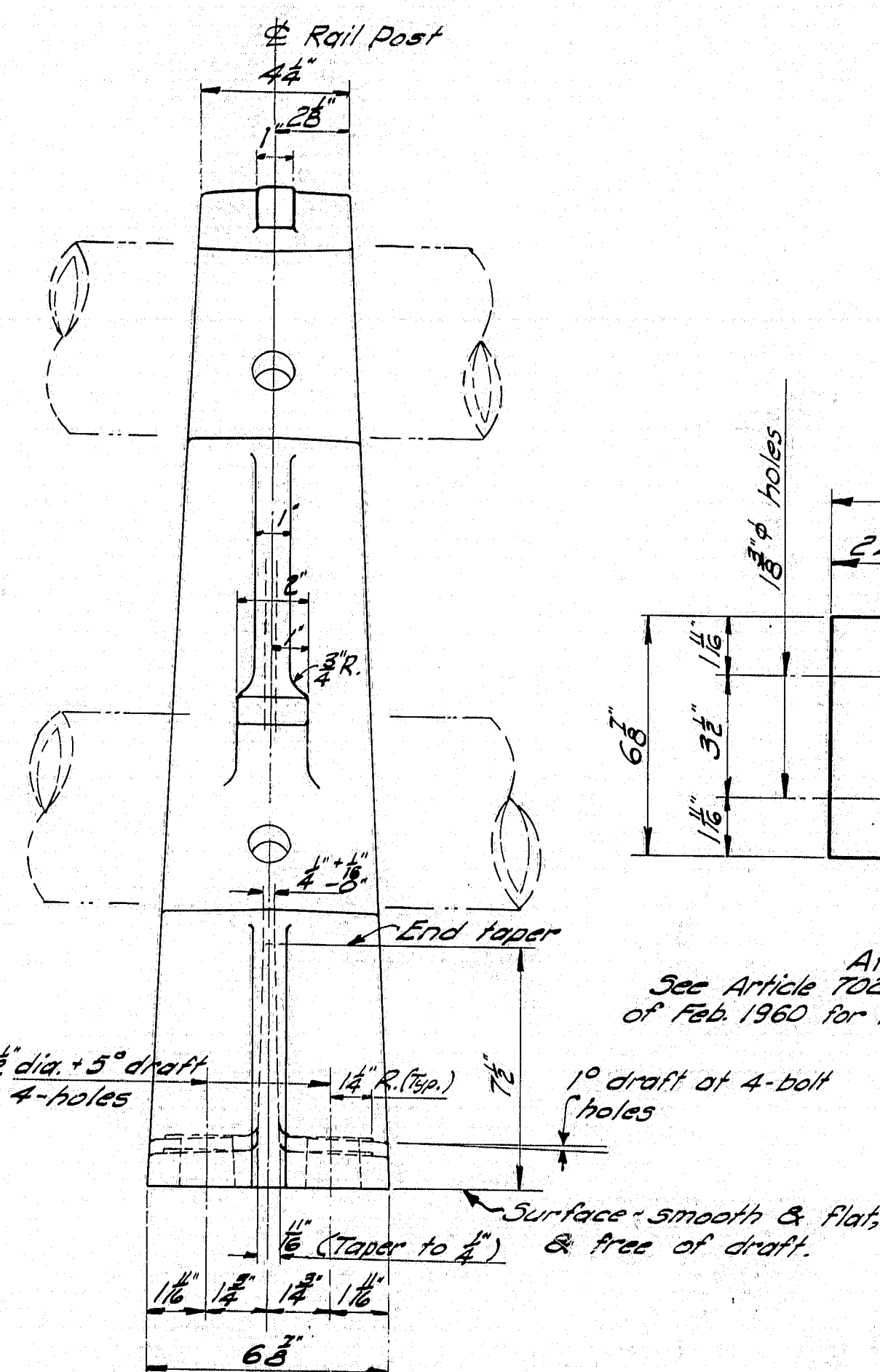
Lengths of rail shall be attached to a minimum of (4) four rail posts, wherever possible, and in any case never less than (2) two.



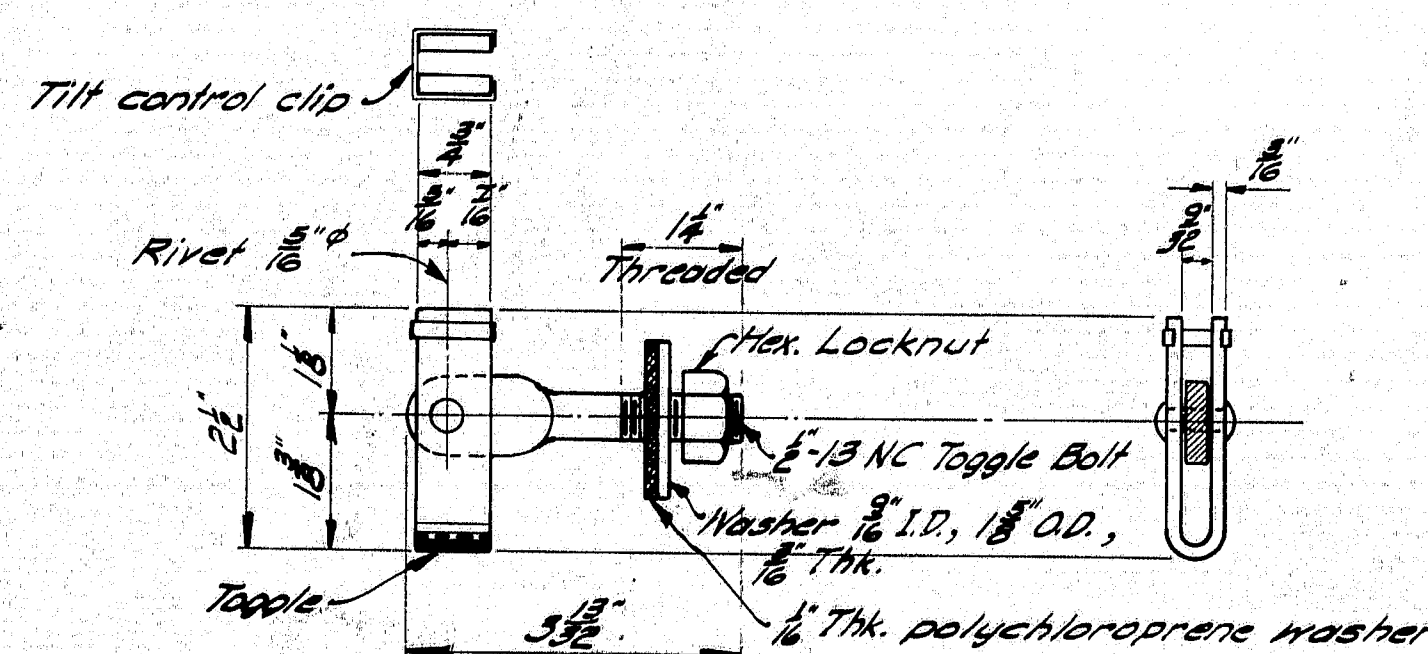
RAIL POST  
Aluminum Association Alloy A344-T4



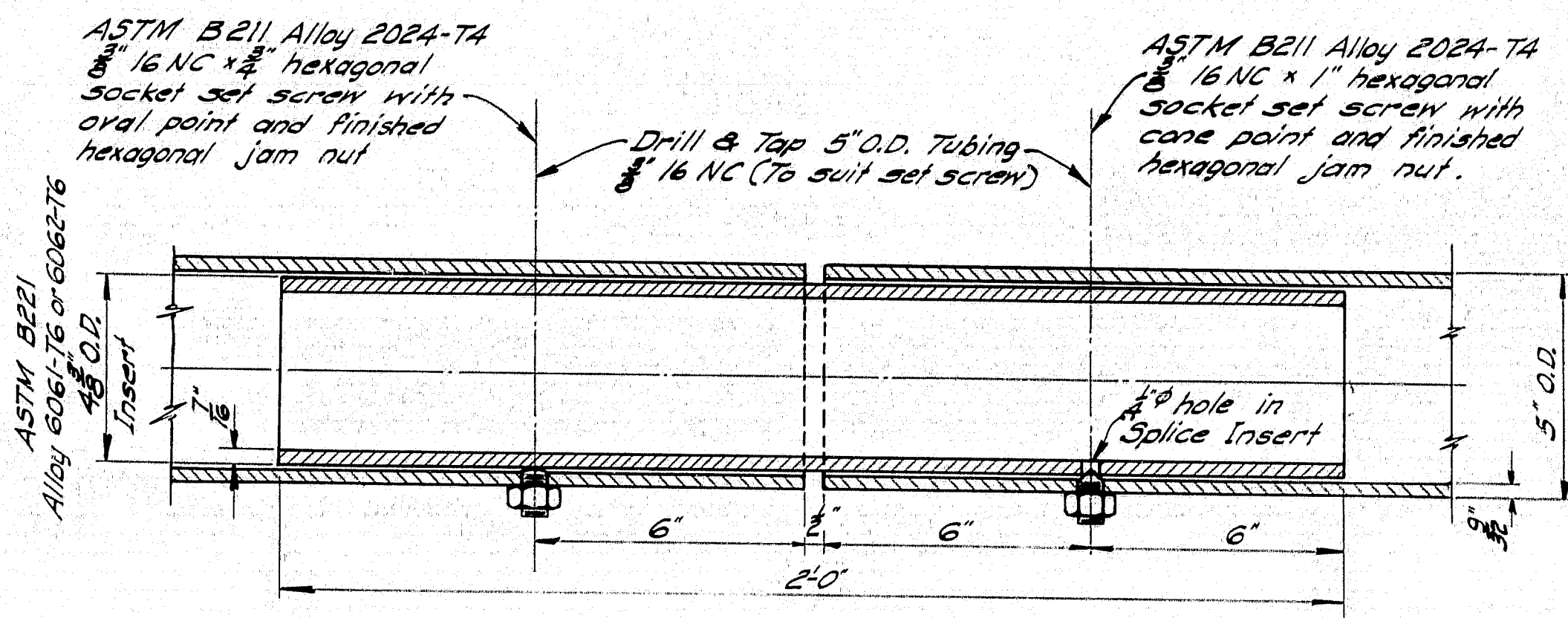
RAIL POST ANCHORAGE  
Bolts, Nuts & Std. Washers = ASTM A325 Galvanized ASTM A153



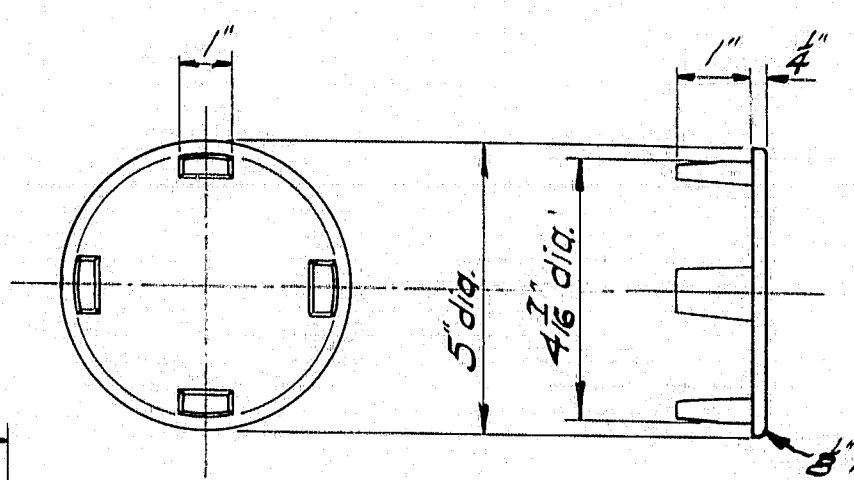
FRONT ELEVATION



TOGGLE BOLT DETAIL  
Cadmium Plate metal parts ASTM A163-55, Type N3, .0005" thick.

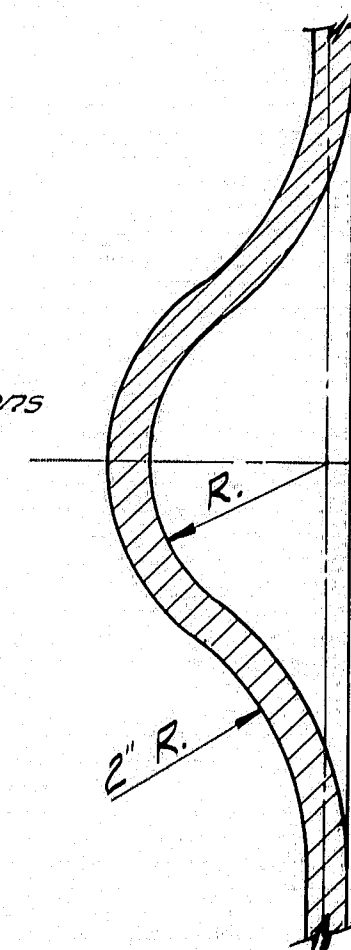


SPlice

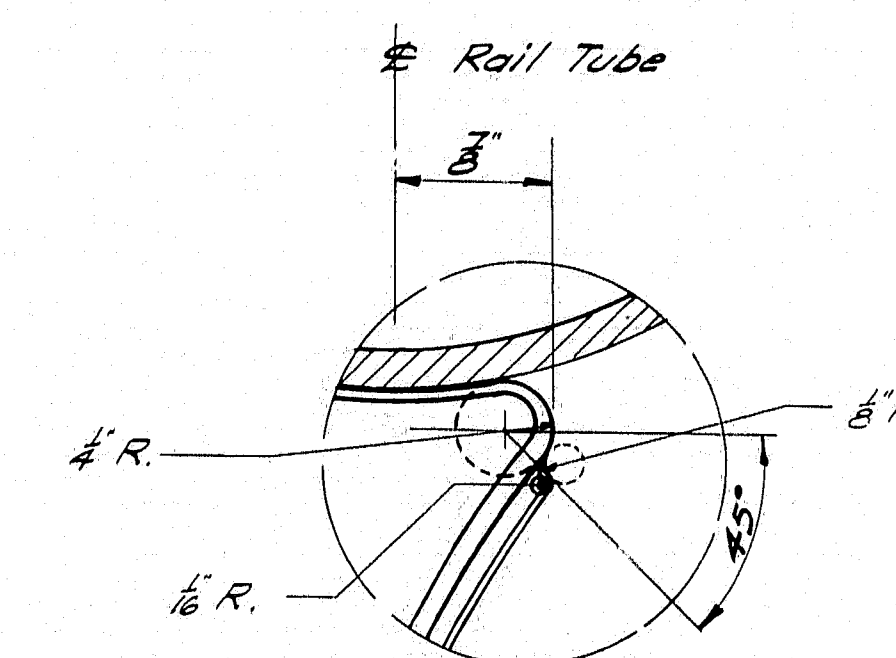


RAIL CAP

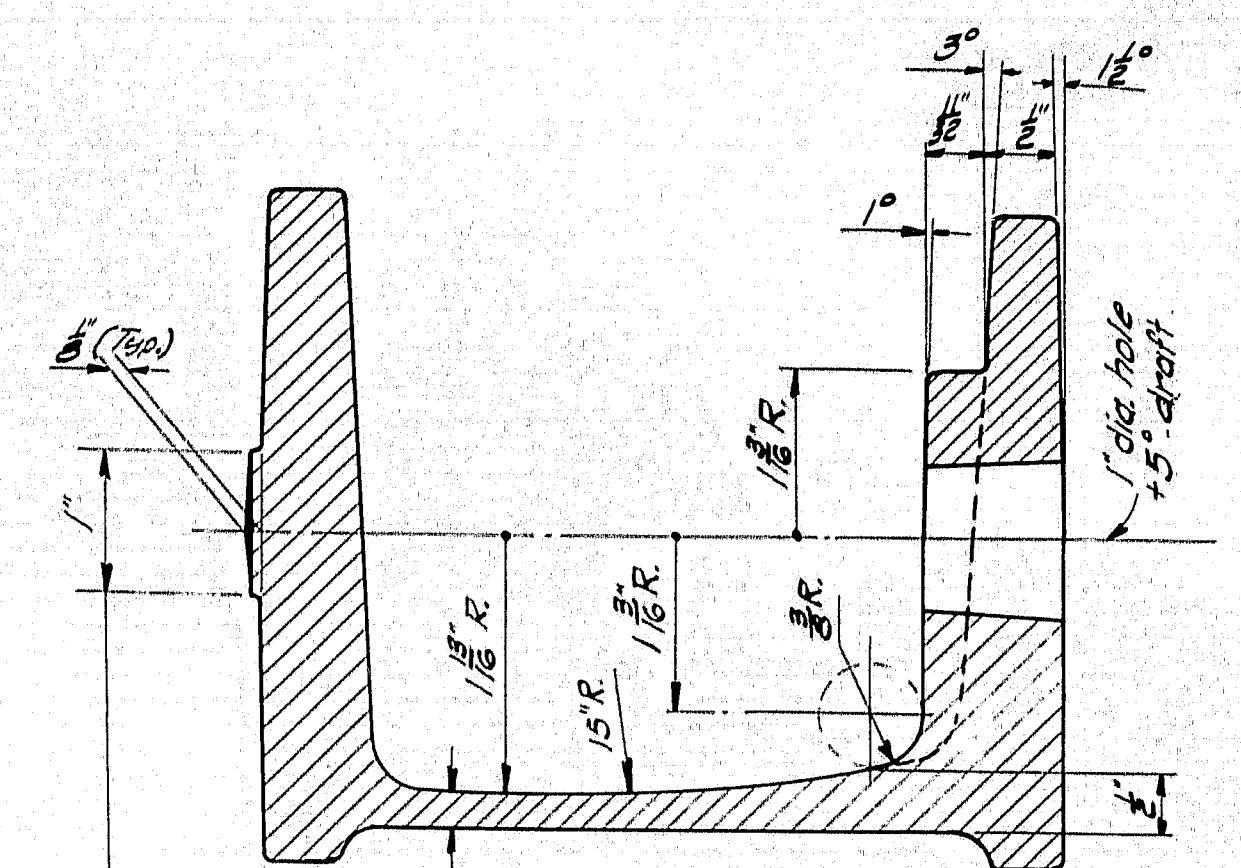
ASTM B26 Alloy 56 TO A or 55 A



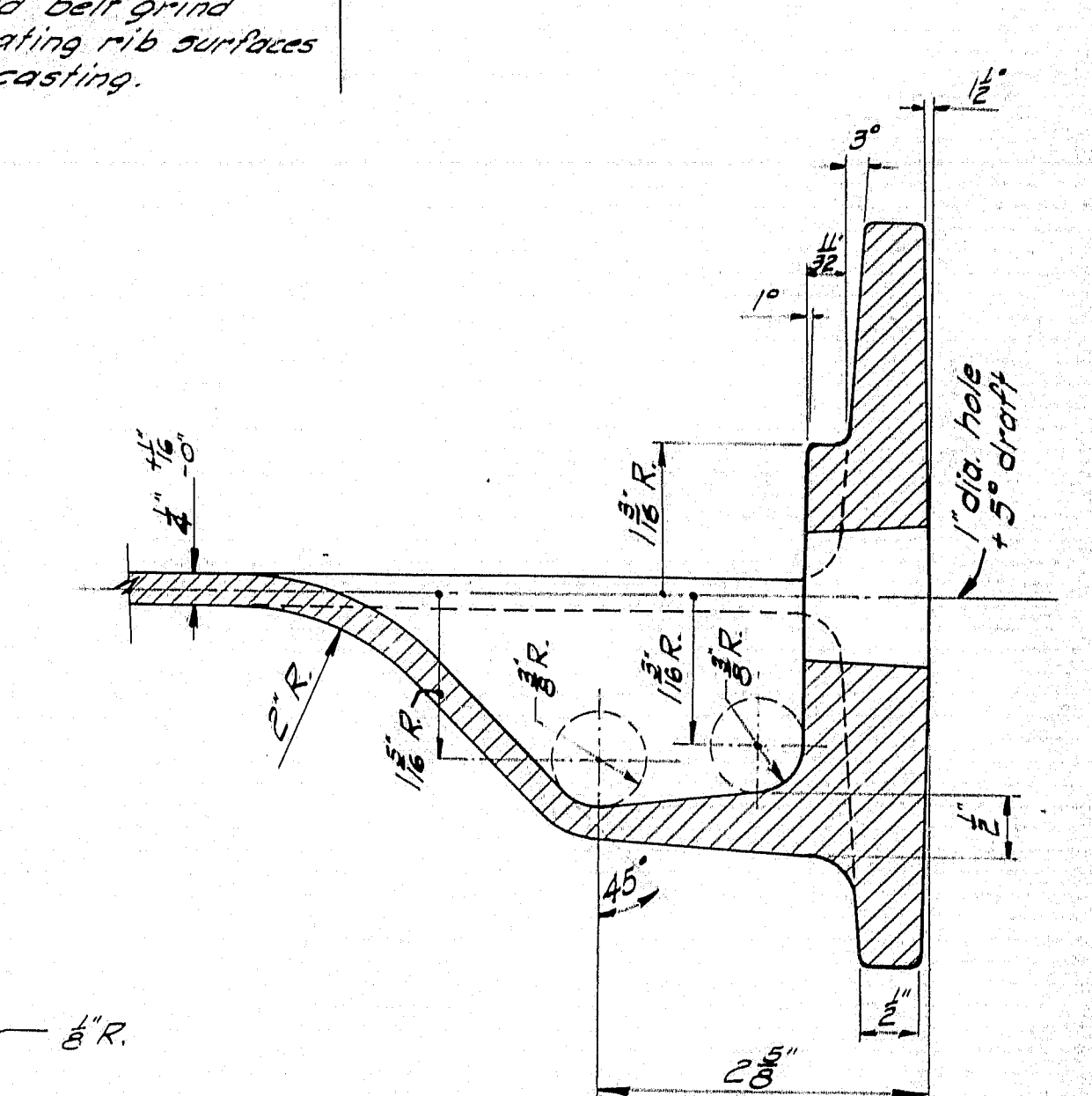
SECTION C-C



DETAIL "A"



SECTION A-A



SECTION B-B

DESIGN SPECIFICATIONS

A.A.S.H.O. Interim Specifications Int. I (64).

A344-T4 Alloy to meet the Specification outlined by Aluminum Association.

ALTERATION:

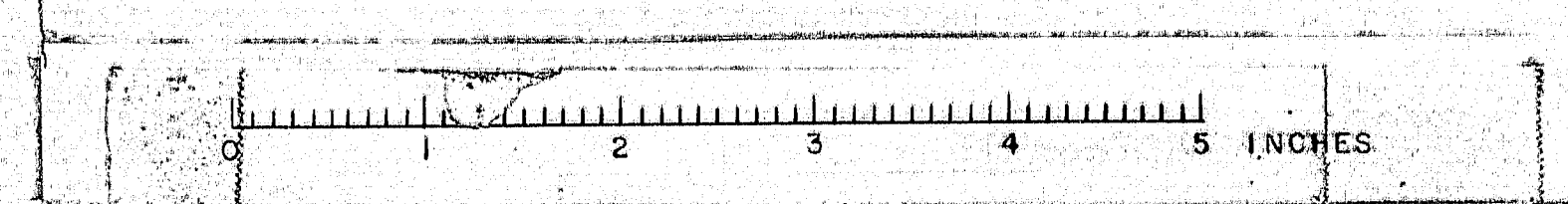
Added Detail "A" and Origin Location-Principal Curves. Nov. 19, 1964.

MAINE STATE HIGHWAY COMMISSION  
AUGUSTA, MAINE

STANDARD DETAILS  
(BD 108-64)  
ALUMINUM RAIL  
2-BAR (TUBE RAIL)  
CAST POST

OCT. 1964

95-180





# INDEX OF SHEETS

SHEET NO	DESCRIPTION
1	GENERAL PLAN
2	CROSS SECTION
3	FOUNDATION SURVEY
4	BORING DETAILS
5	ABUTMENTS NO. 1 & NO. 2
6	ABUTMENT DETAILS & APPROACH SLAB
7	SLOPE PAVING
8	PIERS 1, 2, 4 & 5
9	PIER 3
10	ERECTION DIAGRAM & BLOCKING
11	SUPERSTRUCTURE
12	REINFORCING STEEL SCHEDULE

## STANDARD DETAILS

BD101-64	BEARING PEDESTALS
BD103-64	BEAM SPLICE
BD104-64	DIAPHRAGMS; ARMORED JOINTS; SHEAR CONNECTORS; DRAINS
BD105-64	EXPANSION DAMS
BD107-64	STEEL RAIL
BD108-64	ALUMINUM RAIL

ENGINEERS FIELD OFFICES  
Note - See Sheet "6" for Estimate of Quantities

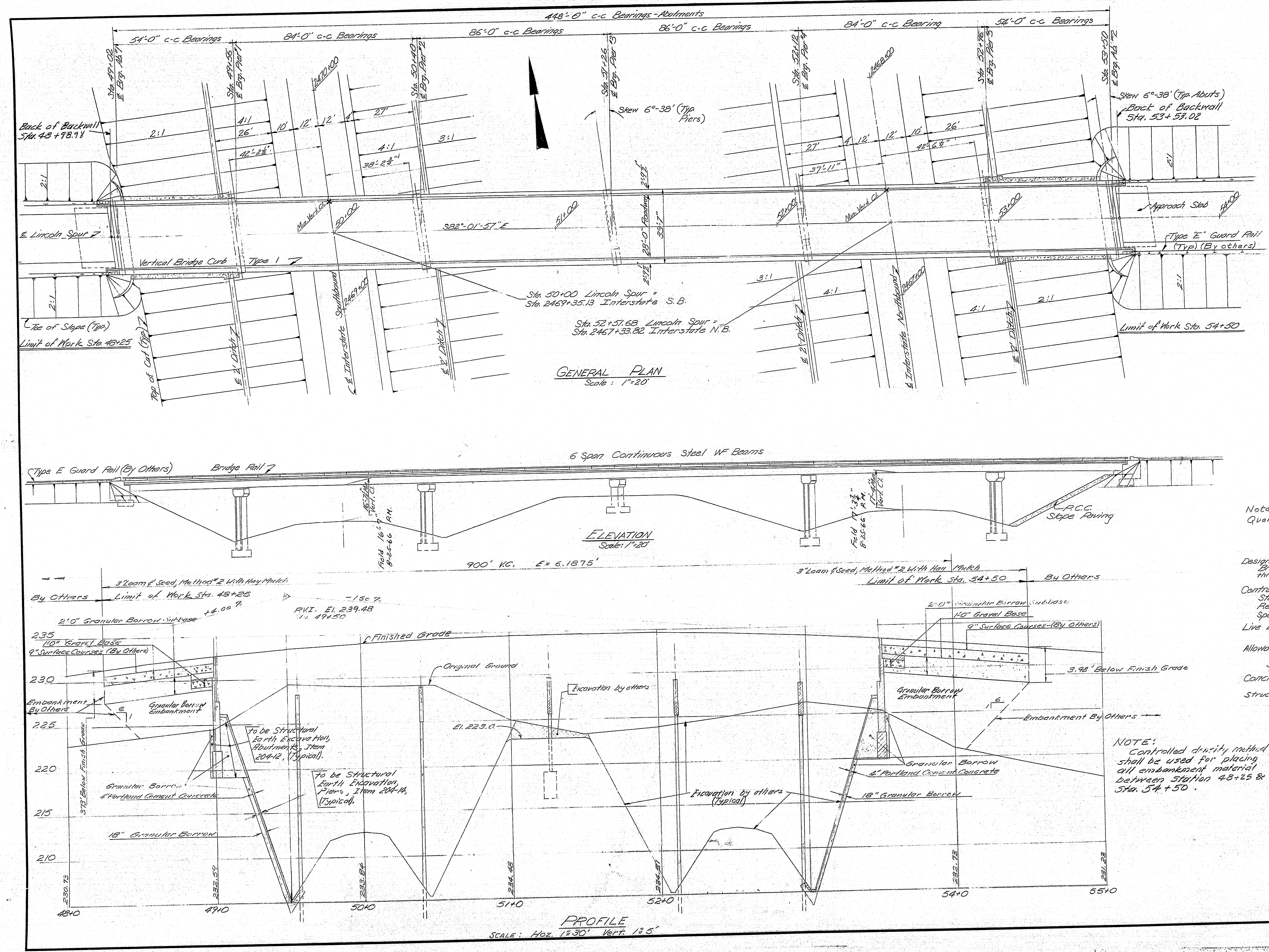
## SPECIFICATIONS

Design: AASHTO Standard Specifications for Highway Bridges, 1961 with Interim Specifications, 1961 thru 1964.  
Contract: State of Maine, State Highway Commission Standard Specifications for Highways & Bridges, Revision of January 1955, and Supplemental Specifications, February 1960.  
Live Loading: HS20-44  
Allowable Stresses: Concrete -  $f_c = 1200$  psi  $f_t = 10$  psi  
Reinforcing Steel - Intermediate Grade  $f_y = 20,000$  psi  
Structural Steel - A36 = 20,000 psi  
Concrete Classification: All concrete - Class "A", except slope paving - class "Y".  
Structural Steel Classification: ASTM A36, unless otherwise noted on the Standard Details.

NOTE:  
Controlled density method shall be used for placing all embankment material between Station 48+25 & Sta. 54+50.

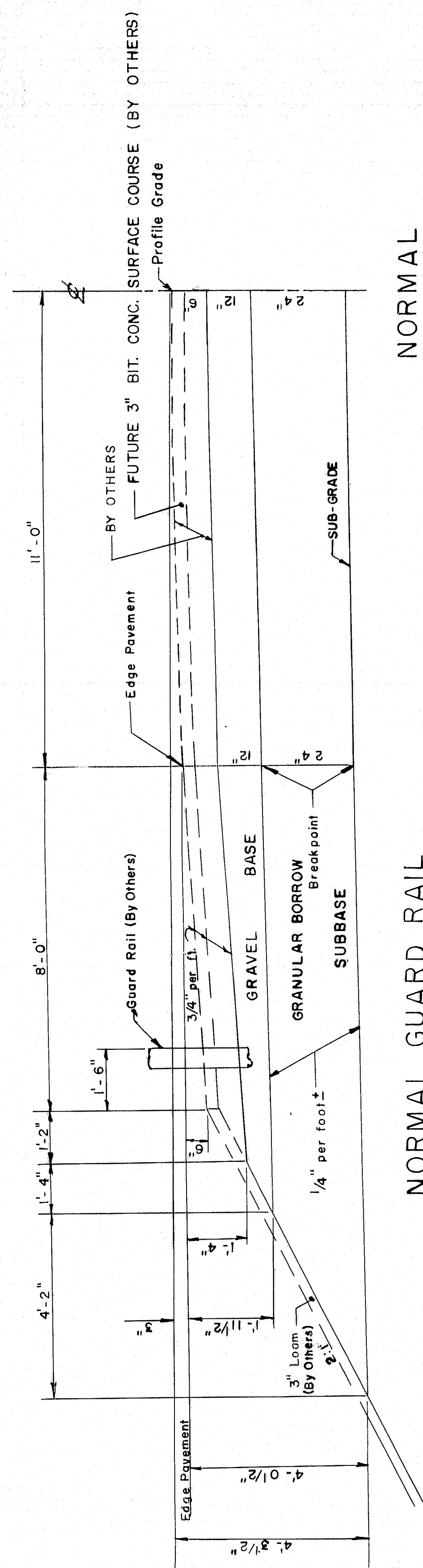
DESIGN - LLR TRACE - ALL CHECK - NMS	BRIDGE NO. SURVEY - PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
LINCOLN SPUR OVER INTERSTATE 95 IN T2 R8 PENOBSCOT COUNTY GENERAL PLAN	
SHEET 1 OF 12 AUGUSTA, MAINE JAN. 1965	

95-163





ALL 12-4-64

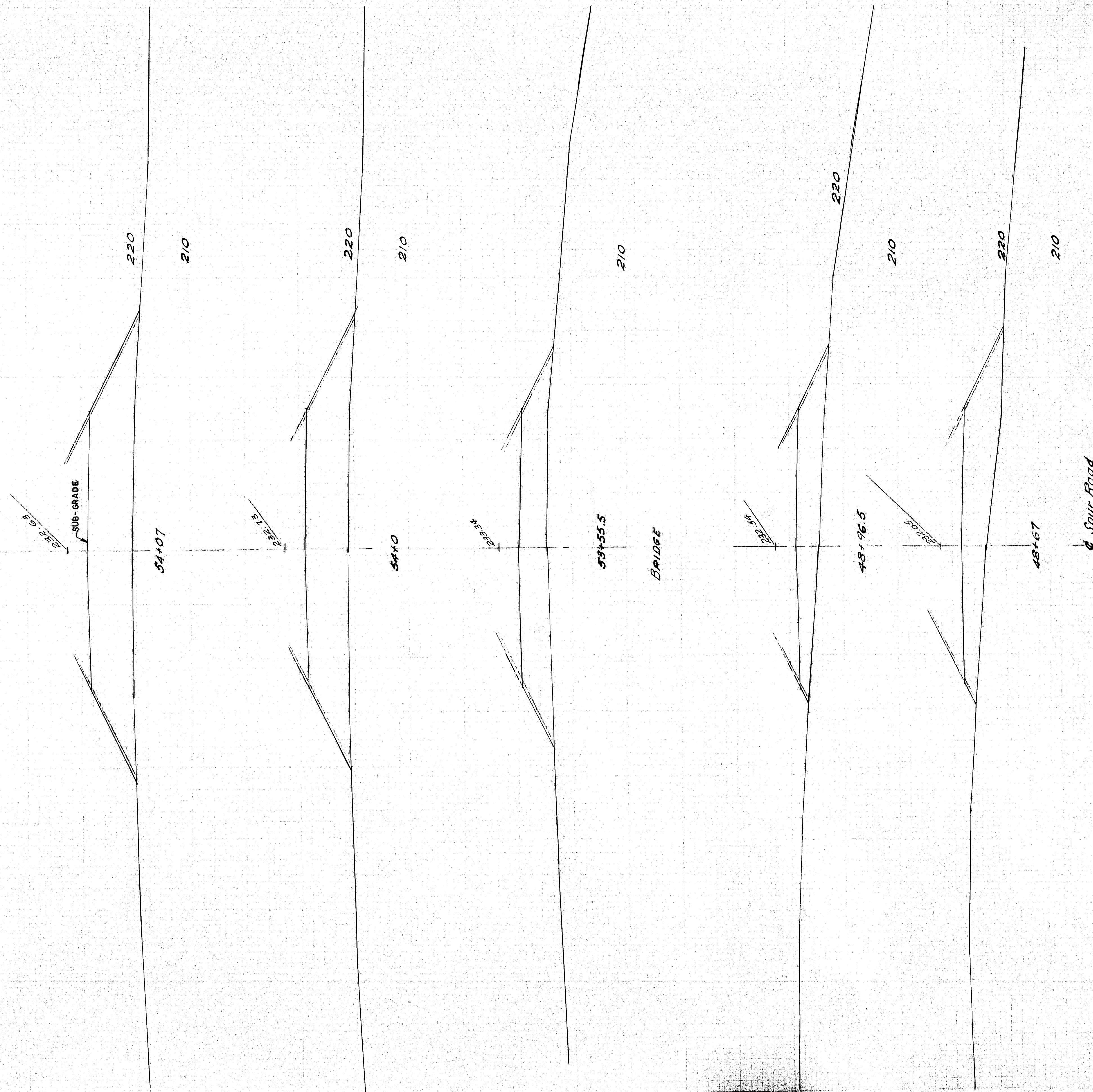
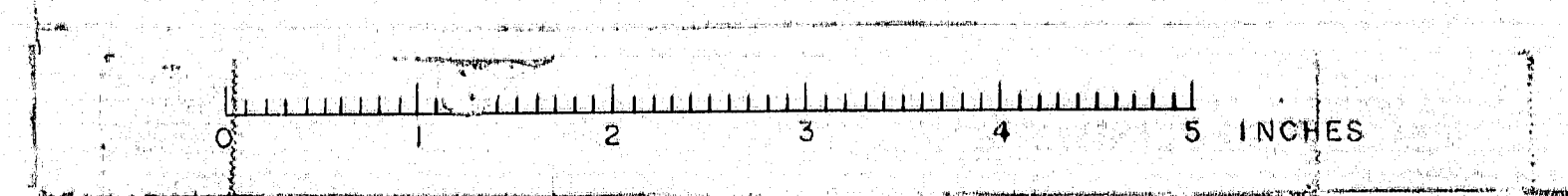


12" GRAVEL BASE COURSE = 28.61 C.Y. PER 100 L.F.  
24" GRANULAR BORROW SUBBASE = 93.22 C.Y. PER 100 L.F.

12" GRAVEL BASE COURSE = 81.48 C.Y. PER 100 L.F.  
24" GRANULAR BORROW SUBBASE = 162.96 C.Y. PER 100 L.F.

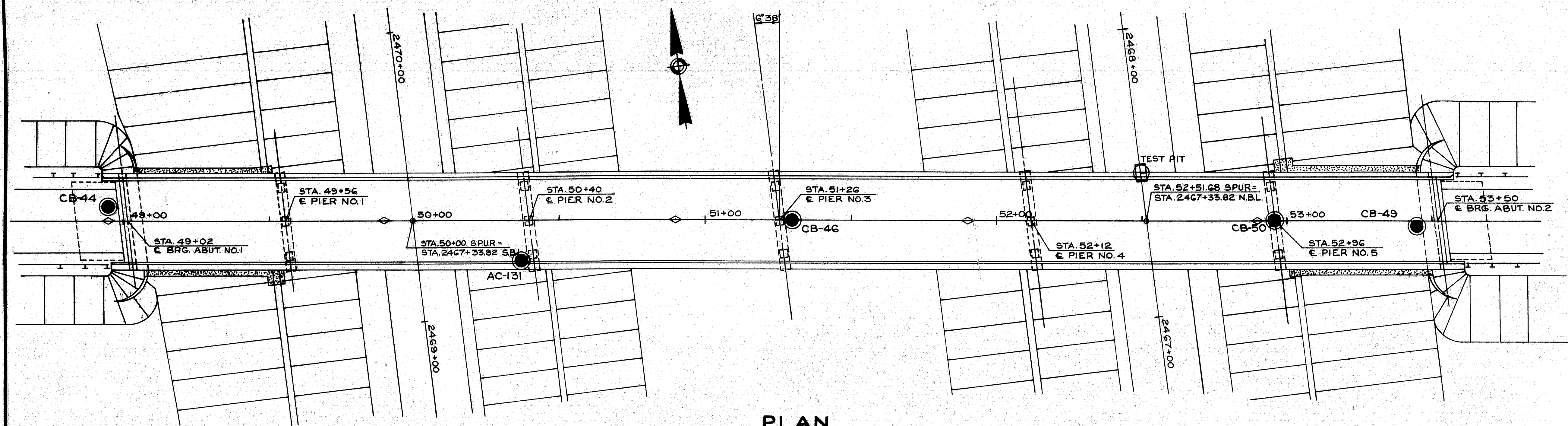
### TYPICAL APPROACH SECTION - SPUR ROAD

(ONE HALF SECTION SHOWN, SECTION IS SYMMETRICAL ABOUT CENTER LINE)

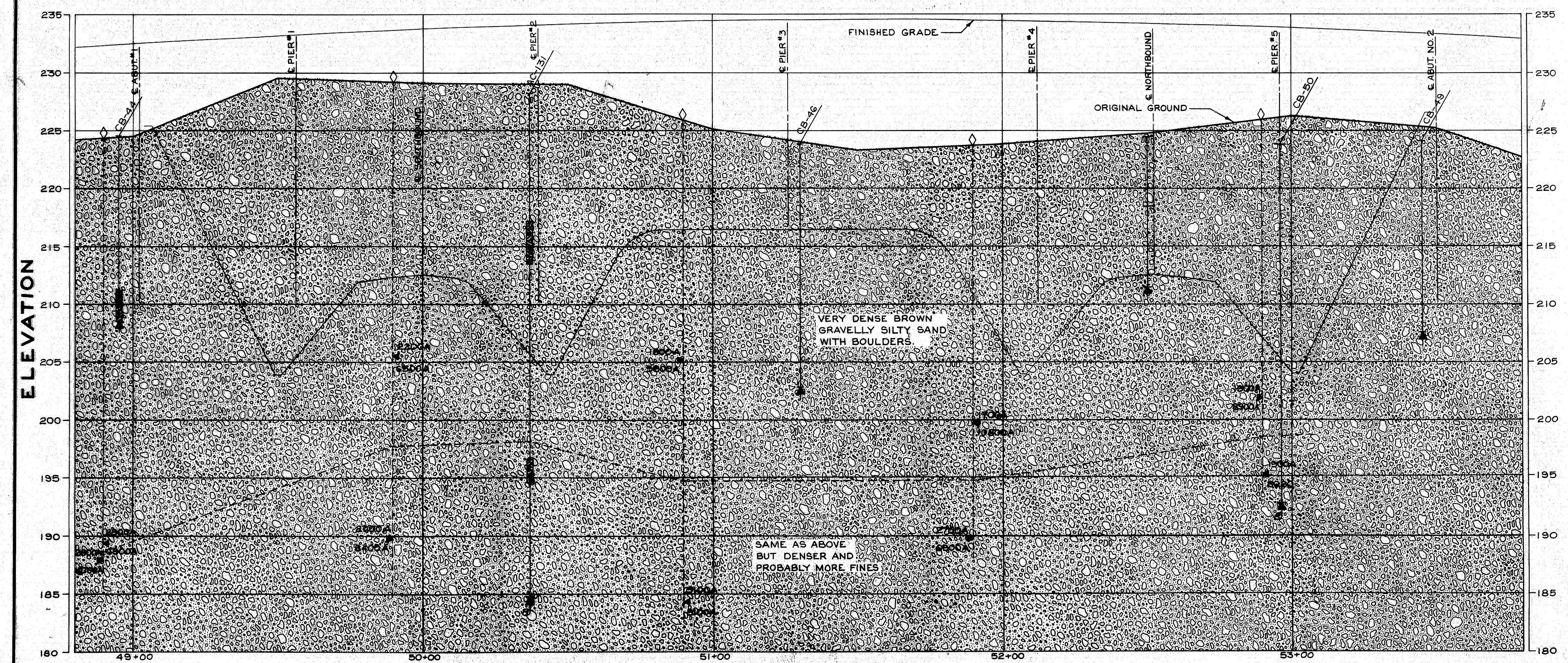


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-8 (61)	16	26





**PLAN**  
SCALE 1" = 20'



**PROFILE**  
SCALE: VERT. 1" = 5' HORIZ. 1" = 20'

- LEGEND**
- PLAN NOTES
  - ROD SOUNDING
  - WASH BORING
  - TEST PIT
  - SEISMIC: SHOT LOCATION
  - PROFILE NOTES
  - SEISMIC: CHANGE IN VELOCITY (FT./SEC.) & 19000 PROBABLE CHANGE IN MATERIAL
  - BOTTOM OF EXPLORATION
  - REFUSAL

DESIGN -  
TRACE -  
CHECK -

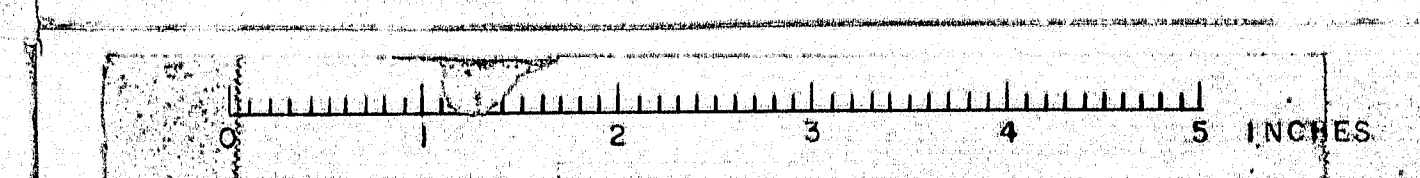
BRIDGE NO.  
SURVEY -  
PLOT -

STATE HIGHWAY COMMISSION  
BRIDGE DIVISION

**LINCOLN SPUR**  
OVER  
**INTERSTATE 95**  
IN  
**T2 R8**  
**PENOBSCOT COUNTY**  
FOUNDATION SURVEY

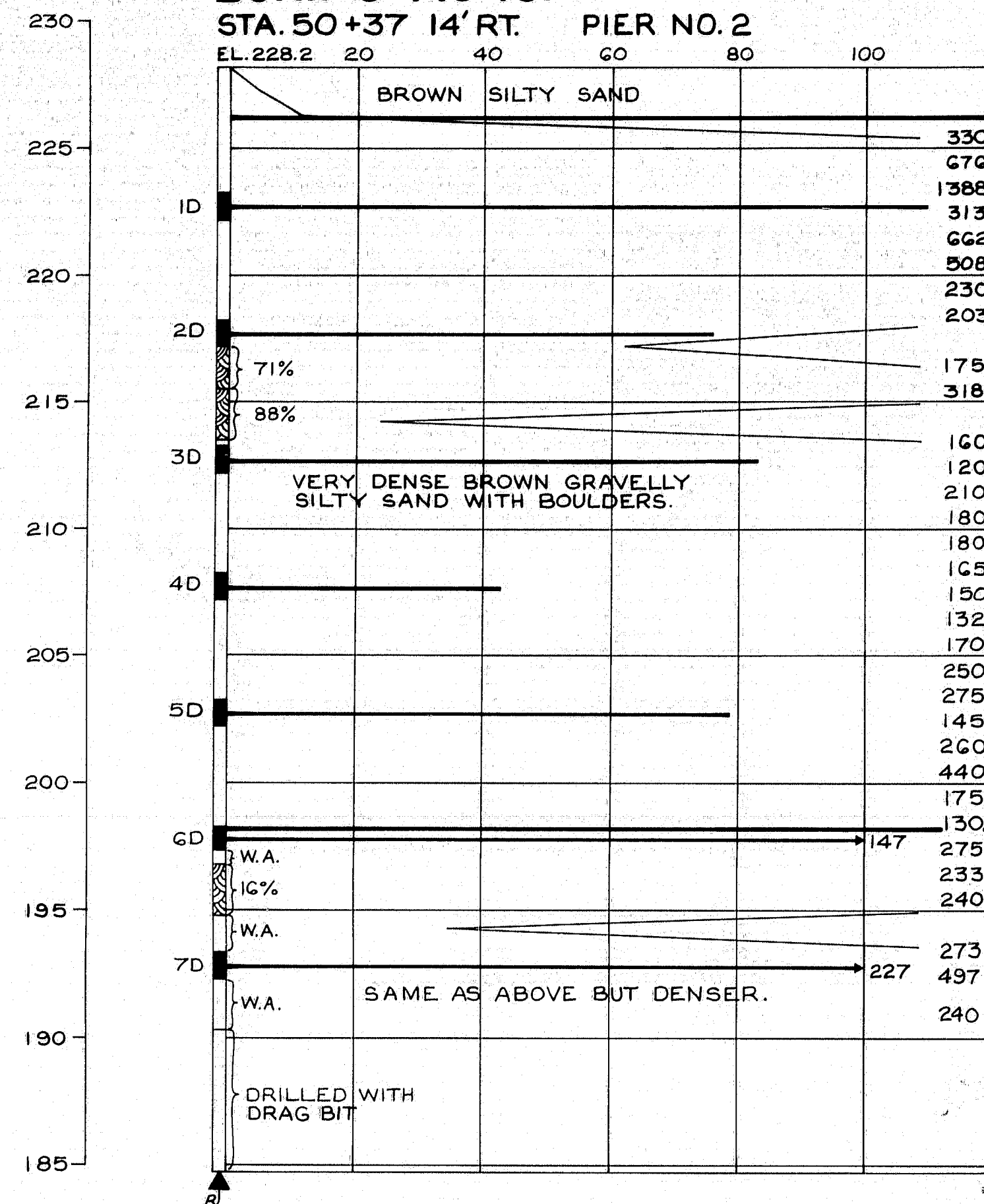
SHEET 3 OF 12 AUGUSTA, MAINE

95-165

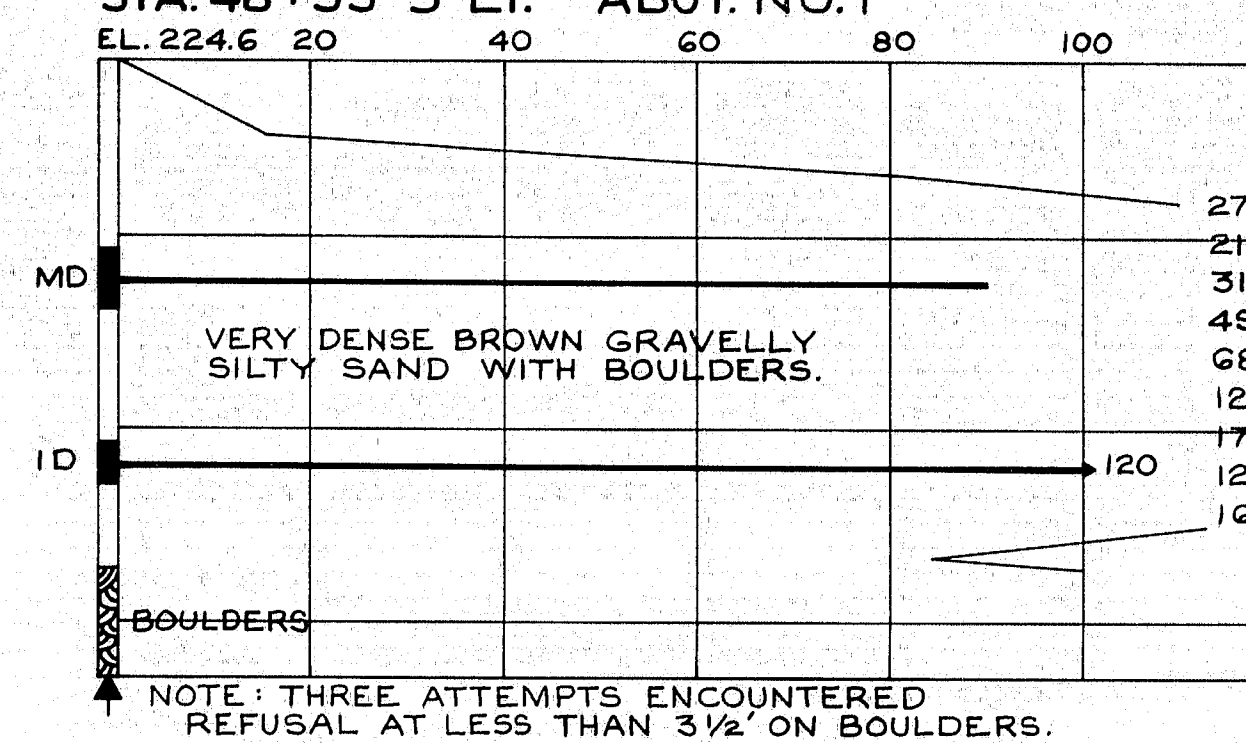




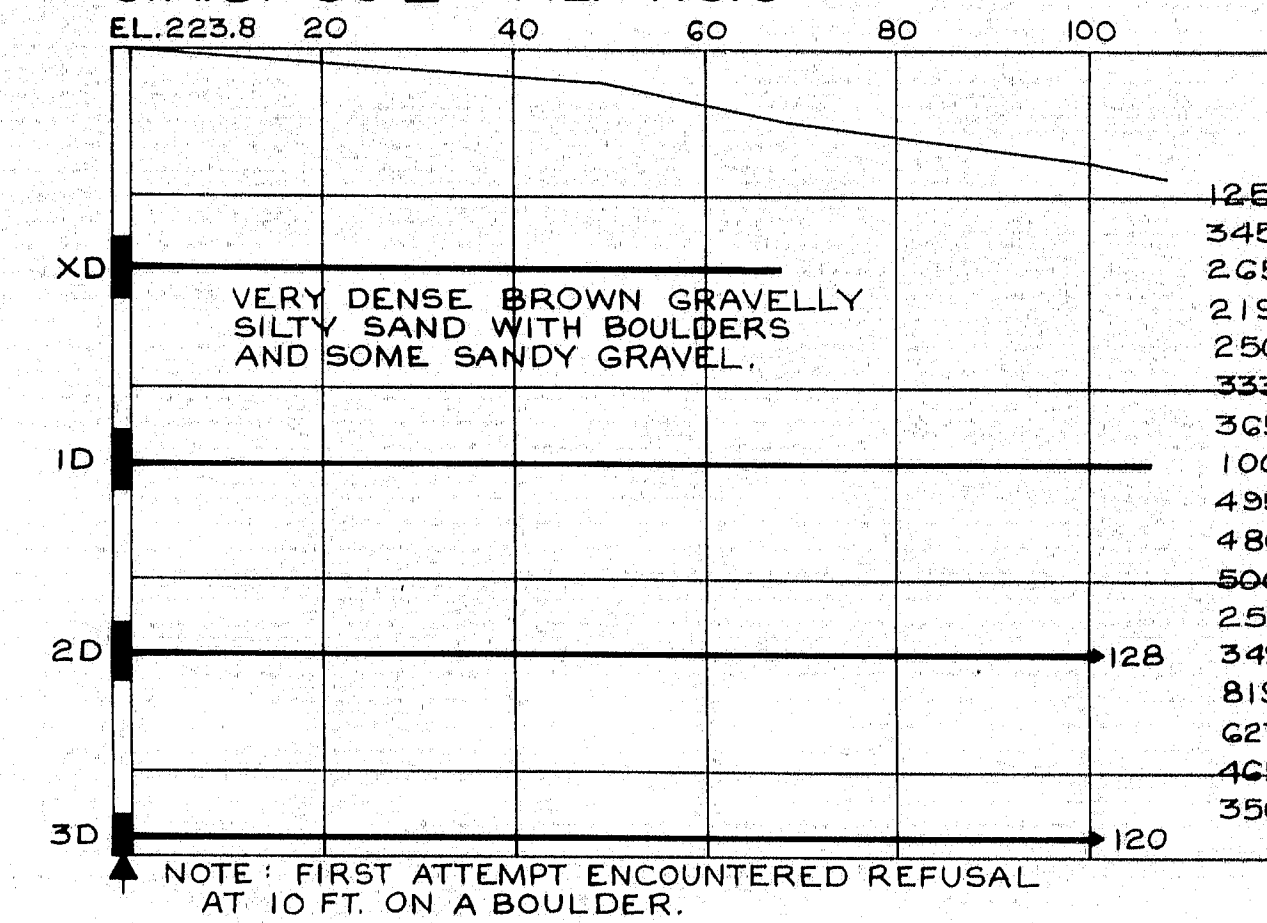
**BORING AC-131**  
STA. 50+37 14' RT. PIER NO. 2



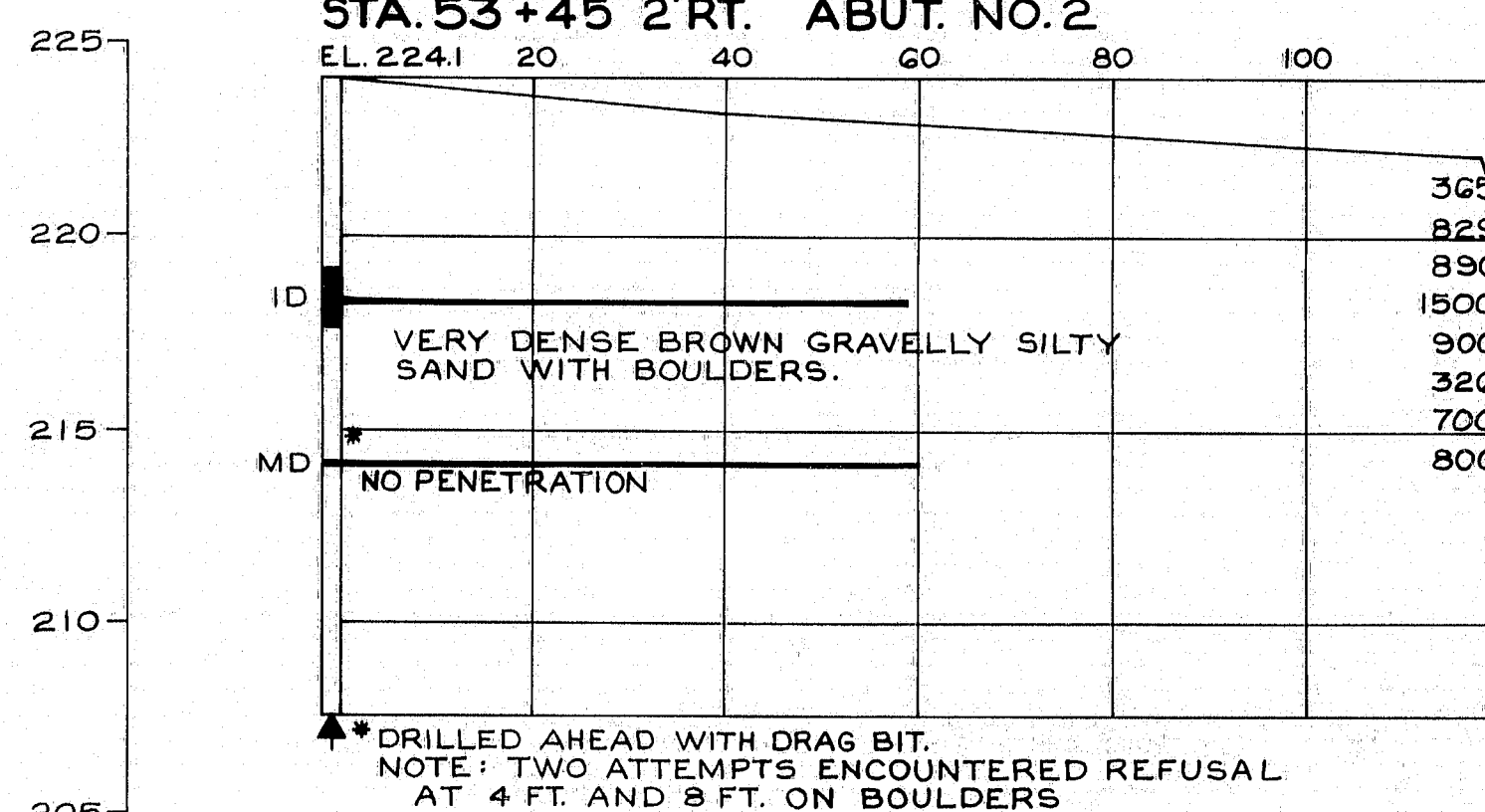
**BORING CB-44**  
STA. 48+95 5' LT. ABUT. NO. 1



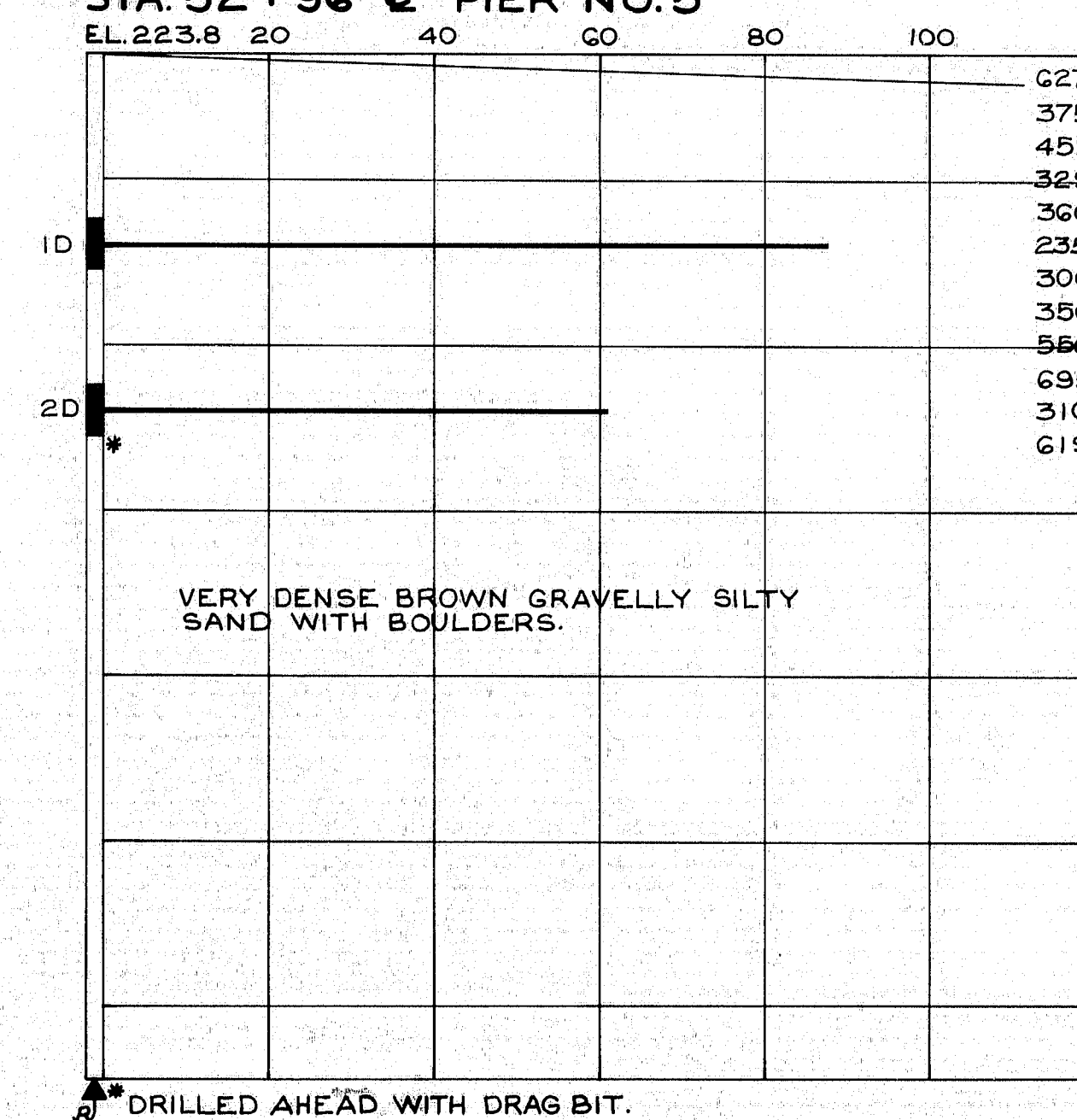
**BORING CB-46**  
STA. 51+30 2' PIER NO. 3



**BORING CB-49**  
STA. 53+45 2' RT. ABUT. NO. 2



**BORING CB-50**  
STA. 52+96 2' PIER NO. 5

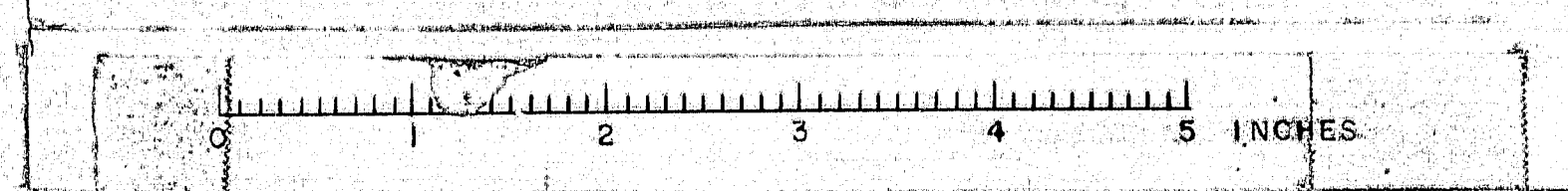


#### BORING NOTES

- Casing size 2 1/2"
- WA. Washed ahead.
- All samples are made ahead of casing.
- Number of blows required to drive extra heavy casing one foot with 400 ft. lbs. of energy per blow.
- Location of sample or sample attempt.
- Number and type of dry sample.
- ID S & H Sampler #1290's
- MD Unsuccessful sample attempt and type of sampler.
- Number of blows required to drive spoon one foot with 350 ft. lbs. of energy per blow.
- Bottom of boring (May not be bottom of soil strata).
- 90% Locations cored by diamond bit and per cent recovery of rock.

DESIGN- TRACE- CHECK-	BRIDGE NO. SURVEY- PLOT-
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
LINCOLN SPUR OVER	
INTERSTATE 95 IN	
T2 R8 PENOBSCOT COUNTY	
BORING DETAILS	
SHEET 4 OF 12 AUGUSTA, MAINE	

95-166







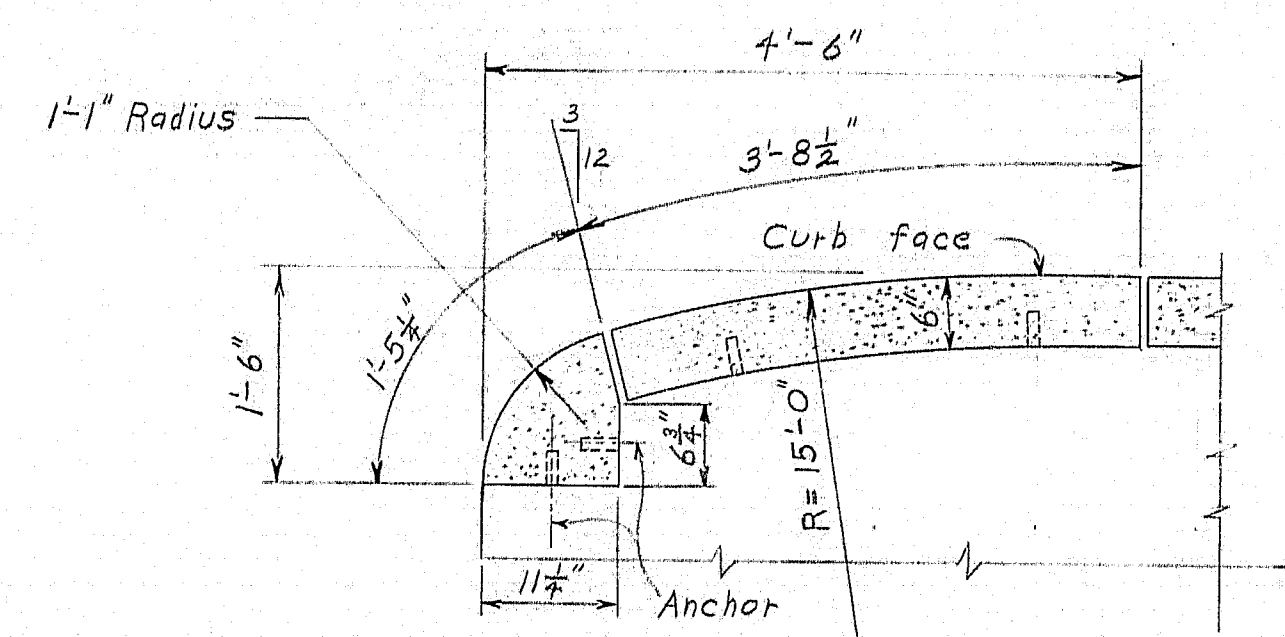


### GENERAL ABUTMENT NOTES

1. Dress shaded Bearing Areas to exact elevations shown and 1" larger than masonry plates all around.
2. Point the face of backwall, top of bridge seat, face of breastwall and inside of curtain walls with Epoxy Resin Surface Sealant.
3. Backwall and wingwalls are to be built after structural steel has been erected and bottom of slab elevations established.
4. All reinforcing steel splices are to be a minimum of 20 bar diameters.
5. All reinforcing steel is to have 3" of cover unless otherwise noted.
6. Place reinforcing steel to clear anchor bolts.
7. For Expansion Dam Details see Standard Details, SD-105-64.
8. Legend: C.J. = Construction Joint  
El. = Elevation F.G. = Finished Grade  
Abut. = Abutment N.F. = Near Face  
F.F. = Far Face T. = Top B. = Bottom
9. Maximum Soil Pressure = 2.7 tons/ft<sup>2</sup>.
10. Concrete in End Posts to be paid for under Item 701-33.

### VERTICAL CONSTRUCTION JOINT

Break the bond of the Vertical Construction Joint with a suitable grade of asphalt paint.  
Cover the back side of the vertical joint with two layers of heavy roofing paper 10' wide. Coat concrete and contact surfaces at each layer of roofing paper with a suitable grade of roofing cement.  
Recess area to be covered 1/4".



TYPICAL DETAIL @ END OF BRIDGE CURB

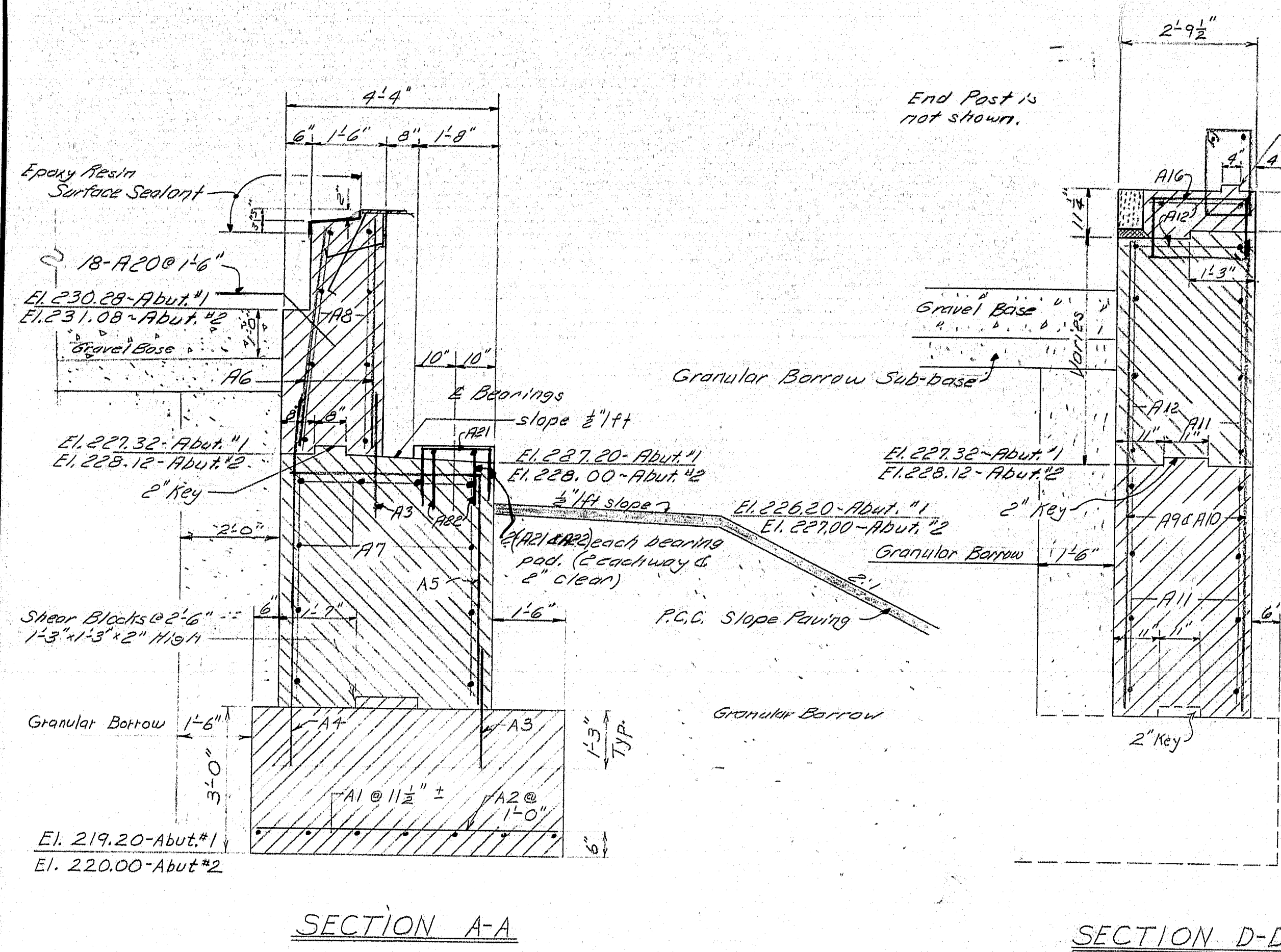
DESCRIPTION	UNIT	QUANTITY
STRUCTURAL EARTH EXCAVATION, ABUTMENTS AND RETAINING WALLS	C.Y.	230
STRUCTURAL EARTH EXCAVATION, PIERS	C.Y.	650
FIELD OFFICE, TYPE "C" (LINCOLN SPUR)	L.S.	LUMP SUM
GRANULAR BORROW	C.Y.	3035
GRAVEL BASE COURSE - I.P.M.	C.Y.	220
BITUMINOUS CONCRETE SURFACE COURSE, TYPE "A"	TONS	158
PORTLAND CEMENT CONCRETE, ABUTMENTS AND RETAINING WALLS	C.Y.	162
PORTLAND CEMENT CONCRETE ROADWAY AND SIDEWALK SLABS ON STEEL BRIDGES	C.Y.	449
STRUCTURAL STEEL, FABRICATED AND DELIVERED	L.S.	LUMP SUM
STRUCTURAL STEEL, ERECTION	L.S.	LUMP SUM
STRUCTURAL STEEL, FIELD PAINTING	L.S.	LUMP SUM
BRIDGE RAIL	LIN. FT.	904
MEMBRANE WATERPROOFING	SQ. YDS.	1400
SLOPE PAVING	SQ. YDS.	477
VERTICAL BRIDGE CURB - TYPE 1	LIN. FT.	907
VERTICAL BRIDGE CURB - CIRCULAR - TYPE 1	LIN. FT.	21
PORTLAND CEMENT CONCRETE - PIERS	C.Y.	253
REINFORCING STEEL, DELIVERED	LBS	123,800
REINFORCING STEEL, PLACING	LBS	123,800
EPOXY RESIN SURFACE SEALANT	SQ. YDS.	86

\* ESTIMATED WEIGHT OF STRUCTURAL STEEL - 436,000 LBS - INCLUDING DRAINS, IS BASED ON NOMINAL SIZE AND DOES NOT INCLUDE WELDS.

▶ NOT A PART OF THIS CONTRACT

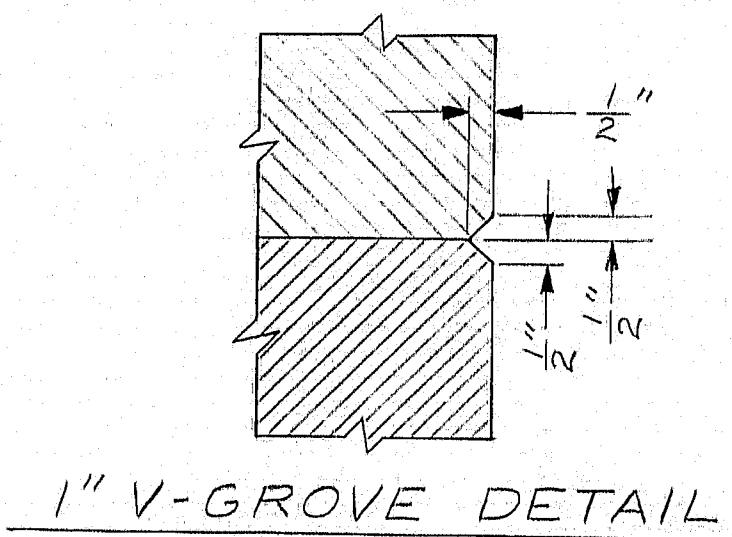
DESIGN - LLR TRACE - LLR CHECK - JHR	BRIDGE NO. SURVEY PLOT
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
LINCOLN SPUR OVER	
INTERSTATE 95 IN	
T2 R8 PENOBSCOT COUNTY	
ABUTMENT DETAILS & APPROACH SLAB	
SHEET 6 OF 12 AUGUSTA, MAINE JAN. 1965	

95-168

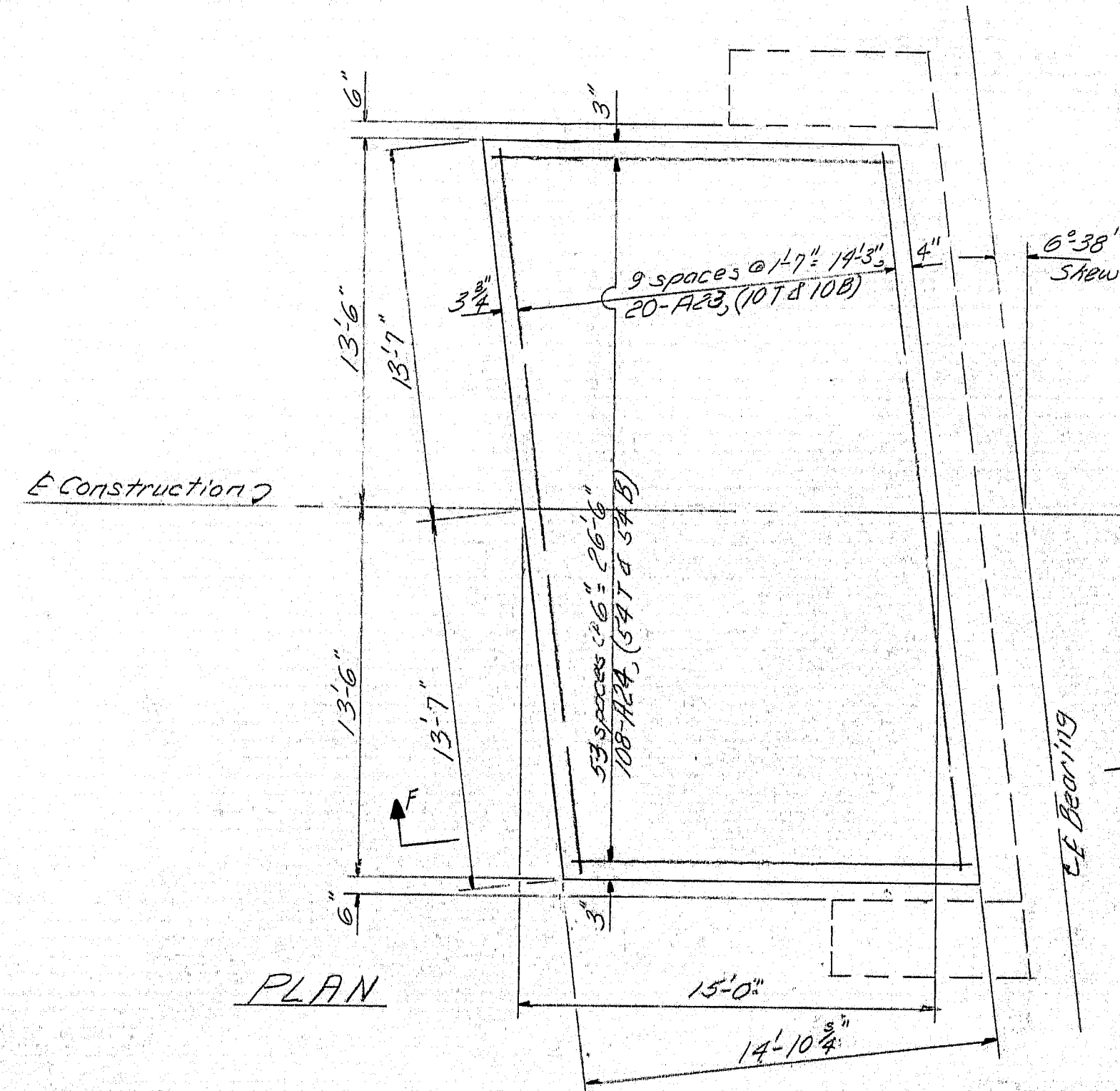


SECTION A-A

SECTION D-D



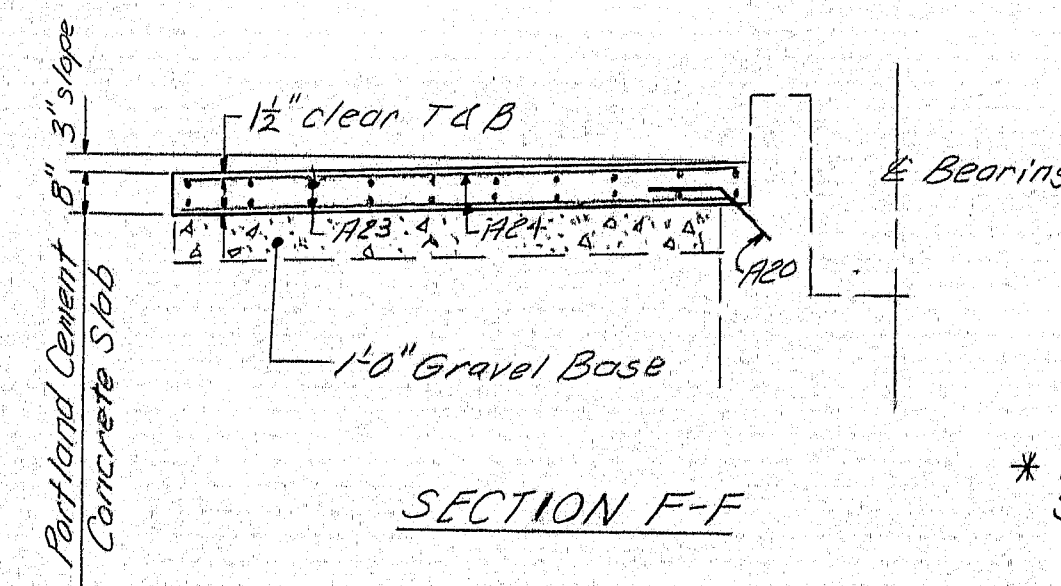
1" V-GROVE DETAIL



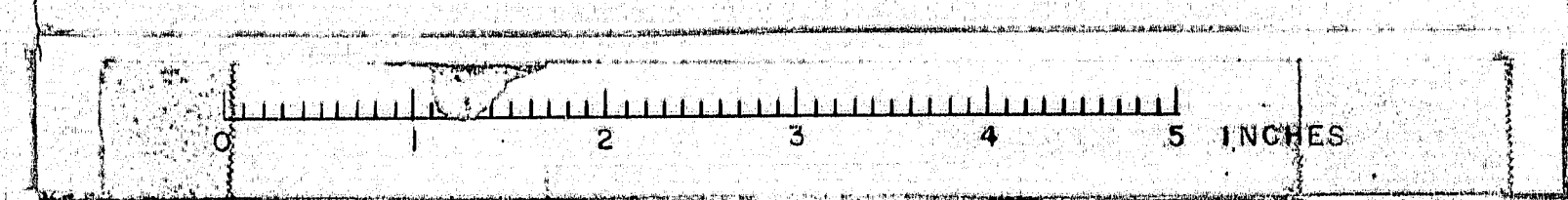
PLAN

### APPROACH SLAB

Abut. #1 is shown, Abut. #2 is identical when rotated 180°. Approach Slab Concrete is to be paid for under Item 701-33, P.C.C., Abutments and Retaining Walls.

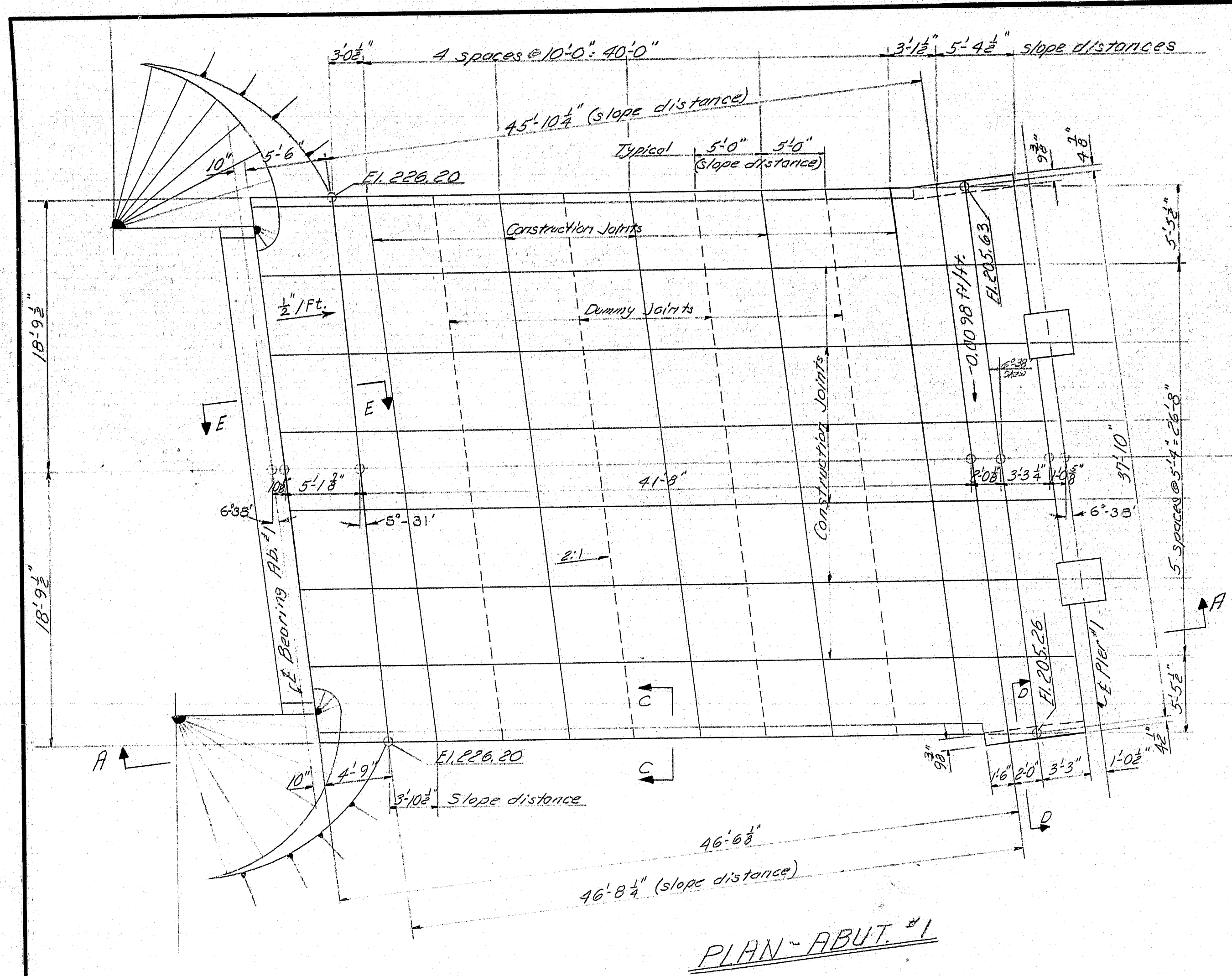


SECTION F-F

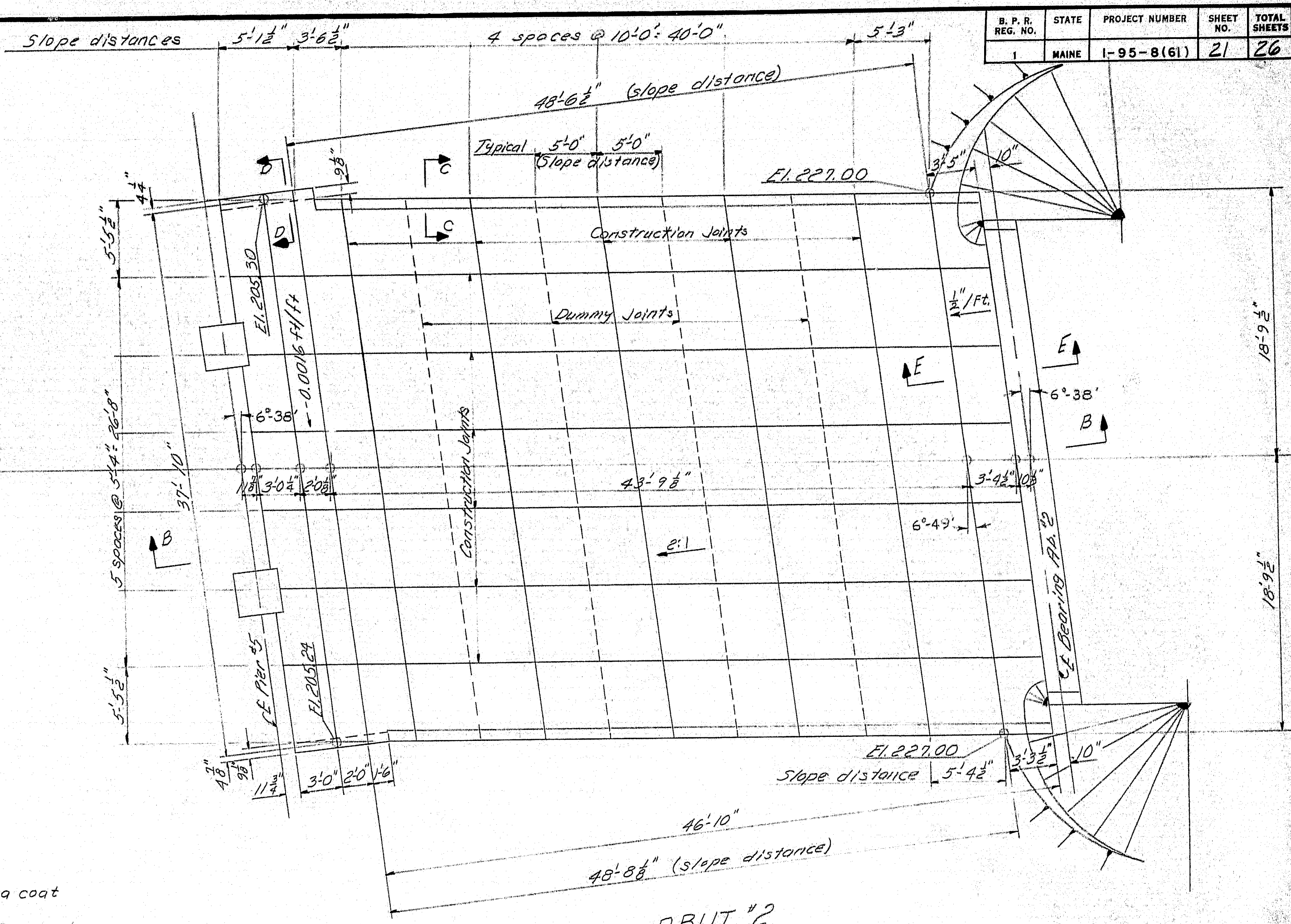




B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-8(61)	21	26



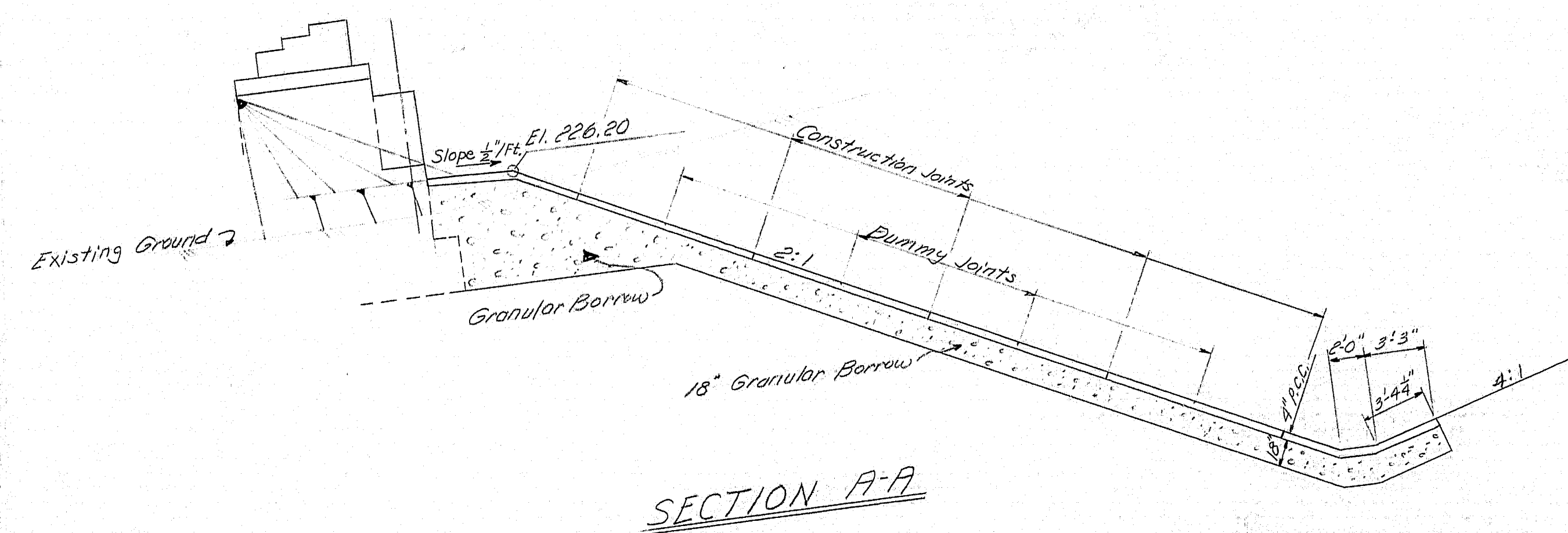
PLAN-ABUT. #1



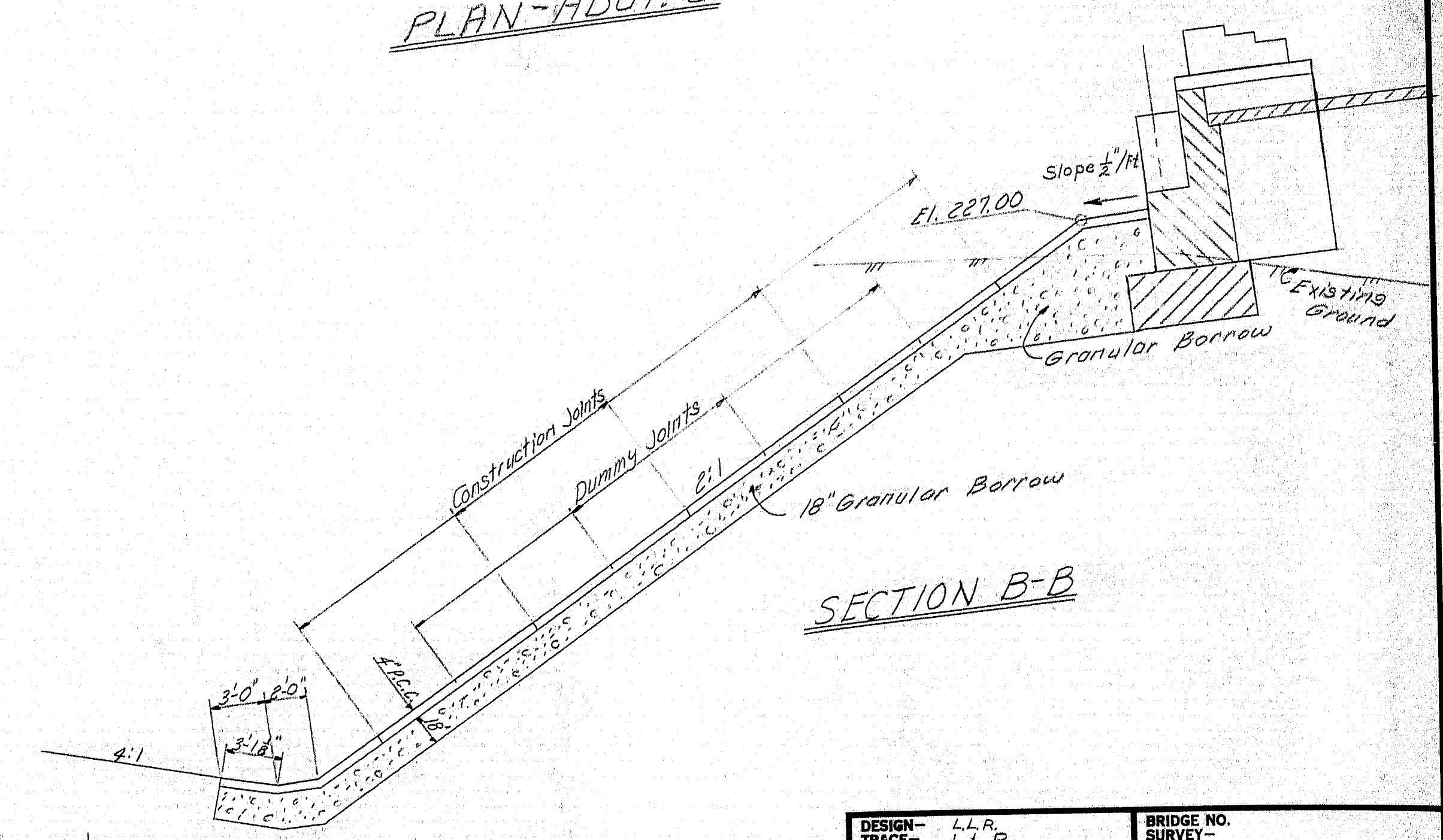
PLAN-ABUT. #2

NOTES

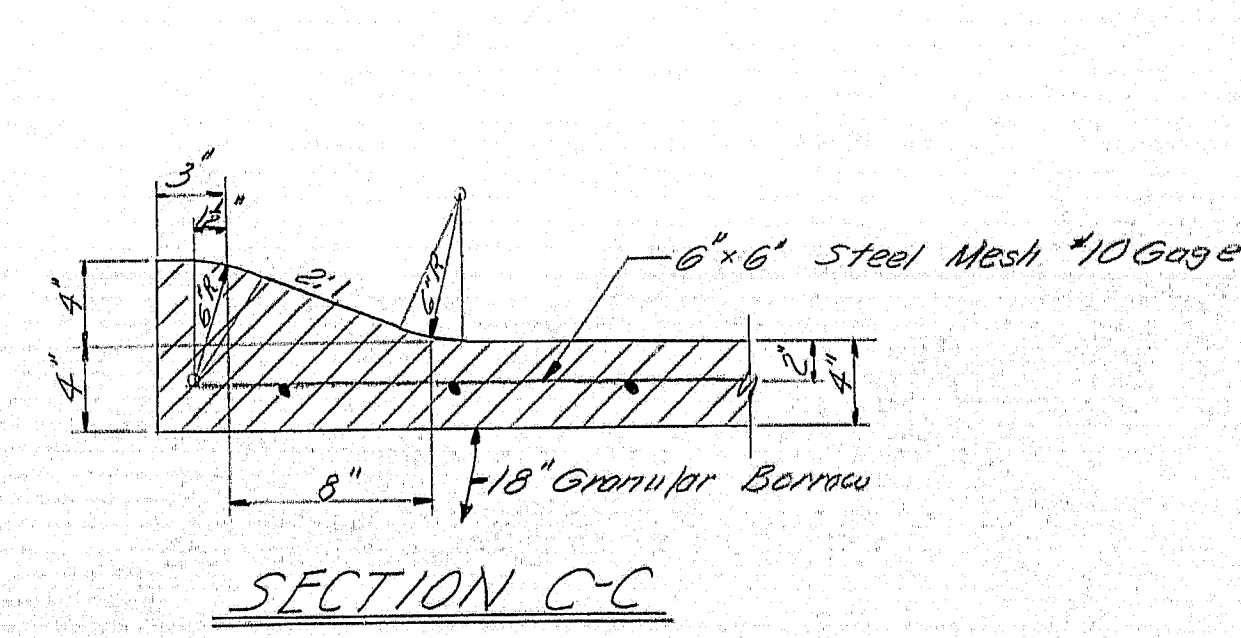
1. Break bond at Construction Joints with a coat of asphalt paint.
2. Dummy Joints shall be made with a side-walk edging tool to a depth of 2".
3. Reinforce with #10 gage 6"x6" steel mesh, not to pass through construction joints.
4. The 18" of Granular Borrow under the Slope Paving may be reduced or omitted if, in the opinion of the Engineer, the existing material is suitable. Payment for excavation for Granular Borrow under Slope Paving to be made under Item 204-14, "Structural Earth Excavation, Piers."



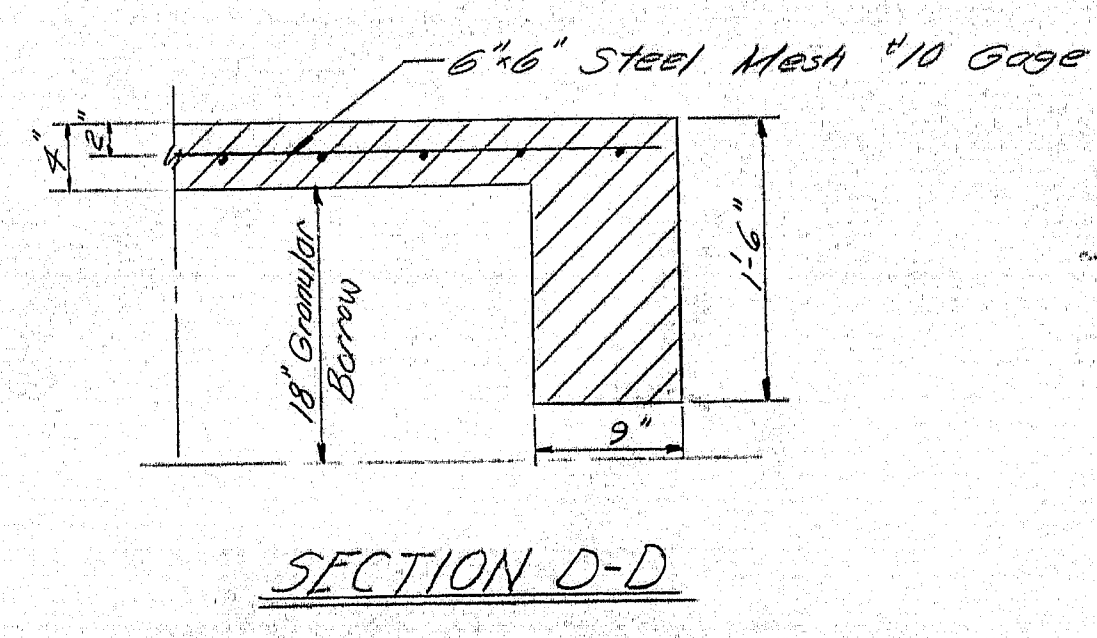
SECTION A-A



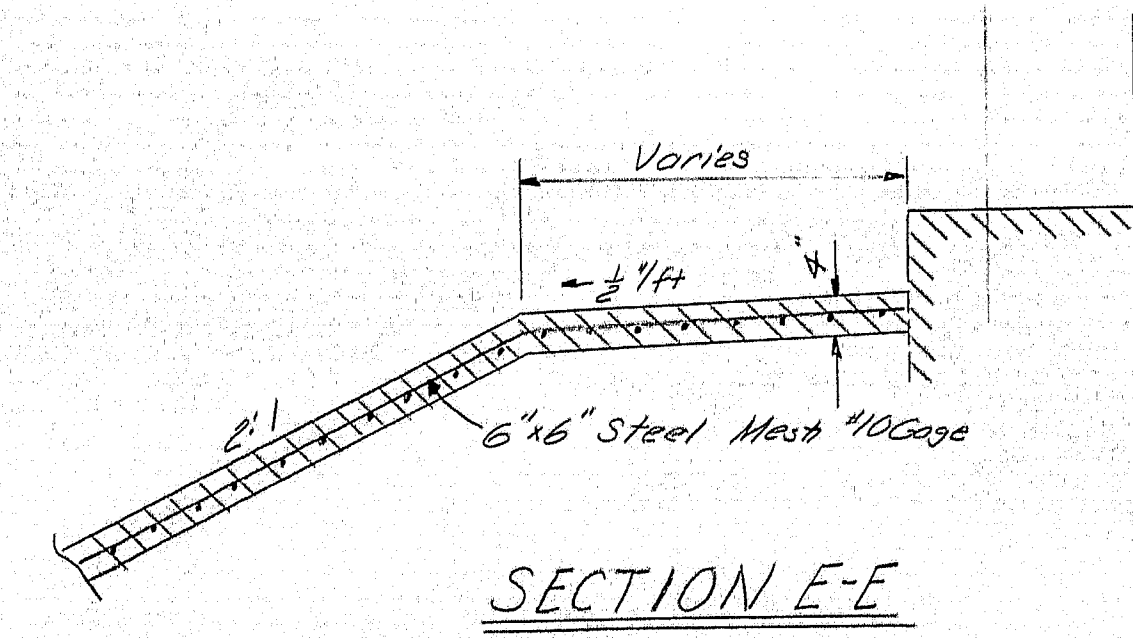
SECTION B-B



SECTION C-C



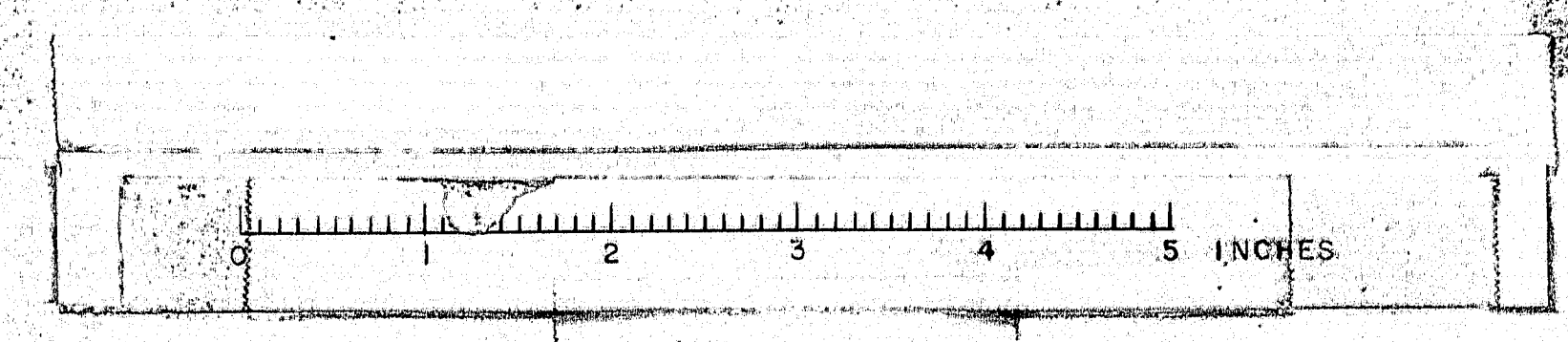
SECTION D-D



SECTION E-E

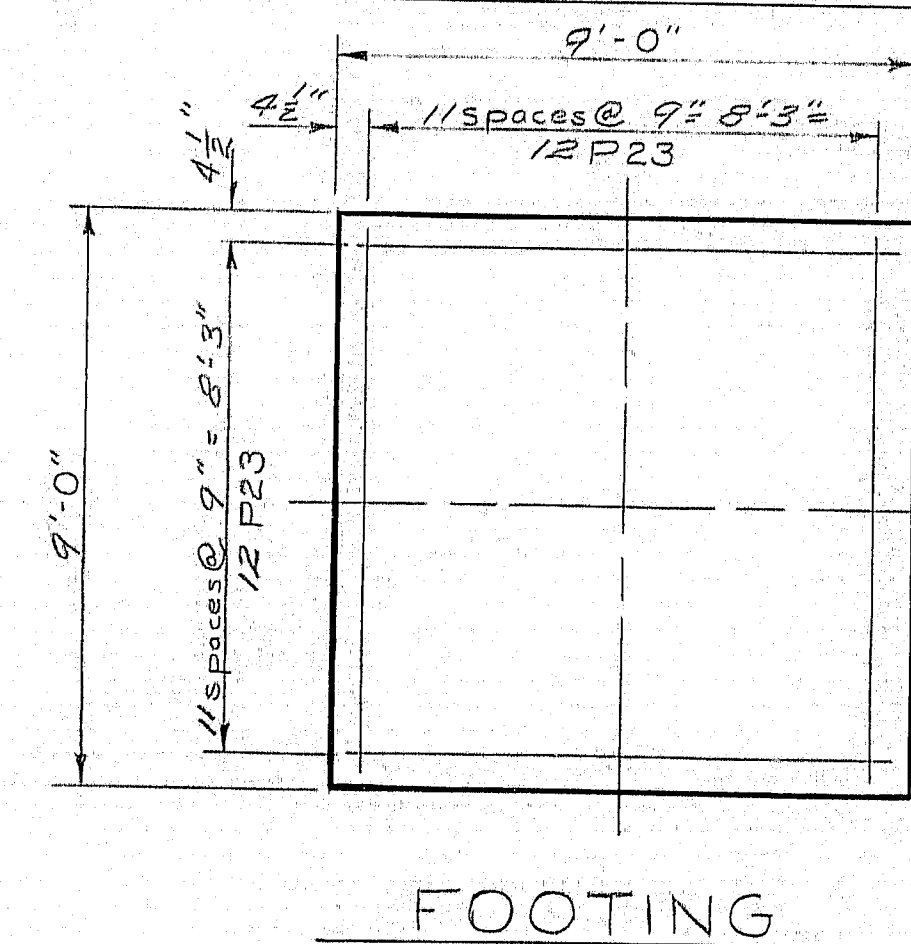
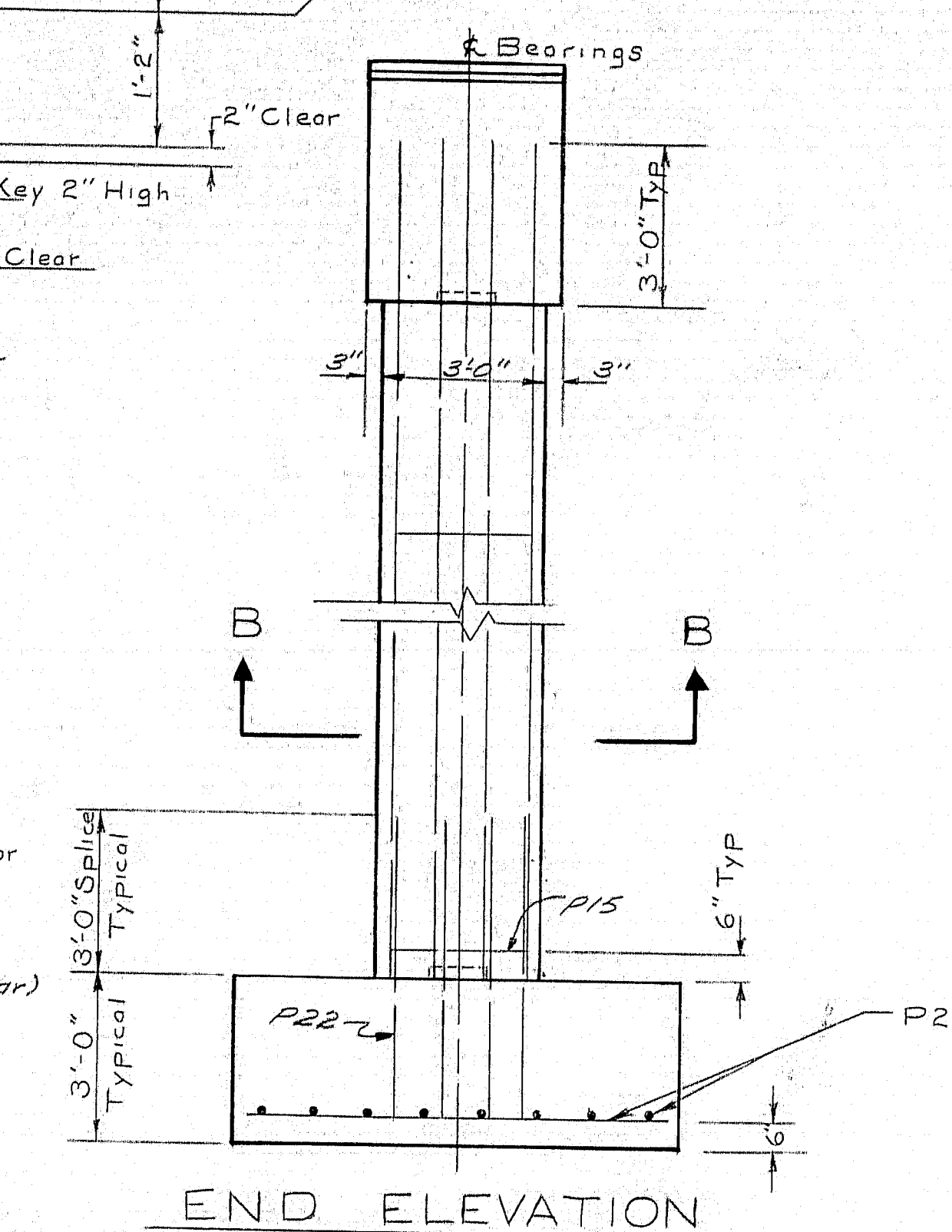
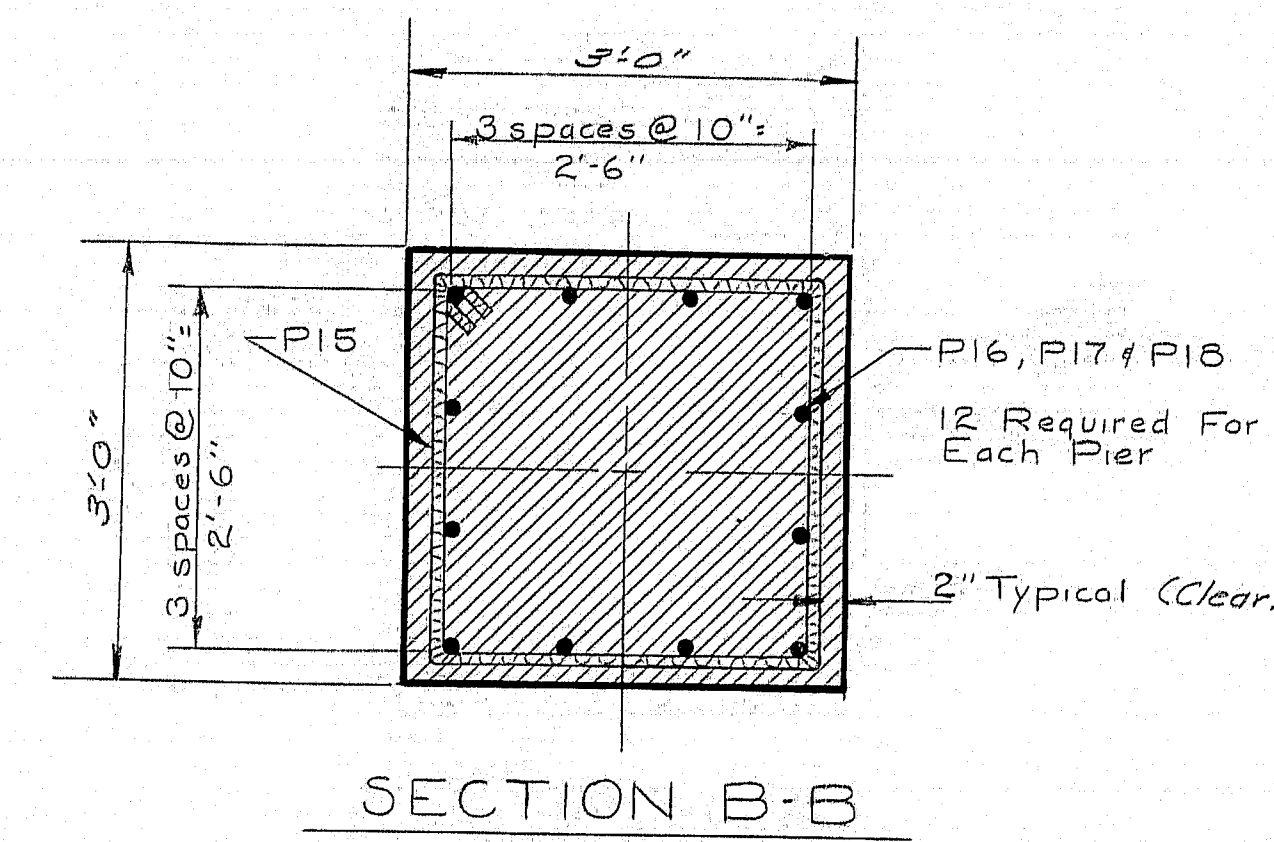
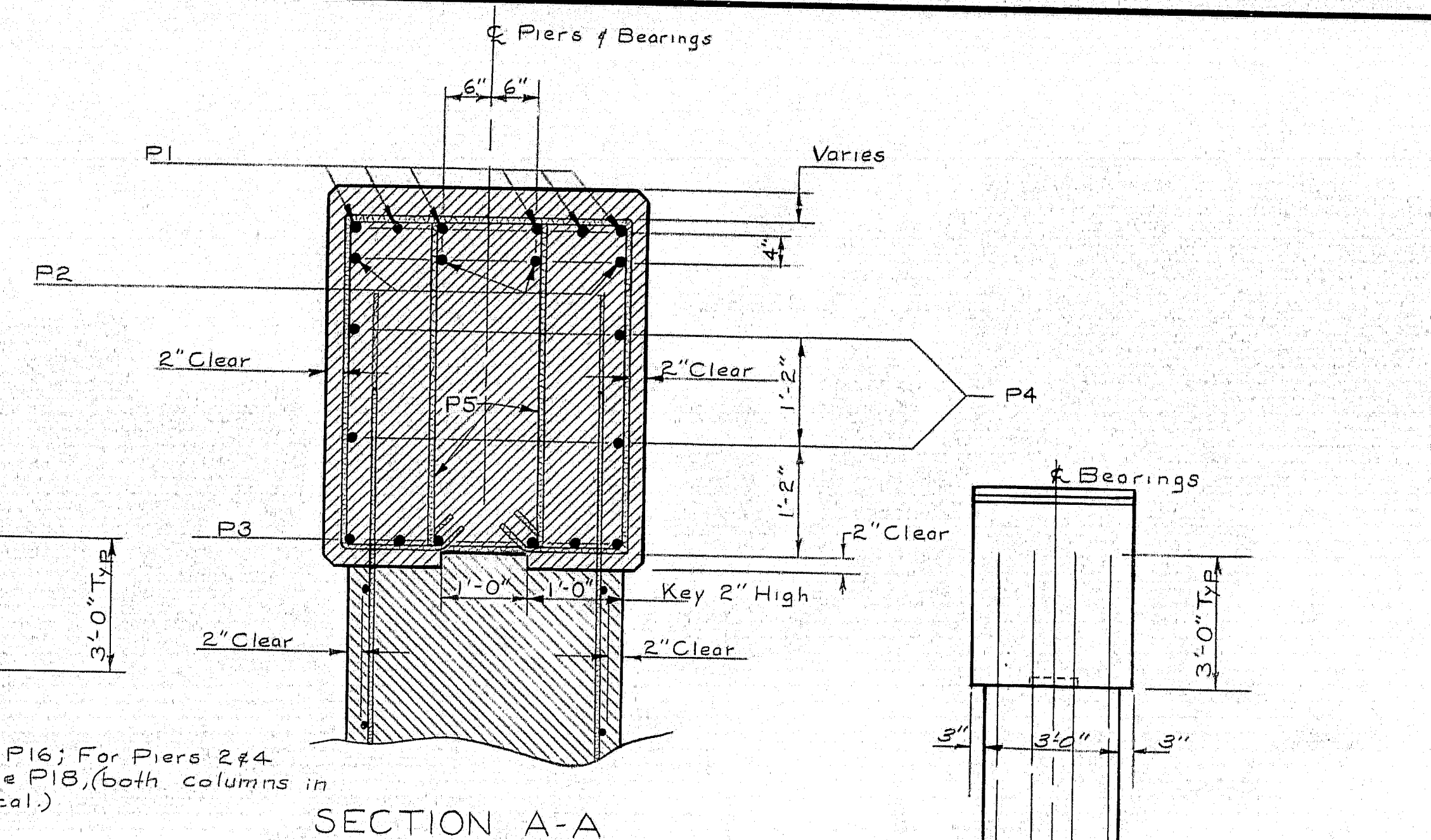
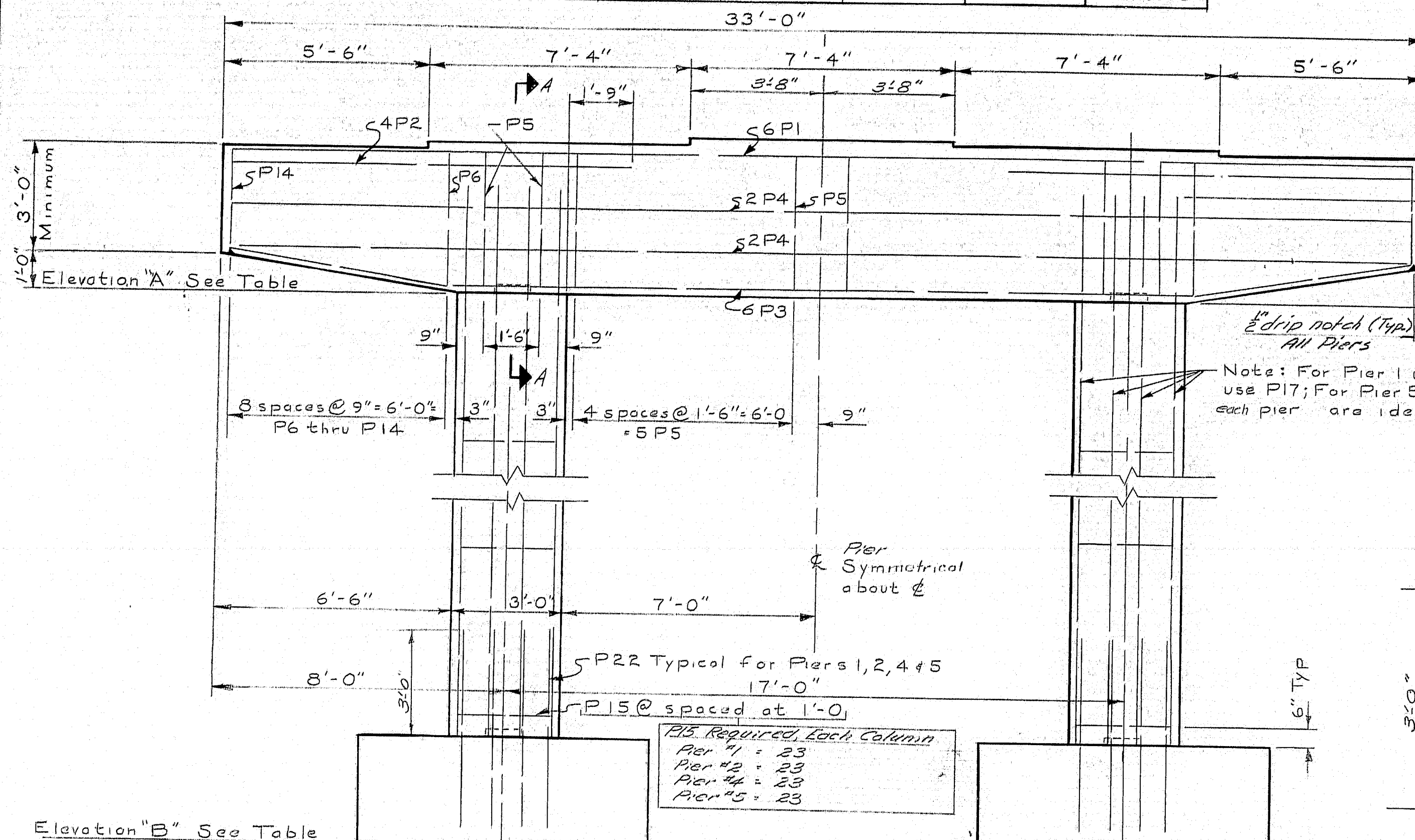
DESIGN- TRACE- CHECK-	LL.R. LL.R. LL.R.	BRIDGE NO. SURVEY- PLOT-
STATE HIGHWAY COMMISSION BRIDGE DIVISION		
LINCOLN SPUR OVER INTERSTATE 95 IN T2 R8 PENOBSCOT COUNTY SLOPE PAVING		
SHEET 7 OF 12 AUGUSTA, MAINE JAN. 1965		

95-169

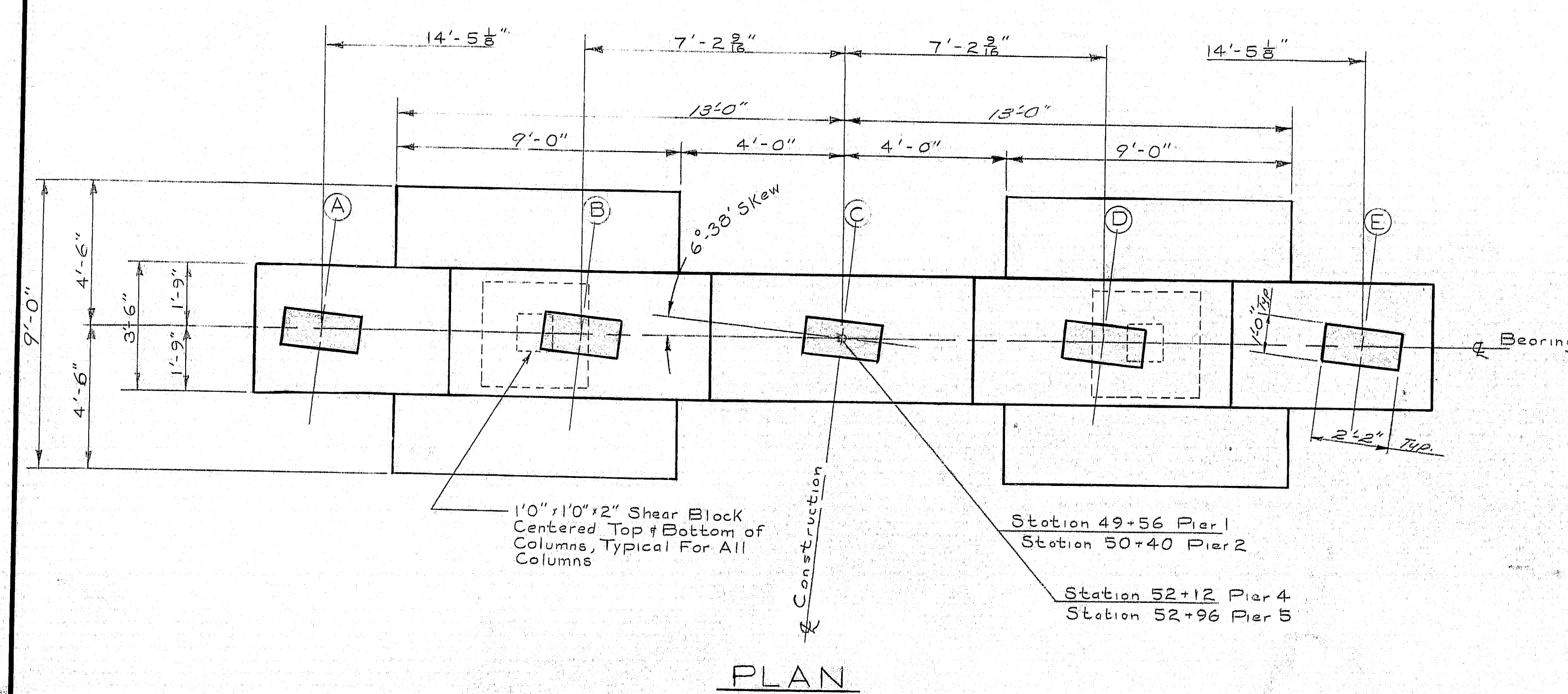




BRIDGE SEAT ELEVATIONS					
	A	B	C	D	E
PIER 1	227.90	228.06	228.22	228.08	227.94
PIER 2	228.64	228.79	228.95	228.81	228.66
PIER 4	228.96	229.10	229.25	229.10	228.94
PIER 5	228.53	228.67	228.81	228.65	228.50



	Pier 1	Pier 2	Pier 4	Pier 5
Elevation "A"	223.90	224.64	224.94	224.50
Elevation "B"	198.30	197.90	198.13	198.20



- GENERAL PIER NOTES
1. Chamfer all exposed edges of concrete  $\frac{3}{4}$ "
  2. Place reinforcing steel to clear anchor bolts.
  3. Reinforcing steel to have 12" of cover unless otherwise noted.
  4. Max. Footing Pressure = 4.0 Tons/sq. foot

DESIGN - J.H.K. & ALL.  
TRACE - J.H.K.  
CHECK - J.H.R.

BRIDGE NO. SURVEY - 107

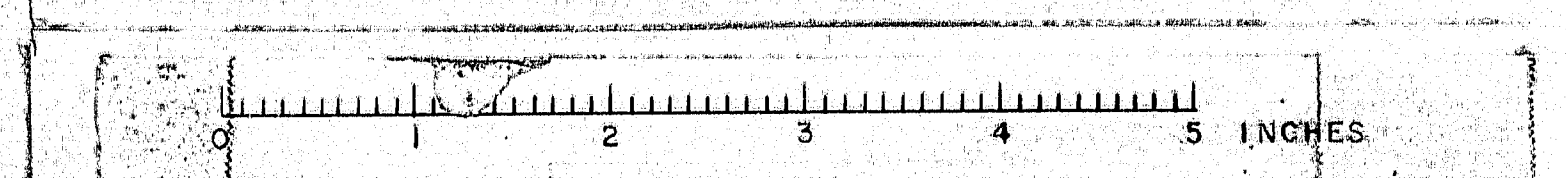
STATE HIGHWAY COMMISSION  
BRIDGE DIVISION

LINCOLN SPUR  
OVER  
INTERSTATE 95  
IN  
T2 R8  
PENOBSCOT COUNTY

PIERS NO. 1, 2, 4, & 5

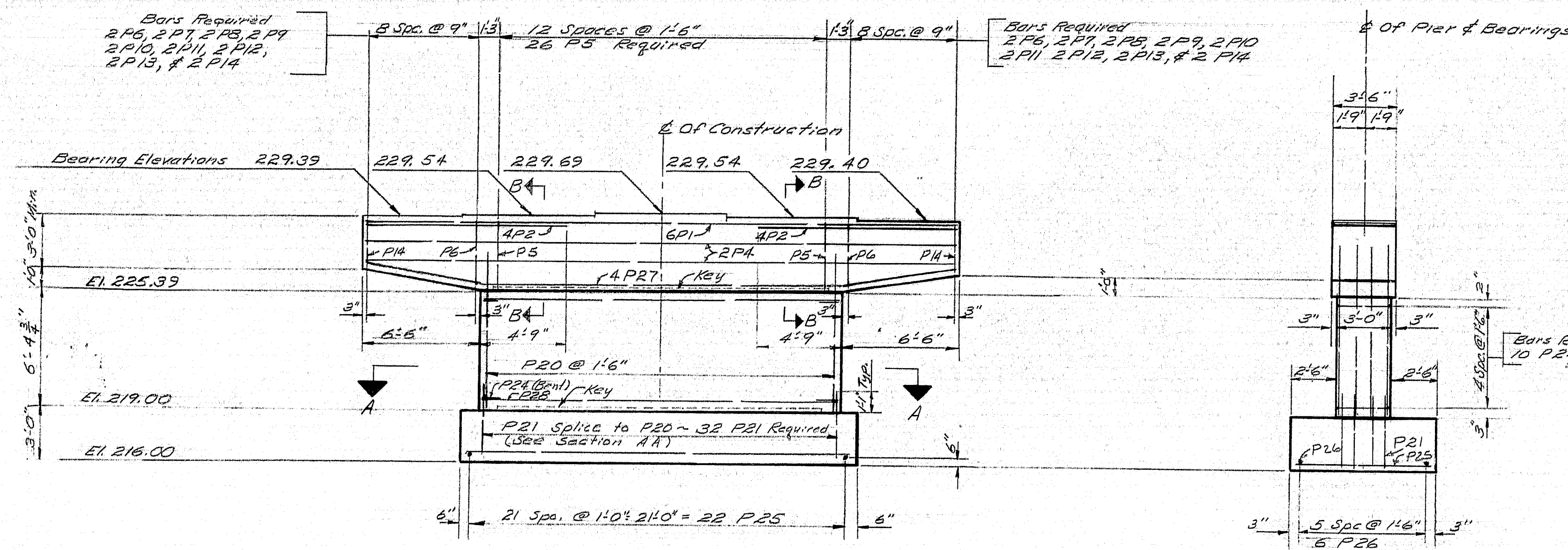
SHEET 8 OF 12 AUGUSTA, MAINE FEB. 1965

95-170



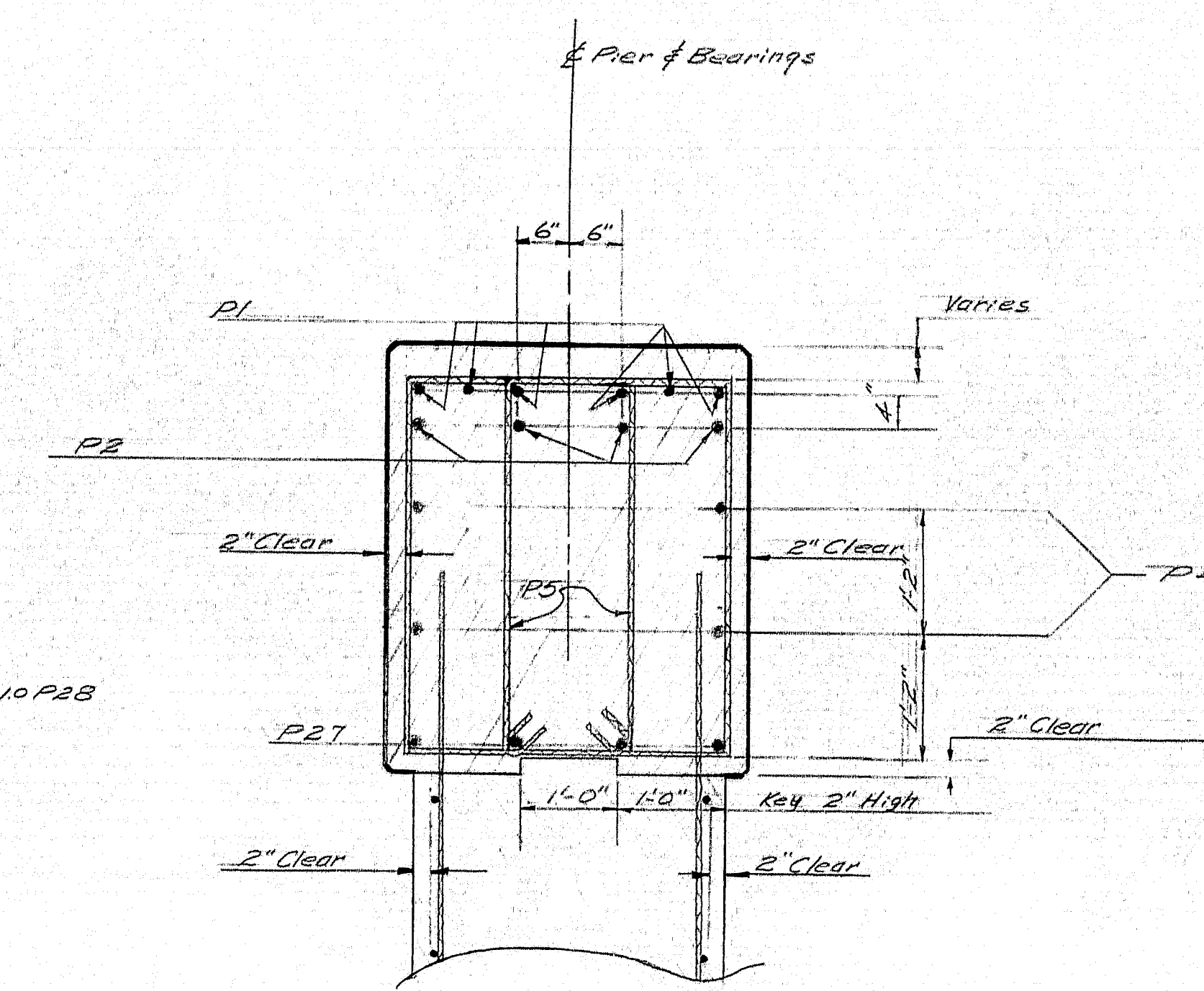


S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-8 (61)	23	26

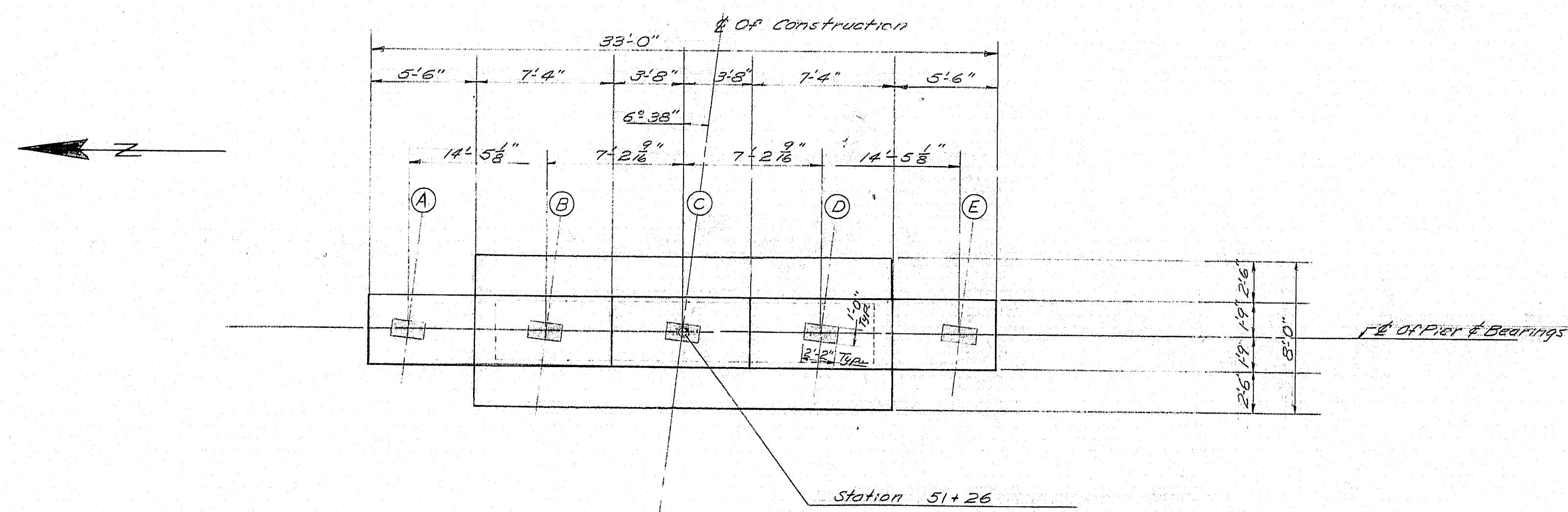


ELEVATION

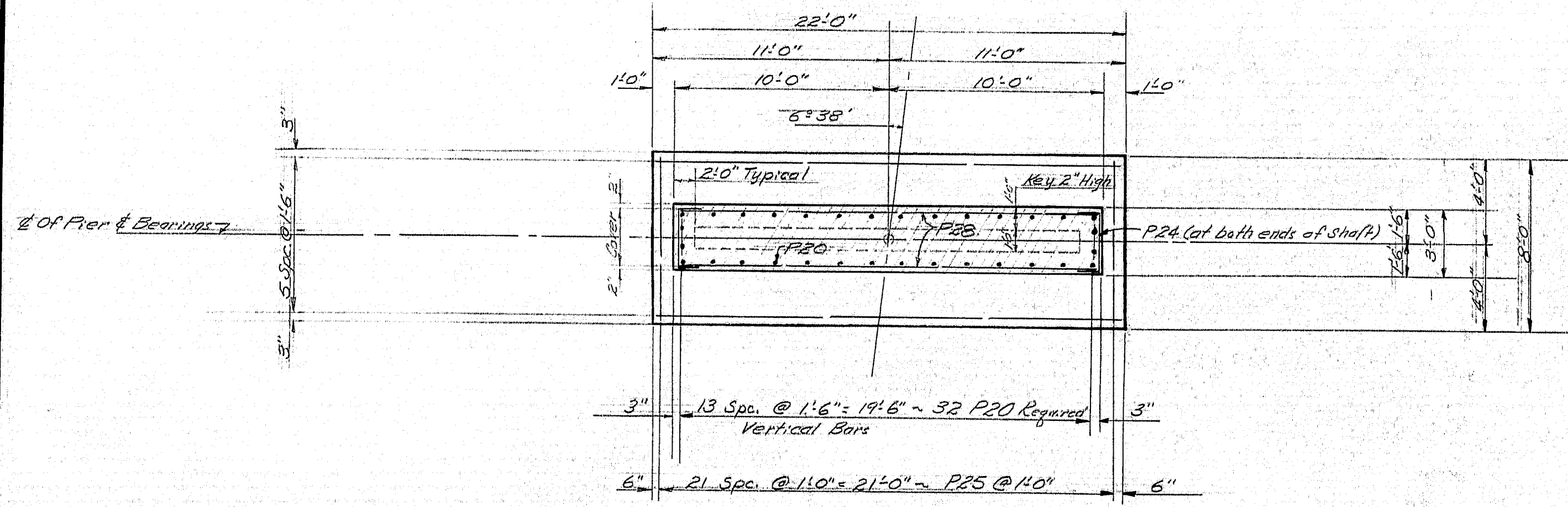
END ELEVATION



SECTION BB



PLAN

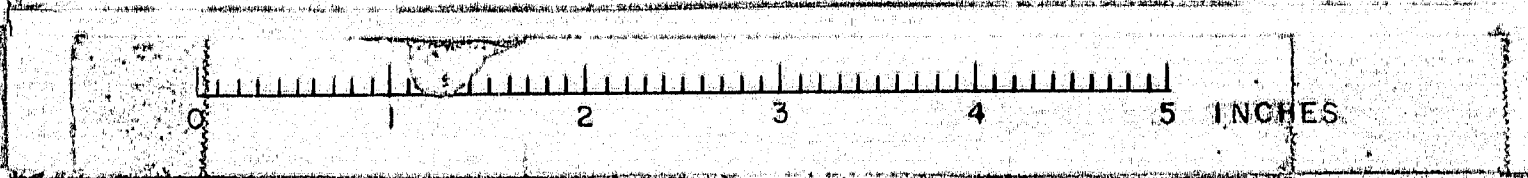


SECTION AA

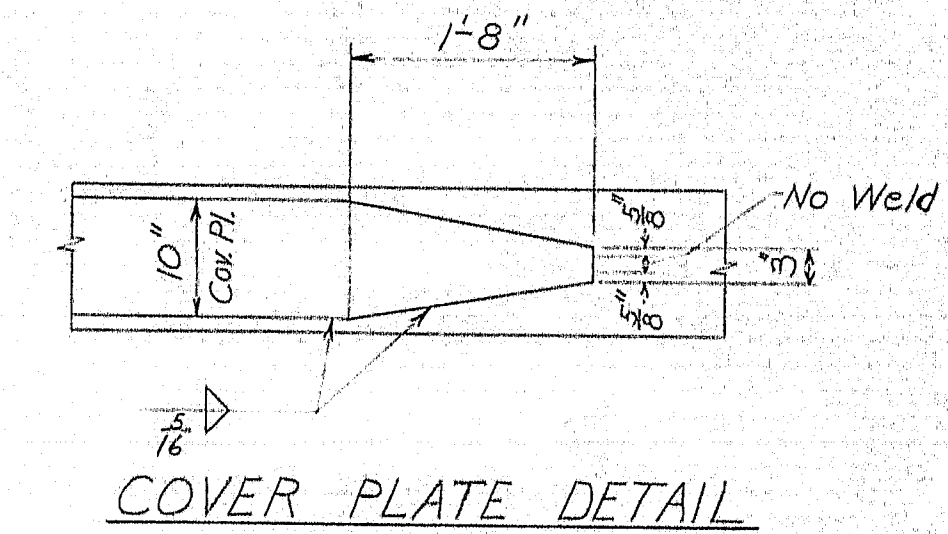
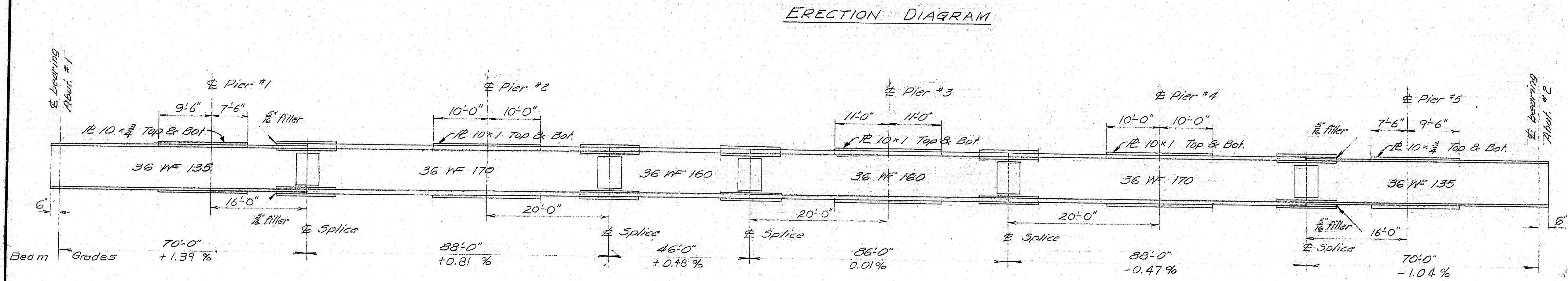
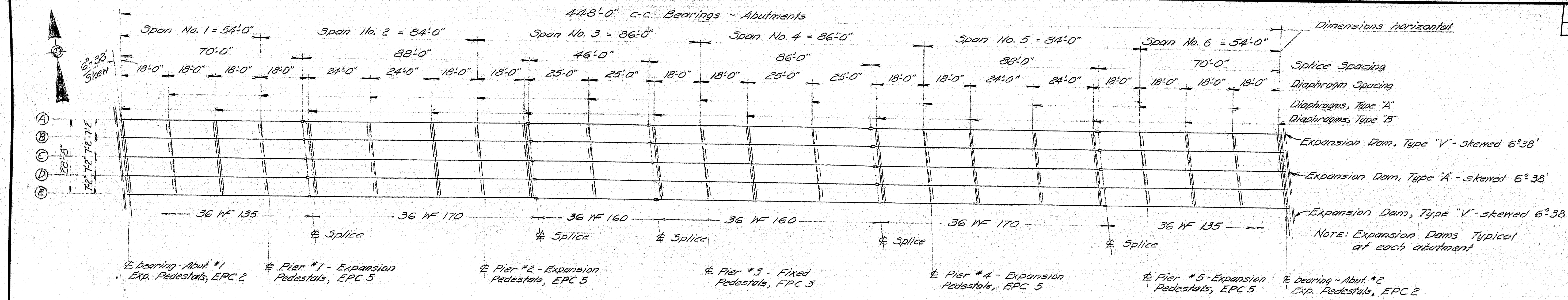
- GENERAL PIER NOTES
1. Chamfer all exposed edges of concrete  $\frac{3}{4}$ "
  2. Place reinforcing steel to clear anchor bolts.
  3. Reinforcing steel to have 2" of cover unless otherwise noted.
  4. Max. Footing Pressure = 4.0 Tons/sq. foot

DESIGN - ALL	BRIDGE NO.
TRACE - ALL	SURVEY -
CHECK - AHR	PLOT -
STATE HIGHWAY COMMISSION	
BRIDGE DIVISION	
LINCOLN SPUR	
OVER	
INTERSTATE 95	
IN	
T2 R8	
PENOBSCOT COUNTY	
PIER NO. 3	
SHEET 9 OF 12 AUGUSTA, MAINE FEB. 1965	

95-171







#### SPECIFICATIONS

Fabrication & Erection: State of Maine Standard Specifications, Highway & Bridges, Revision of Jan. 1956 and supplements. Design & Detail: A.A.S.H.O. Standard Specifications of 1961, and Interim Specifications, 1961, 1962, 1963 and 1964. All Structural Steel shall be A36 except as shown on Standard Details.

#### REFERENCES

Splice - See Standard Details BD 103-64.  
Diaphragms - See Standard Details BD 104-64.  
Pedestals - See Standard Details BD 101-64.  
Expansion Dams - See Standard Details BD 105-64.  
Drains - Sheet 11 & BD-104-64.

#### PEDESTALS

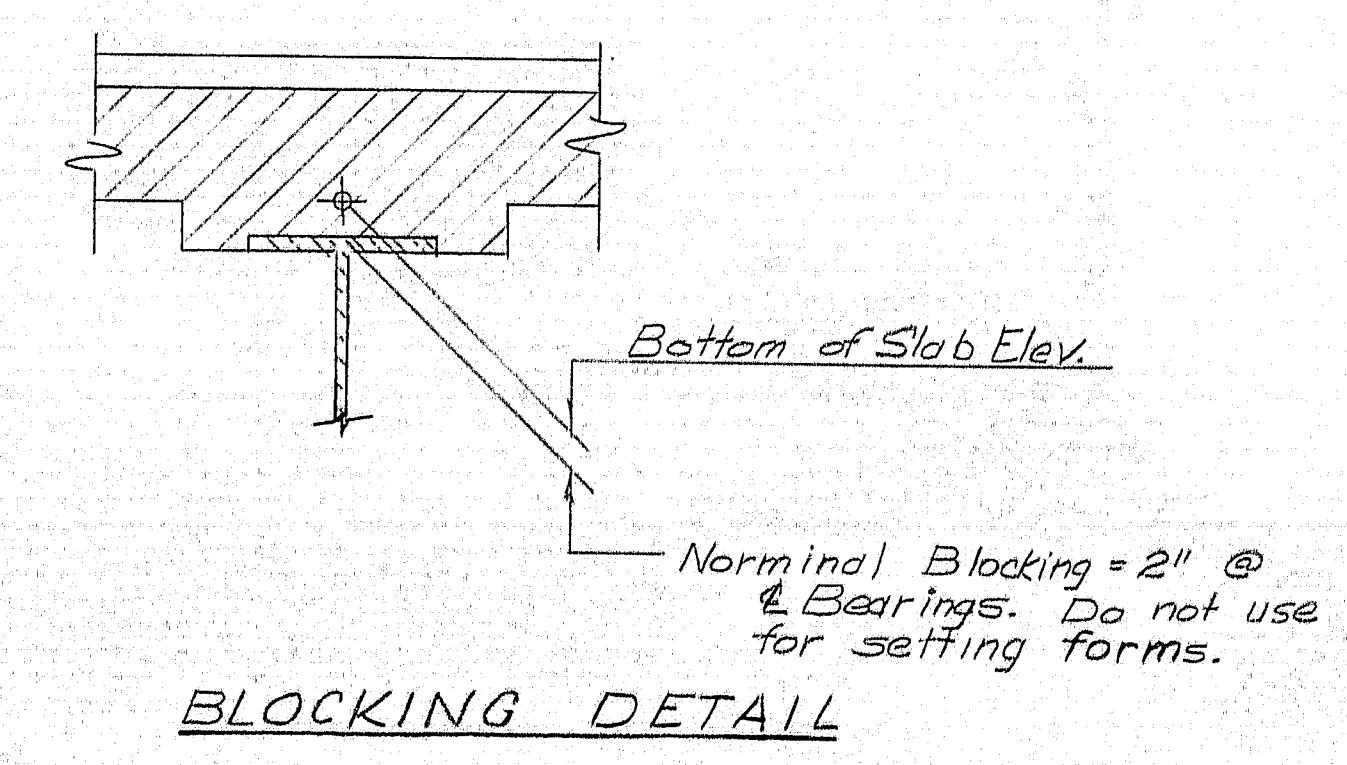
10-EPC2 required  
20-EPC5 required  
5-FPC3 required

#### BLOCKING TABLE

BOTTOM OF SLAB ELEVATIONS																					
LINE	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A
231.53	231.69	231.85	231.72	231.58	231.75	231.91	232.07	232.12	231.93	231.80	232.28	232.44	232.60	232.46	232.32	232.90	233.06	233.22	233.38	233.54	233.70
232.28	232.44	232.60	232.46	232.32	232.18	232.86	233.02	233.18	233.34	233.50	233.66	233.82	233.98	234.14	234.30	234.46	234.62	234.78	234.94	235.10	235.26
233.03	233.19	233.35	233.51	233.67	233.83	233.99	234.15	234.31	234.47	234.63	234.79	234.95	235.11	235.27	235.43	235.59	235.75	235.91	236.07	236.23	236.39
233.78	233.94	234.10	234.26	234.42	234.58	234.74	234.90	235.06	235.22	235.38	235.54	235.70	235.86	236.02	236.18	236.34	236.50	236.66	236.82	236.98	237.14
234.53	234.69	234.85	235.01	235.17	235.33	235.49	235.65	235.81	235.97	236.13	236.29	236.45	236.61	236.77	236.93	237.09	237.25	237.41	237.57	237.73	237.89

BOTTOM OF SLAB ELEVATIONS										
LINE	A	B	C	D	E	A	B	C	D	E
233.41	233.55	233.70	233.85	234.00	234.15	234.30	234.45	234.60	234.75	234.90
233.52	233.66	233.81	233.96	234.11	234.26	234.41	234.56	234.71	234.86	235.01
233.63	233.77	233.92	234.07	234.22	234.37	234.52	234.67	234.82	234.97	235.12
233.74	233.88	234.03	234.18	234.33	234.48	234.63	234.78	234.93	235.08	235.23
233.85	233.99	234.14	234.29	234.44	234.59	234.74	234.89	235.04	235.19	235.34

Note:  
In order that the roadway slab will conform to the profile and cross sections shown on these plans the accompanying table of Elevations is given. Elevations for the bottom of slab which are computed to compensate for dead load deflections, must be set before slab forms are started.



DESIGN - T.H.K.  
TRACE - G.W.C.  
CHECK - A.H.P.

BRIDGE NO.  
SURVEY -  
PLOT -

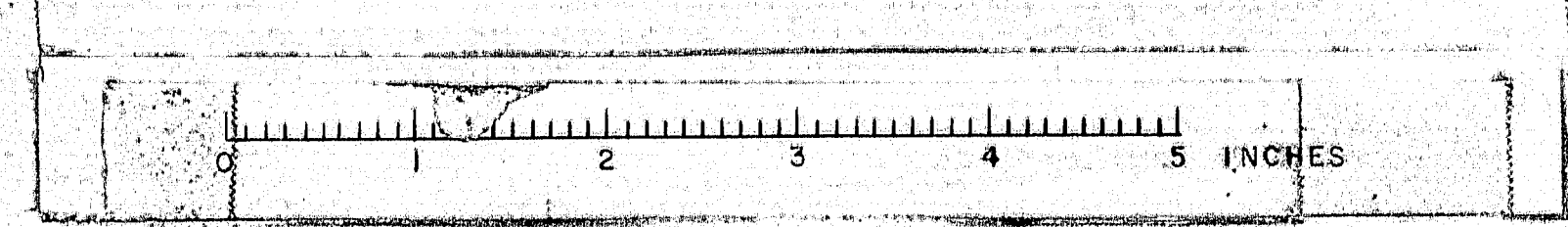
STATE HIGHWAY COMMISSION  
BRIDGE DIVISION

**LINCOLN SPUR**  
OVER  
**INTERSTATE 95**  
IN  
**T2 R8**  
**PENOBSCOT COUNTY**

ERECTOR DIAGRAM & BLOCKING

SHEET 10 OF 12 AUGUSTA, MAINE JAN. 1965

95-172



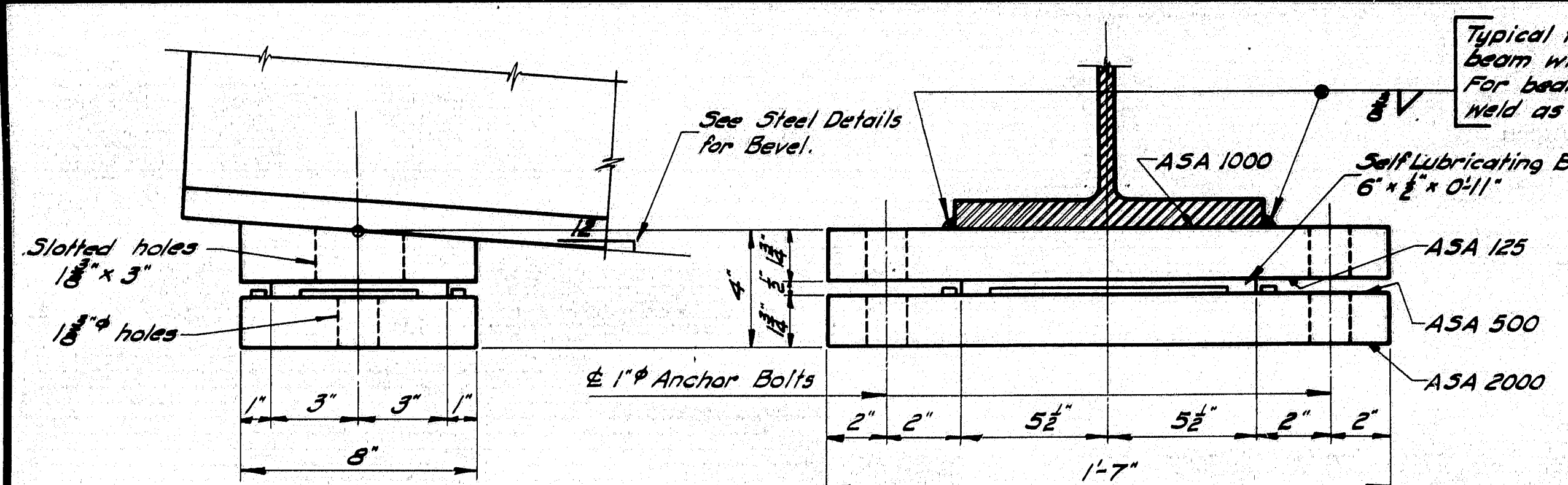




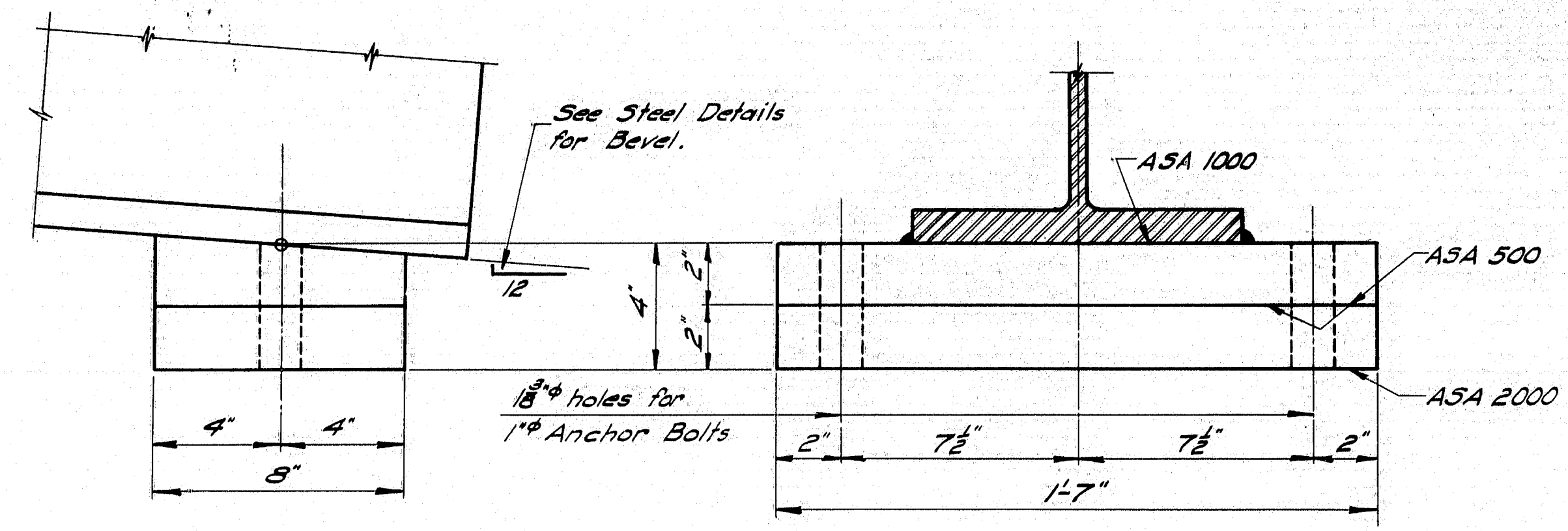




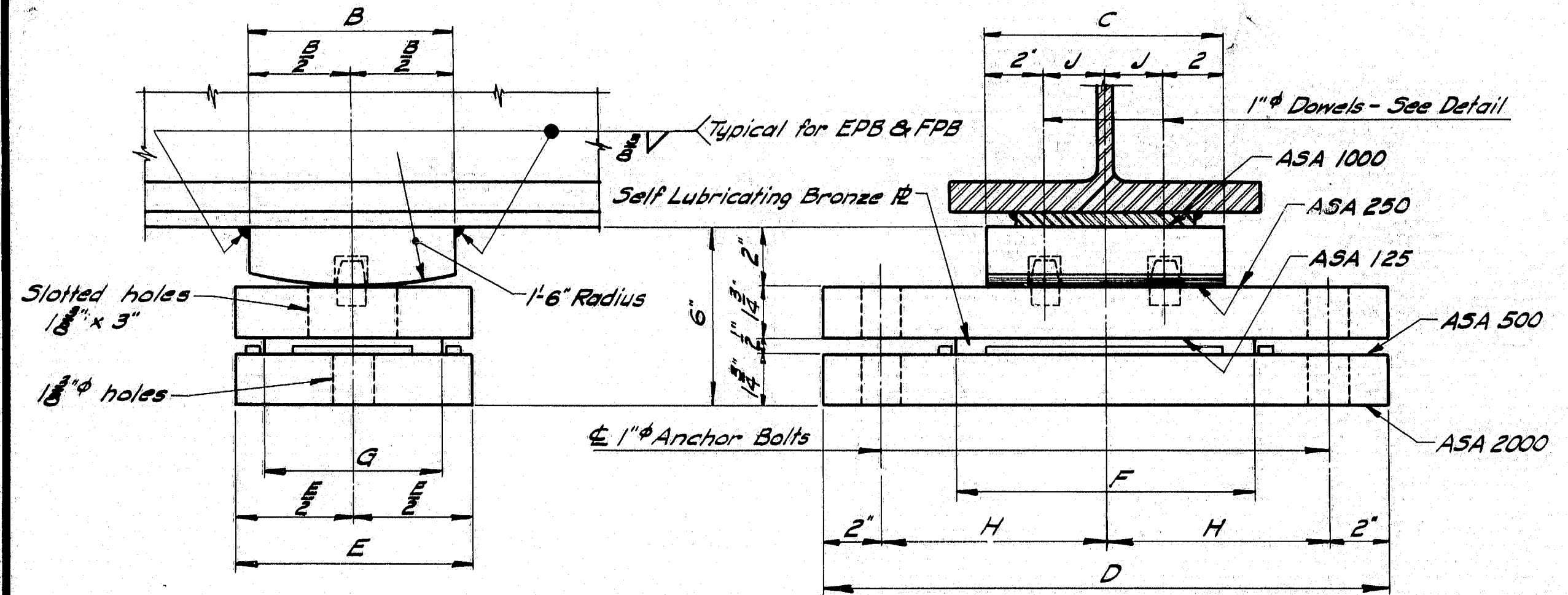




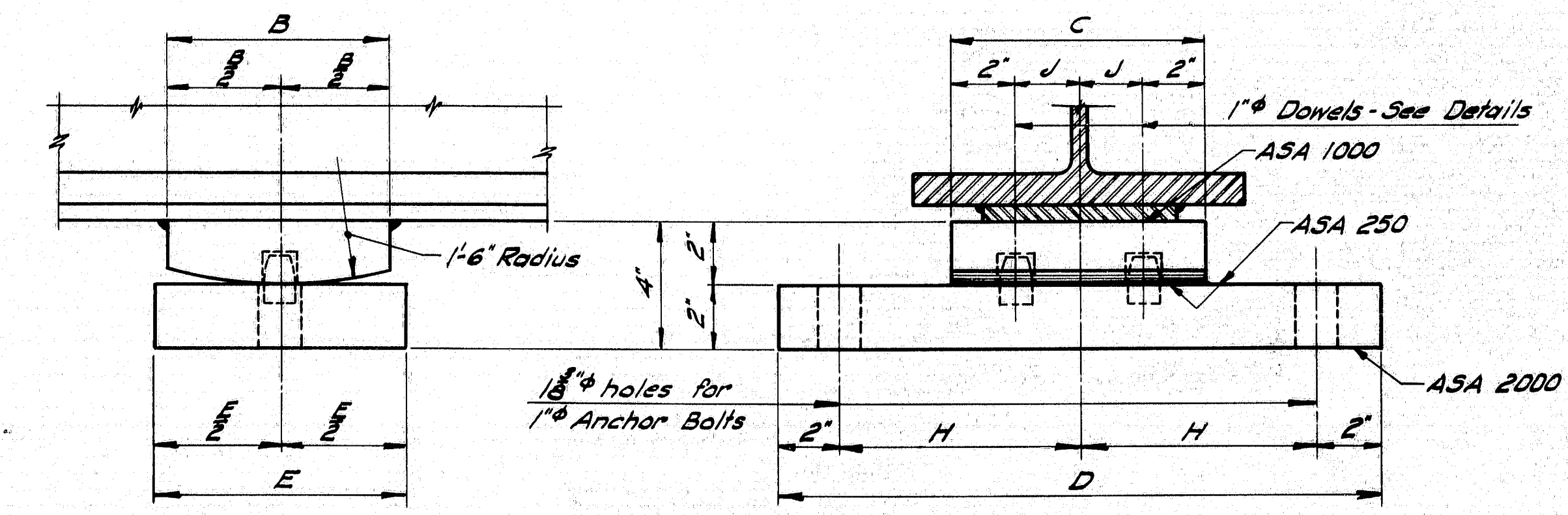
**EXPANSION PEDESTAL - EPA**



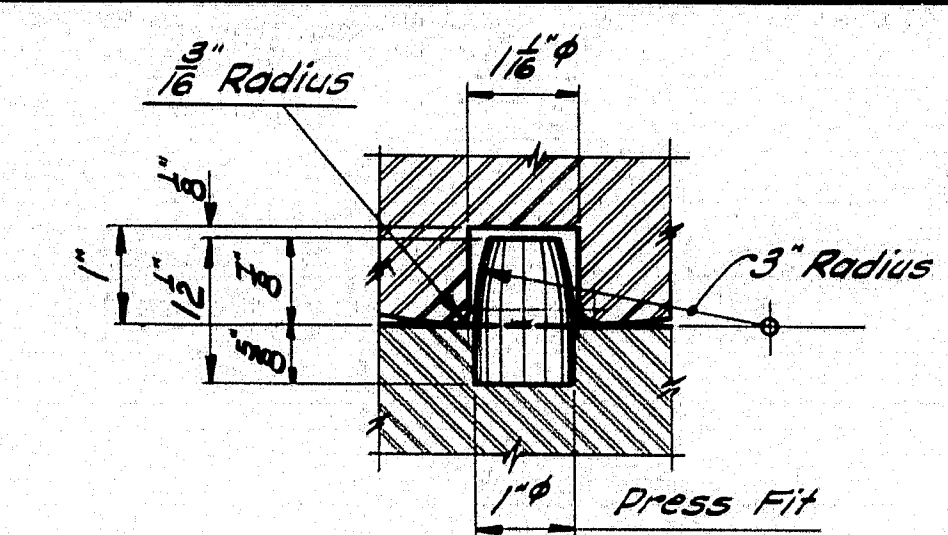
**FIXED PEDESTAL - FPA**



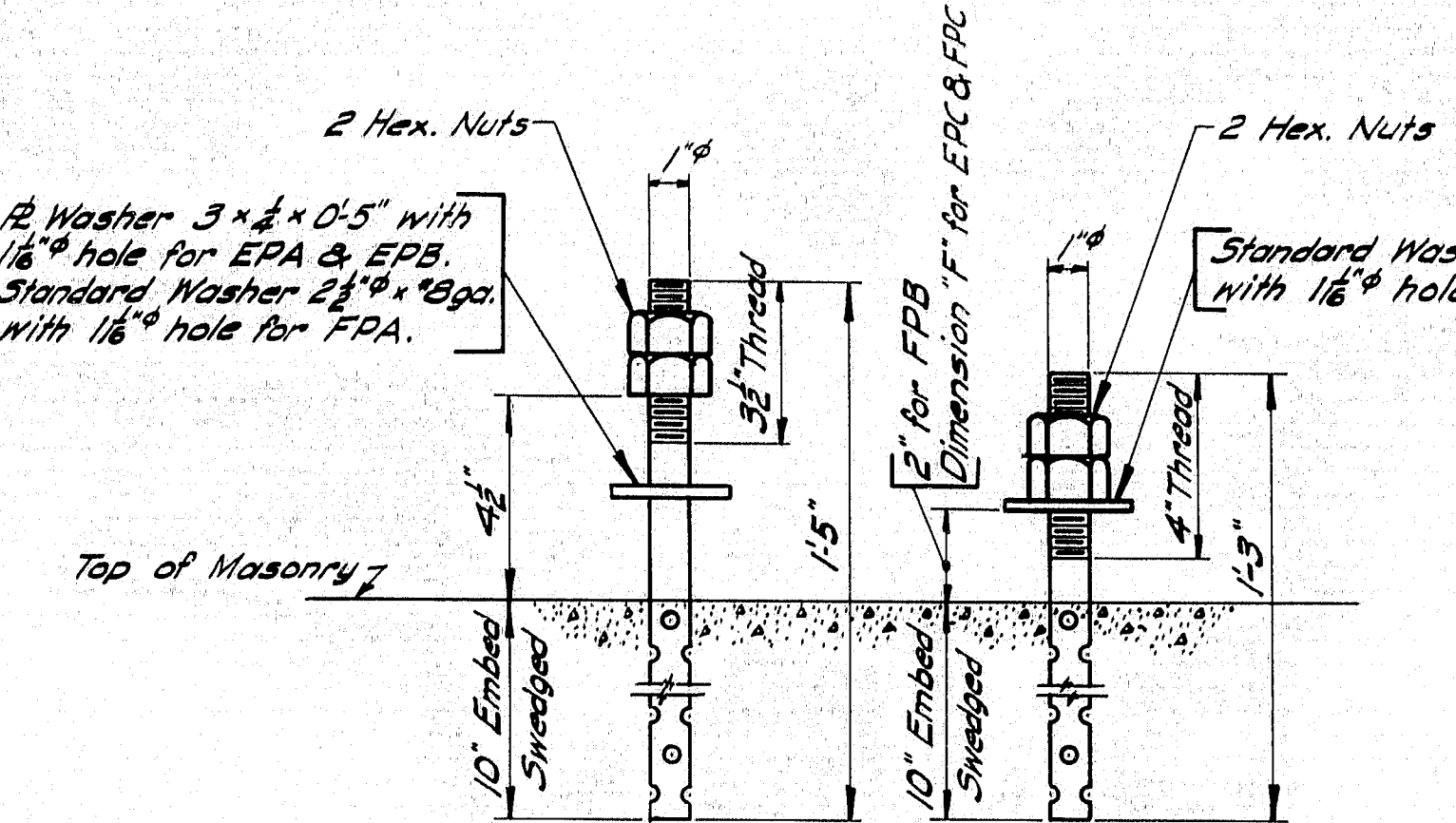
**EXPANSION PEDESTAL - EPB**



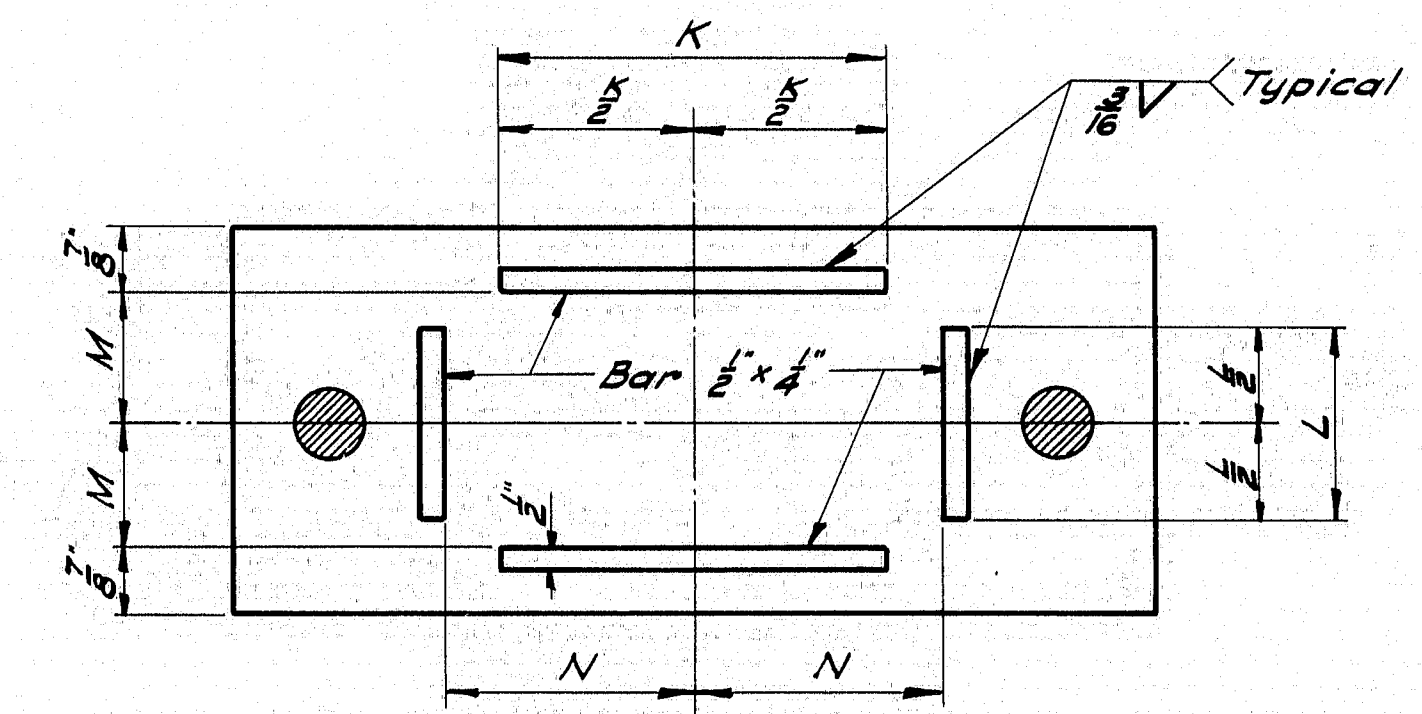
**FIXED PEDESTAL - FPB**



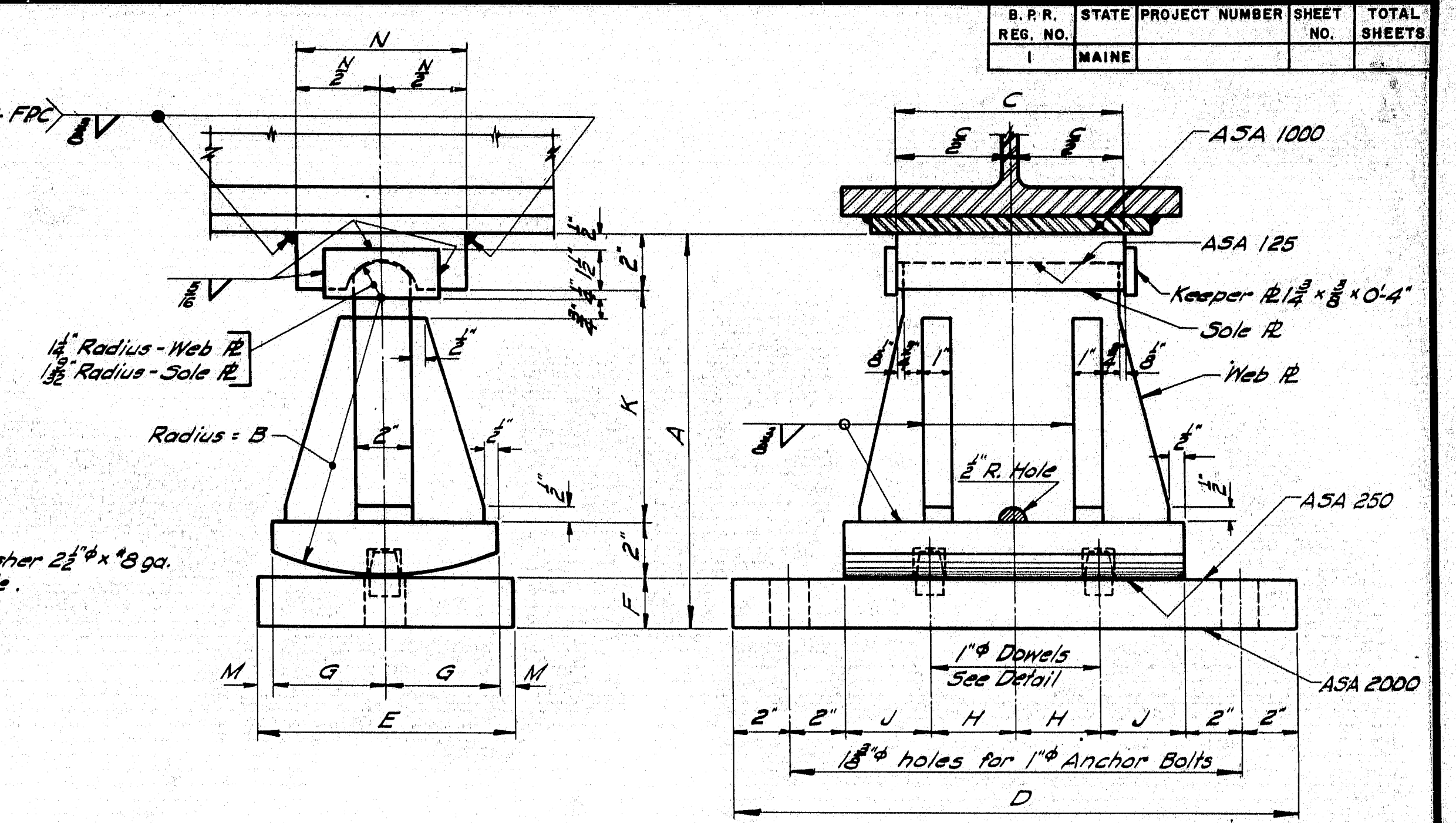
**DOWEL DETAIL**



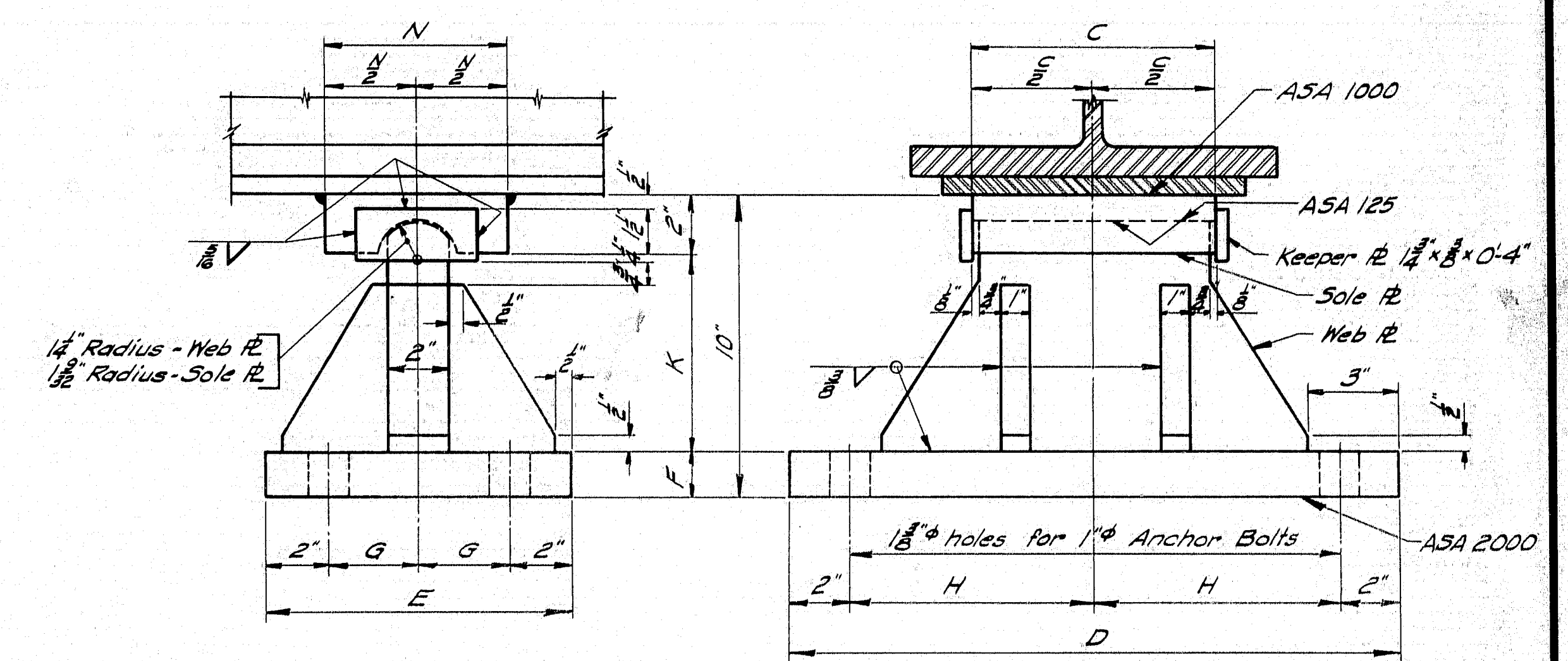
**ANCHOR BOLT DETAIL**



**MASONRY PLATE**



**EXPANSION PEDESTAL - EPC**



**FIXED PEDESTAL - FPC**

NOTE: At the location of bearing pedestals the concrete bridge seats shall be dressed one inch larger all around than size of masonry plates and to exact elevations shown on the plans. If dressed areas are below the surface of the surrounding bridge seat a small channel shall be cut to the edge of the bridge seat for drainage where required by the Engineer. Channels shall have a min. width of 2" and min. slope of 1/8" per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

**DESIGN SPECIFICATIONS**

A. A. S. H. O., Standard Specifications for Highway Bridges, 1961, with Interim Specifications, 1961 & 1962

**A. S. T. M. STEEL CLASSIFICATION**

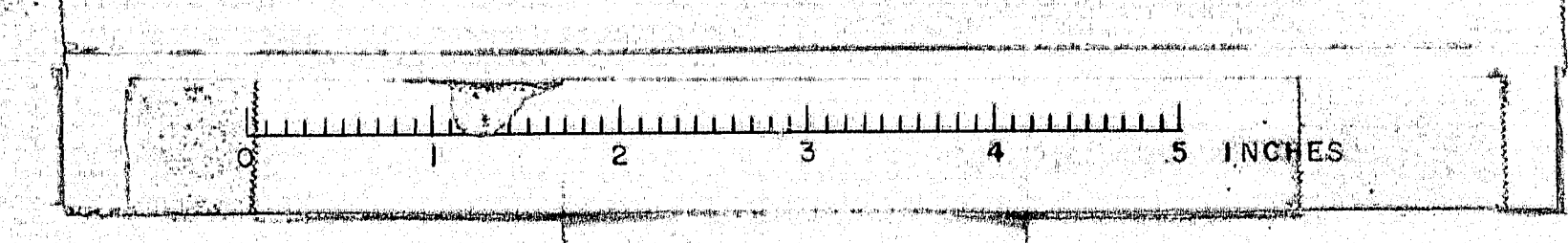
Anchor Bolts - A7, A36, or A307  
All other - A36

PEDESTALS - ALLOWABLE LOADS & DIMENSIONS														
Pedestal	Load	A	B	C	D	E	F	G	H	J	K	L	M	N
EPA	132 <sup>K</sup>	-	-	-	-	-	-	-	-	-	8"	4"	3 1/2"	5 3/8"
FPA	130 <sup>K</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-
EPB-1	120 <sup>K</sup>	-	6"	8"	1 1/2"	8"	10"	6"	7 1/2"	2"	8"	4"	3 1/2"	5 3/8"
EPB-2	165 <sup>K</sup>	-	7"	10"	1 1/8"	9"	1 1/2"	7"	8"	3"	10"	5"	3 1/2"	6 3/8"
EPB-3	224 <sup>K</sup>	-	8"	1 1/4"	2 1/2"	10"	1 1/4"	7"	10"	4 1/2"	1 1/2"	5"	3 1/2"	8 3/8"
FPB-1	120 <sup>K</sup>	-	6"	8"	1 1/2"	8"	-	-	7 1/2"	2"	-	-	-	-
FPB-2	165 <sup>K</sup>	-	7"	10"	1 1/8"	9"	-	-	8"	3"	-	-	-	-
FPB-3	224 <sup>K</sup>	-	8"	1 1/4"	2 1/2"	10"	-	-	10"	5"	-	-	-	-
EPC-1	70 <sup>K</sup>	3 1/2"	6"	8"	1 1/8"	8"	1 1/2"	3 1/2"	3"	3"	4 1/2"	-	1 1/2"	6"
EPC-2	100 <sup>K</sup>	1 1/2"	8"	1 1/8"	8"	1 1/2"	3 1/2"	3"	3"	6 1/2"	-	1 1/2"	6"	-
EPC-3	130 <sup>K</sup>	1 1/2"	10"	8"	1 1/8"	9"	1 1/2"	4"	3"	3"	8 1/2"	-	1 1/2"	7"
EPC-4	160 <sup>K</sup>	1 1/2"	10"	8"	1 1/2"	9"	1 1/2"	4"	4"	3"	8 1/2"	-	1 1/2"	7"
EPC-5	190 <sup>K</sup>	1 1/2"	10"	9"	2 1/2"	10"	2"	4 1/2"	5"	3"	8 1/2"	-	1 1/2"	8"
EPC-6	220 <sup>K</sup>	1 1/2"	1 1/2"	10"	2 1/2"	10"	2 1/2"	5"	5"	3"	10 1/2"	-	1 1/2"	8"
ERC-7	250 <sup>K</sup>	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	5"	5"	4"	10 1/2"	-	1 1/2"	8"
FPC-1	100 <sup>K</sup>	-	-	8"	1 1/8"	9"	1 1/2"	2 1/2"	8"	-	6 1/2"	-	1 1/2"	6"
FPC-2	160 <sup>K</sup>	-	-	8"	1 1/8"	10"	1 1/2"	3"	8"	-	6 1/2"	-	1 1/2"	7"
FPC-3	190 <sup>K</sup>	-	-	9"	2 1/2"	10"	1 1/2"	3"	10"	-	6 1/2"	-	1 1/2"	8"
FPC-4	220 <sup>K</sup>	-	-	10"	2 1/2"	10"	1 1/2"	4"	10"	-	6 1/2"	-	1 1/2"	8"
FPC-5	250 <sup>K</sup>	-	-	1 1/2"	2 1/2"	10"	2"	4"	10"	-	6"	-	1 1/2"	8"

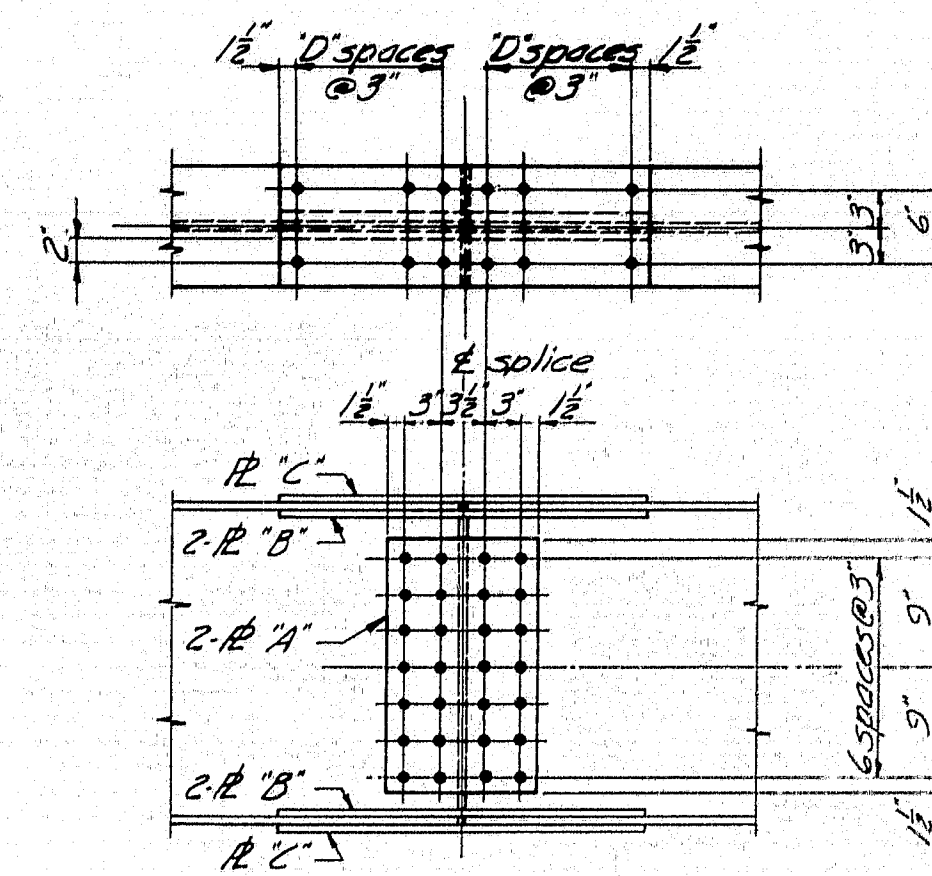
MAINE STATE HIGHWAY COMMISSION  
AUGUSTA, MAINE

**STANDARD DETAILS**  
( BD 101 - 64 )

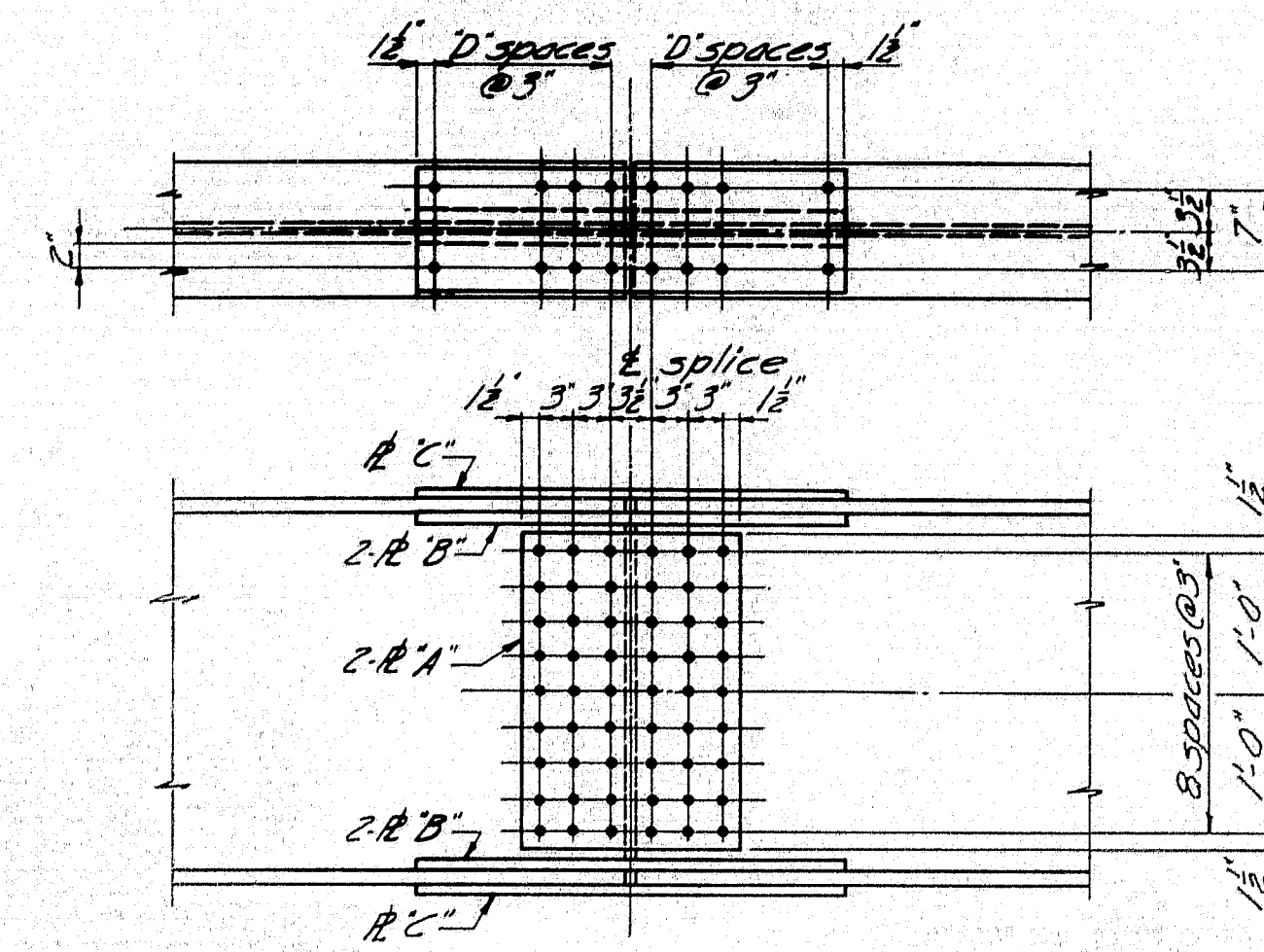
**BEARING PEDESTALS**



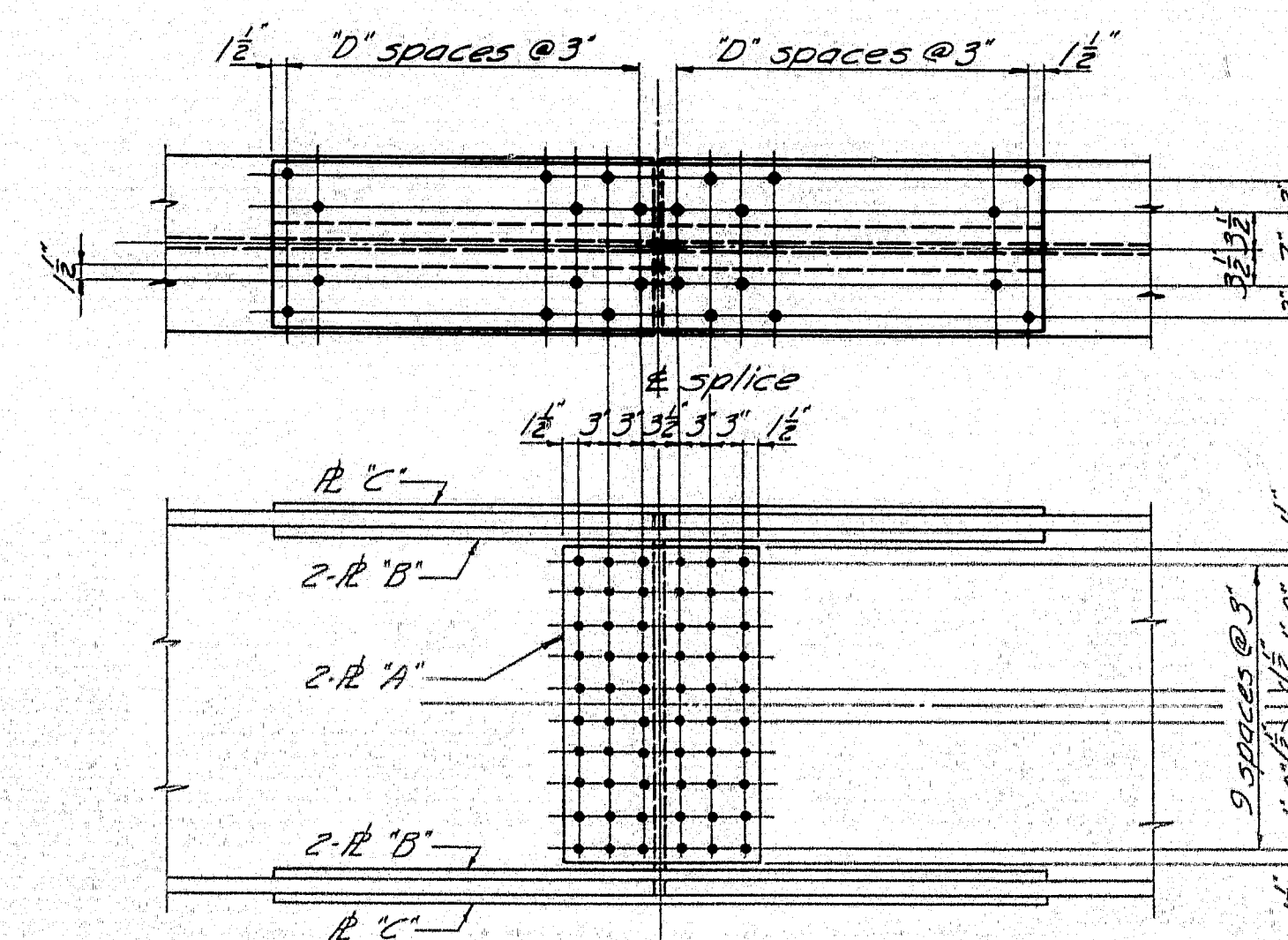




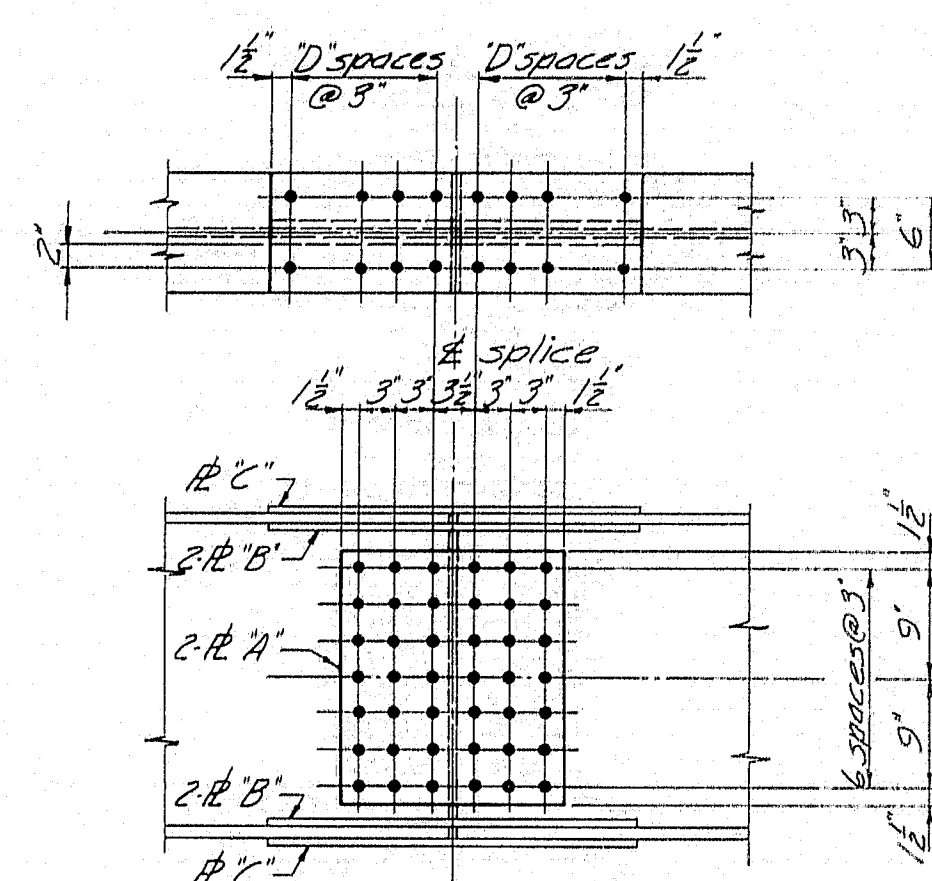
**27 WF 84**



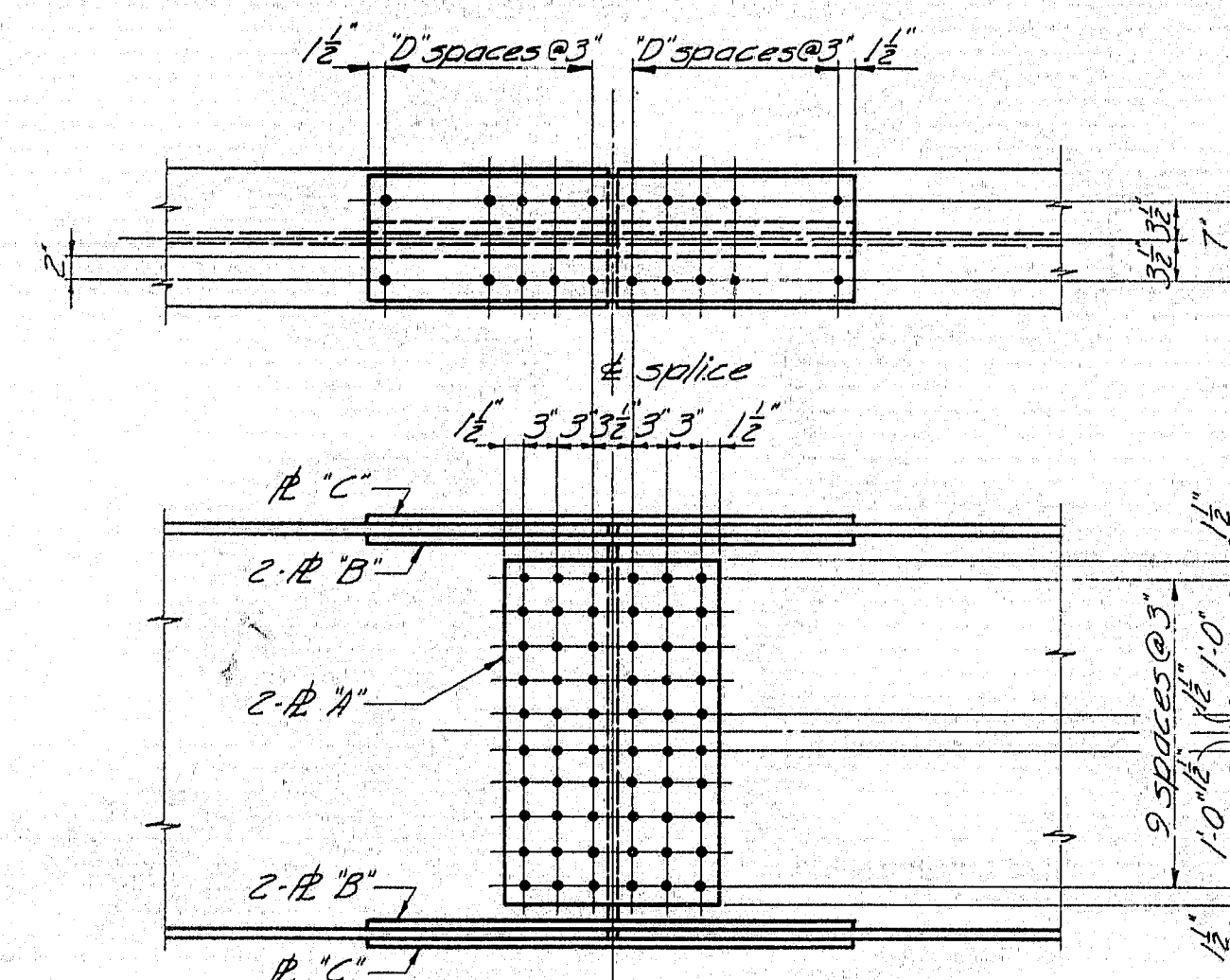
**33 WF 118, 130, 141, 152**



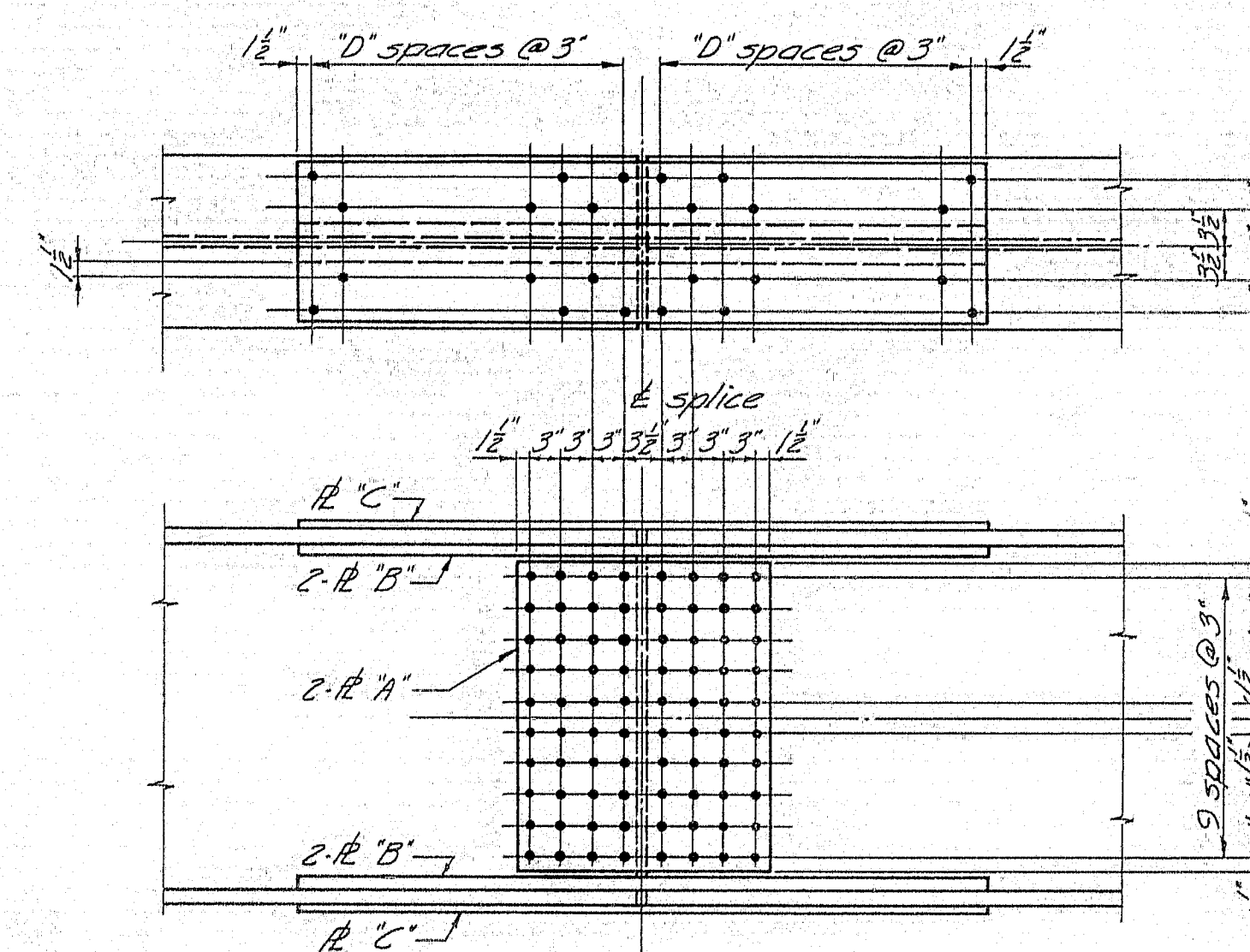
**36 WF 245, 280**



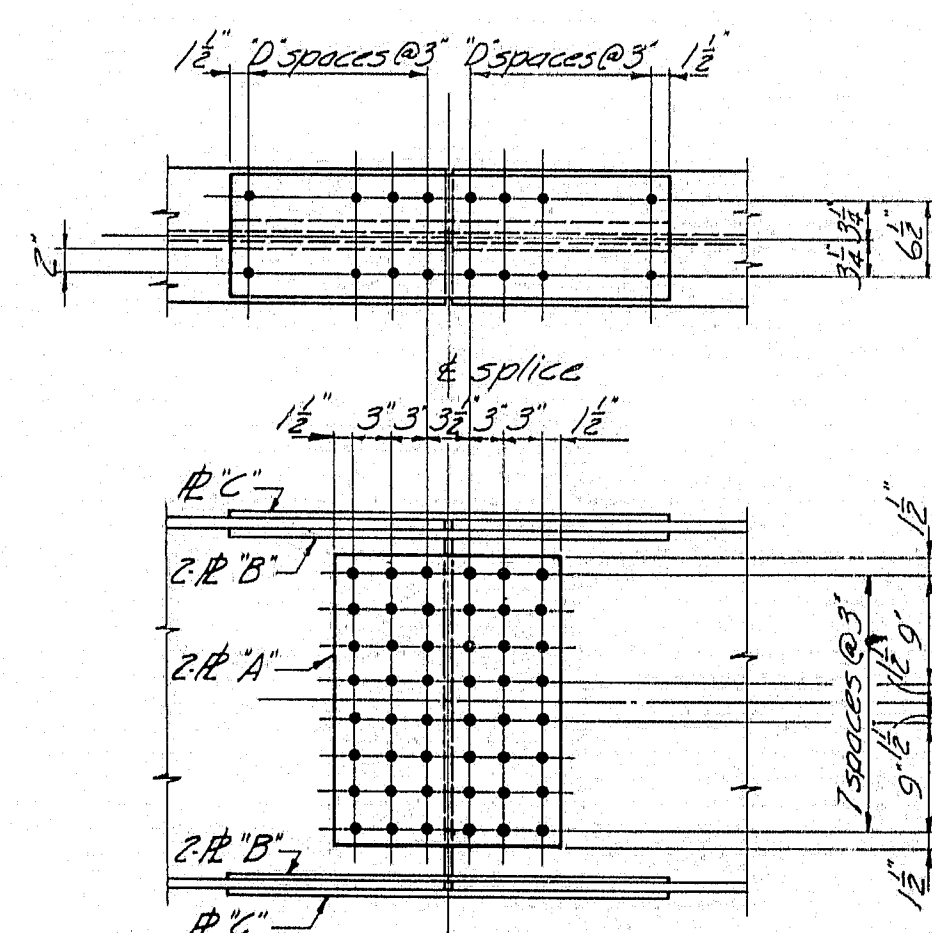
**27 WF 94, 102, 114**



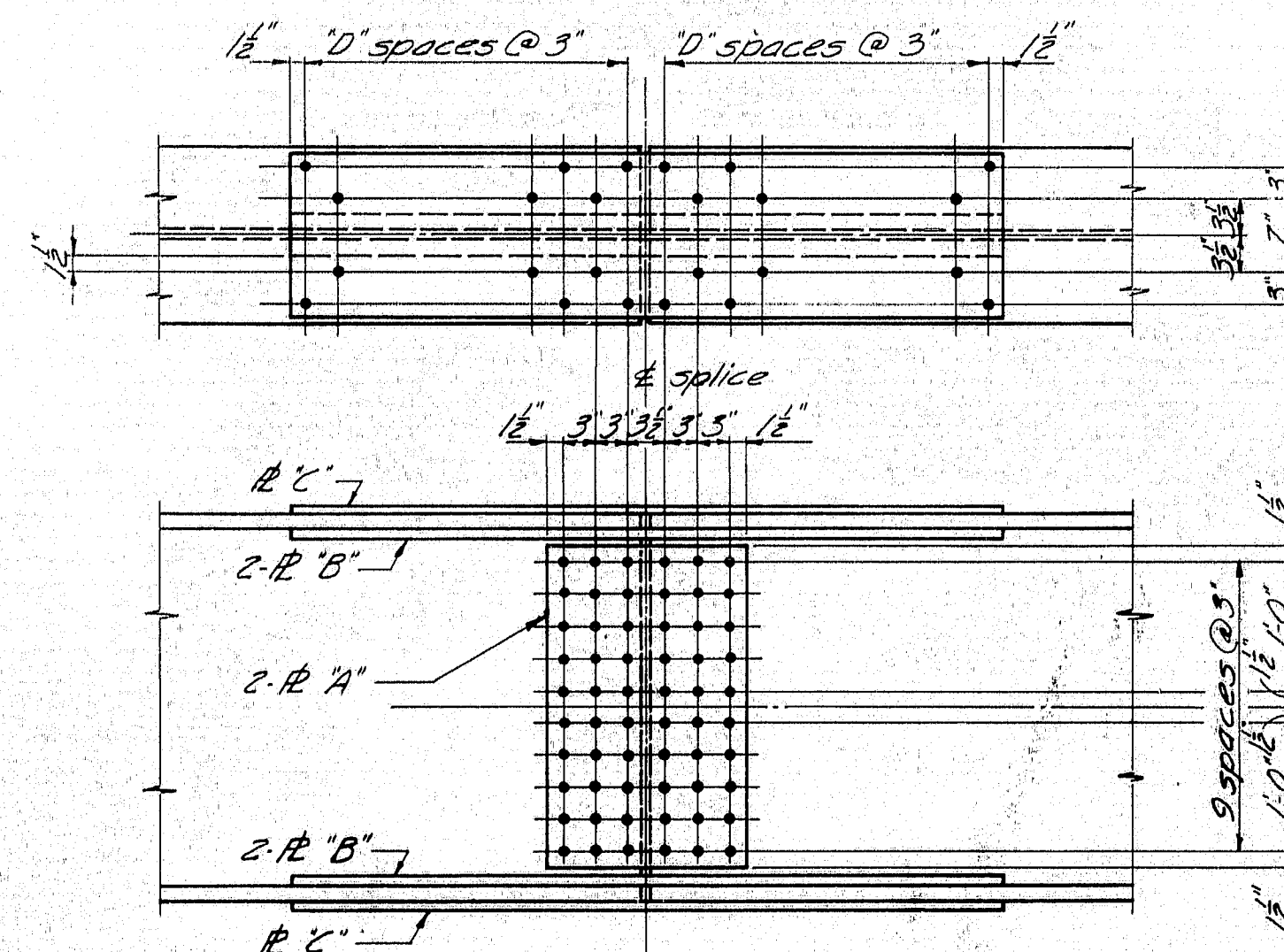
**36 WF 135, 150, 160, 170, 182, 194**



**36 WF 300**



**30 WF 99, 108, 116, 124, 132**



**36 WF 230, 260**

SPlice DESIGN, PLATES AND FLANGE HOLES							
BEAM	BEND. M.	SHEAR	PLATE "A"	PLATE "B"	PLATE "C"	"D"	
27 WF 84	3070 <sup>K</sup>	111 <sup>K</sup>	12 1/2 x 1/2	4 x 1/2	10 x 1/2	3	
27 WF 94	3520 <sup>K</sup>	119 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	3	
27 WF 102	3862 <sup>K</sup>	126 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	4	
27 WF 114	4341 <sup>K</sup>	140 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	4	
30 WF 99	3921 <sup>K</sup>	139 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	3	
30 WF 108	4360 <sup>K</sup>	147 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	4	
30 WF 116	4780 <sup>K</sup>	152 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	4	
30 WF 124	5170 <sup>K</sup>	159 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	4	
30 WF 132	5539 <sup>K</sup>	168 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	10 x 1/2	5	
33 WF 118	5287 <sup>K</sup>	164 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	4	
33 WF 130	5978 <sup>K</sup>	173 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	5	
33 WF 141	6604 <sup>K</sup>	181 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	5	
33 WF 152	7193 <sup>K</sup>	191 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	6	
36 WF 135	6473 <sup>K</sup>	191 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	4	
36 WF 150	7436 <sup>K</sup>	202 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	5	
36 WF 160	8005 <sup>K</sup>	212 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	6	
36 WF 170	8574 <sup>K</sup>	221 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	6	
36 WF 182	9204 <sup>K</sup>	237 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	7	
36 WF 194	9838 <sup>K</sup>	253 <sup>K</sup>	13 1/2 x 1/2	4 x 1/2	11 x 1/2	8	
36 WF 230	12574 <sup>K</sup>	247 <sup>K</sup>	13 1/2 x 1/2	6 x 1/2	16 x 1/2	10	
36 WF 245	13441 <sup>K</sup>	260 <sup>K</sup>	13 1/2 x 1/2	6 x 1/2	16 x 1/2	11	
36 WF 260	14330 <sup>K</sup>	276 <sup>K</sup>	13 1/2 x 1/2	6 x 1/2	16 x 1/2	12	
36 WF 280	15551 <sup>K</sup>	291 <sup>K</sup>	13 1/2 x 1/2	6 x 1/2	16 x 1/2	13	
36 WF 300	16676 <sup>K</sup>	312 <sup>K</sup>	14 1/2 x 1/2	6 x 1/2	16 x 1/2	14	

### GENERAL NOTES

- Splice connections to be made with 5/8" high tensile strength bolts. Holes to be 1/8"  $\phi$ .
- The design bending moment is 90% of the net resisting moment of the beam with an allowable stress of 20,000 p.s.i. The design shear is 75% of the shear strength of the gross section of the web with an allowable stress of 12,000 p.s.i.
- If beams of different sizes are to be spliced, use splice details shown for the smaller of the beams being spliced unless otherwise directed by design details. See design details for filler thickness. Place fillers to limits of splice plates only, with no extensions.
- See design details for slopes of beams in order to correctly fabricate bevels at the splices.

### A.S.T.M. STEEL CLASSIFICATION

High Tensile Strength Bolts..... A-325  
Splice Plates..... A-36

### DESIGN SPECIFICATIONS

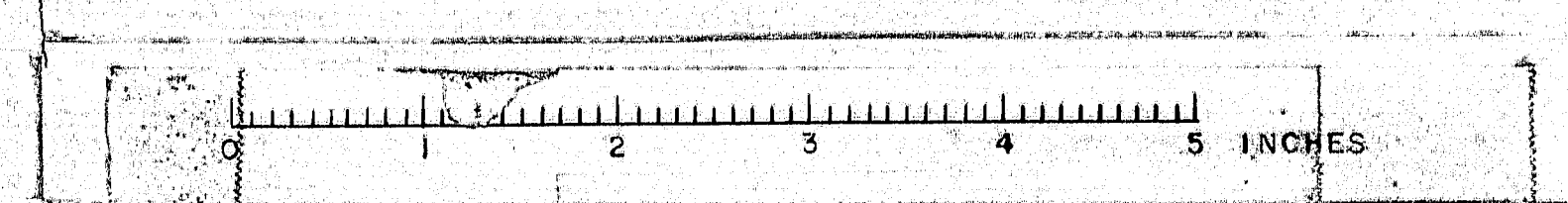
AASHTO Standard Specifications for Highway Bridges, 1961 with Interim Specifications, 1961 & 1962

MAINE STATE HIGHWAY COMMISSION  
AUGUSTA, MAINE

**STANDARD DETAILS**  
(BD 103-64)  
**BEAM SPLICES**

JANUARY 1964

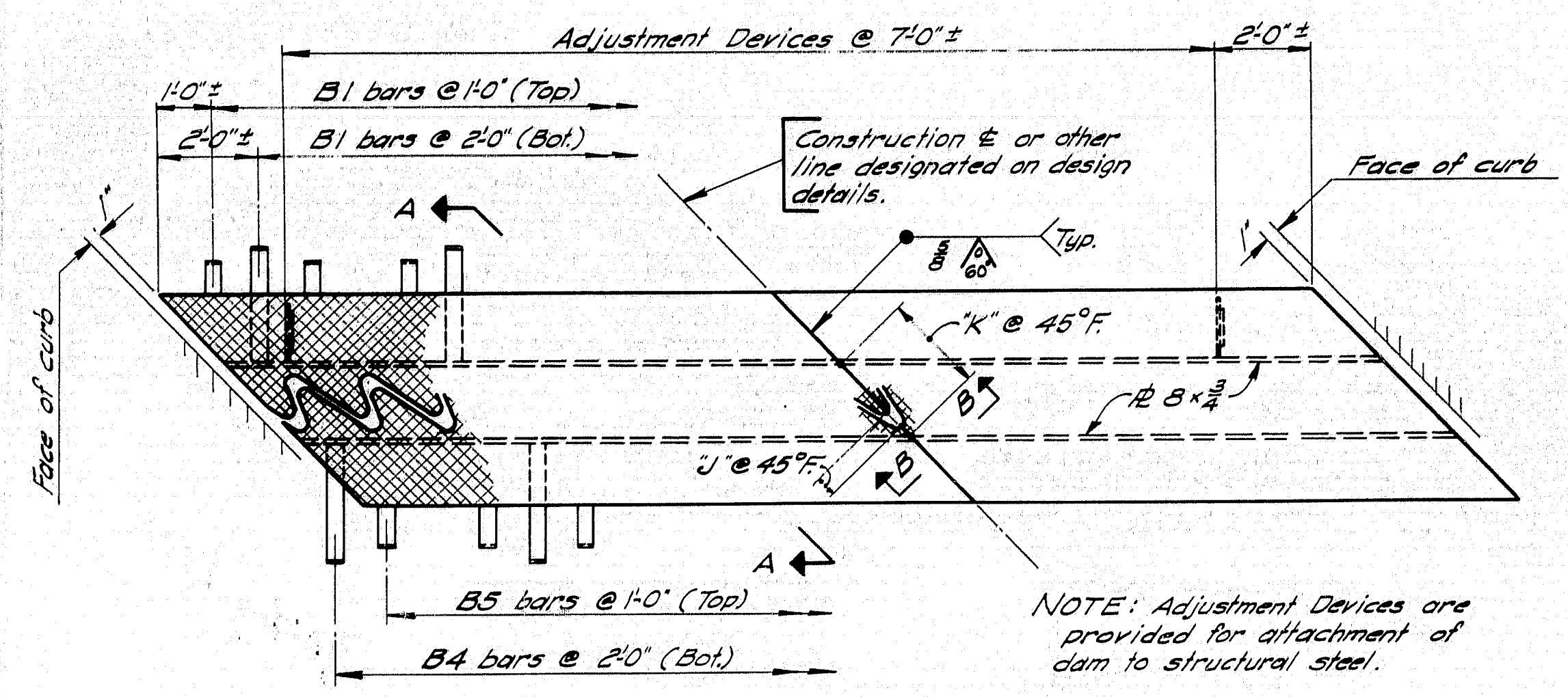
95-176



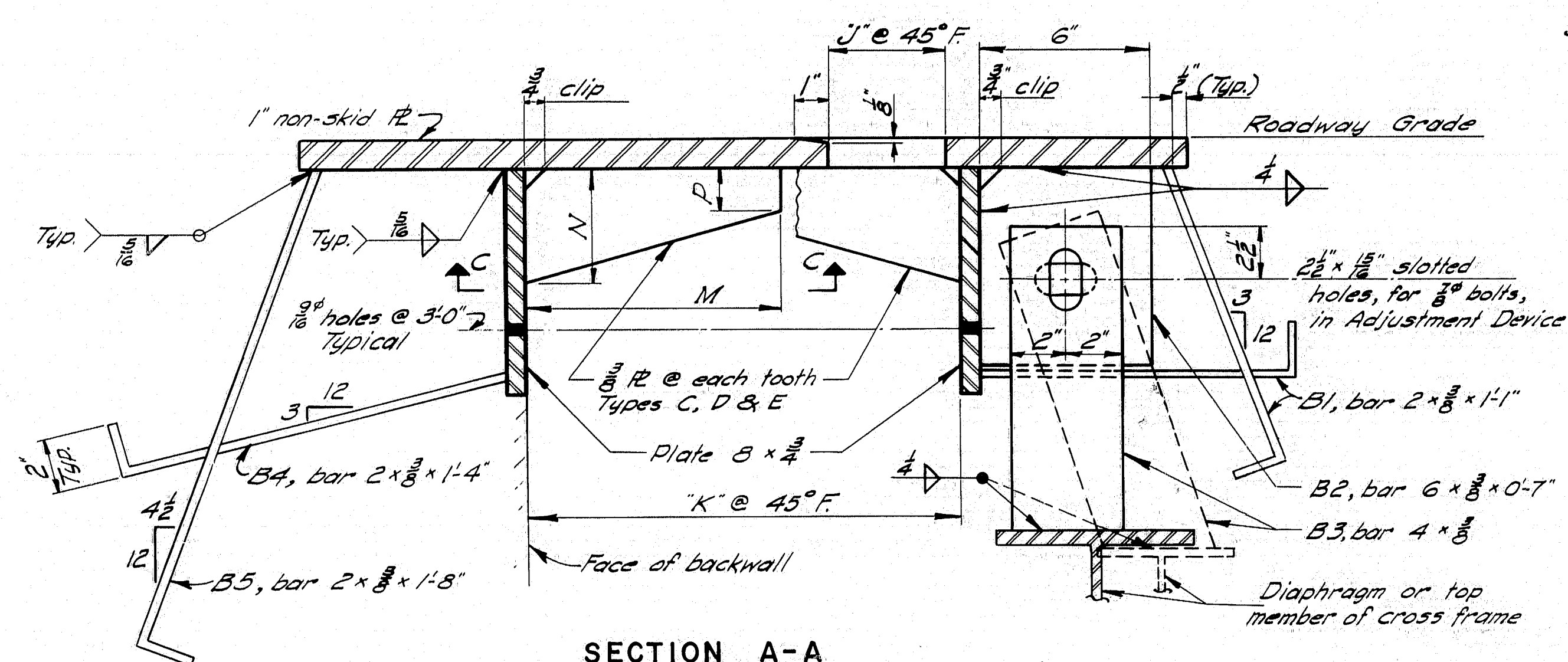






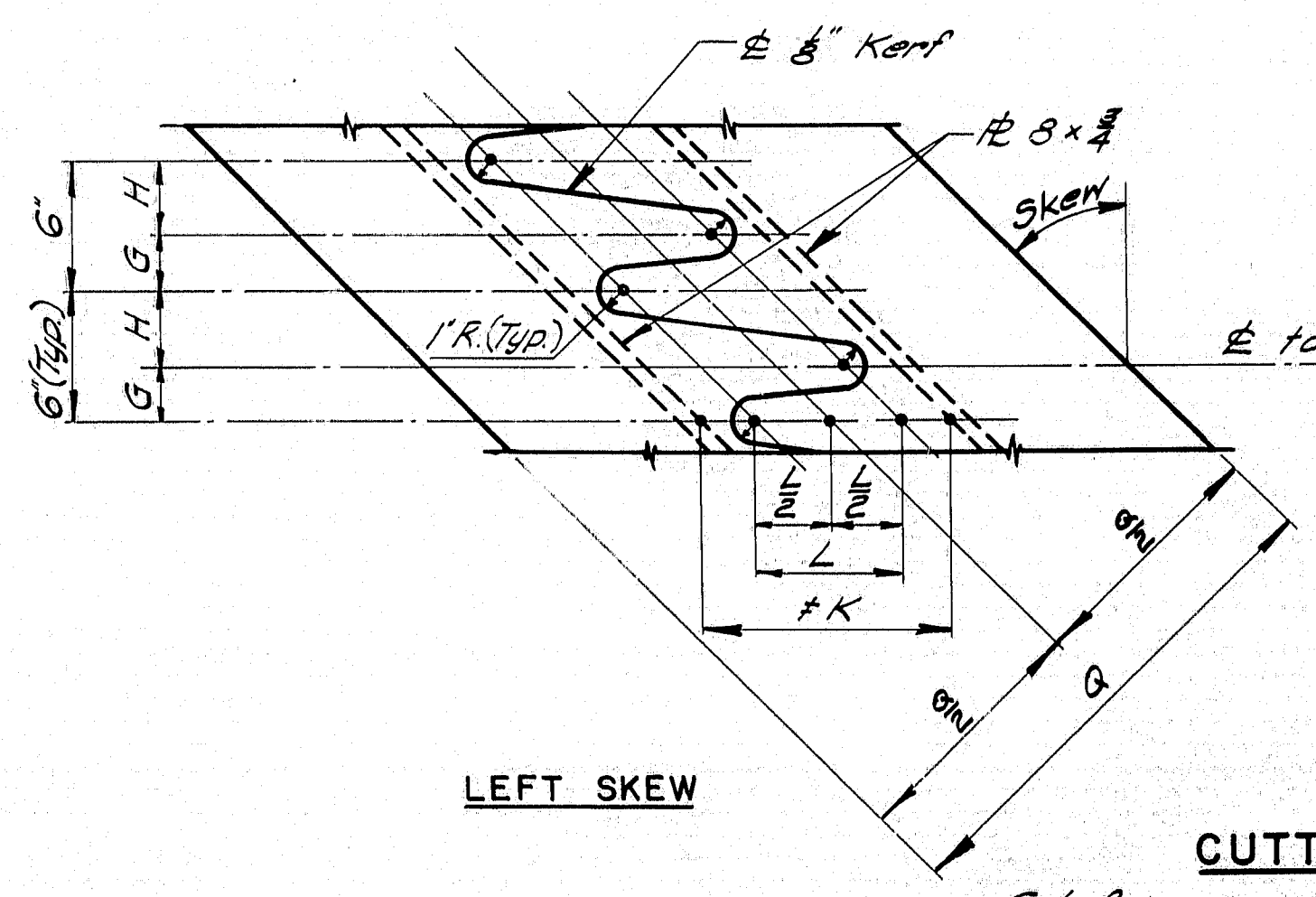


**PLAN**  
Right skew indicated

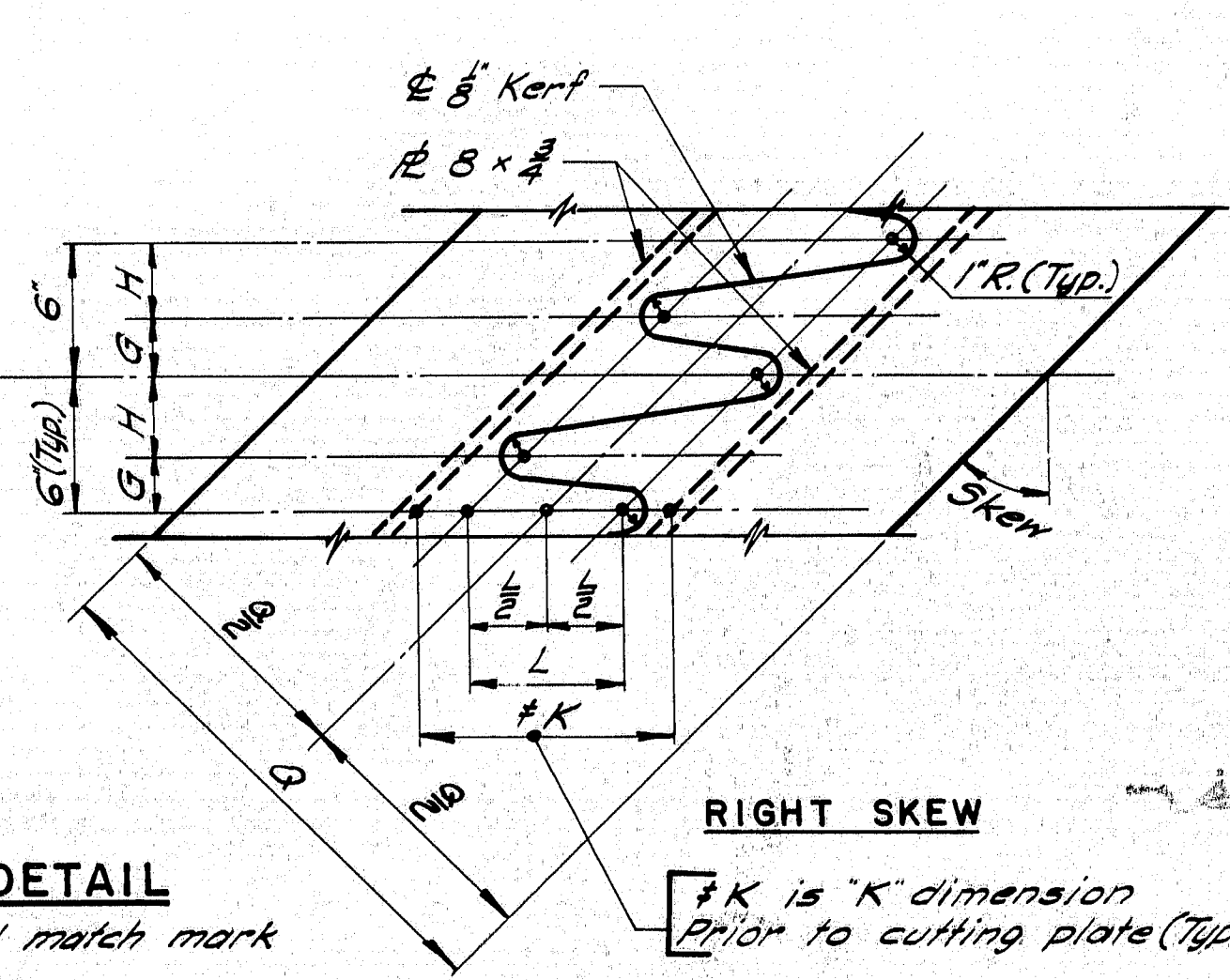


**SECTION A-A**

Bar B5 may be vertical or inclined as indicated, depending on design conditions.  
After Adjustment Device is in final position weld bars B2 to B3 with 1/4" fillet weld.

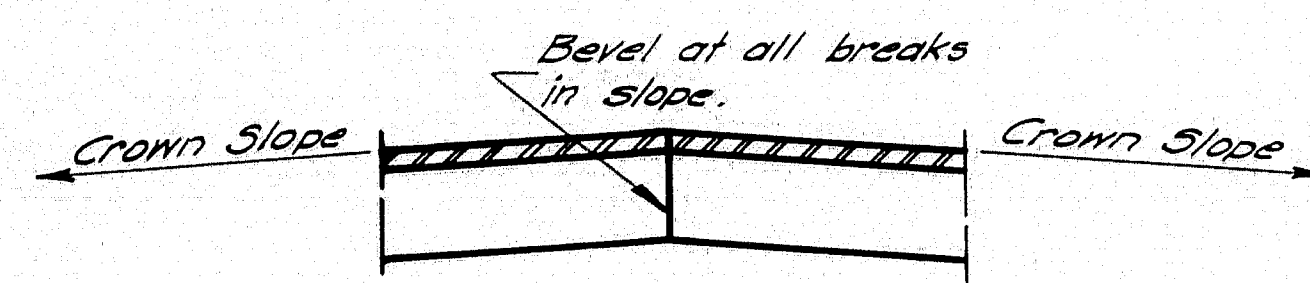


LEFT SKEW



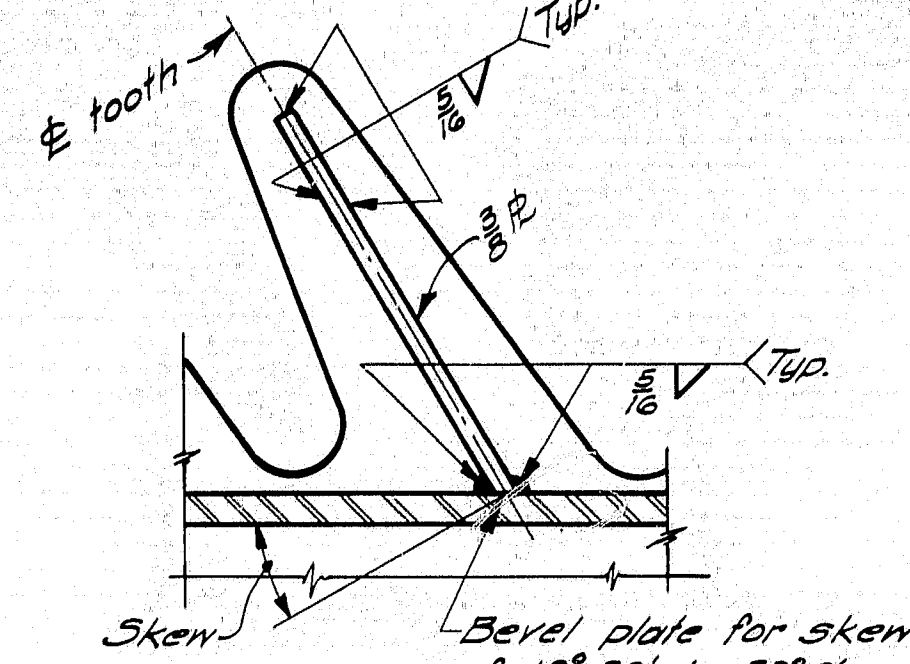
RIGHT SKEW

**ROADWAY EXPANSION DAM - DETAILS**



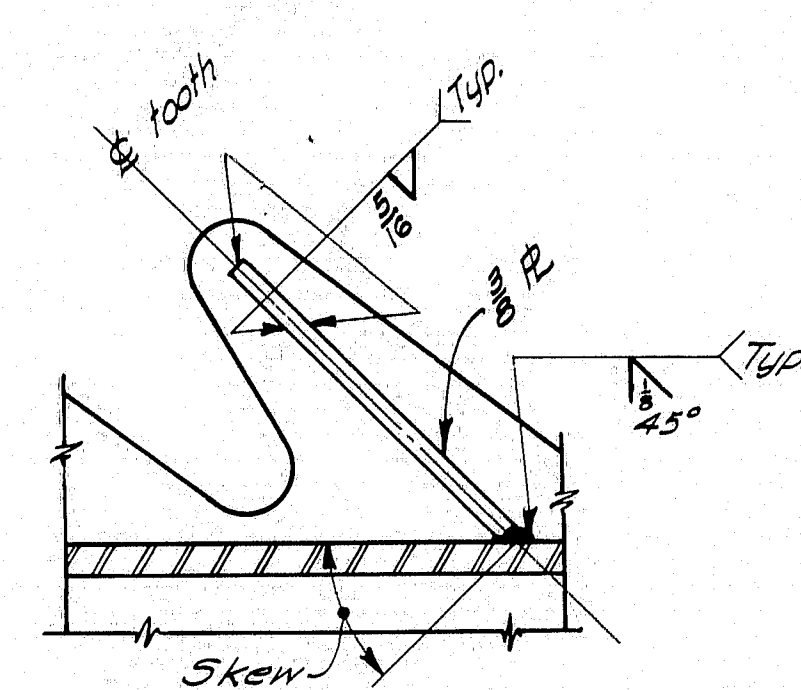
**SECTION B-B**

See design details for construction & to curb dimensions, skew, crown slope, slab thickness, other dimensions & angles that are necessary to complete fabrication details and location of Roadway Expansion Dam.



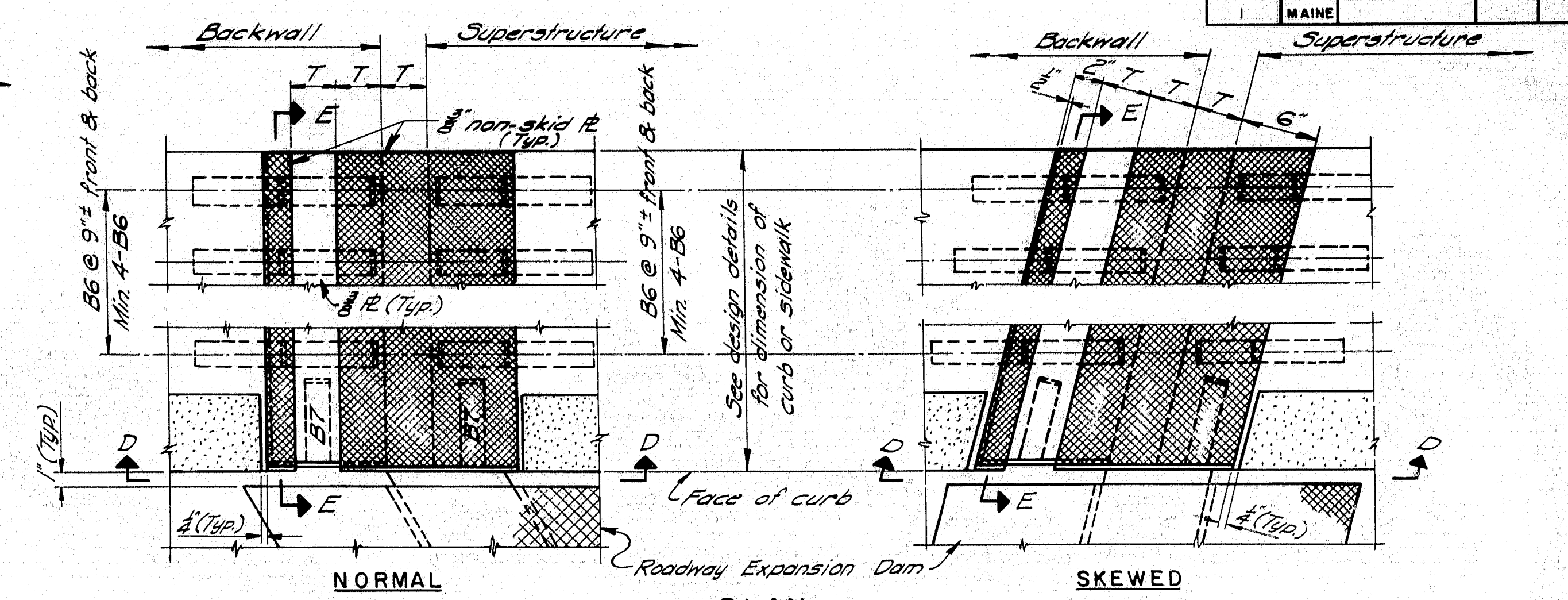
**SECTION C-C**

Skew ~ 0° to 30°-0'

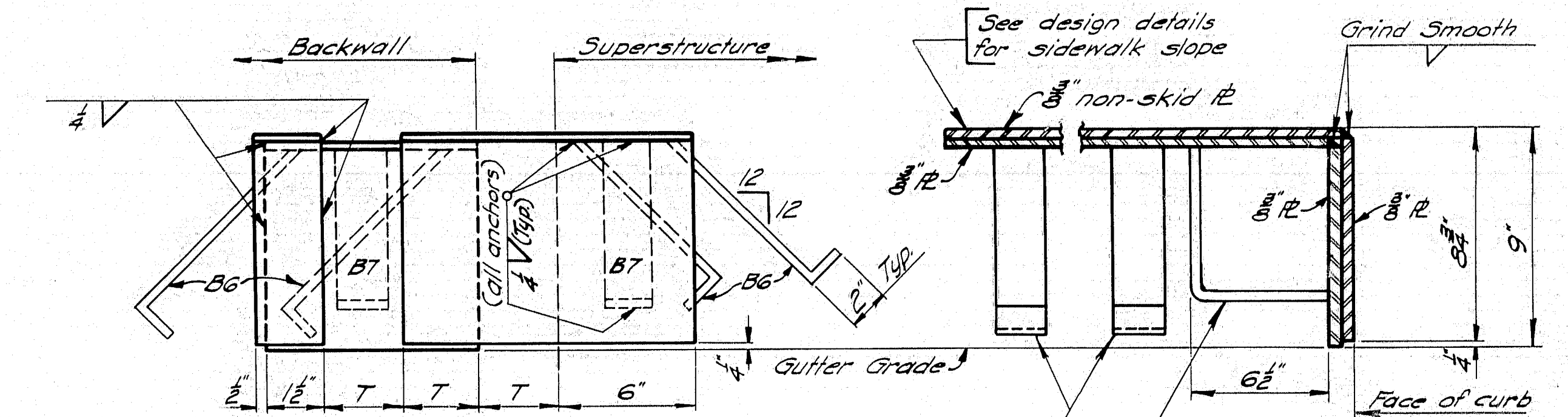


**SECTION C-C**

Skew over 30°



**PLAN**



**VIEW D-D**

**SECTION E-E**

TYPE	V	W	X	Y	Z
Exp. Length	100'-280'	280'-440'	440'-600'	600'-760'	760'-920'
T	3"	4"	5"	6"	7"

**CURB AND SIDEWALK EXPANSION DAM - DETAILS**

TABLE OF DIMENSIONS												
Type	Exp. Length	Skew	# K	L	G	H	K@45°	V@45°	M	N	P	Q
A	100'-280'	0°-5° incl.	7"	4"	3"	3"	9"	28"	—	—	—	21"
		5°-10°	7 1/2"	4 1/2"	3 1/2"	3 1/2"	9 1/2"	28 1/2"	—	—	—	22"
		10°-20°	8"	4 1/2"	3 1/2"	3 1/2"	10"	28 1/2"	—	—	—	22"
		20°-30°	8 1/2"	5"	3 1/2"	3 1/2"	10 1/2"	28 1/2"	—	—	—	23"
		30°-40°	9"	5 1/2"	3 1/2"	3 1/2"	11"	28 1/2"	—	—	—	23"
B	280'-440'	0°-5° incl.	9"	6"	3"	3"	12"	38"	—	—	—	23"
		5°-10°	9 1/2"	6 1/2"	3 1/2"	3 1/2"	12 1/2"	38 1/2"	—	—	—	24"
		10°-20°	10"	6 1/2"	3 1/2"	3 1/2"	13"	38 1/2"	—	—	—	24"
		20°-30°	10 1/2"	7 1/2"	3 1/2"	3 1/2"	13 1/2"	38 1/2"	—	—	—	25"
		30°-40°	11"	8"	3 1/2"	3 1/2"	14"	38 1/2"	—	—	—	25"
C	440'-600'	0°-5° incl.	11 1/2"	8 1/2"	3"	3"	14 1/2"	48"	9"	4"	16"	26"
		5°-10°	12"	9"	3 1/2"	3 1/2"	15"	48"	11"	4"	16"	26"
		10°-20°	12 1/2"	9 1/2"	3 1/2"	3 1/2"	15 1/2"	48"	11"	4"	16"	26"
		20°-30°	13"	10"	3 1/2"	3 1/2"	16"	48"	11"	4"	16"	26"
		30°-40°	13 1/2"	10 1/2"	3 1/2"	3 1/2"	16 1/2"	48"	11"	4"	16"	26"
D	600'-760'	0°-5° incl.	13 1/2"	10 1/2"	3"	3"	16 1/2"	58"	11"	5"	2"	30"
		5°-10°	14"	11"	3 1/2"	3 1/2"	17"	58"	12"	5"	2"	30"
		10°-20°	14 1/2"	11 1/2"	3 1/2"	3 1/2"	17 1/2"	58"	12"	5"	2"	30"
		20°-30°	15"	12"	3 1/2"	3 1/2"	18"	58"	13"	5"	2"	30"
		30°-40°	15 1/2"	12 1/2"	3 1/2"	3 1/2"	18 1/2"	58"	13"	5"	2"	30"
E	760'-920'	0°-5° incl.	15 1/2"	12 1/2"	3"	3"	18 1/2"	68"	13"	6"	2 1/2"	36"
		5°-10°	16"	13"	3 1/2"	3 1/2"	19"	68"	14"	6"	2 1/2"	36"
		10°-20°	16 1/2"	13 1/2"	3 1/2"	3 1/2"	19 1/2"	68"	14"	6"	2 1/2"	36"
		20°-30°	17"	14"	3 1/2"	3 1/2"	20"	68"	15"	6"	2 1/2"	36"
		30°-40°	17 1/2"	14 1/2"	3 1/2"	3 1/2"	20 1/2"	68"	15"	6"	2 1/2"	36"

**GENERAL NOTES**

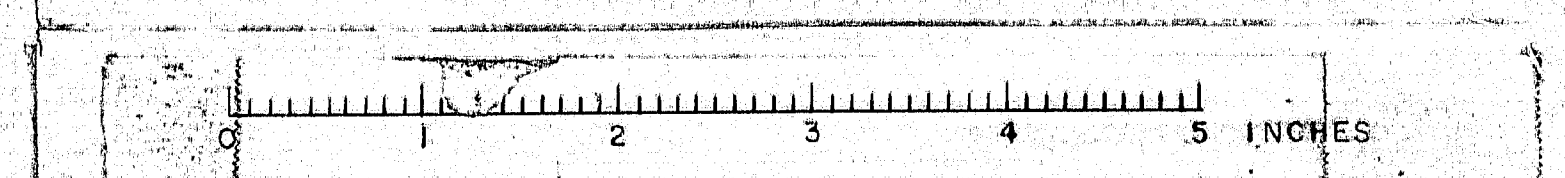
Expansion Dams to be paid for as Structural Steel.  
If there is conflict between this Standard Detail and the design details, the requirements of the design details shall be followed.  
Steel Classification: A.S.T.M. A36

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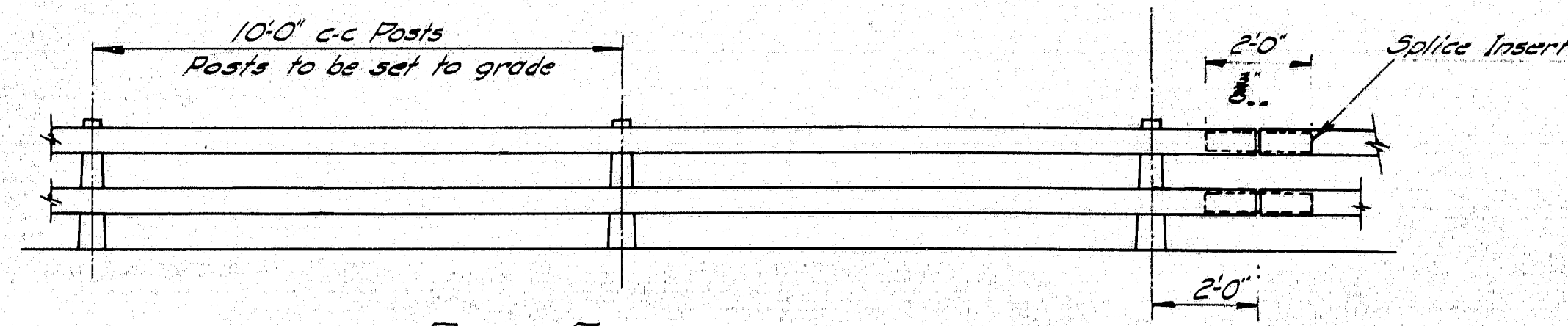
**STANDARD DETAILS**  
(BD 105 - 64)

**EXPANSION DAMS**

APRIL 1964

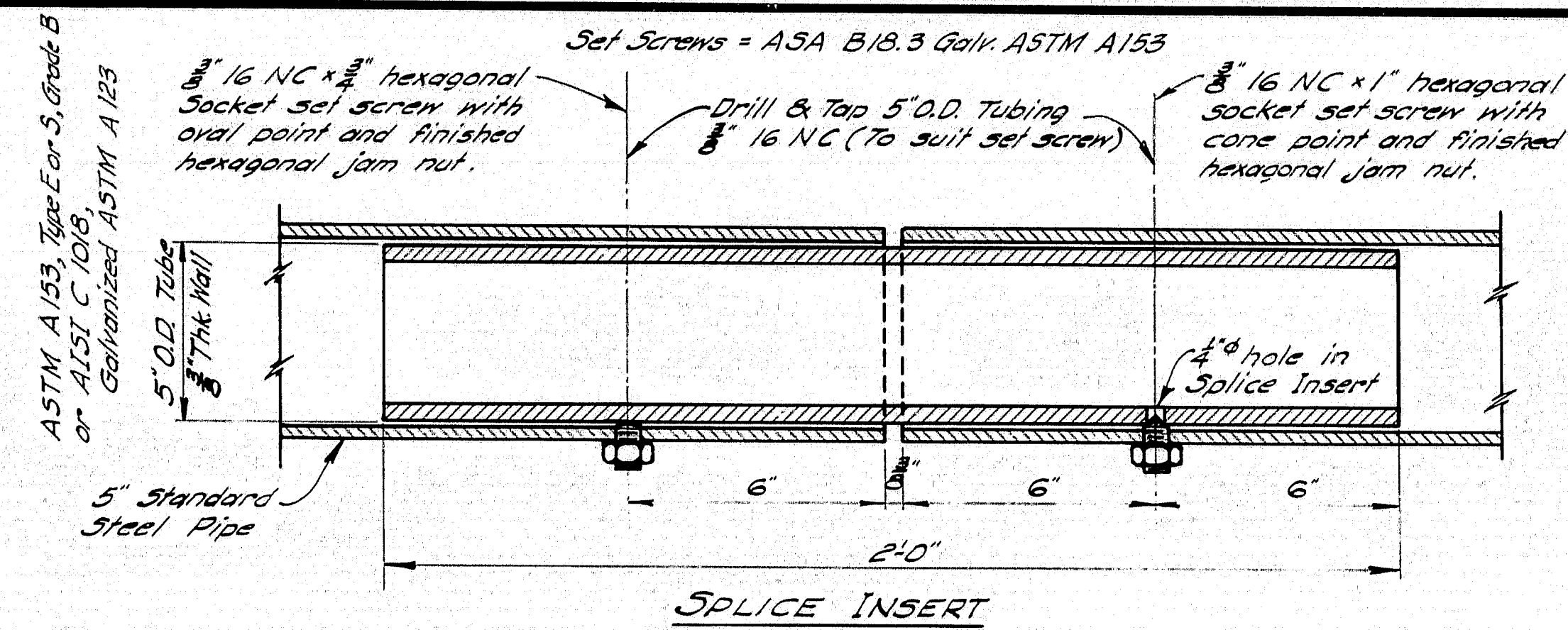




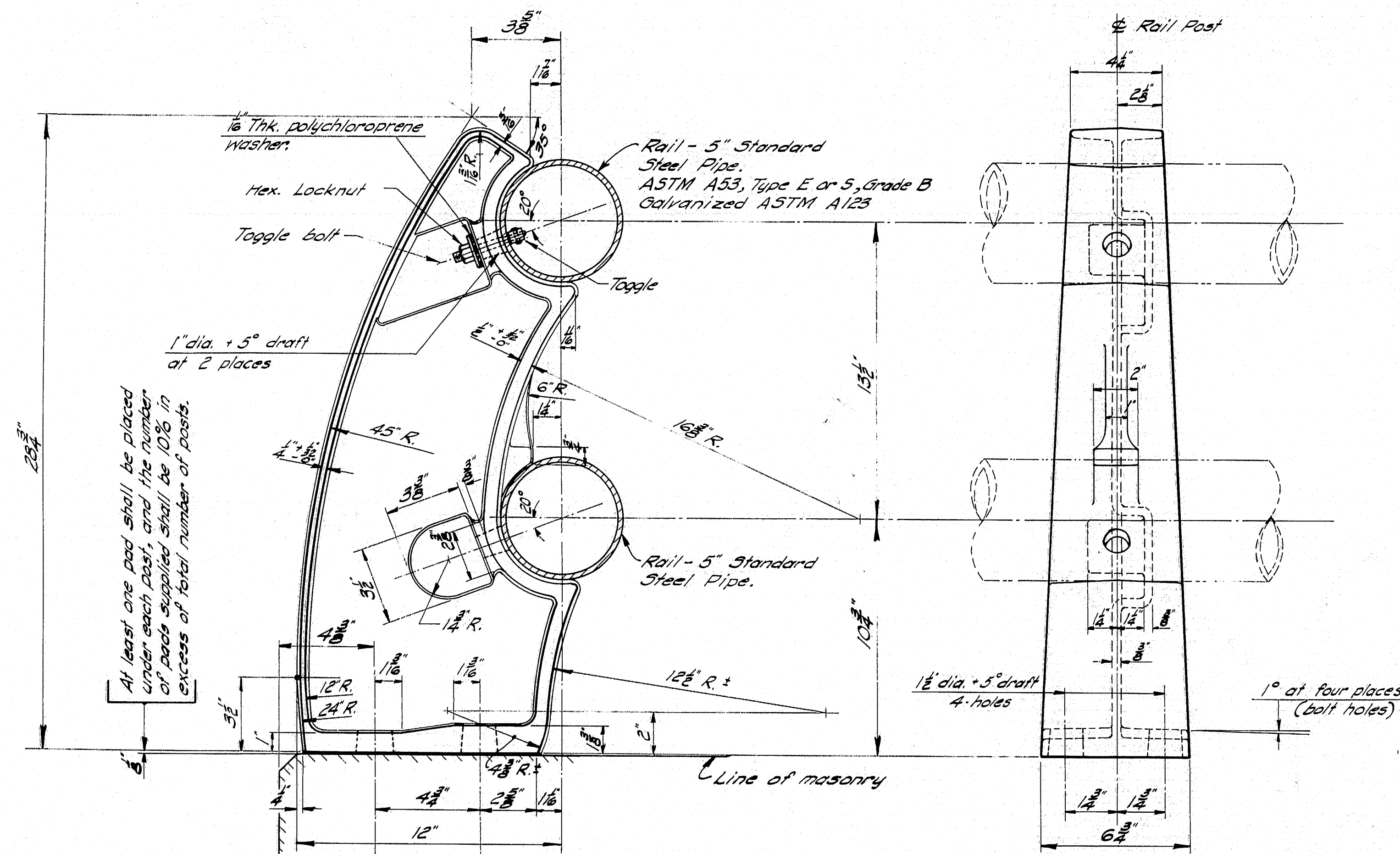


RAIL ELEVATION

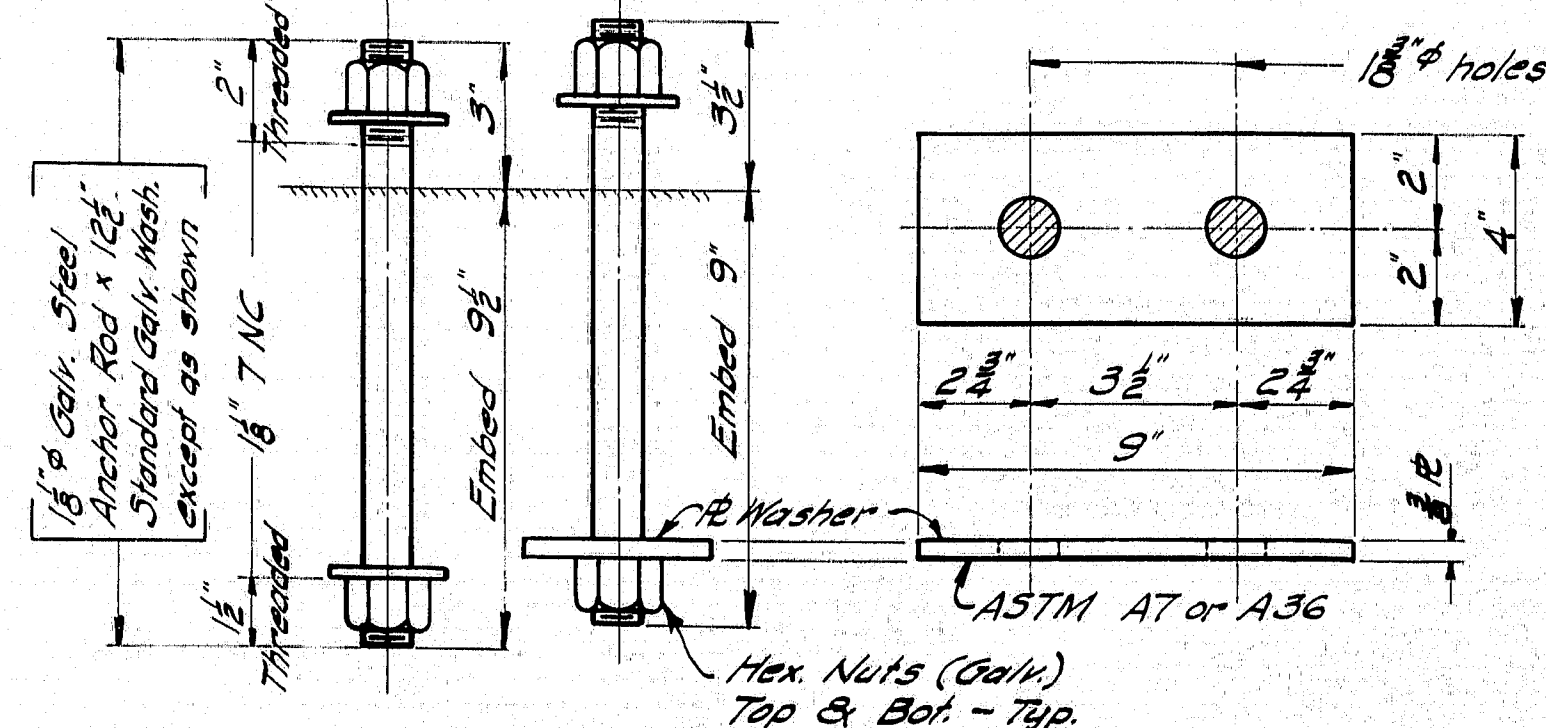
Lengths of rail shall be attached to a minimum of (4) four rail posts, wherever possible, and in any case never less than (2) two.



SPlice INSERT

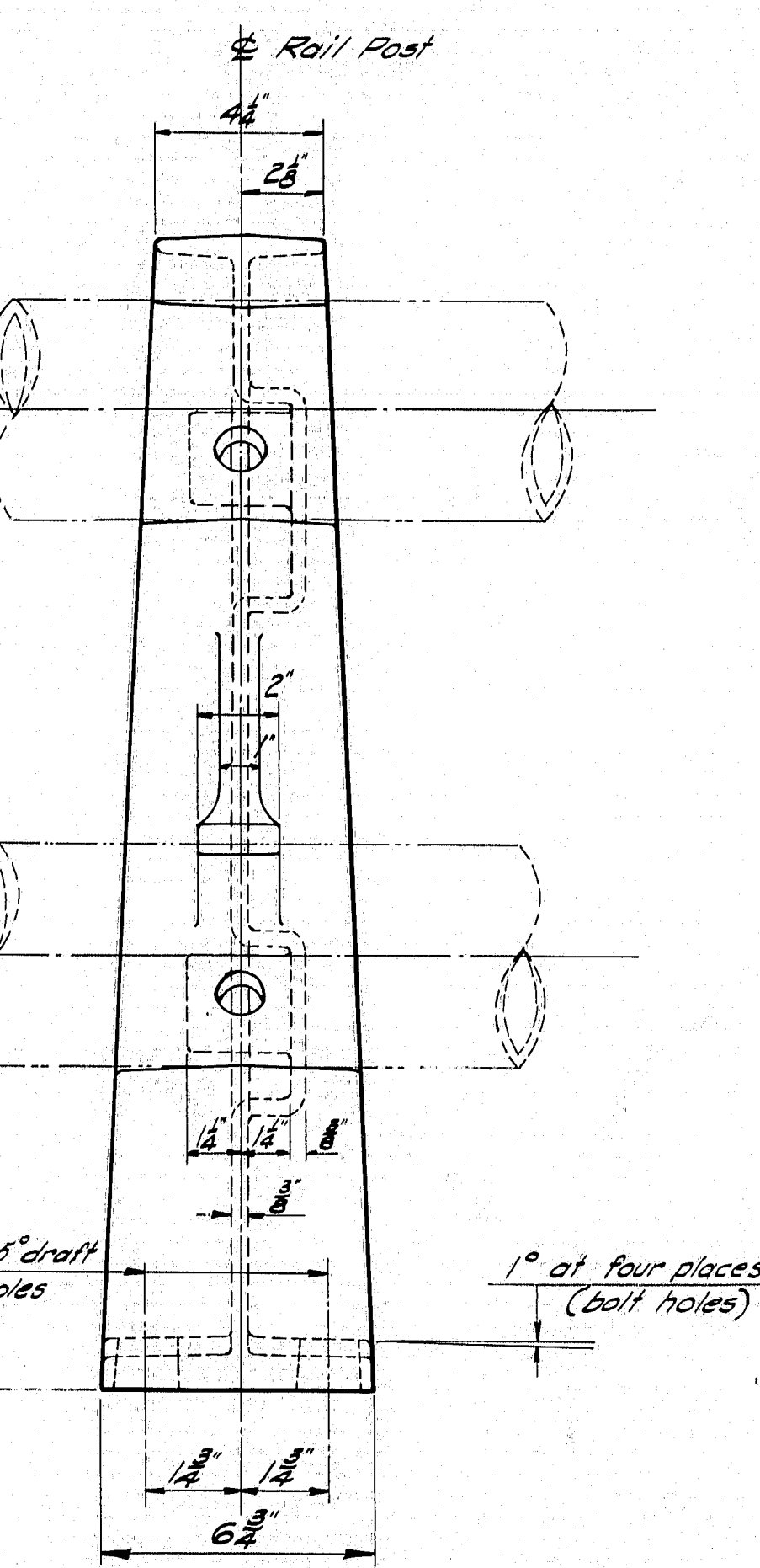


RAIL POST  
ASTM A27, Grade 65-35, Galvanized ASTM A153

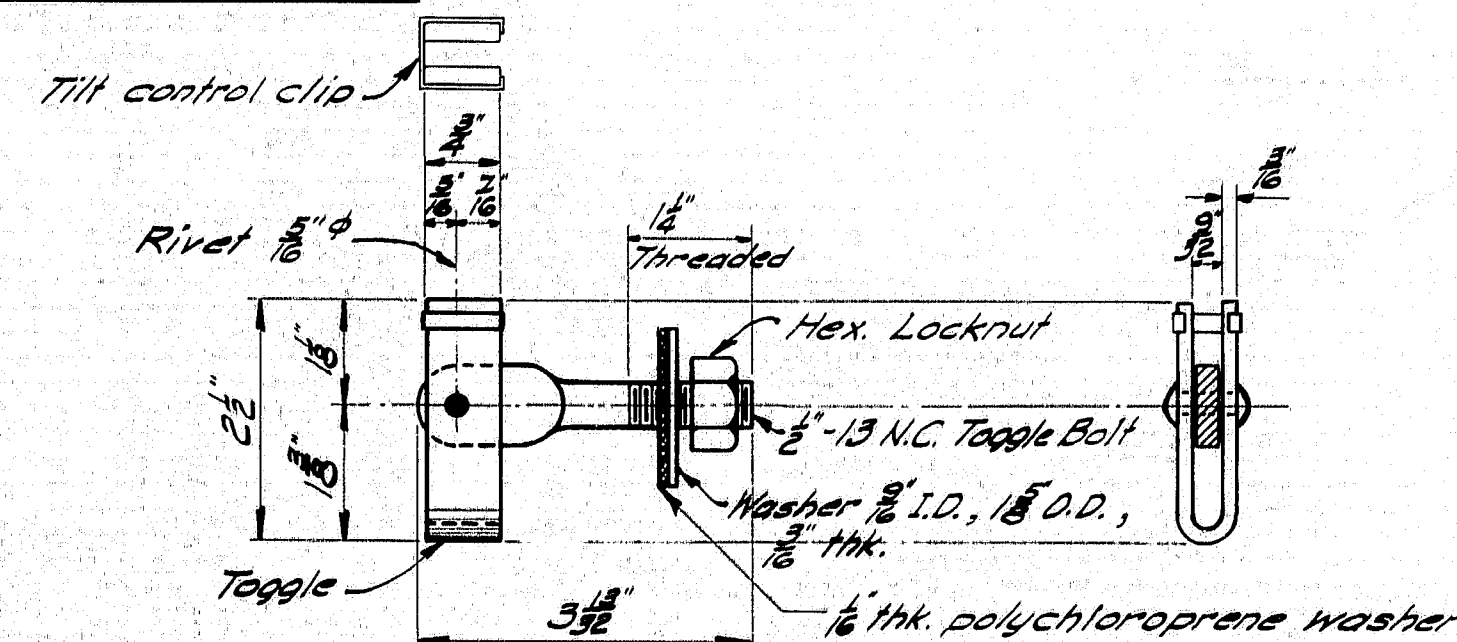


RAIL POST ANCHORAGE

Bolts, Nuts, & Std. Washers = ASTM A325 Galvanized ASTM A153

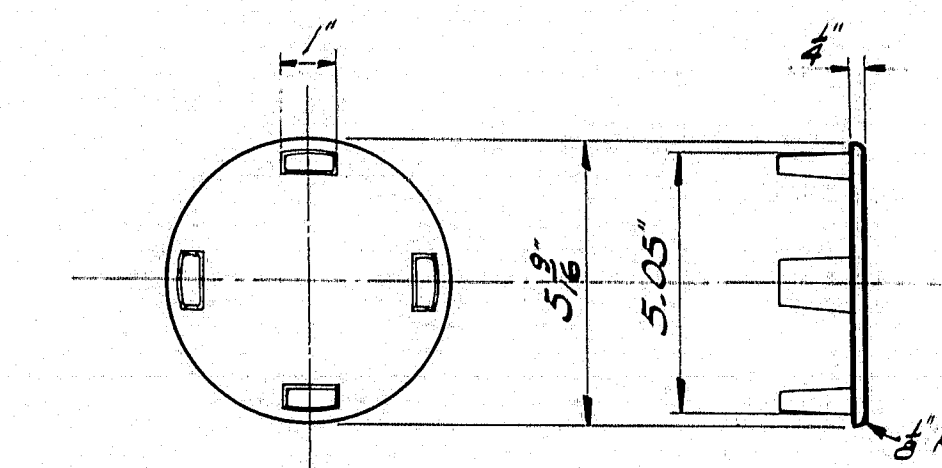


FRONT ELEVATION



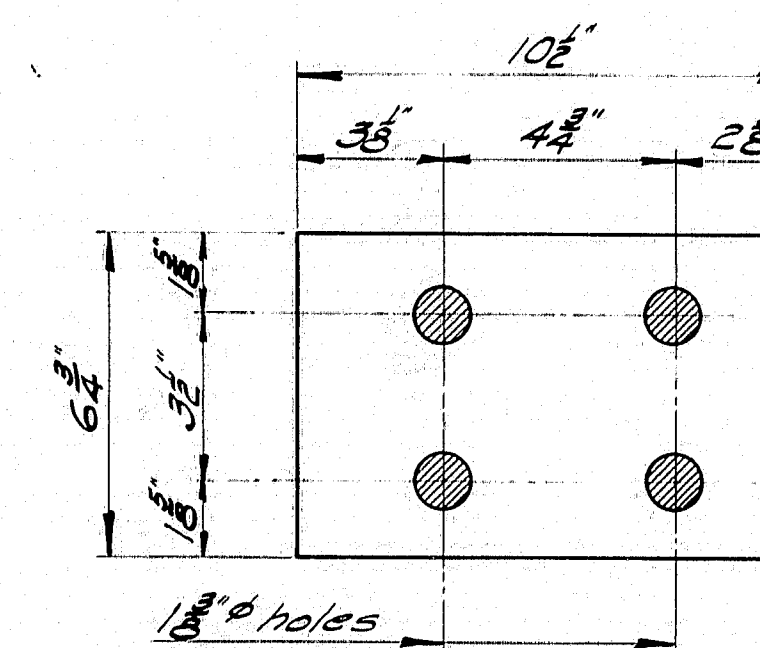
TOGGLE BOLT DETAIL

Cadmium Plate metal parts ASTM A165-55, Type NS, .0005" thick



RAIL CAP

ASTM A27, Grade 65-35, Galv. ASTM A153



PAD

At each rail post  
See Article 702-80 Supplemental Specifications  
of Feb. 1960.

# DESIGN SPECIFICATIONS

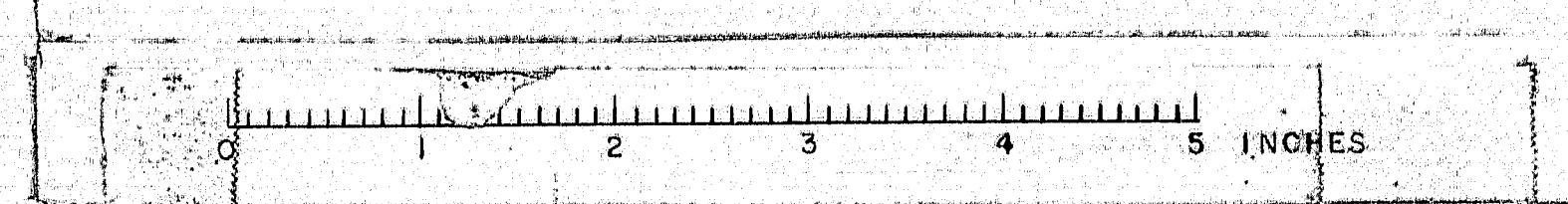
A.A.S.H.O. Interim Specifications  
Int. I (64)

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AUGUSTA, MAINE

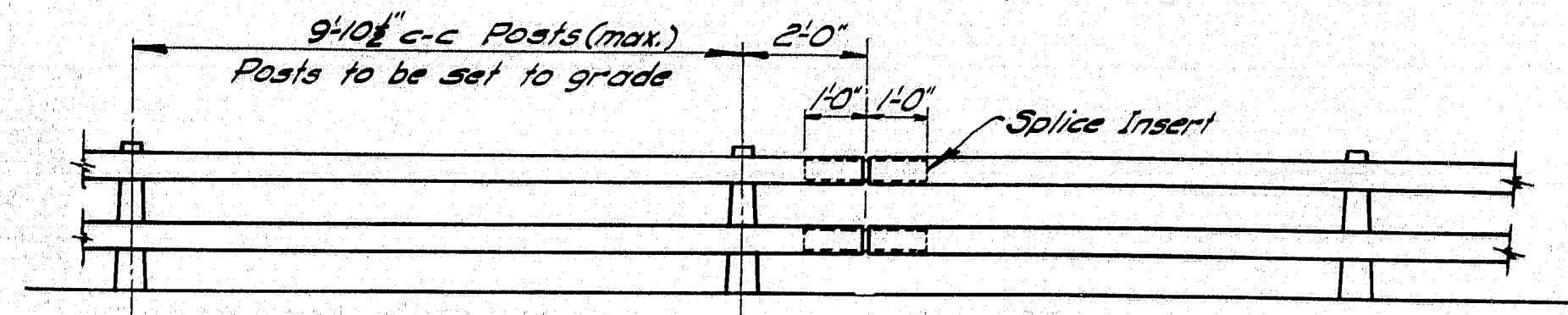
STANDARD DETAILS  
(BD 107 - 64)  
**STEEL RAIL**  
(2-BAR PIPE RAIL)  
CAST POST

OCT. 1964

95-179





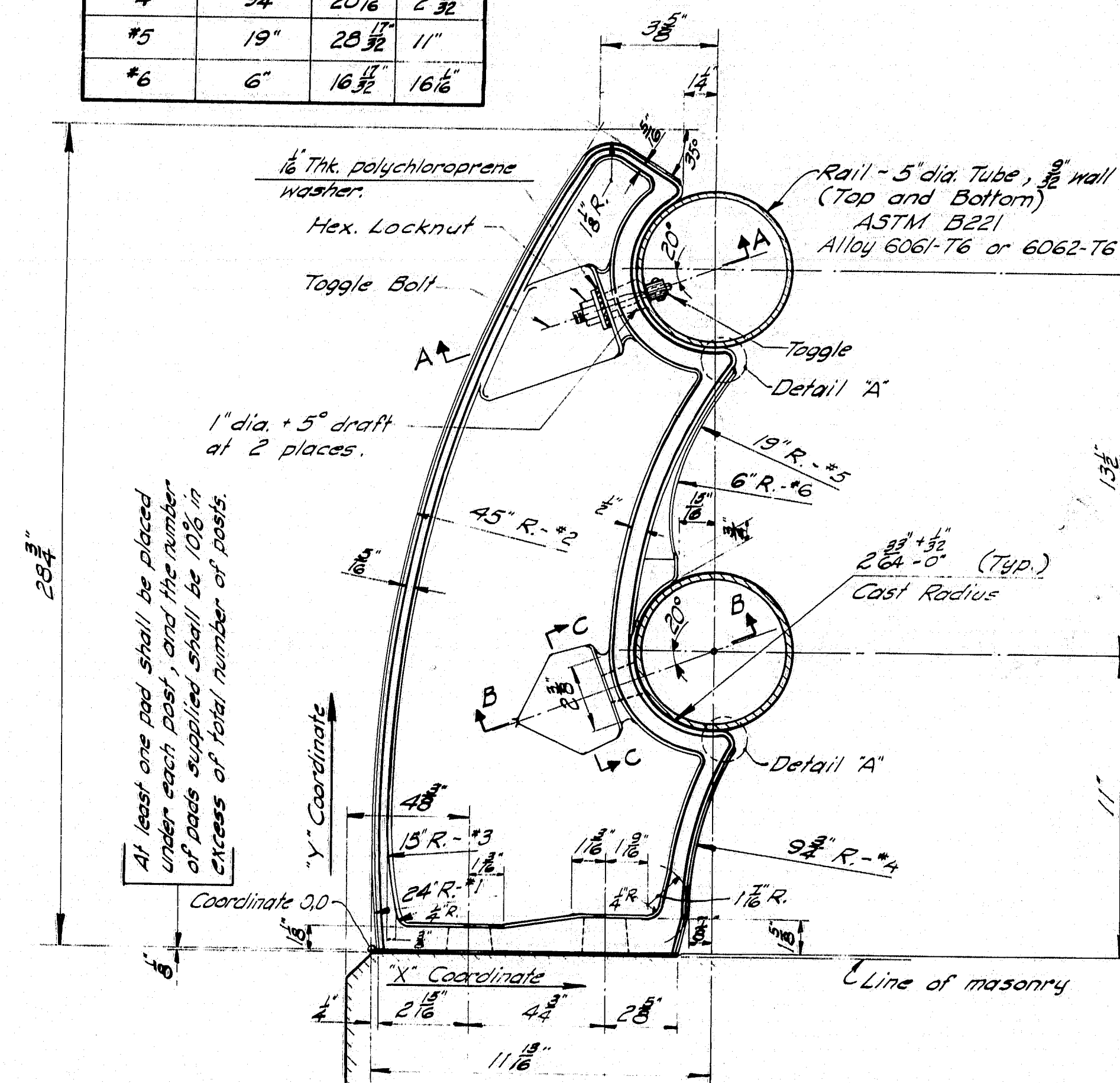


RAIL ELEVATION

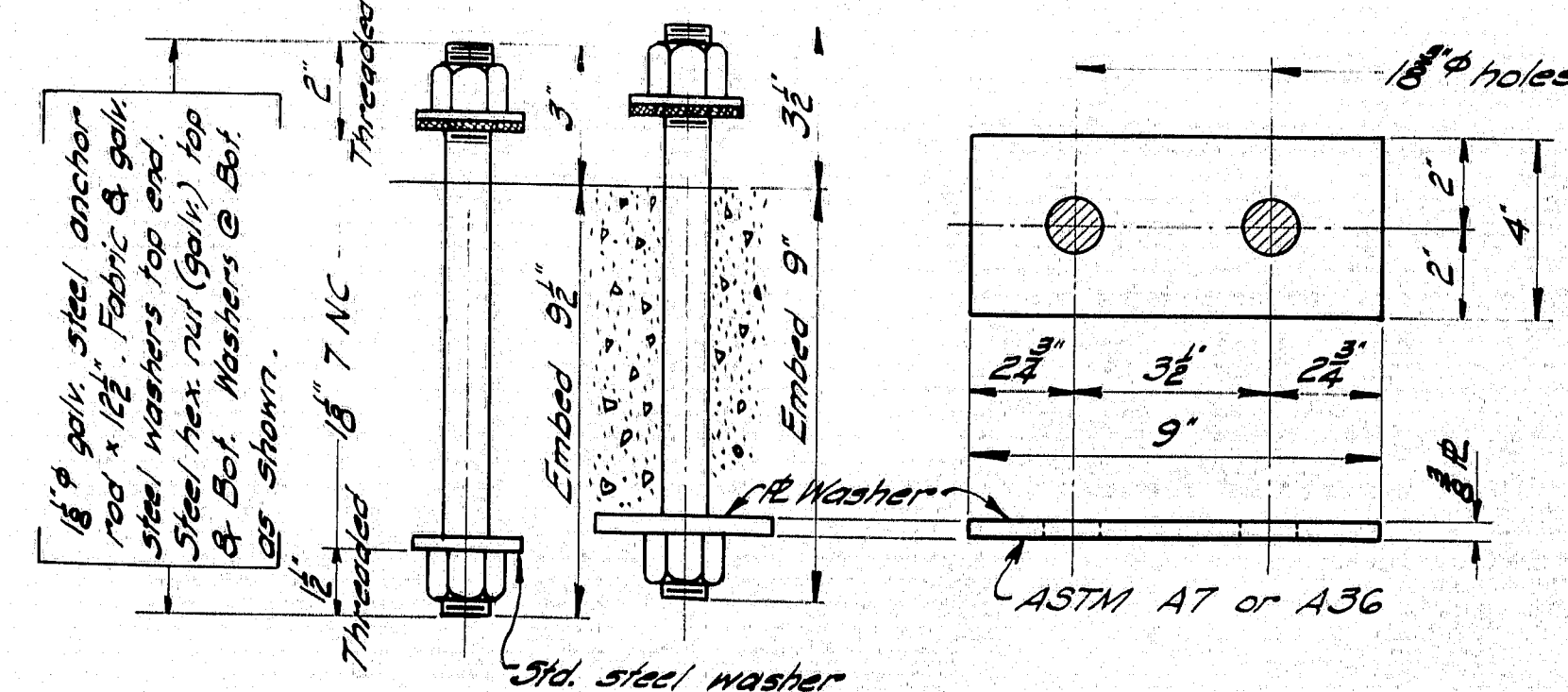
ORIGIN LOCATION-PRINCIPAL CURVES

Curve	Radius "X"	"Y"
#1	24"	3 1/2"
#2	45"	2 3/4"
#3	15"	4 3/4"
#4	9 1/2"	2 3/4"
#5	19"	11"
#6	6"	16 1/2"

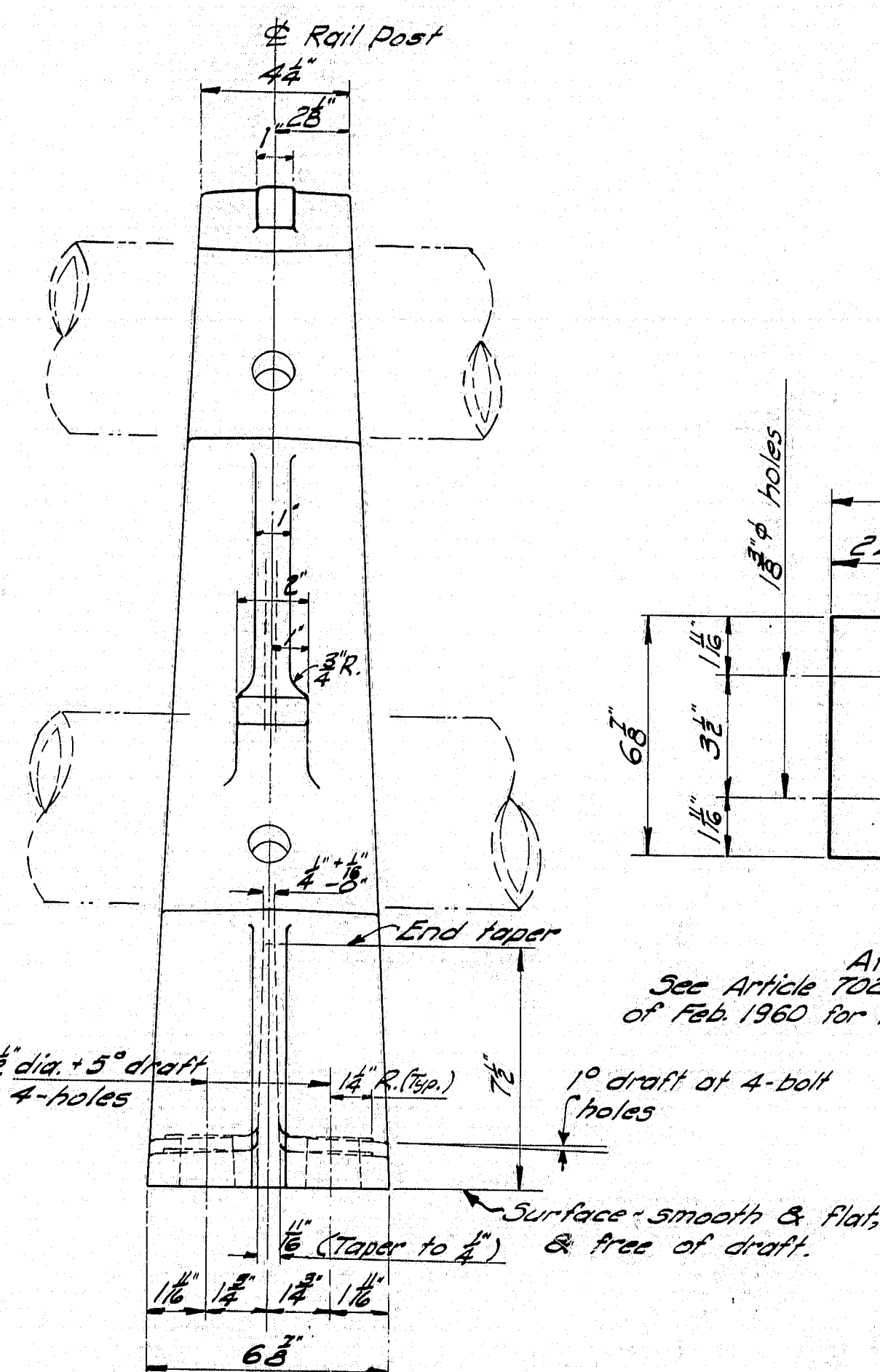
Lengths of rail shall be attached to a minimum of (4) four rail posts, wherever possible, and in any case never less than (2) two.



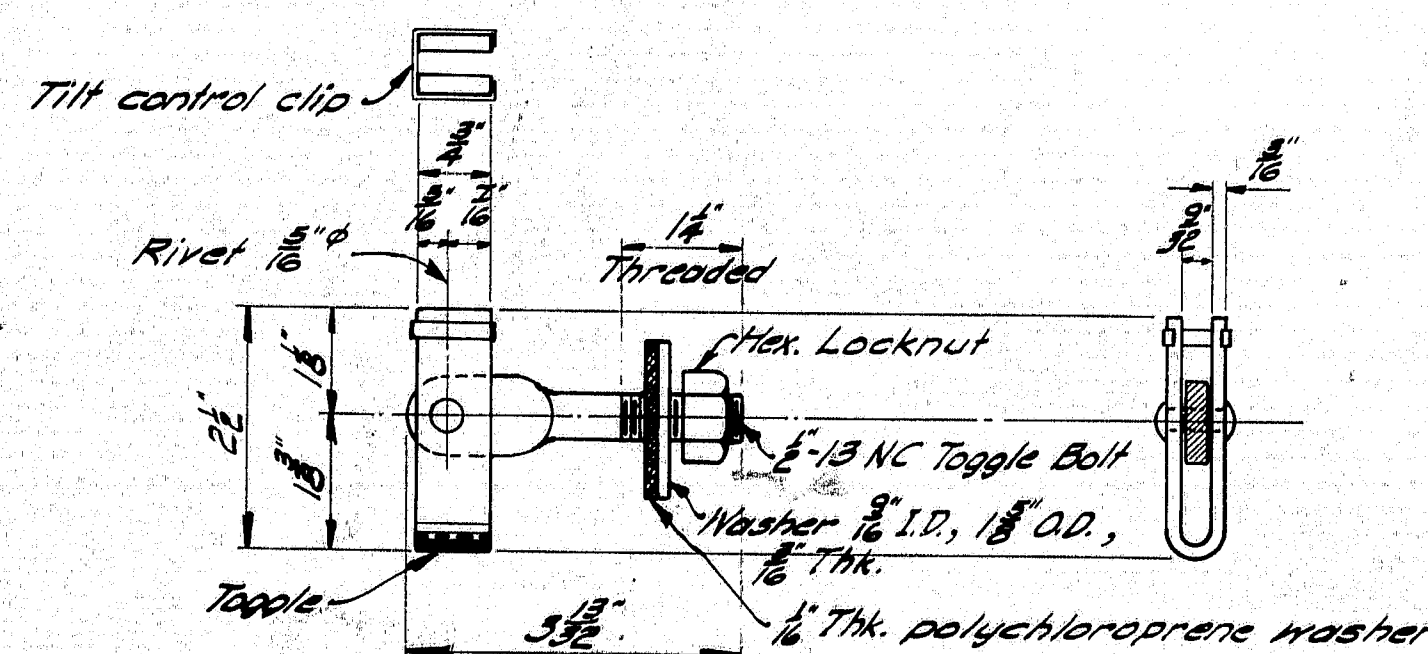
RAIL POST  
Aluminum Association Alloy A344-T4



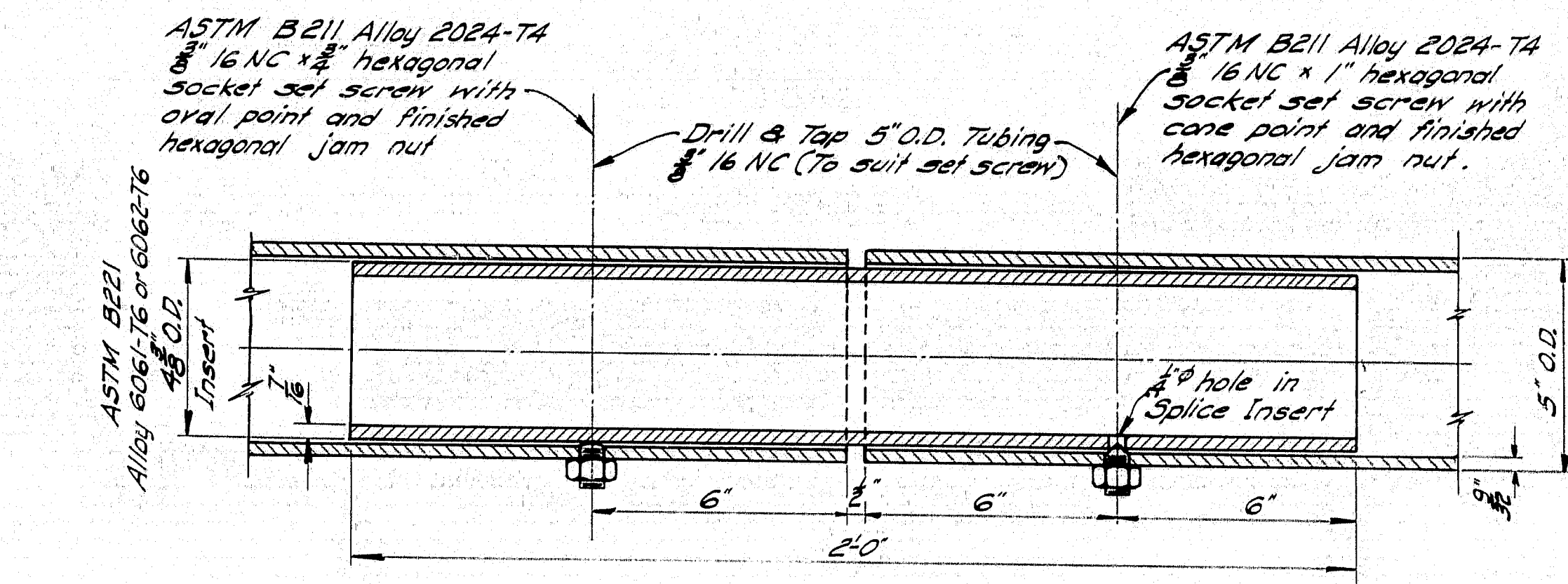
RAIL POST ANCHORAGE  
Bolts, Nuts & Std. Washers = ASTM A325 Galvanized ASTM A153



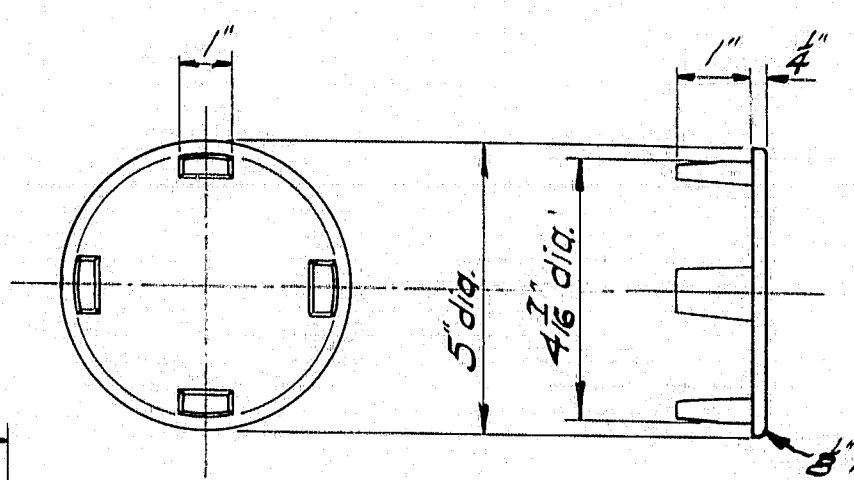
FRONT ELEVATION



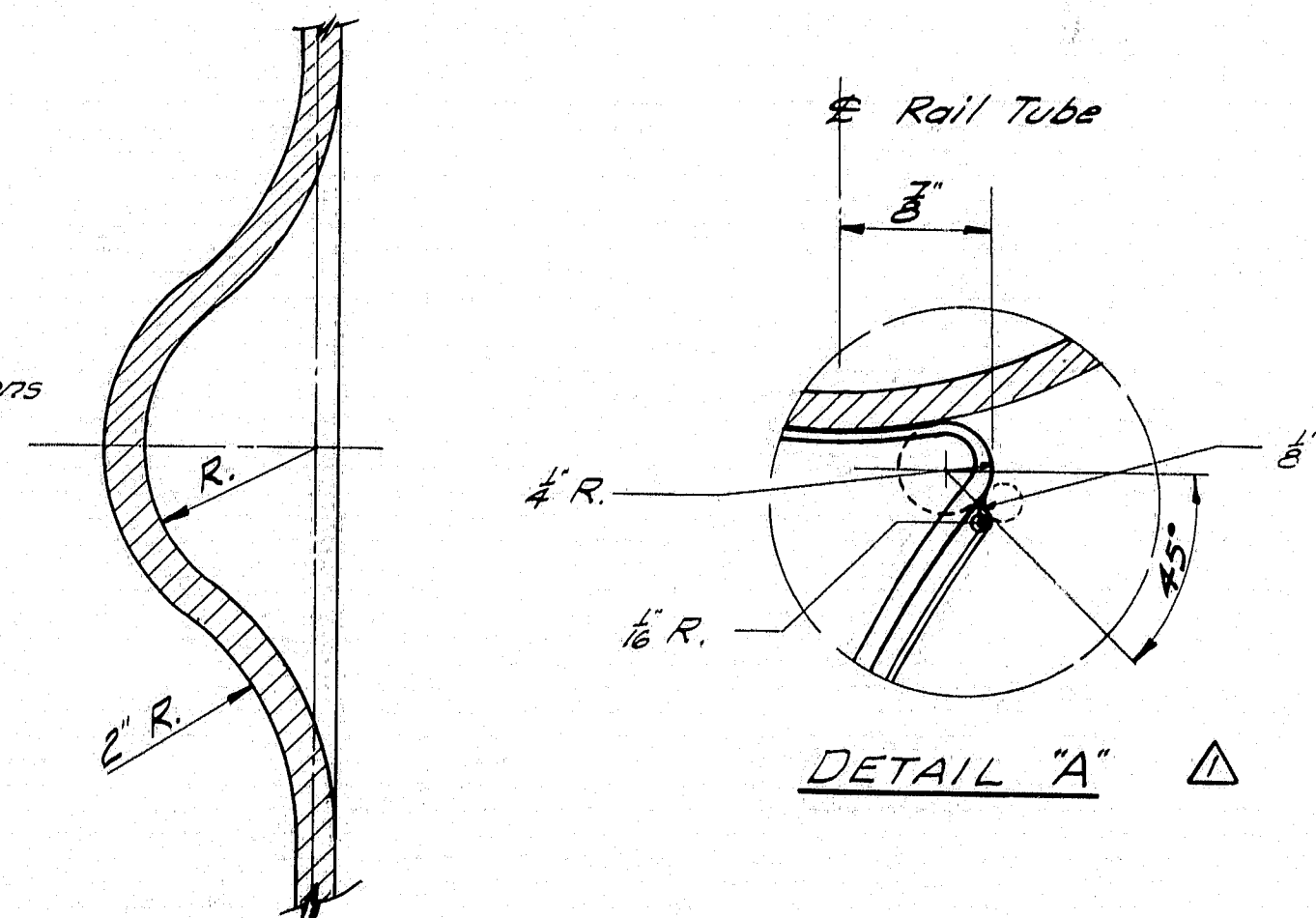
TOGGLE BOLT DETAIL  
Cadmium Plate metal parts ASTM A163-55, Type N3, .0005" thick.



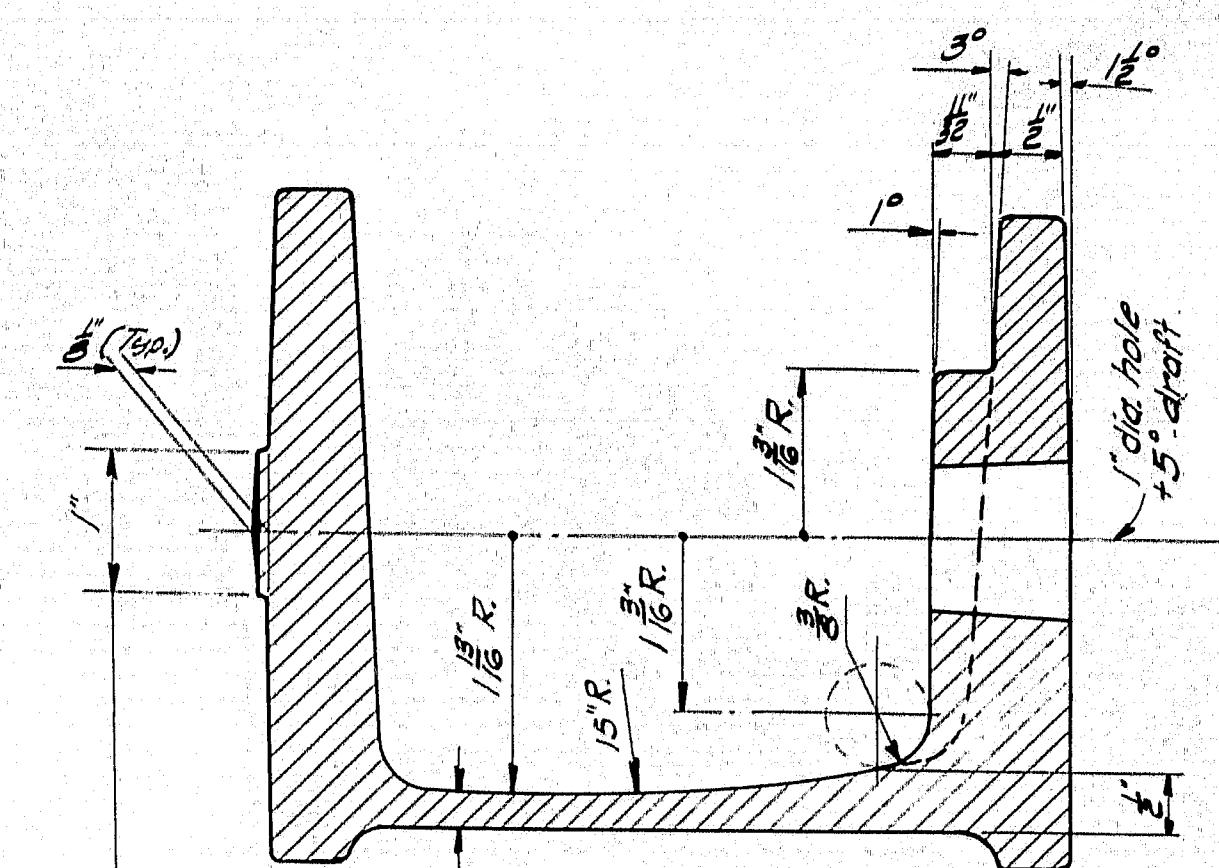
SPlice



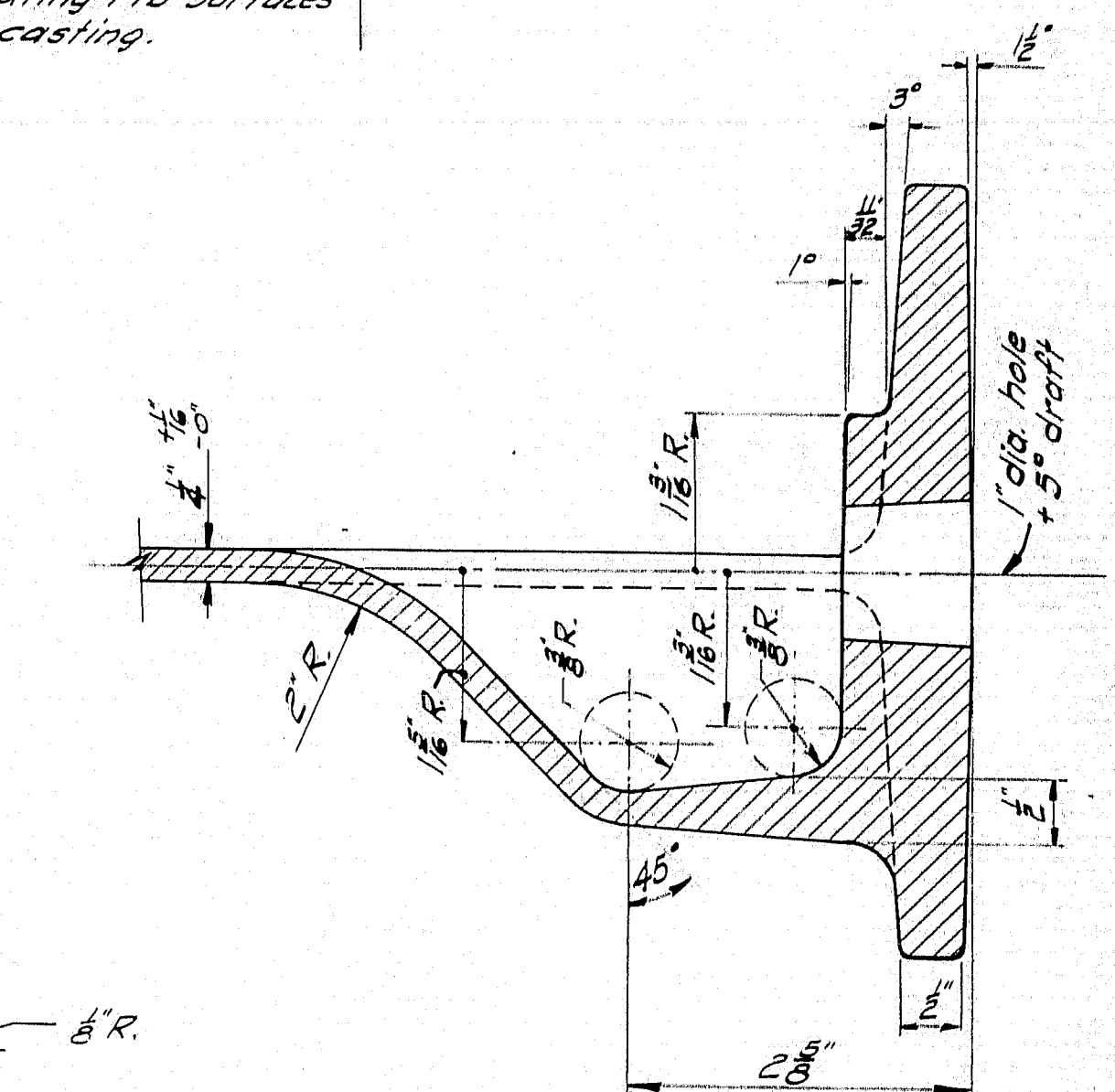
RAIL CAP  
ASTM B26 Alloy SG 70 A or S5 A



SECTION C-C



SECTION A-A



SECTION B-B

DESIGN SPECIFICATIONS

A.A.S.H.O. Interim Specifications  
Int. I (64).

A344-T4 Alloy to meet the  
Specification outlined by Aluminum  
Association.

ALTERATION:

Added Detail 'A' and Origin Location-  
Principal Curves. Nov. 19, 1964.

MAINE STATE HIGHWAY COMMISSION  
AUGUSTA, MAINE

STANDARD DETAILS  
(BD 108-64)  
ALUMINUM RAIL  
2-BAR (TUBE RAIL)  
CAST POST

OCT. 1964

95-180

