

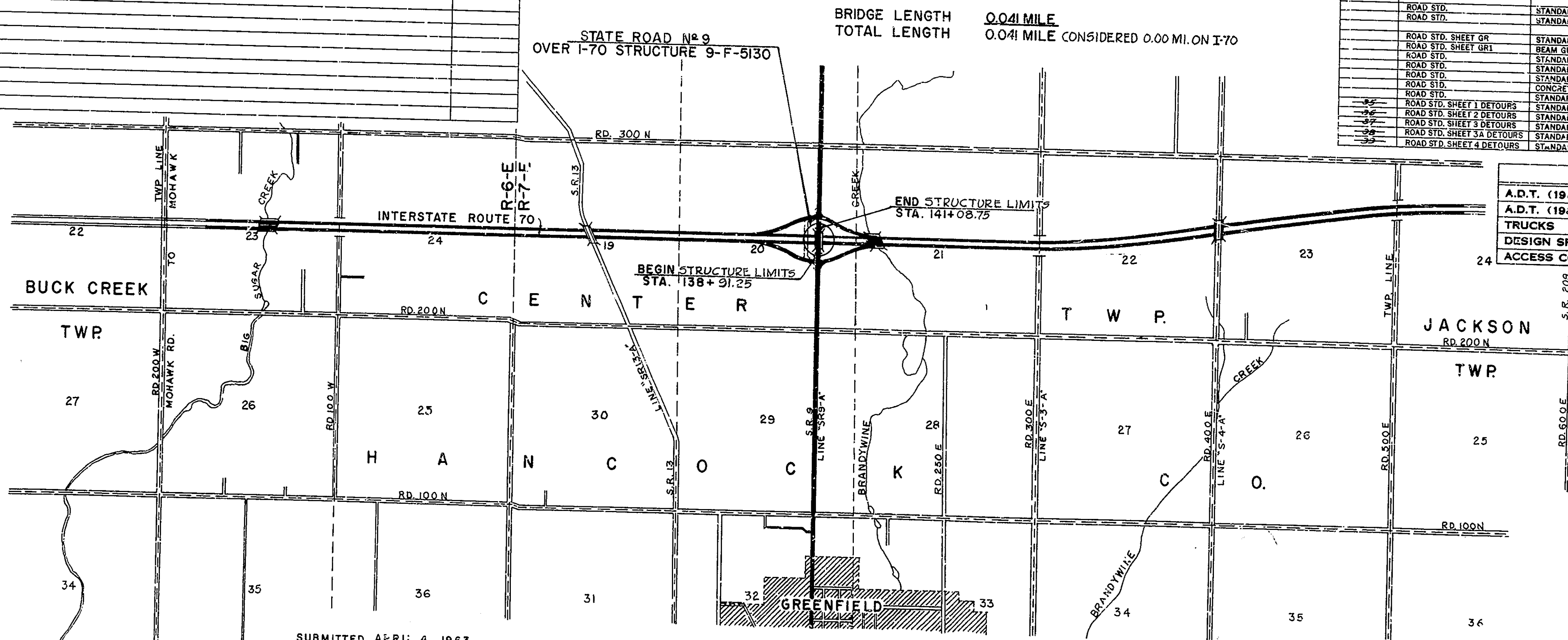
INDEX						
PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION	CONTRACT NO.
I-70-4 (13) 101	9-F-5130	Cont. Steel Bm & RC Girders End Span	40'-0, 65'-0, 65'-0, 40'-0	Interstate 70	140+00	R-4485
SHEET NO.	SHEET DESIGNATION	SUBJECT				B.P.R. APPROVAL
1	TITLE SHEET AND INDEX					
2	STANDARD DIVIDED LANE SECTIONS	REV. 7-3-61				8-23-61
3	TYPICAL GROSS SECTIONS I-70-4(13)101					
4	DETAILS I-70-4(13)101					
5-6	SHEETS No. 11 & 19	PLAN & PROFILE LINE "A" I-70-4(13)101				
7	SHEET No. 27	PLAN & PROFILE LINE "A" I-70-4(13)101				
8	SHEET No. 48	R.G. APPROACH PAVEMENT DETAILS PROJ. I-70-4(13)101				
9						
10	S-1 (STR. 9-F-5130)	SOIL BORINGS				
11	S-2	LAYOUT SHEET				
12	S-3	GENERAL PLAN				
13	S-4	BENTS No. 1 & No. 5 DETAILS				
14	S-5	BENTS No. 2 & No. 4 DETAILS				
15-17	S-6 to S-8	BENT No. 3 DETAILS				
18	S-9	SPANS "A" & "D" DETAILS				
19	S-10	FRAMING PLAN SPANS "B" & "C"				
20	S-11	STEEL DETAILS SPANS "B" & "C"				
21-22	S-12 & S-13	FLOOR AND STEEL DETAILS				
23	S-14	FLOOR DETAILS SPANS "B" & "C"				
24		SCREEDS				
25-26	SHEETS No. 45 & 46	SUMMARY SHEET				
27-28	SHEETS No. 107, 109	GROSS SECTIONS LINE "A"				
		GROSS SECTIONS LINE "B" & "C"				

STATE OF INDIANA  
INDIANA STATE HIGHWAY COMMISSION

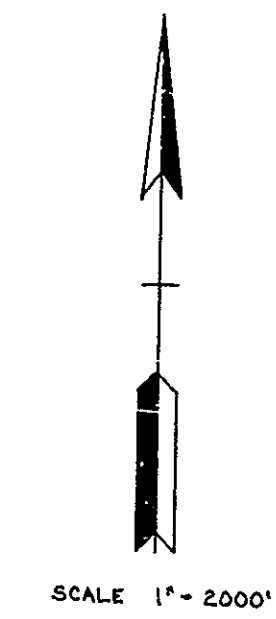
**BRIDGE PLANS**  
**FOR SPANS OVER 20 FEET**  
**ON**  
**INTERSTATE ROAD NO. 70 SECTION NO. 4**  
**F.A. PROJECT I-70-4(13) 101**

STRUCTURE LIMITS  
BEGINNING AT A POINT ON THE C. OF PROPOSED I-70 AT THE INTERSECTION OF S.D. C. AND THE N-S SECTION LINE OF SECTIONS 20-21, T-16-N, R7E, THENCE WESTERLY ON AND ALONG THE SAID C. OF PROPOSED I-70 APPROXIMATELY 1121' TO A POINT ON THE SAID C. AND THE PROPOSED C. OF SR 9, THENCE NORTH ON AND ALONG THE PROPOSED C. OF SR 9, 108.15' TO A POINT, THE NORTH STRUCT. LIMIT, THENCE SOUTH ALONG THIS C. 217.5' TO A POINT, THE SOUTH STRUCT. LIMIT, ALL IN SECTION 20, T-16-N, R7E, CENTER TOWNSHIP, HANCOCK COUNTY, INDIANA.

BRIDGE LENGTH 0.041 MILE  
TOTAL LENGTH 0.041 MILE CONSIDERED 0.00 MI. ON I-70



TRAFFIC DATA			
A.D.T. (1942)	S.R. 9	I-70	
A.D.T. (1942 PROJECTED)	3472 V.P.D.	62	9356
TRUCKS	9082 V.P.D.	82	25,368
DESIGN SPEED	70 M.P.H.		10.2
ACCESS CONTROL	NONE		70

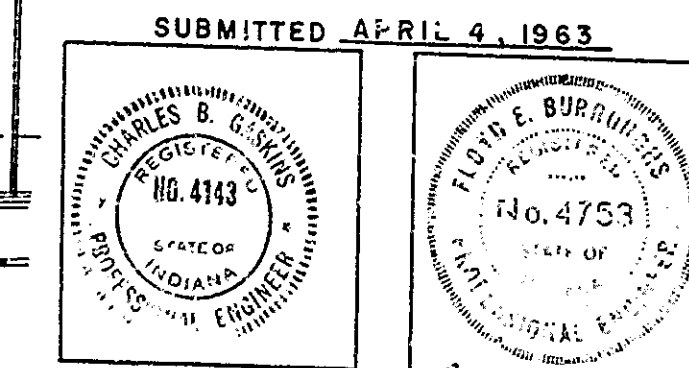


BRIDGES OVER 20' SPAN						
BRIDGE NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
4	IND.	2-74-401	1963	1	39	

INDEX CONTINUED STANDARD DRAWINGS			
SHEET NO.	SHEET DESIGNATION	SUBJECT	B.P.R. APPROVAL
29	BRIDGE STD. CI	STANDARD MISCELLANEOUS DETAILS	5-21-63
	BRIDGE STD. C2	STANDARD MISCELLANEOUS DETAILS	
	BRIDGE STD. D	CASTING DETAILS ROADWAY DRAINS	
	BRIDGE STD. F	ROADWAY DRAIN OUTLET DETAILS	
	BRIDGE STD. GRA	TYPICAL BEAM GUARD RAIL DETAILS	
	BRIDGE STD. H	TYP. DETAILS OF THICK PAVEMENT & LOC. TOE OF SL. AROUND END BENTS	
	BRIDGE STD. HS	TYP. DETAILS OF THICK PAVEMENT & LOCATING TOE OF SLOPE	
	BRIDGE STD. HS1	CONT. STEEL BEAM-TYP. APPROACH DETAILS-TWIN STRUCTURES	
	BRIDGE STD. HS2	CONT. STEEL BEAM-TYP. APPROACH DETAILS-TWO-LANE STRUCTURES	
	BRIDGE STD. MI	MISCELLANEOUS APPROACH DETAILS	
	BRIDGE STD. M2	MISCELLANEOUS APPROACH DETAILS	
29A	BRIDGE STD. RI-5	STEEL RAILING DETAILS	5-18-64
29B	BRIDGE STD. J	EXPANSION JOINTS	5-18-64
30	BRIDGE STD. KA	STEEL RAILING DETAILS	5-18-64
31	BRIDGE STD. RD	ALUMINUM RAILING DETAILS	12-4-63
	BRIDGE STD. P2	STANDARD CONCRETE PILE DETAILS	8-12-64
	BRIDGE STD. PB	PRESTRESSED CONCRETE TYPE I BEAMS	
	BRIDGE STD. R1E	PRESTRESSED COMPOSITE BOX BEAMS WIDE	
	BRIDGE STD. S1	ALUMINUM RAILING DETAILS	8-7-64
	BRIDGE STD. S2	TYPICAL DETAILS FOR PLACING SPECIAL FILLING MATERIAL	
	BRIDGE STD. T SHEET A	STANDARD TEMPORARY BRIDGE	8-2-64
	BRIDGE STD. T SHEET B	STANDARD TEMPORARY BRIDGE	
	ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS	5-25-64
	ROAD STD. SHEET WA	MISCELLANEOUS STANDARDS	8-2-64
	ROAD STD. SHEET WB	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MC	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MCI	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MD	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET ME	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MF	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MG	MISCELLANEOUS STRUCTURE STANDARDS	
	ROAD STD. SHEET MH	MISCELLANEOUS STRUCTURE STANDARDS	
	ROAD STD. SHEET MI	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MJ	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET K	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MN	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MP	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET MQ	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET NR	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET S	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET S1	MISCELLANEOUS STANDARDS CENTER DITCH INLETS	
	ROAD STD. SHEET S2	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET S3	MISCELLANEOUS STANDARDS	
	ROAD STD. SHEET S4	MISCELLANEOUS STANDARDS	
	ROAD STD.	STANDARD STRUCTURE CONNECTIONS FOR EXTENSION	
	ROAD STD.	STANDARD REIN. CONC. BOX CULVERTS	
	ROAD STD.	STANDARD REIN. CONC. BOX CULVERTS-SK. END & WING DETAILS	
	ROAD STD.	STANDARD REIN. CONC. CULVERTS-SLAB TOP TYPE (W.F.)	
	ROAD STD.	STANDARD REIN. CONC. CULVERTS-SLAB TOP TYPE (U.P.)	
	ROAD STD. SHEET OR	STANDARD GUARD RAIL	
	ROAD STD. SHEET GR1	BEAM GUARD RAIL	
	ROAD STD.	STANDARD REIN. CONCRETE ARCH-12' SPAN	
	ROAD STD.	STANDARD HEADWALLS	
	ROAD STD.	STANDARD STRUCTURAL PLATE ARCH	
	ROAD STD.	CONCRETE WINGS FOR STD. STRUCTURAL PLATE ARCHES	
	ROAD STD. SHEET 1 DETOURS	STANDARDS FOR SUPER-ELEVATION & WIDENING OF CURVES	
	ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS	8-2-64
	ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS	8-2-64
	ROAD STD. SHEET 3A DETOURS	STANDARD DETOUR SIGNS	8-2-64
	ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS	8-2-64

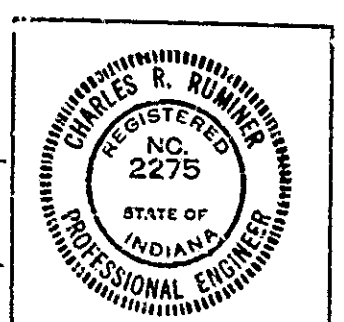
INDIANA STATE HIGHWAY COMMISSION  
STANDARD SPECIFICATIONS DATED 1963  
TO BE USED WITH THESE PLANS.



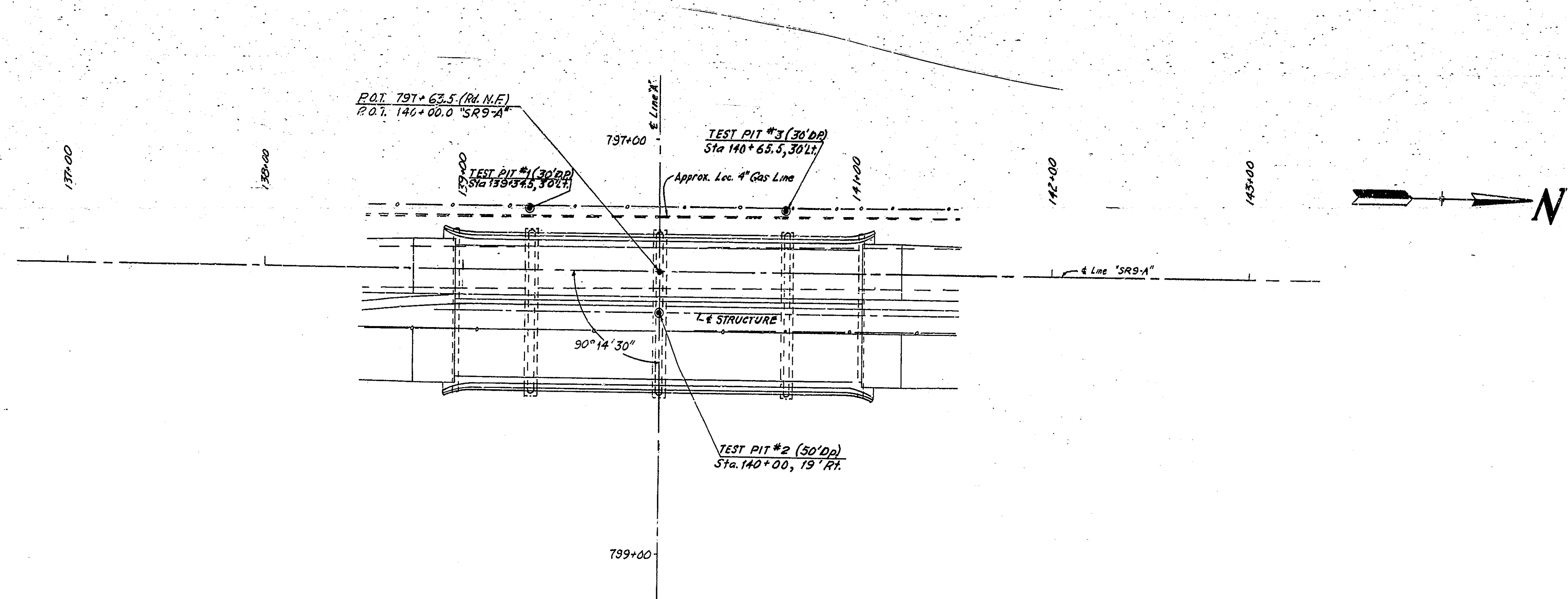
THESE PLANS PREPARED BY  
**CLYDE E. WILLIAMS & ASSOCIATES**  
AND  
**FLOYD E. BURROUGHS & ASSOCIATES**  
CONSULTING ENGINEERS  
INDIANAPOLIS, INDIANA

REVISIONS	
DATE	SHEET NO.
5-11-64	Proj. Designation Changed From I-70-4(13)101 to I-70-4(13)101
7-17-64	11, 24, 31, 32; 29A Added
8-23-64	22, 28, 33, 34, 35, 36, 37 Deleted

RECOMMENDED FOR APPROVAL 5-13-63  
*R. R. Rimmer*  
ENGINEER OF BRIDGE DESIGN, INDIANA STATE HIGHWAY COMMISSION



DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS  
APPROVED: \_\_\_\_\_  
DIVISION ENGINEER  
DATE \_\_\_\_\_

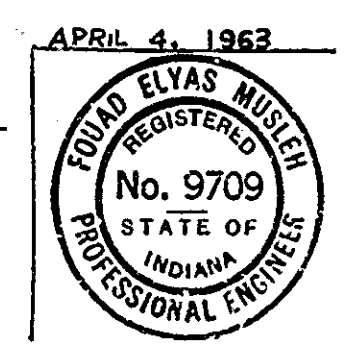


BORING NO	T.B. #1			T.B. #2			T.B. #3		
	139+34.5			140+00			140+65.5		
	30' Lt.			19' Rt.			30' Lt.		
	912.3			912.2			912.6		
SAMPLE	N	DESCRIPTION	SAMPLE	N	DESCRIPTION	SAMPLE	N	DESCRIPTION	
1	5/12/6	Black moist silty loam (No Soil)	1	5/12/6	Black moist silty loam (No Soil)	1	5/12/6	Black moist silty loam	
2	9/10/8	Brown moist sandy loam	2	9/10/8	Brown moist silty loam	2	9/10/8	Brown moist silty loam	
3	9/27/8	Brown moist sandy clay	3	9/10/8	Brown moist silty loam	3	9/28/8	Brown moist clay	
4	11/4/8	Brown moist sandy clay loam	4	Push	Brown moist sandy clay	4	9/28/8	Brown moist sandy clay loam	
5	9/23/8	Brown damp sand & gravel	5	9/23/8	Brown moist sand	5	9/28/8	Brown moist sandy loam	
6	11/4/8	Brown damp sandy clay loam	6	9/23/8	Brown moist sand & gravel	6	11/4/8	Brown moist sand	
7	26/12/8	Gray damp sand & gravel	7	11/4/8	Brown moist silty clay - Some small gravel	7	24/12/8	Brown moist sandy loam & gravel	
8	23/1/8	End of boring	8	24/1/8	Brown moist sandy clay - Same gravel	8	37/2/8	Brown moist fine sand	
9	21/1/8	Brown moist sand & gravel	9	19/10/8	Brown moist sandy clay - Same gravel	9	29/10/8	Brown moist sandy clay loam & gravel	
10	11/2/8	Brown moist fine sand	10	19/10/8	Brown moist sandy clay - Same gravel	10	11/2/8	End of boring	
11	11/2/8	Gray moist sandy clay & gravel	11	11/2/8	Gray moist sandy clay & gravel				

See Article A 203 of the specifications regarding test pit data.

Note: ▼ DENOTES GROUND WATER TABLE  
N INDICATES THE NUMBER OF BLOWS REQUIRED TO DRIVE A 1 1/2" I.D. 2' O.D. SPLIT SPOON SAMPLER 6" BY MEANS OF A 140# WEIGHT FALLING 30"

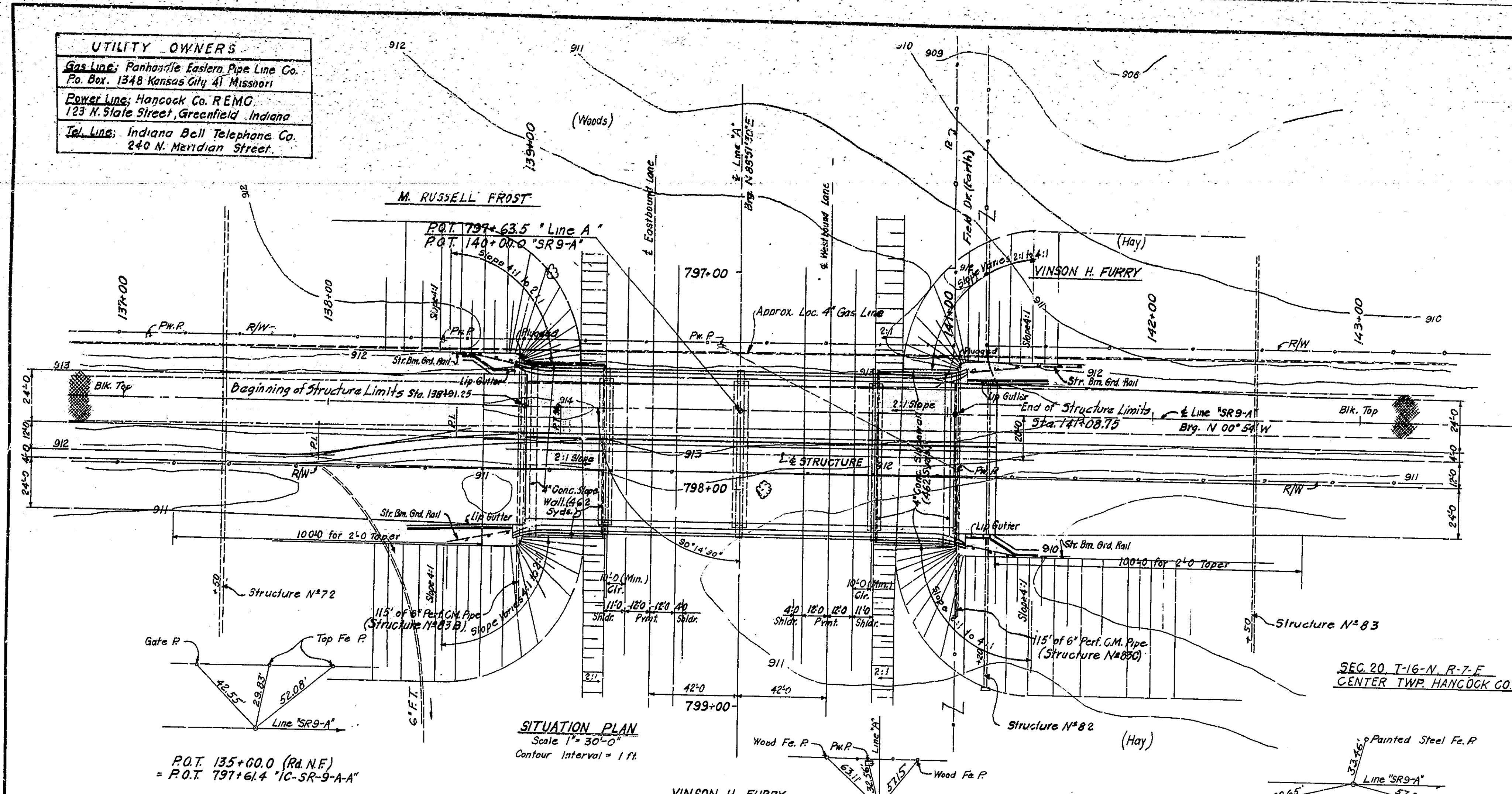
SOIL BORINGS  
 SCALES: - HORIZ. 1" = 30'-0, VERT. 1" = 5'-0.  
 RECOMMENDED FOR APPROVAL: *Jawal S. Bhatnagar*  
 PROJECT: I-70-4(18) 101  
 BRIDGE CONTRACT NO. P-2485  
 BRIDGE FILE: 9-F-5130





UTILITY OWNERS	
Gas Line:	Panhandle Eastern Pipe Line Co. P.O. Box 1348 Kansas City 41 Missouri
Power Line:	Hancock Co. REMC 123 N. State Street, Greenfield, Indiana
Tel. Line:	Indiana Bell Telephone Co. 240 N. Meridian Street.

BRIDGES OVER 20' SPAN					
PUB. ROAD	STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-70	1963	10	39

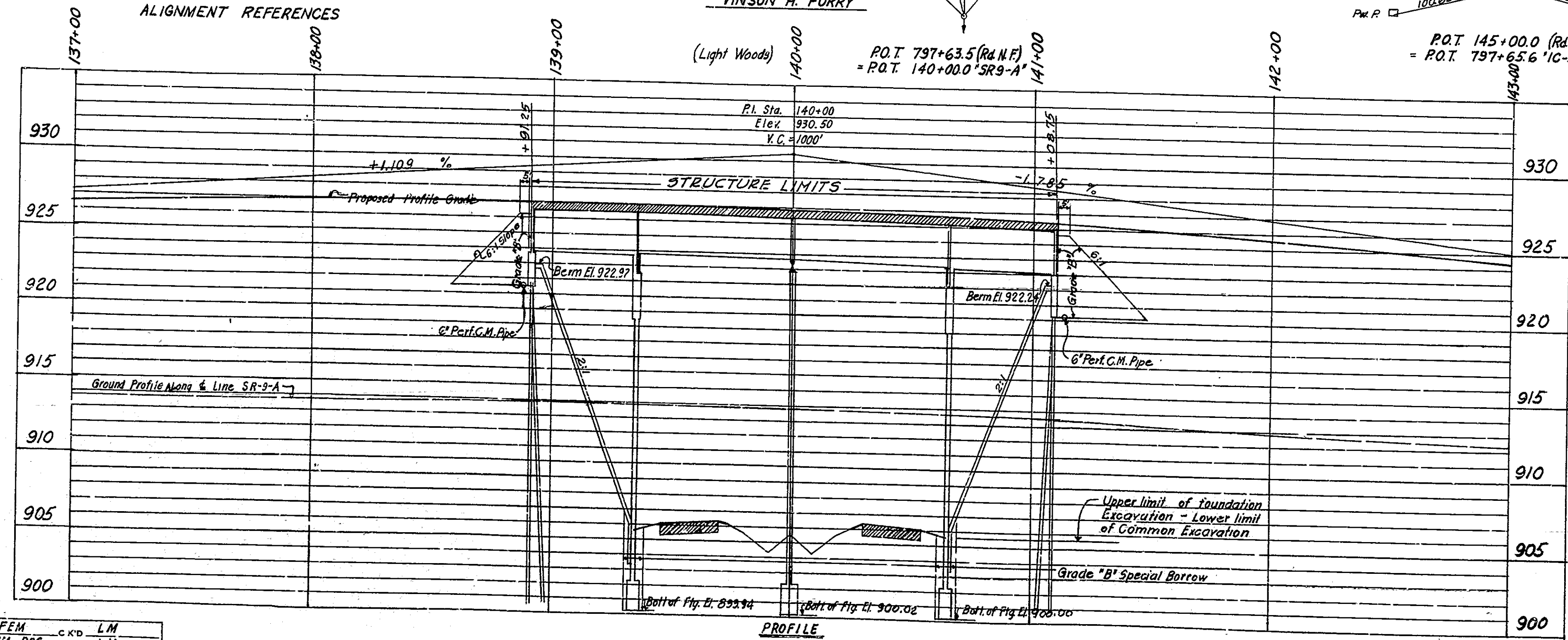


NOTES:  
See Road Plans for Bench Marks

P.O.T. 135+00.0 (Rd. N.F.)  
= P.O.T. 797+61.4 'IC-SR-9-A-A'

ALIGNMENT REFERENCES

SITUATION PLAN  
Scale 1" = 30'-0"  
Contour Interval = 1 ft.



PROFILE  
SCALE: Horiz: 1" = 30'-0"  
Vert: 1" = 5'-0"

LAYOUT PLAN  
CONTINUOUS STEEL BEAM & R. C. GIRDER BRIDGE

4 SPANS, 40'-0, 65'-0, 65'-0, 40'-0, DUAL 28" x 10" WITH 4'-0" MEDIUM 20" G" CURBS  
ON S.R. N° 9 OVER INTERSTATE 70 SQUARE IN HANCOCK COUNTY

INDIANA STATE HIGHWAY COMMISSION  
HANCOCK COUNTY

SCALE: - AS NOTED  
APRIL 4, 1963

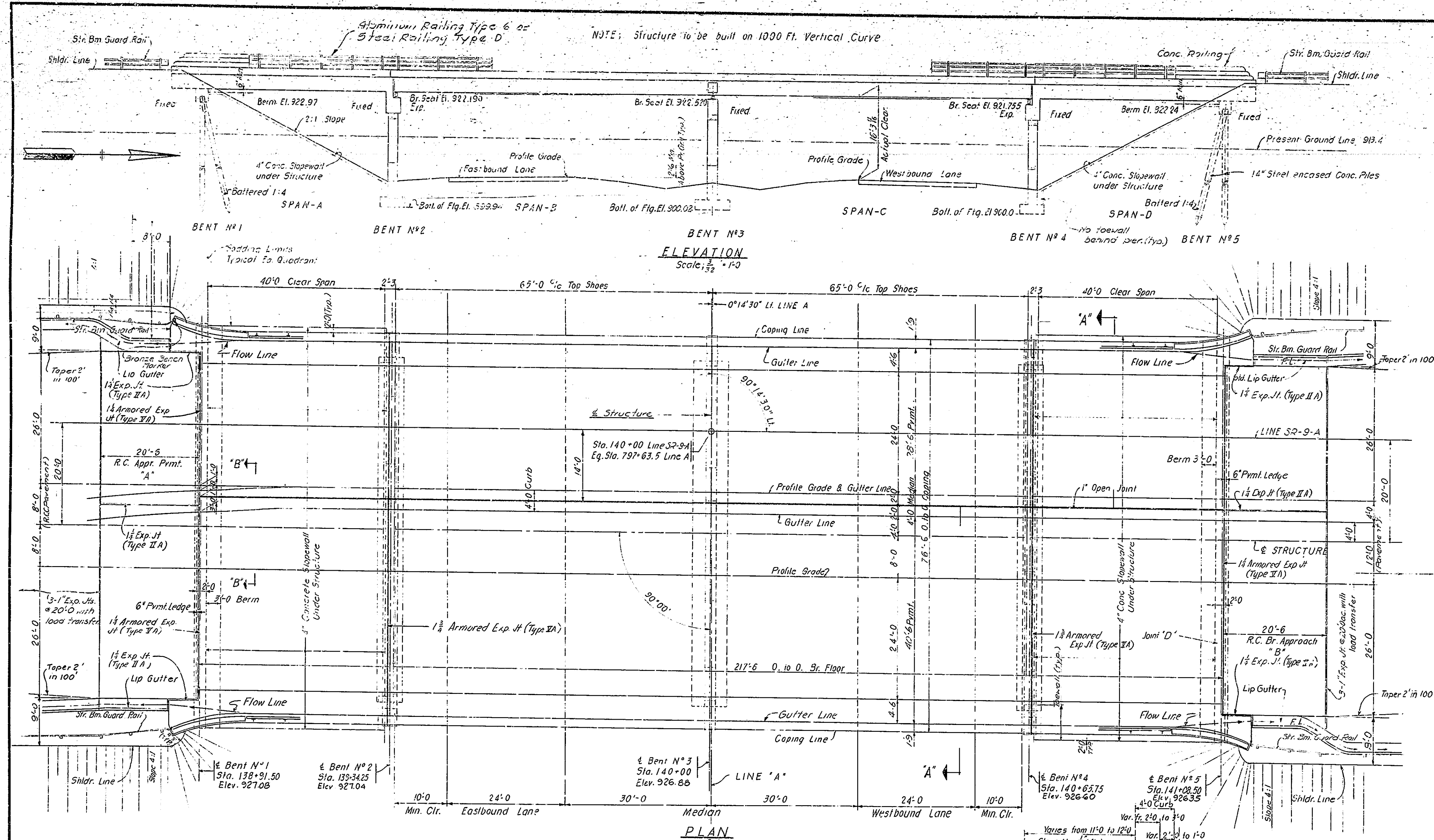
SUBMITTED FOR APPROVAL: *For. E. Alush*

DRAWING: S-1 OF S-14  
PROJECT: 1-70-4(13)101  
BRIDGE CONTRACT NO. R-6685  
BRIDGE FILE: 9-F-5130



FIELD NOTES BOOK 8704 T & 8705 L  
Rev. 3-24-65 Clear Rdwy. & Lip Gutter  
Rev. 3-14-64 Road Hams & Struct. Limits

BRIDGES OVER 20' SPAN					
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-70-4 (13)	1963	11	39



**GENERAL NOTES**

No present structure at proposed bridge site. Depth of footings to be extended if found necessary. See Art. B103.2 of Specifications. Piles shall have minimum bearing value shown on detail drawings. Determine pile lengths by Art. F103 of Specifications.

For details of steel encased concrete piles see Bridge Standard C1, Special Provisions and applicable articles in the Specifications.

Class 'E' concrete shall be used wherever necessary to provide rigid framing.

Reinforcing steel covering shall be 1 1/2 inches and 1 in. for top of floor slab, 3 inches for footing except bottom steel which shall be 4 inches. 1 1/2 inches for stirrups in beams and columns and 2 inches in all other parts unless noted.

For painting of armored exp. jt., see special provisions Exp. Jt. armor to conform to roadway crown curvature. Concrete in footings and column walls to be class 'E'.

Concrete in superstructure, including railings, and bent caps to be class 'E'.

Concrete in bent columns to be class 'E'.

Concrete in steel encased concrete piles, spawalls, to be Class 'C'.

Continuous concrete pours shall be required between construction joints as shown on detail class. Waterproof back of mud-walls in accordance with the Specifications.

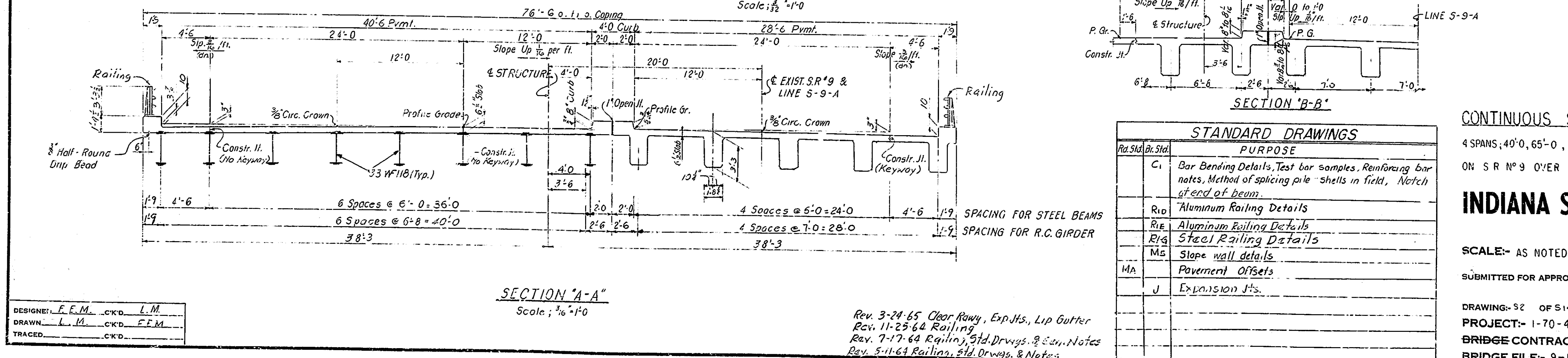
Bevel forms 1 inch under copings; 1/2 inch chamfer exposed edges 1 inch unless noted.

Tolerance in position of pile head maximum 2 inches.

All railings to be constructed perpendicular to grade.

Three 1 inch expansion joints with load transfer to be placed in the pavement as shown on Bridge Standard M3.

Railing Type 6 or D. See Special Provisions for pay items covering this structure see 'Bridge Summary'.



**DESIGN DATA**

Designed for H20-S16-44 loading in accordance with 1961 AASHTO Specifications.

**JOINT LEGEND**

Joint 'D' indicates 1 inch preformed joint under front 6 inches of girder bearing area.

Armored expansion joint - Refer to Bridge Standard J.

**GENERAL PLAN**  
**CONTINUOUS STEEL BEAM & R.C. GIRDER BRIDGE**  
4 SPANS: 40'-0", 65'-0", 65'-0", 40'-0". DUAL 28" x 46" WITH 4" OMEGA 2 x 6 CURBS  
ON S.R. NO. 9 OVER INTERSTATE 70 SQUARE IN HANCOCK COUNTY

**INDIANA STATE HIGHWAY COMMISSION**  
HANCOCK COUNTY

SCALE: AS NOTED

APRIL 4, 1963

SUBMITTED FOR APPROVAL: *Jared E. Blush*

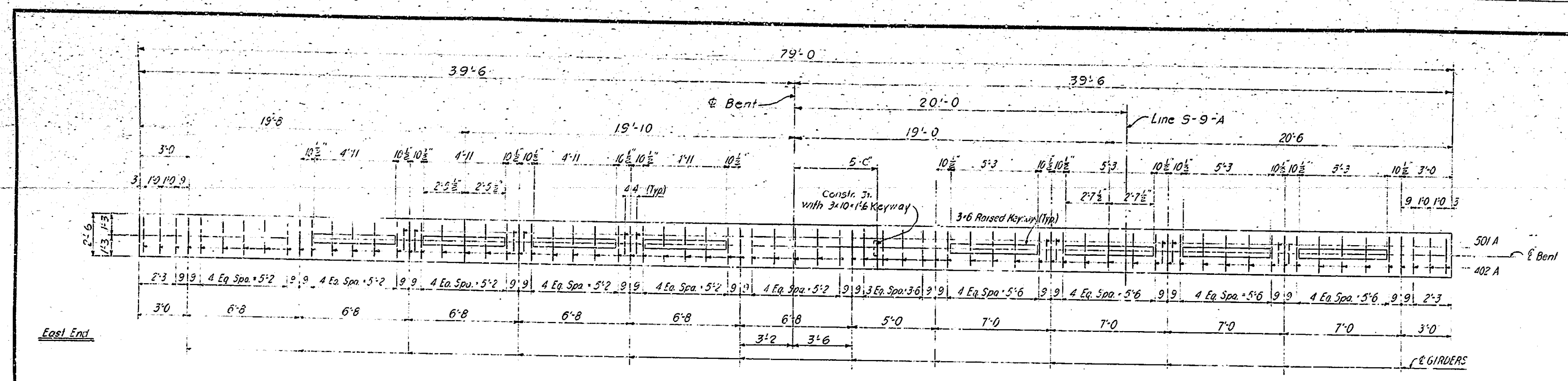
DESIGNED BY: F.E.M., L.M.  
DRAWN BY: L.M., C.K.D., F.E.M.  
TRACED BY: C.K.D.

Rev. 3-24-65 Clear Rowy, Exp. Jts., Lip Gutter  
Rev. 11-25-64 Railing  
Rev. 7-7-64 Railing, Std. Drawgs. & Notes  
Rev. 5-11-64 Railing, Std. Drawgs. & Notes

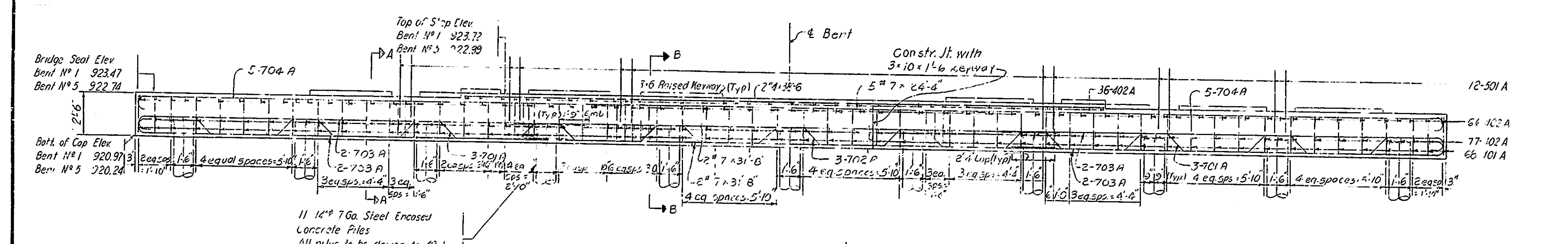
Std. Drawing No.	PURPOSE
C1	Bar Bending Details, Test bar samples, Reinforcing bar notes, Method of splicing pile shells in field, Notch at end of beam
R10	Aluminum Railing Details
R16	Aluminum Railing Details
R19	Steel Railing Details
M5	Slope wall details
M4	Pavement Offsets
J	Expansion Jts.

BRIDGE CONTRACT NO. R-6885 & Struct. Sta. 140+00.0  
BRIDGE FILE: 9-F-5130

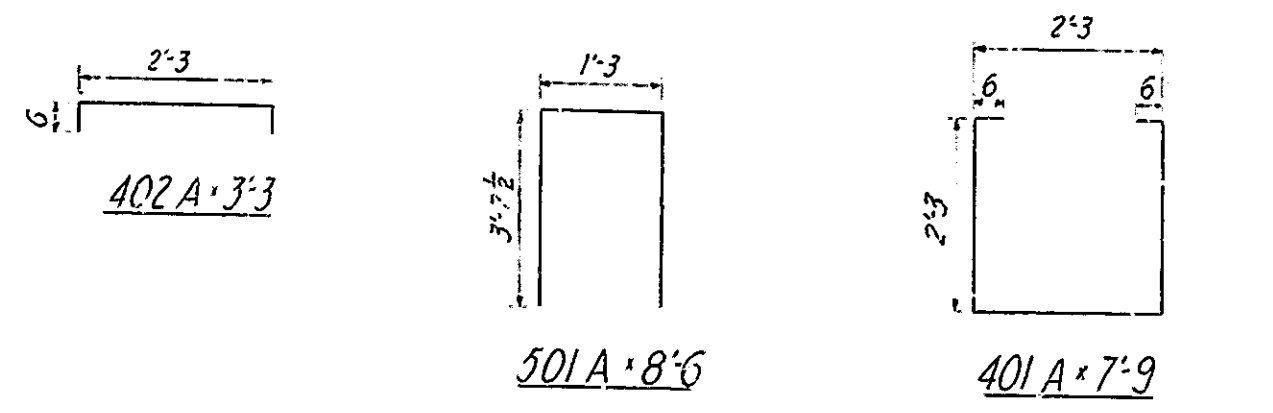




PLAN BENT #1  
BENT #5 OPPOSITE HAND  
Scale; 1/4" = 1'-0"

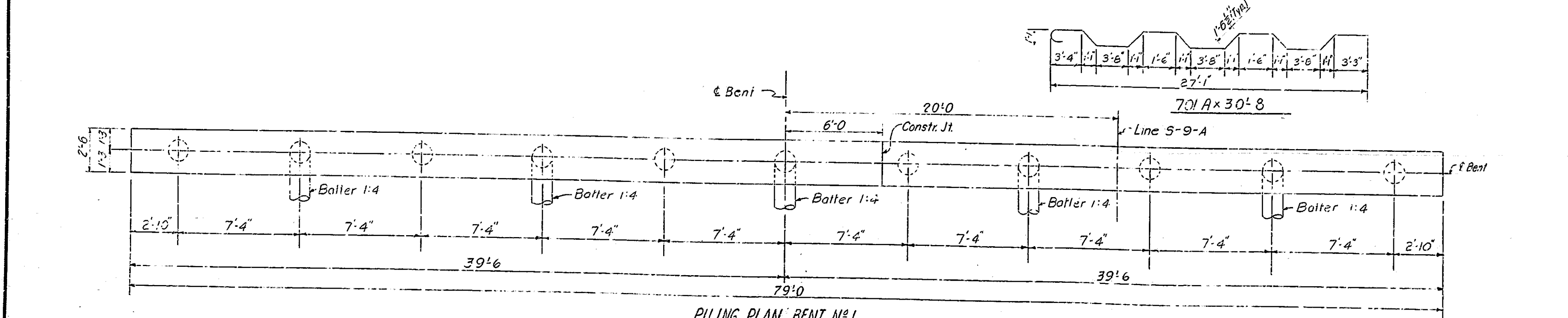


ELEVATION BENT #1  
BENT #5 OPPOSITE HAND  
Scale; 1/4" = 1'-0"



SECTION A-A  
Scale 3/4" = 1'-0"

SECTION B-B  
Scale 3/4" = 1'-0"



PILING PLAN BENT #1  
BENT #5 OPPOSITE HAND  
Scale 1/4" = 1'-0"

BRIDGES OVER 20' SPAN				
FOR ROAD	PROJECT	FISCAL	SHEET	TOTAL
NO. NO.	NO.	YEAR	NO.	SHEETS
4	1-70	1963	12	35
4	1-70	1963	12	35

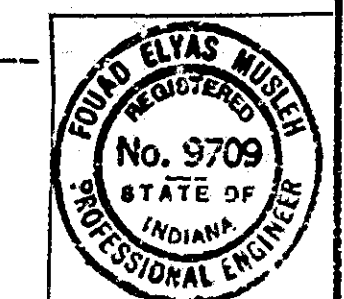
SIZES OF MATERIAL BENT #1 BENT #5 SAME			
REINFORCING STEEL			
Size & Mark	No. of Bars	Length	Weight (Lbs)
704 A	6	30'-8"	
703 A	3	33'-0"	
702 A	8	26'-7"	
701 A	10	30'-3"	
# 7	4	31'-8"	
# 7	5	24'-4"	
Total No. 7			217.9
501 A	12	8'-6"	104
401 A	6	7'-9"	
402 A	179	3'-3"	
# 4	2	38'-6"	
Total No. 4			79.2
TOTAL STEEL			3,068
CONCRETE			
Class F	19.2 CY'S		
MISCELLANEOUS			
11 14" x 70a Steel Encased Concrete Piles @ 40'-0"	440 Lin. Ft.		

NOTES:  
See Bridge Std. C1 for reinforcing bar notes.  
Bent Cap shall not be poured until after fill has been completed up to approx. elev. of bottom of cap.

INDIANA STATE HIGHWAY COMMISSION

SCALE: As Noted  
SUBMITTED FOR APPROVAL: *James E. Blush*  
APRIL 4, 1963

DRAWING: 5-3 OF 5-12  
PROJECT: 1-70-411101  
BRIDGE CONTRACT NO. R-6685  
BRIDGE FILE: 9-F-5130



DESIGNED: DAP	CHK'D: SAR
DRAWN: PDC	CHK'D: L.M.
TRACED: _____	CHK'D: _____

BRIDGES OVER 20' SPAN					
STATE	PROJECT	PLAN	SHEET	TOTAL	
NO.	NO.	NO.	NO.	SHEETS	SHEETS
IND.	1-70-413101	1363	13	39	

**BILL OF MATERIALS  
FOR BENT N° 2  
BENT N° 4 IS SAME**

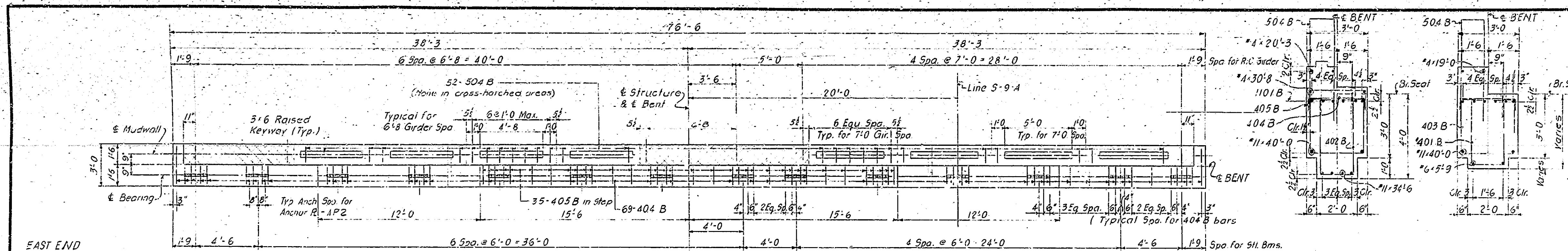
REINFORCING STEEL			
Size or Mark	No. of Bars	Length	Weight in Lb.
#10 B	12	41'-7"	
#11	4	40'-0"	
#11	8	34'-5"	
Total #11			4,968
#6	4	5'-9"	1.5
#0 B	64	4'-0"	
#02 B	44	3'-8"	
#03 B	40	2'-11"	
#04 B	32	11'-1"	
#05 B	48	2'-9"	
#5	12	34'-4"	
#5	12	32'-0"	
#5	64	20'-1"	*Bent #2 only
#5	64	19'-7"	*Bent #4 only
#5	40	6'-2"	
#5	68	5'-0"	
Total #5 for Bent #2			4,334
Total #5 for Bent #4			4,320

401 B	12	17'-10"	
402 C	50	9'-11"	
403 B	52	9'-1"	
404 B	69	3'-9"	
405 B	35	4'-9"	
#4	2	30'-8"	
#4	4	20'-3"	
#4	4	19'-0"	
#4	2	17'-9"	
Total #4			1,179
TOTAL REINF. STL BENT #2			11,126
TOTAL REINF. STL BENT #4			11,092

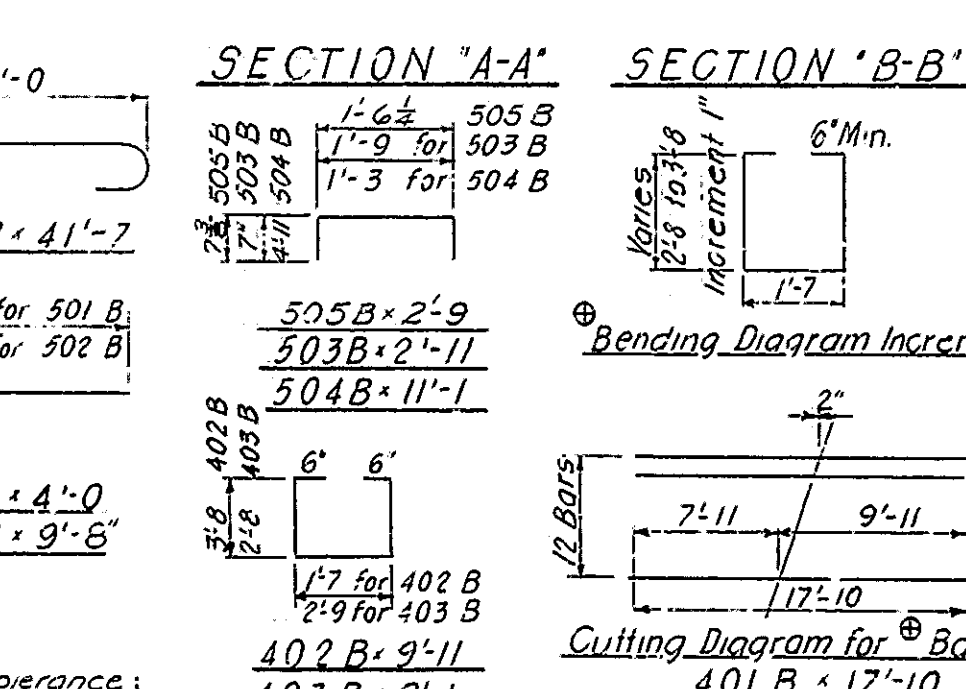
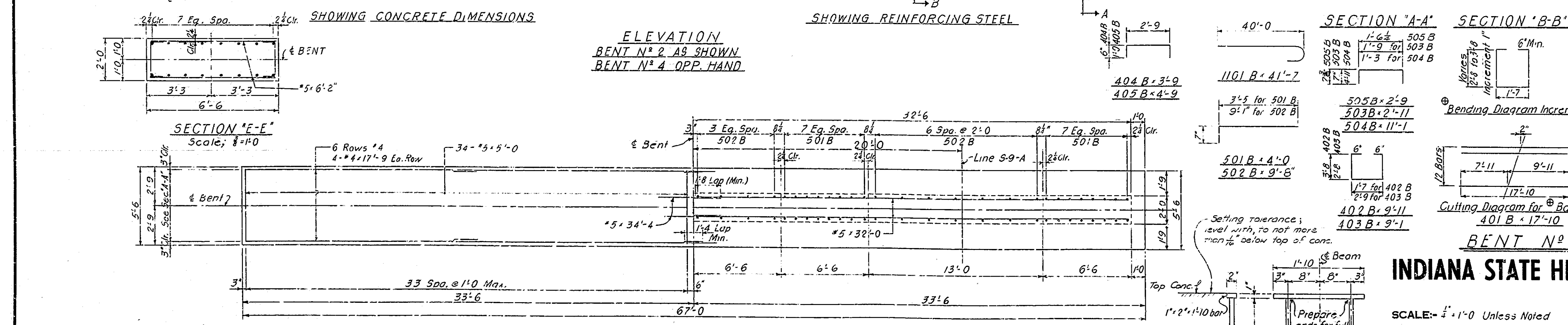
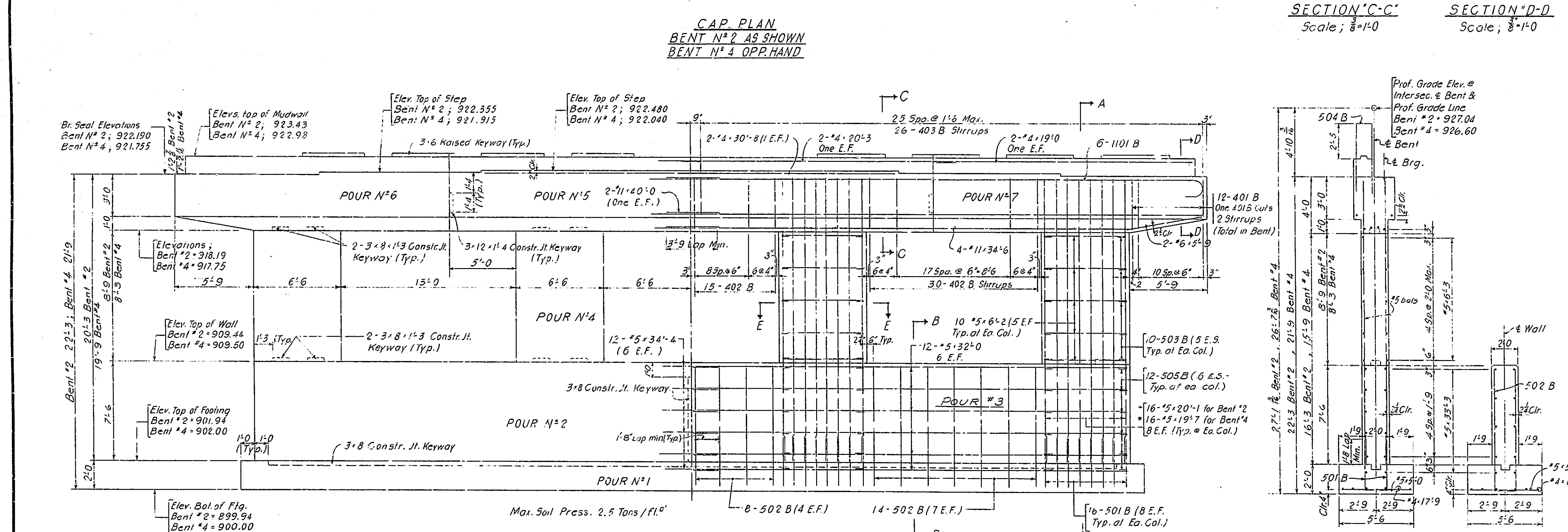
CONCRETE in Cuyd.		
Class 'F' in Cap		
Pour N° 5		17.7
Pour N° 6		9.5
Pour N° 7		9.5
Total Class 'F'		36.7
Class 'E' above Flg.		
Pour N° 2		18.1
Pour N° 3		18.1
Pour N° 4 (4 @ 4.22) Bent #2		16.9
Pour N° 4 (4 @ 4.97) Bent #4		15.9
TOTAL CLASS 'E' Above Flg. BENT #2		52.5
TOTAL CLASS 'E' Above Flg. BENT #4		51.5
Class 'E' in Footing		27.3

MISCELLANEOUS		
Anchor Plate - AP2		14 Ea.

NOTES:		
See Br. Std. C1 for Reinf. Bar Notes		
Anchor Plate has to be pre-set in concrete.		



SECTION 'C-C' Scale: 1/8"=1'-0"  
SECTION 'D-D' Scale: 1/8"=1'-0"



**BENT N° 2 & N° 4 DETAILS**  
**INDIANA STATE HIGHWAY COMMISSION**

SCALE: 1/4"=1'-0" Unless Noted  
APRIL 4, 1963  
SUBMITTED FOR APPROVAL: *James E. Mullen*

DRAWING: 54 OF 514  
PROJECT: I-70-413101  
BRIDGE CONTRACT NO. R-6885  
BRIDGE FILE: 9-F-5130



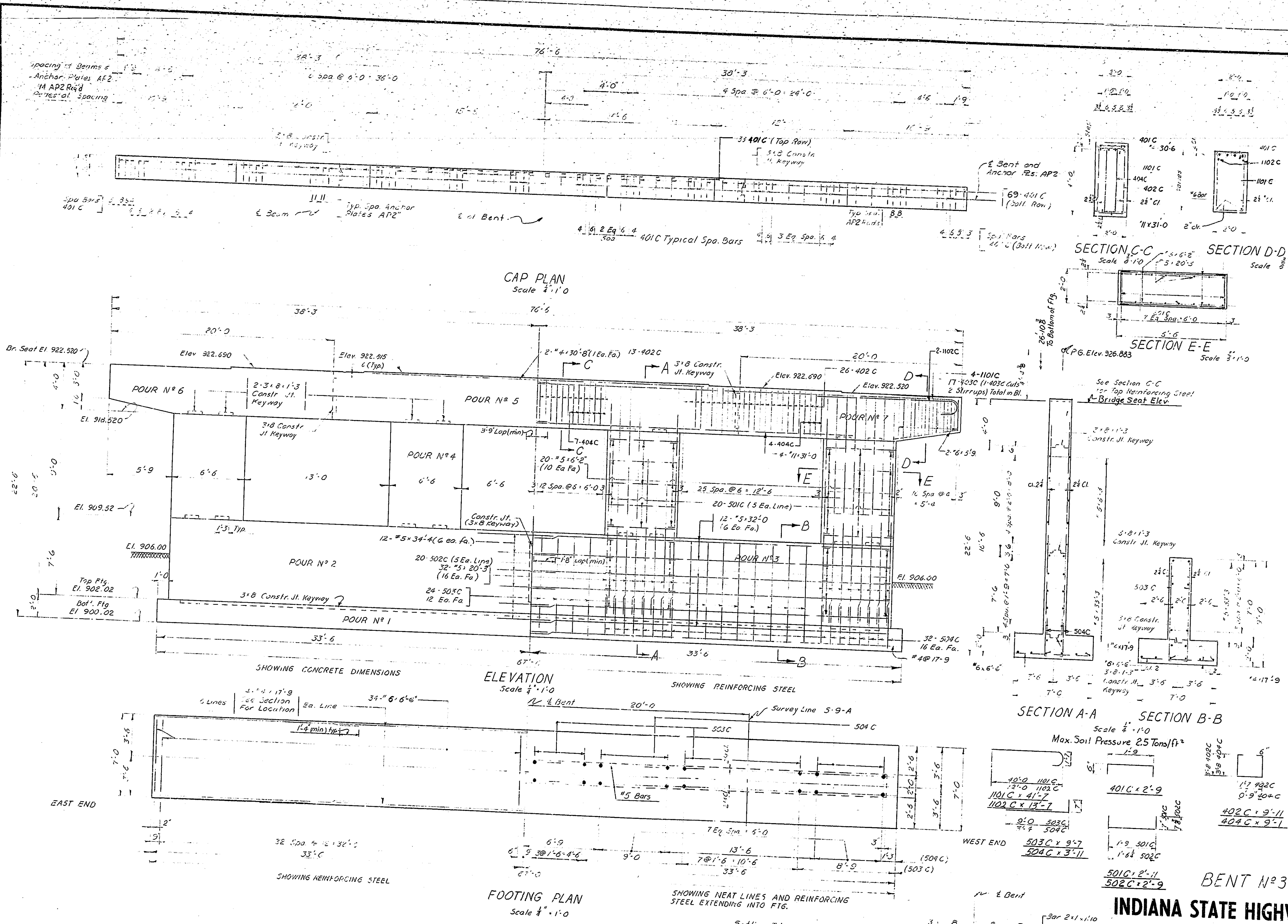
DESIGNED: B.A.P. C.K.D. F.E.M.  
DRAWN: L.M. C.K.D. F.E.M.  
TRACED: C.K.D.

ANCHOR PLATE - AP2  
DETAILS  
Scale: 1/4"=1'-0"  
REV. 5-11-64 Anchor Pl. Are

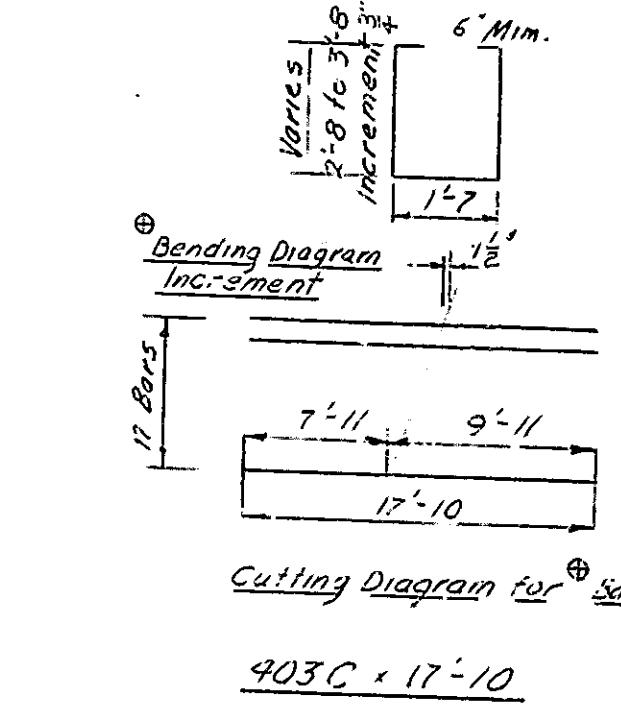


Spacing of Beams & Anchor Plates AP2  
M AP2 Rq'd  
Details of Spacing

BRIDGES OVER 20' SPAN					
FOR ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL
NO.	NO.	NO.	YEAR	NO.	SHEETS
4	IND.	I-70-4(13)-101	1963	14	39



REINFORCING STEEL			
SIZE AND MARK	N° OF BARS	LENGTH	WEIGHT (LBS.)
1101C	8	41'-7"	
1102C	4	13'-7"	
#11	8	31'-0"	
Total #11			3374
#6	68	6'-6"	
#6	4	5'-9"	
Total #6			695
501C	40	2'-11"	
502C	40	2'-9"	
503C	48	9'-7"	
504C	64	3'-11"	
#5	12	34'-4"	
#5	12	32'-0"	
#5	64	20'-3"	
#5	40	5'-2"	
Total #5			3,417
401C	102	2'-9"	
402C	78	9'-11"	
403C	17	17'-10"	
404C	22	9'-1"	
#4	2	30'-8"	
#4	24	17'-9"	
Total #4			1,366
TOTAL STEEL 8855			
CONCRETE			
Class 'F' in Cap Pour N° 6 11.6 cys.			
Pour N° 6 5.8 cys.			
Pour N° 7 5.8 cys.			
Total Class 'F' 23.2 cys.			
Class 'E' Above Ftg.			
Pour N° 4 (4@4.325) 17.3 cys.			
Pour N° 2 & N° 3 (18.1 Ea.) 36.2 cys.			
Total Class 'E' above Ftg. 53.5 cys.			
Class 'E' in Ftg. 34.8 cys.			
MISCELLANEOUS			
Anchor Plates "AP2" 14 Each			

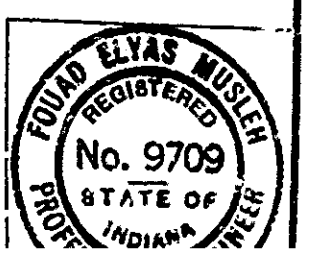


NOTES:  
See Br. Sta. C1 for Reinf. Bar Notes.  
Anchor Plate has to be pre-set in concrete.

**BENT N° 3 DETAILS**  
**INDIANA STATE HIGHWAY COMMISSION**

SCALE: As Noted  
SUBMITTED FOR APPROVAL: *James E. Blush*

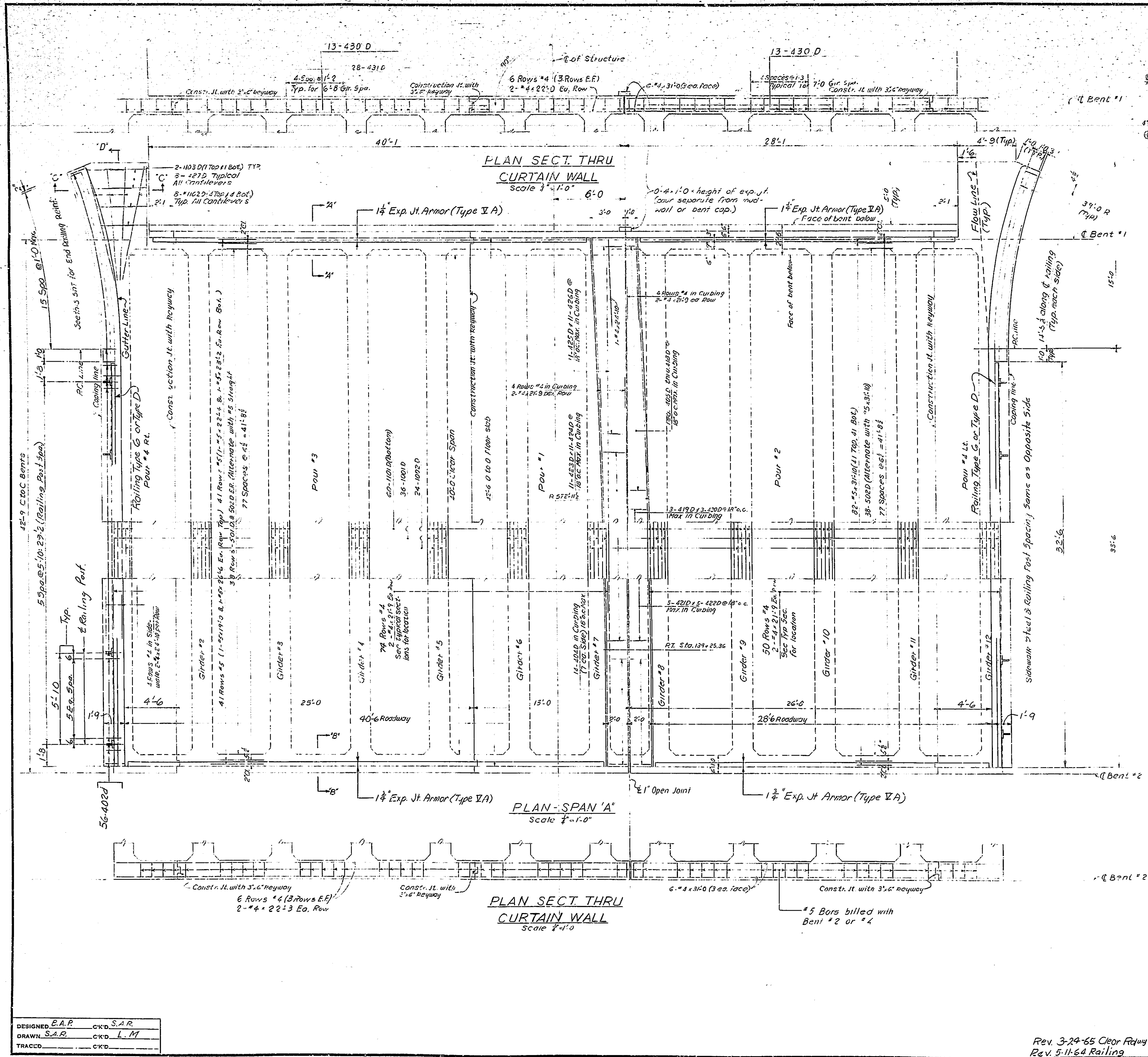
APRIL 4, 1963



DESIGNED: BAP CKD: FEM  
DRAWN: JR CKD: FEM  
TRACED: CKD

ANCHOR PLATE AP2 DETAIL  
Rev. 5-11-64 Anchor & AP2  
No Scale (See Anc. R. Det. & Sect.)

BRIDGES OVER 20' SPAN					
PUR. ROAD	STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	2153101	1963	15	39



SCALE: AS NOTED

SUBMITTED FOR APPROVAL: *Jacob & M... ..*

APRIL 4, 1963

DRAWING: 56 OF 514

PROJECT: I-70-A(3)101

BRIDGE CONTRACT NO. R-6685

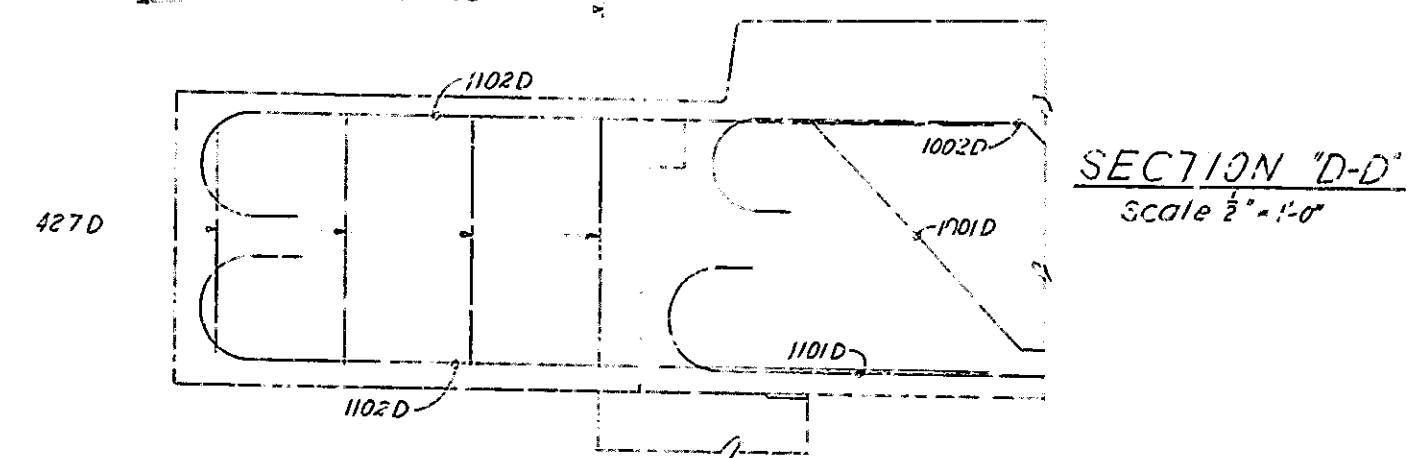
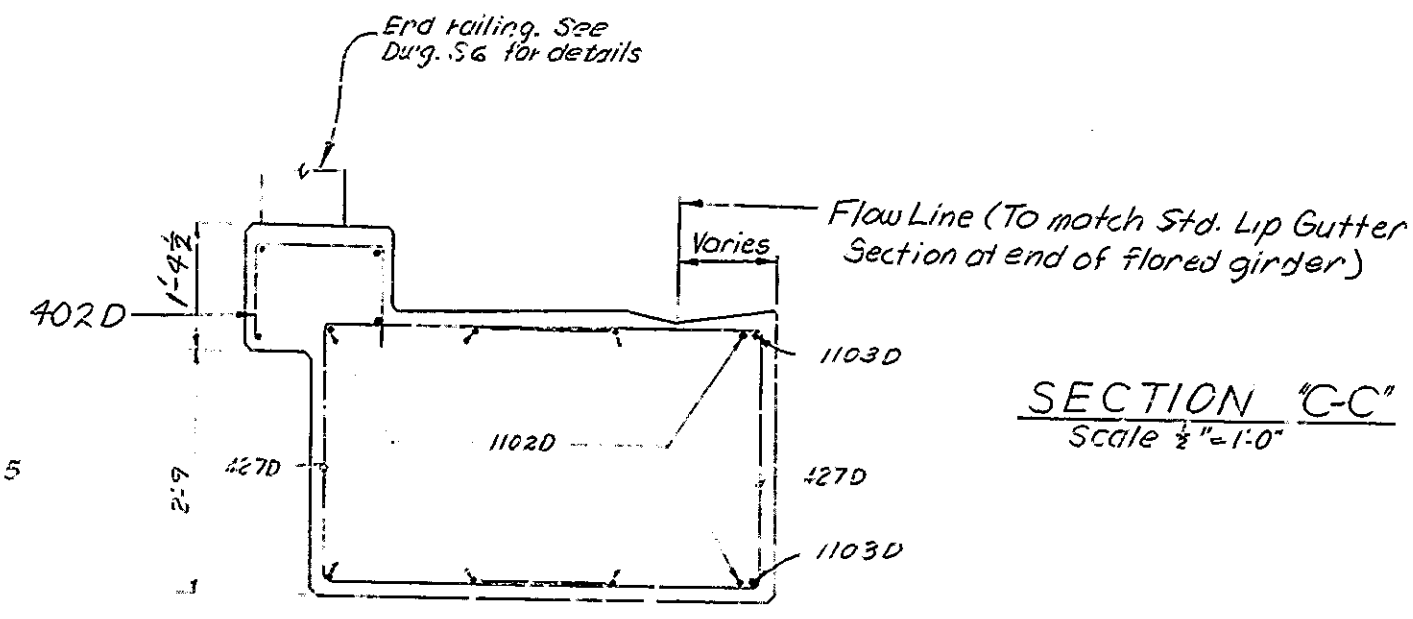
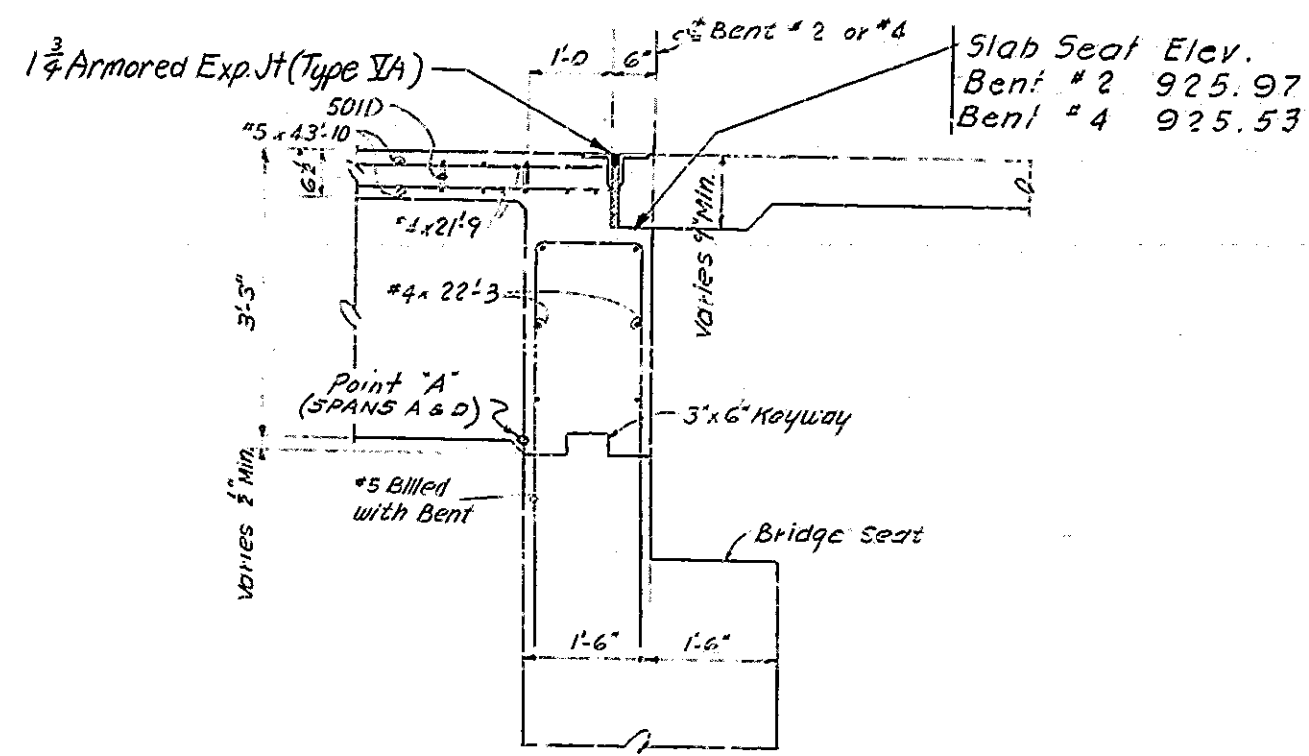
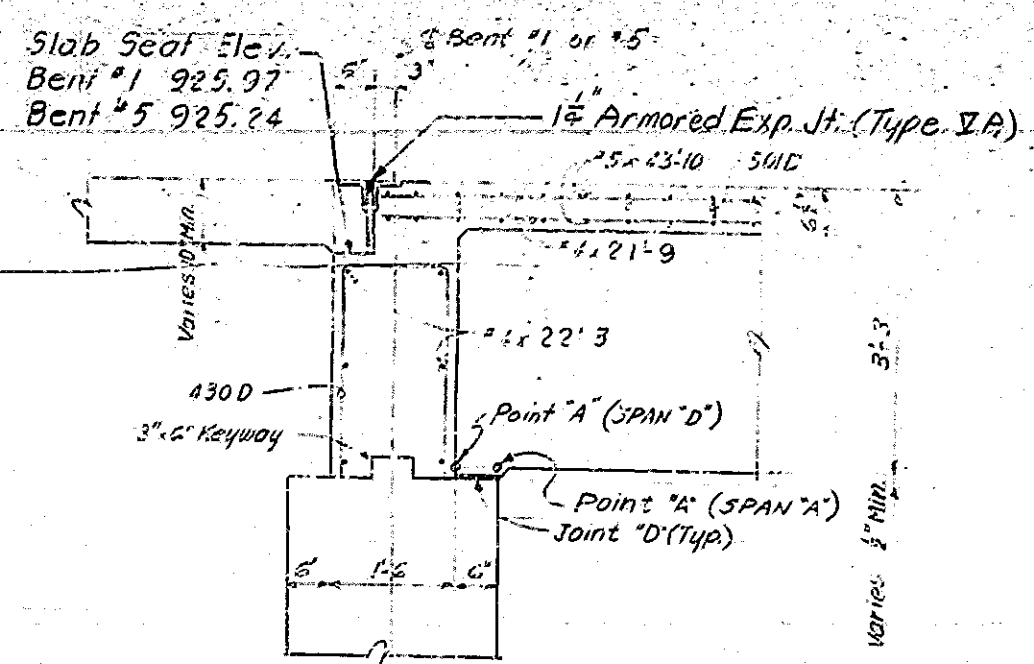
BRIDGE FILE: 9-F-5130

FORWARD ELYAS MULLIKI REGISTERED PROFESSIONAL ENGINEER No. 9709 STATE OF INDIANA



BRIDGES OVER 20' SPAN				
PROJ. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	1-70-4(13)101	1963	39

BOTTOM OF GIRDER ELEV. AT POINT 'A'				
GIRDER NO.	SPAN 'A'		SPAN 'D'	
	Bent #1	Bent #2	Bent #4	Bent #5
1	923.51	923.42	923.02	922.79
2	923.81	923.58	923.12	922.89
3	923.70	923.67	923.28	922.98
4	923.77	923.74	923.28	923.05
5	923.82	923.78	923.33	923.10
6	923.85	923.82	923.37	923.13
7	923.89	923.85	923.40	923.17
8	923.83	923.79	923.34	923.11
9	923.76	923.74	923.29	923.06
10	923.71	923.67	923.22	922.99
11	923.62	923.58	923.13	922.90
12	923.51	923.48	923.02	922.79

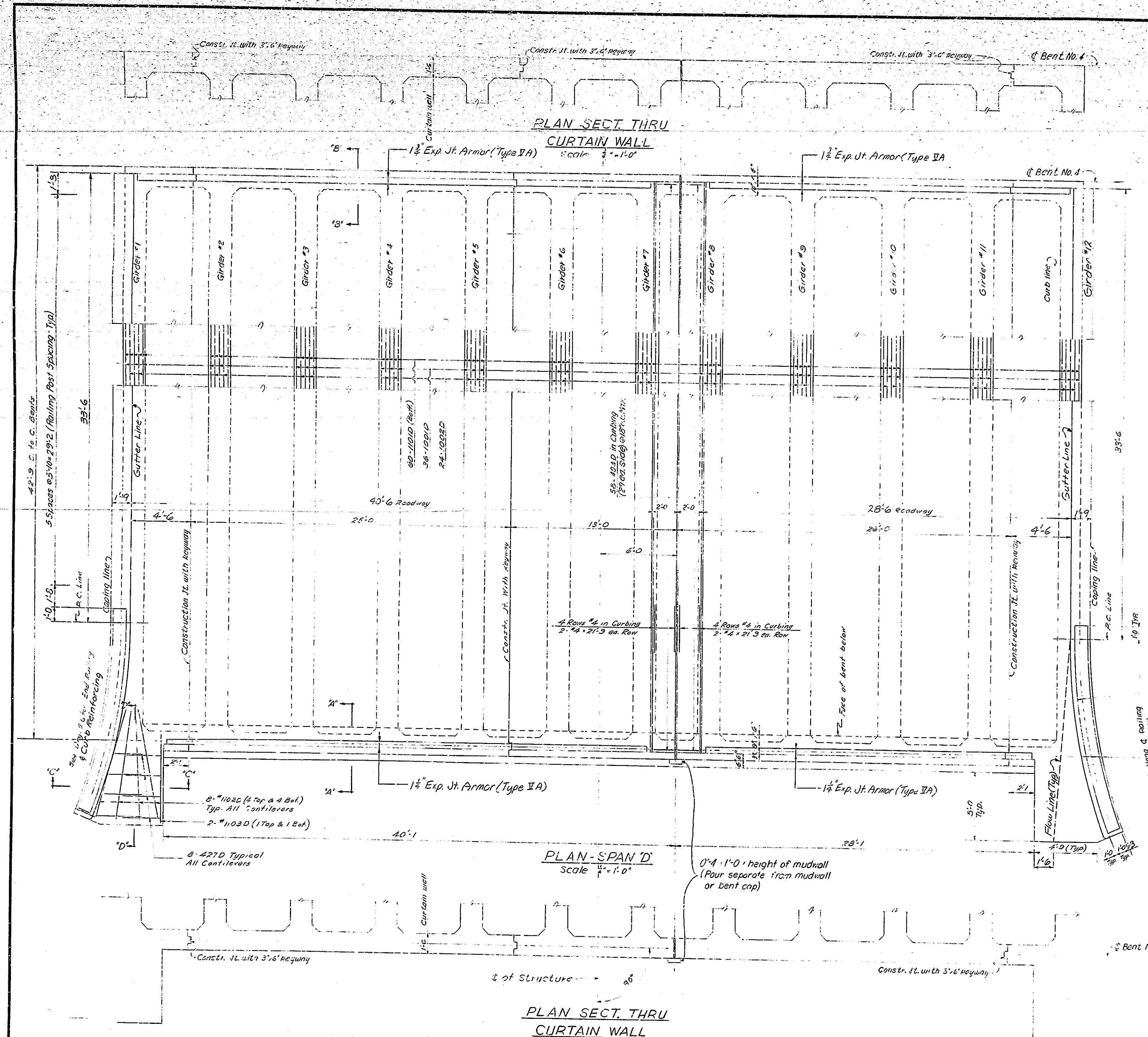
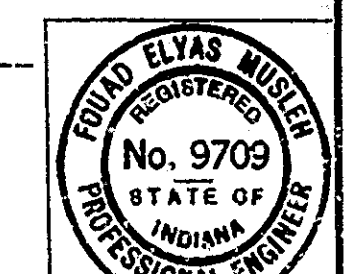


SPAN 'D' DETAILS  
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED  
APRIL 4, 1963

SUBMITTED FOR APPROVAL: *James E. Blusler*

DRAWING: S7 OF 14  
PROJECT: 1-70-4(13)101  
BRIDGE CONTRACT NO. R-6685  
BRIDGE FILE: 9-F-5130



PLAN-SPAN 'D' scale 1/2"=1'-0"

PLAN SECT. THRU CURTAIN WALL scale 1/2"=1'-0"

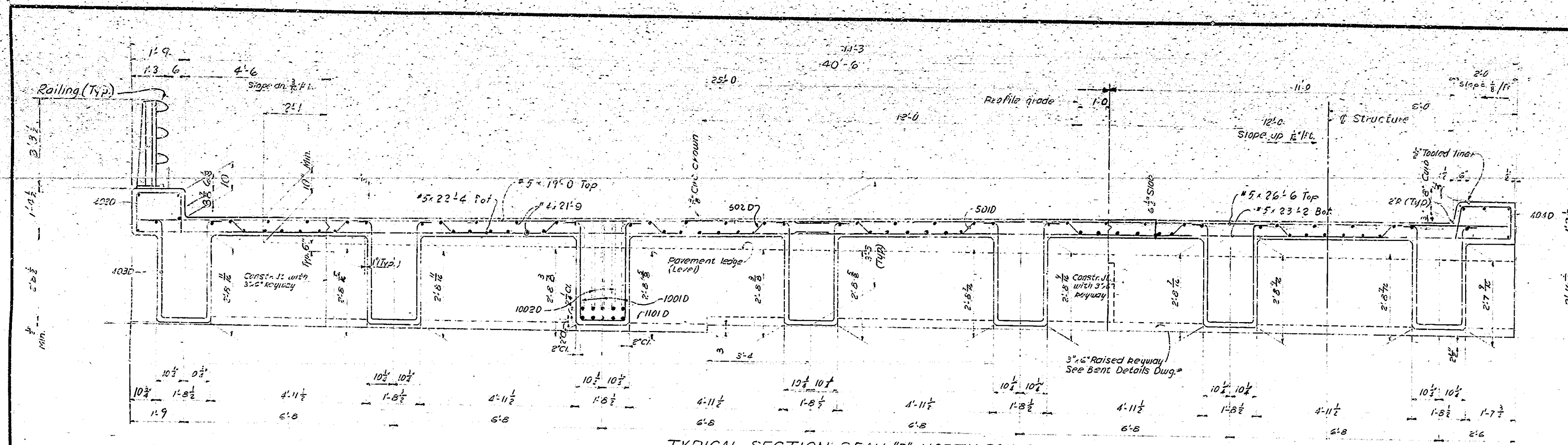
Span 'D' opposite end of Span 'A' except for divided curb details. Reinforcement of Span 'D' similar to that of Span 'A' except as shown.

NOTES:  
For Typical Sections, Bar details & Bill of Materials see Drwg. 5-8  
For Span 'A' Plan See Drwg. 5-6

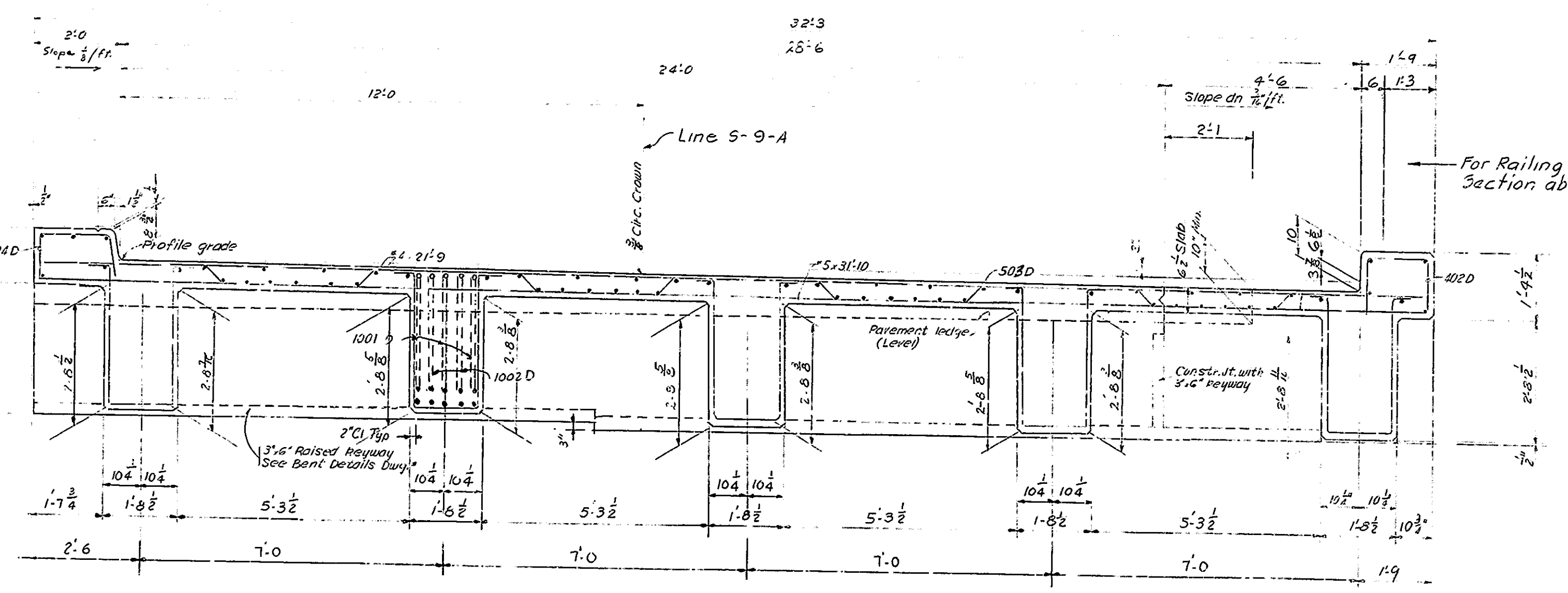
Rev. 3-24-65 Clear Rdwy & Exp. Jts.  
Rev. 11-25-64 Railing  
Rev. 5-11-64 Railings

DESIGNED: S.A.R.  
DRAWN: A.R. & J.R.M.  
TRACED: C.K.D.

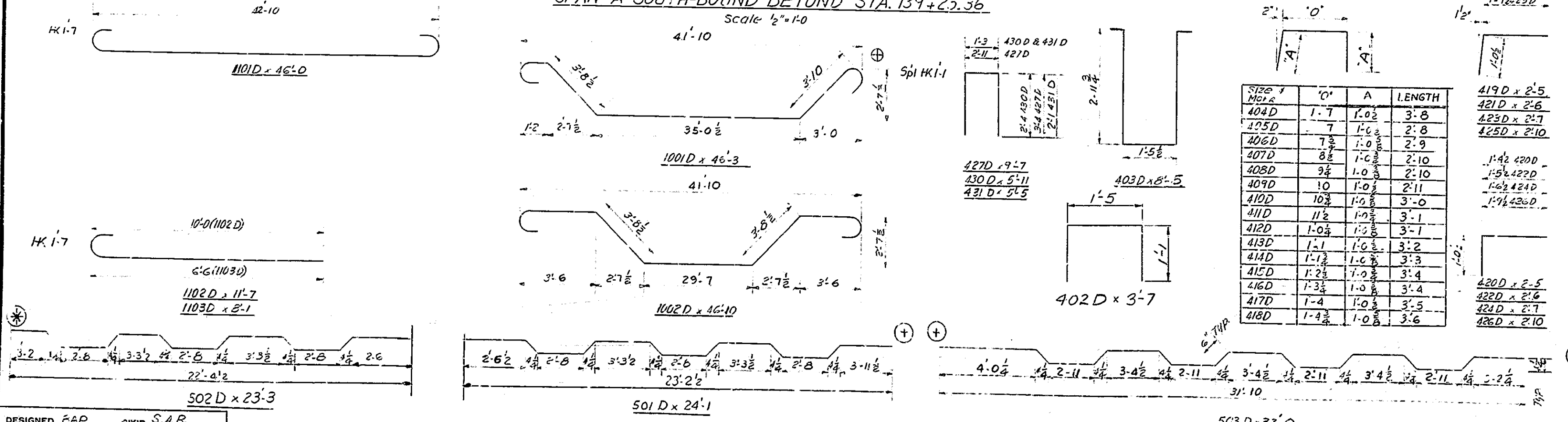




TYPICAL SECTION SPAN 'D' NORTH-BOUND AND SPAN 'A' NORTH-BOUND BEYOND STA. 139+25.36  
Scale 1/2"=1'-0"



TYPICAL SECTION SPAN 'D' SOUTH-BOUND AND SPAN 'A' SOUTH-BOUND BEYOND STA. 139+25.36  
Scale 1/2"=1'-0"

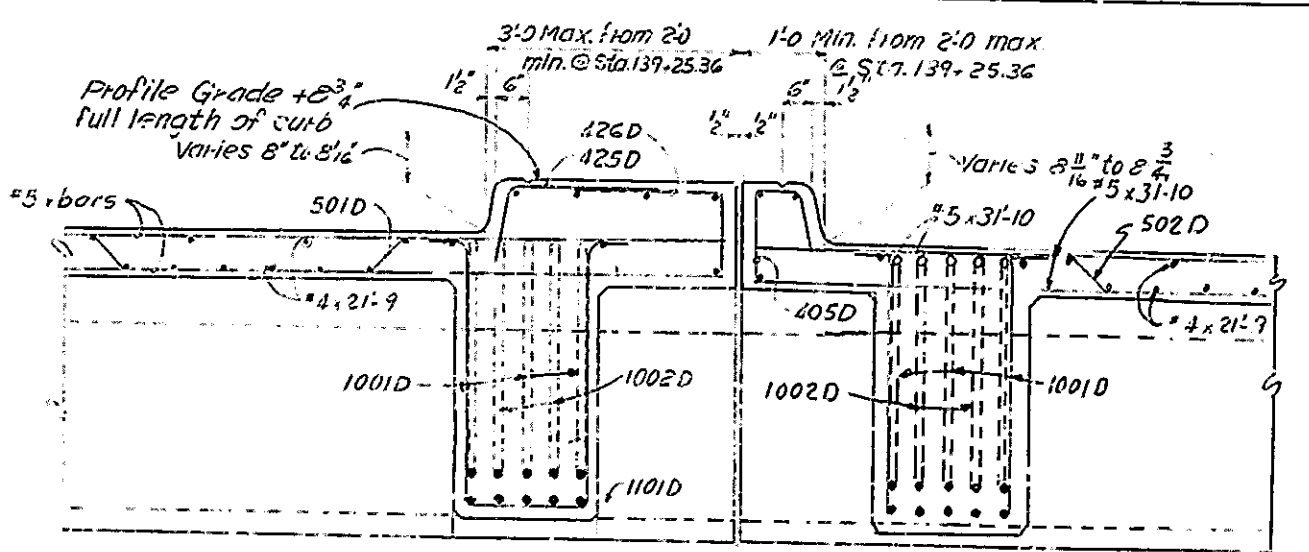


BILL OF MATERIALS FOR SPAN 'D' REINFORCING STEEL

Size	No. of Bars	Length	Weight
1001D	20	46'-0"	15,820
1002D	16	11'-7"	2,110
1003D	4	8'-1"	1,150
Total #11			19,080
1001D	36	46'-3"	12,001
1002D	24	46'-10"	12,001
Total #10			24,002
*5 Same as Span 'A'			9,947
Total #5			9,947
402D	112	3'-7"	1,120
403D	552	8'-5"	4,668
404D	58	3'-8"	2,232
407D	16	9'-7"	1,568
430D	26	5'-11"	1,118
431D	28	5'-5"	1,120
TOTAL REIN. STEEL			45,911

BRIDGES OVER 20' SPAN BILL OF MATERIALS FOR SPAN 'A' REINFORCING STEEL

Size	No. of Bars	Length	Weight
1001D	20	46'-0"	15,820
1002D	16	11'-7"	2,110
1003D	4	8'-1"	1,150
Total #11			19,080
1001D	36	46'-3"	12,001
1002D	24	46'-10"	12,001
Total #10			24,002
501D	38	24'-1"	1,258
502D	38	23'-3"	1,258
503D	38	13'-0"	1,530
#5	82	31'-10"	2,580
#5	41	26'-6"	1,258
#5	41	23'-2"	1,258
#5	41	22'-4"	1,258
#5	41	17'-0"	1,258
#5	26	4'-6"	1,120
533D	2	3'-7"	210
531D	2	2'-5"	210
535D	2	5'-7"	210
TOTAL #5			9,947
402D	112	3'-7"	1,120
403D	552	8'-5"	4,668
404D	58	3'-8"	2,232
405D	16	9'-7"	1,568
405D-100D	120	23'-2" (Total Length)	2,580
410D-320D	380	2'-5"	1,120
420D-320D	580	2'-6"	1,120
430D-440D	1120	2'-7"	1,120
440D-360D	1120	4'-10"	1,120
427D	15	9'-7"	2,232
TOTAL REIN. STEEL			45,911



PARTIAL SECTION SHOWING CURBING @ SOUTH END OF SPAN 'A'  
Scale 1/2"=1'-0"

CONCRETE CONT. SPAN 'A' SPAN 'D'

RAILING CONCRETE	SPAN 'A'	SPAN 'D'
End Railing R.I. & L.I. @ 16'	3.2	3.2
TOTAL RAILING	3.2 Cys @ 3.2 Cys	
MISCELLANEOUS		
Railing (Type S or D)	6.5 lin. ft @ 6.5 lin. ft	
1" Exp. Jt. A-Mor. (Type V-A)	6.3 lin. ft @ 6.3 lin. ft	
1 1/2" Exp. Jt. A-Mor. (Type V-A)	6.3 lin. ft @ 6.3 lin. ft	

CONCRETE SPAN 'A' SPAN 'D'

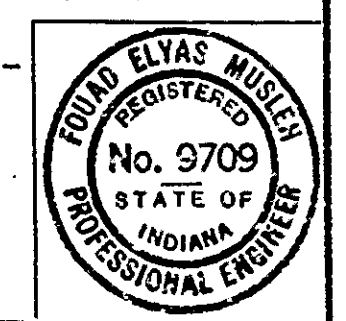
Pour #	Class 'F'	SPAN 'A'	SPAN 'D'
Pour #1	Class 'F'	31.6	31.1
Pour #2	Class 'F'	59.8	60.1
Pour #3	Class 'F'	58.8	58.8
Pour #4 R.	Class 'F'	20.9	20.9
Pour #4 L.	Class 'F'	20.9	20.9
TOTAL CLASS 'F'		190.0	190.0

SPAN 'A' AND 'D' DETAILS INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED APRIL 4, 1963 SUBMITTED FOR APPROVAL: [Signature]

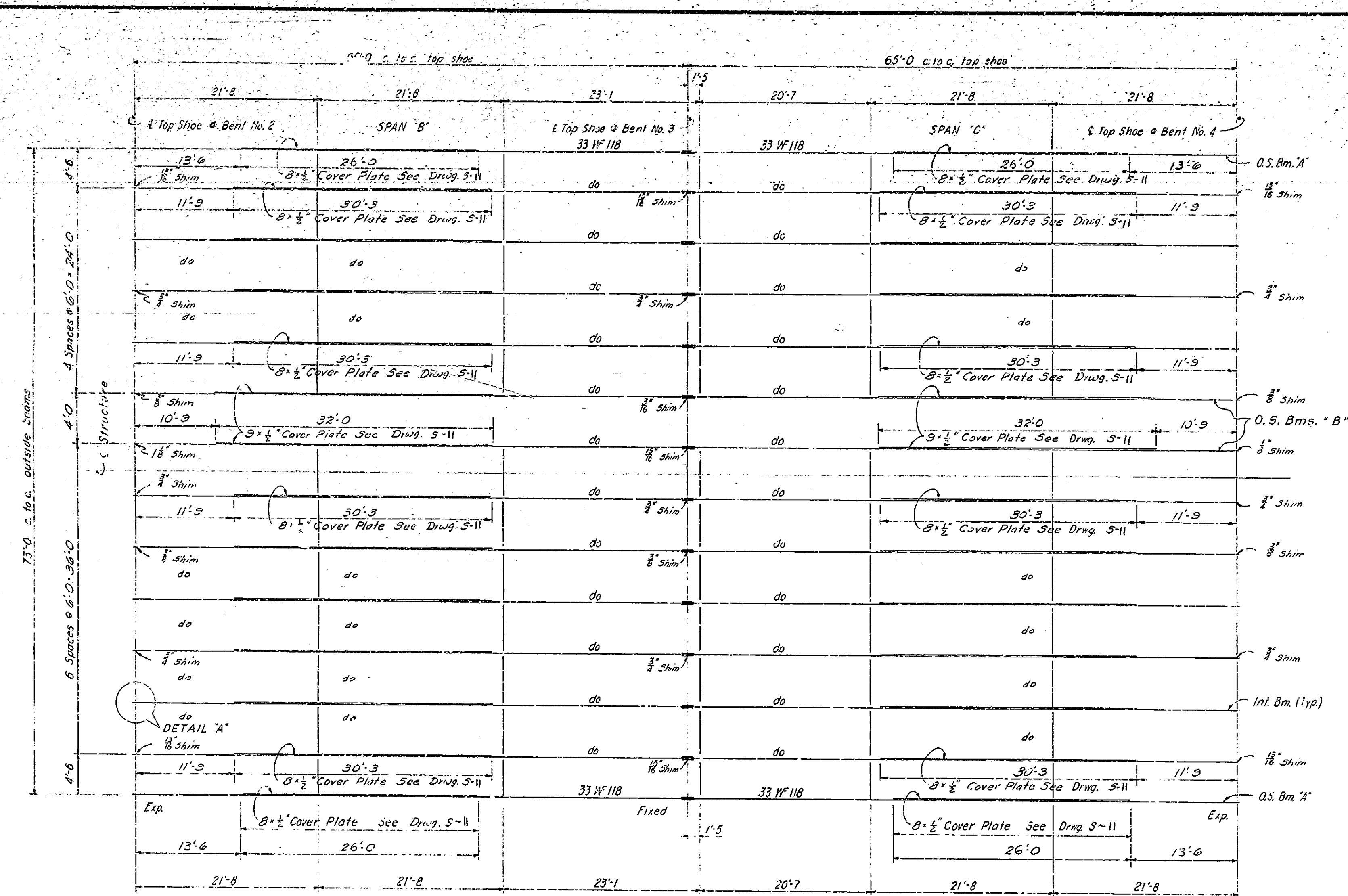
Notes: See Bridge Std. C1 for Reinforcing Bar Notes See Draw. SG & S7 for plan views of Spans A & D Rev. 3-24-65 Clear Rdwy. & Exp. Jts. Rev. 5-11-64 Railing Rev. 11-25-64 Railing

DRAWING: S-2 OF S-14 PROJECT: 1-70-4(3)-101 BRIDGE CONTRACT NO. R-6685 BRIDGE FILE: 7-F-5130





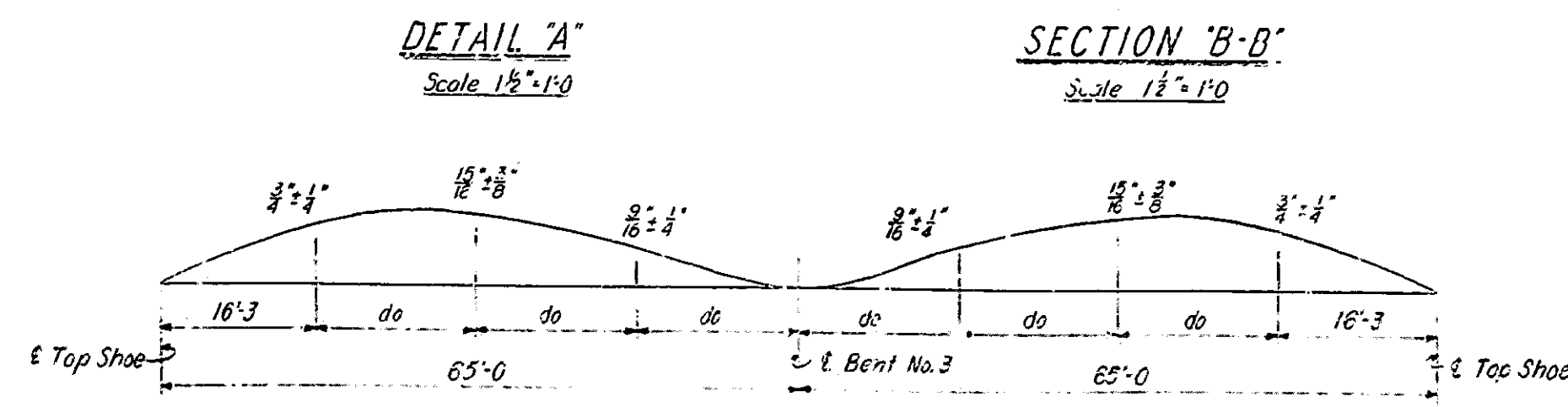
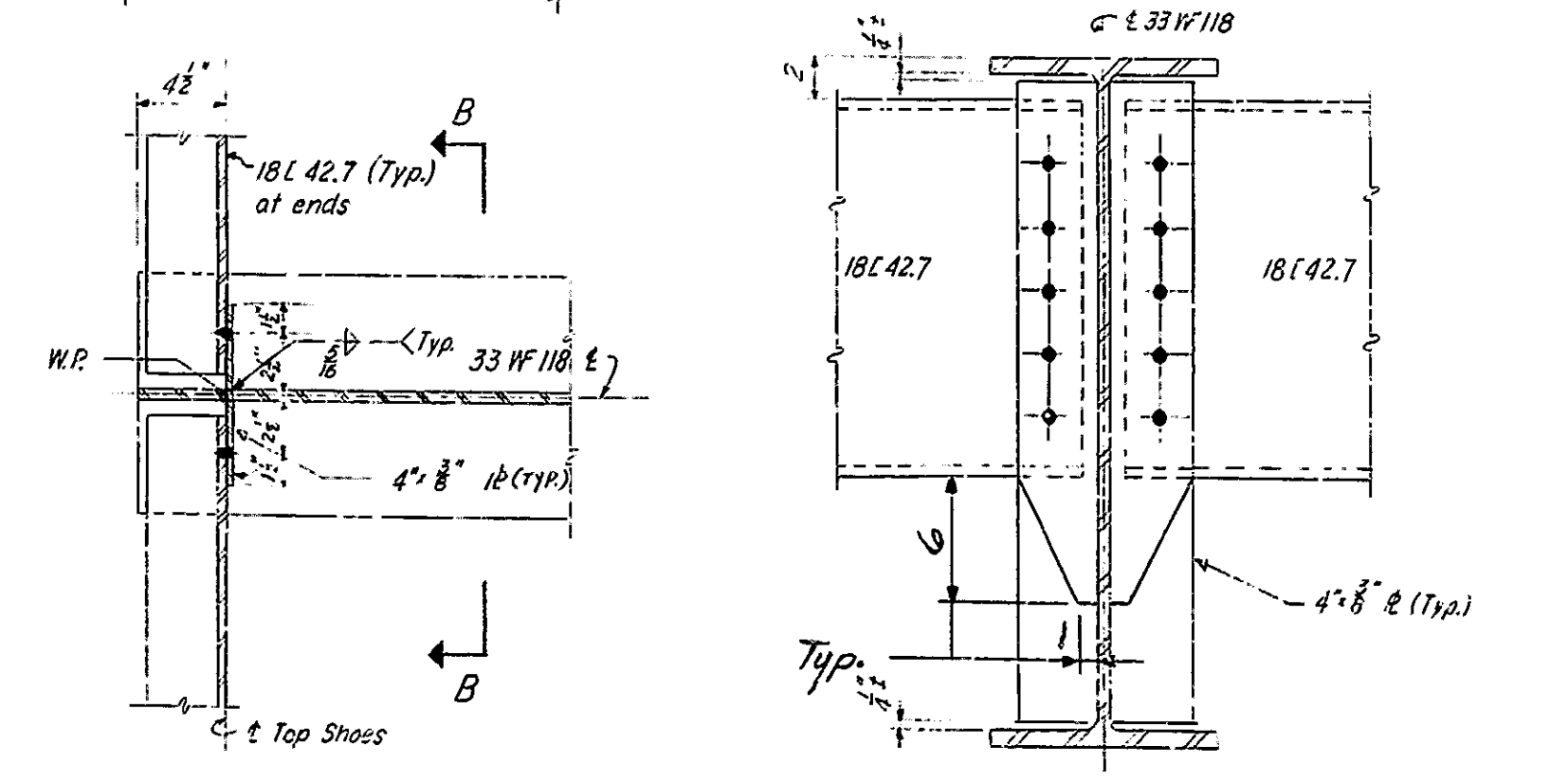
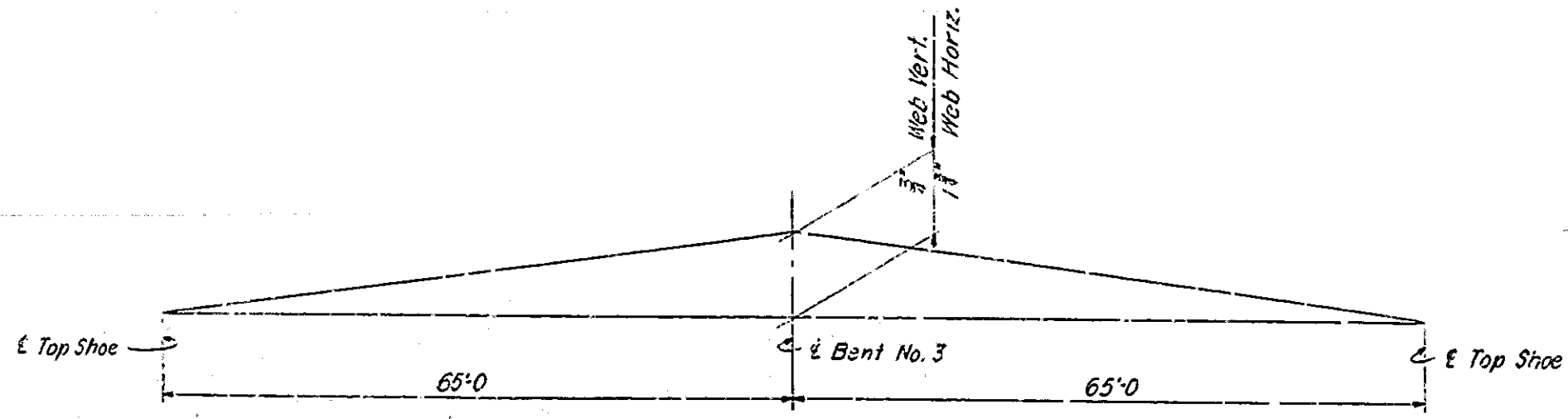
BRIDGES OVER 20' SPAN					
PUB. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-70-4(101)	1963	18	39



Beams 33 WF 118  
End Diaphragms 18 C 42.7  
Interior Diaphragms 16 WF 45

**FRAMING PLAN**  
Scale 1/4" = 1'-0"

	TABLE OF MOMENTS & REACTIONS											
	Pos. Mom. @ 1/4 Span B			Neg. Mom. @ R3			Reaction @ R2			Reaction @ R3		
	Int. Bm.	O.S. Bm. "A"	O.S. Bm. "B"	Int. Bm.	O.S. Bm. "A"	O.S. Bm. "B"	Int. Bm.	O.S. Bm. "A"	O.S. Bm. "B"	Int. Bm.	O.S. Bm. "A"	O.S. Bm. "B"
Dead Load	268.3	332.1	317.5	384.0	538.2	473.0	20.9	26.81	25.0	65.27	86.27	79.77
Live Load	390.0	294.8	390.0	324.0	249.3	324.0	36.3	24.38	32.5	42.20	37.20	42.30
Impact	103.0	71.5	103.0	85.0	65.6	85.0	9.5	6.41	8.5	11.00	8.46	11.30
Total	761.3	704.4	810.5	793.0	853.1	882.0	66.7	57.60	66.0	118.47	126.93	133.57



**DATA USED FOR DESIGN AND DETAILS**  
All Structural Steel to be A36 Unless Noted.

**LIVE LOADS:** H-20-S16-44 loading with impact and distribution of loads in accordance with 1961 AASHO Specifications.

**DEAD LOADS:** Actual weights plus 35 pounds per square foot of roadway to provide for future wearing surface.

**UNIT STRESSES:**

Structural steel bending (tension)	20,000/in <sup>2</sup>
Shear on rivets	13,500/in <sup>2</sup>
Structural steel bearing (Rivets and H.S. Bolts)	40,000/in <sup>2</sup>
Structural steel on concrete (including overturning and eccentric loading)	1,000/in <sup>2</sup>
Reinforcing steel (tension)	20,000/in <sup>2</sup>
Concrete (compression)	1,200/in <sup>2</sup>
Structural Steel Bearing (Except Rivets & H.S. Bolts)	29,500/in <sup>2</sup>

**PAINTING OF STRUCTURAL STEEL:**  
All paint shall be in accordance with current Indiana State Highway Department Specifications.  
**SHOP PAINT:** One coat of red lead type I or II except as noted.  
**FIELD PAINT:** Two coats of aluminum. No paint on anchor bolts.

**FABRICATION NOTES:**  
Rivets 5/8" Open holes 1/8"  
Holes in all material connecting top shoe to beam flanges to be 1" dia.  
Bolts connecting top shoes to beams shall extend into top shoes a minimum of one inch.  
Beams must be cambered to a smooth curve. Camber must be checked while beams are supported in such a way so as to have no bending moment in direction of camber.  
Holes for beam splices shall be subpunched or subdrilled and reamed to size while assembled. See Art. E 1103.18d of the specifications.  
The shop plans shall indicate whether reaming is to be done in shop or field. If shop reaming or drilling is used, the beams may be reamed with the webs either in a vertical or horizontal position. If the beams are reamed with the webs vertical, they shall be supported relative to their final erection position. If they are reamed with the webs horizontal a minimum of one line of beams shall be shop assembled with webs vertical and inspected for fit.  
The shop details shall show a plan of matchmarking for all reamed pieces. All splice plates to be removed, cleaned and painted after reaming. Splice plates shall not extend beyond the end of beam after bolting for shipment.  
Flange splice bars shall have planed or rolled edges and holes in bars shall be subdrilled and reamed or drilled full size while assembled.

All structural steel shall be erected and beams adjusted to relative elevation before driving rivets in beam splices.

The Contractor shall prepare detailed working or shop drawings to enable him to fabricate, erect and construct all parts of the work in conformity with the engineer's drawings and specifications and shall submit five (5) copies of these to the Engineer. See Art. E 1103.2 of the specifications.

Shims between beams and top shoes may be built-up  
No shim shall be less than 3/8" in thickness.  
Welding shall conform to the specifications (WELDED HIGHWAY AND RAILROAD BRIDGES). See Art. E 1103.28 of the INDIANA STATE HIGHWAY DEPARTMENT Specifications.  
Weight of Structural Steel (estimated) 276,500 pounds.  
See Drawing S-10 for top shoe, expansion plates, rocker and fixed shoe details.

**Note for field welding:**  
As soon as engineer has approved field welds, all welds and any surface from which the weld has been omitted or becomes worn off, or otherwise becomes defective shall be thoroughly cleaned of all chipped paint or any foreign matter and completely covered with one coat of paint.

**FRAMING PLAN**  
SPANS "B" & "C"

**INDIANA STATE HIGHWAY COMMISSION**

SCALE: As Noted  
APRIL 4, 1963

SUBMITTED FOR APPROVAL: *James E. Alford*

DESIGNED: BAP CWD FEM  
DRAWN: PEC CWD LM  
TRACED: CWD

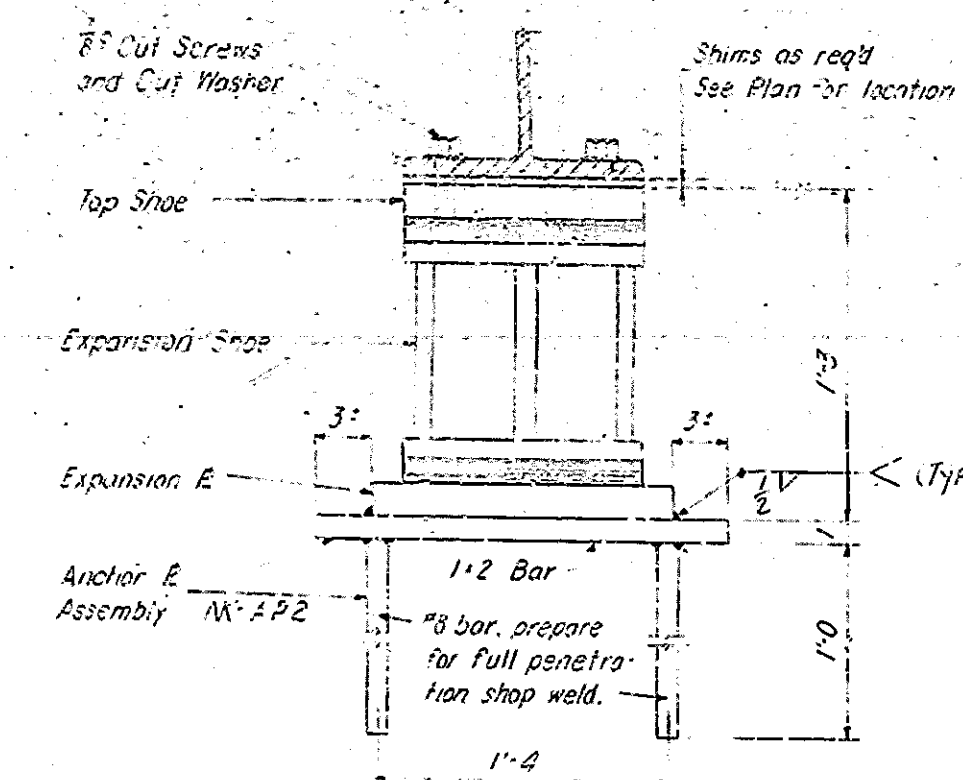
DRAWING: 5-9 OF 5-14  
PROJECT: 1-70-4(101)  
BRIDGE CONTRACT NO. R-6685  
BRIDGE FILE: F-5120

Rev. 3-24-65 Diaphragm Connection  
Rev 5-11-64 Design Data

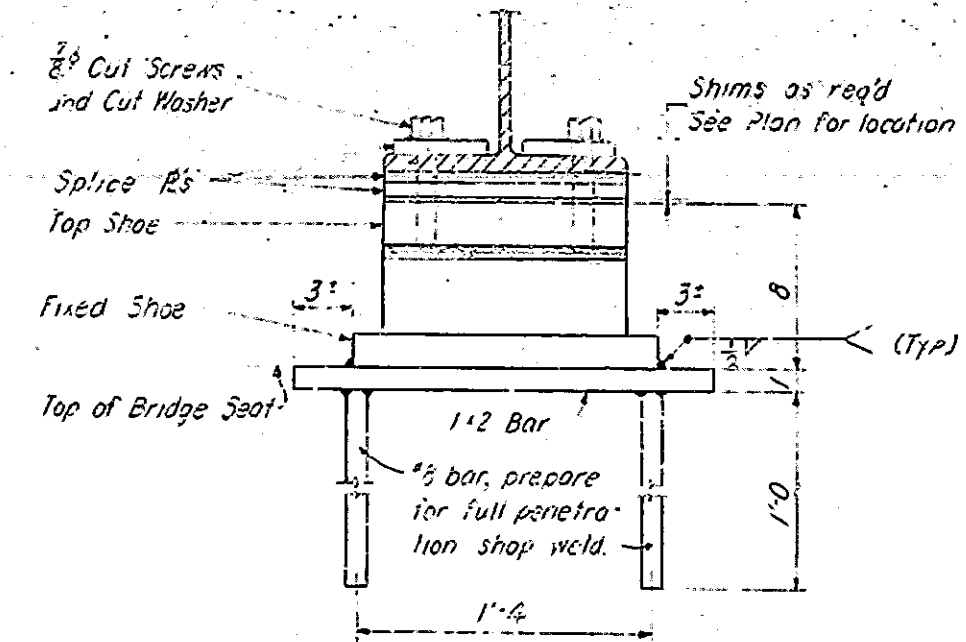
FRANK ELYAS WILDER  
REGISTERED  
No. 9709  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

DESIGNED: BAP CWD FEM  
DRAWN: PEC CWD LM  
TRACED: CWD

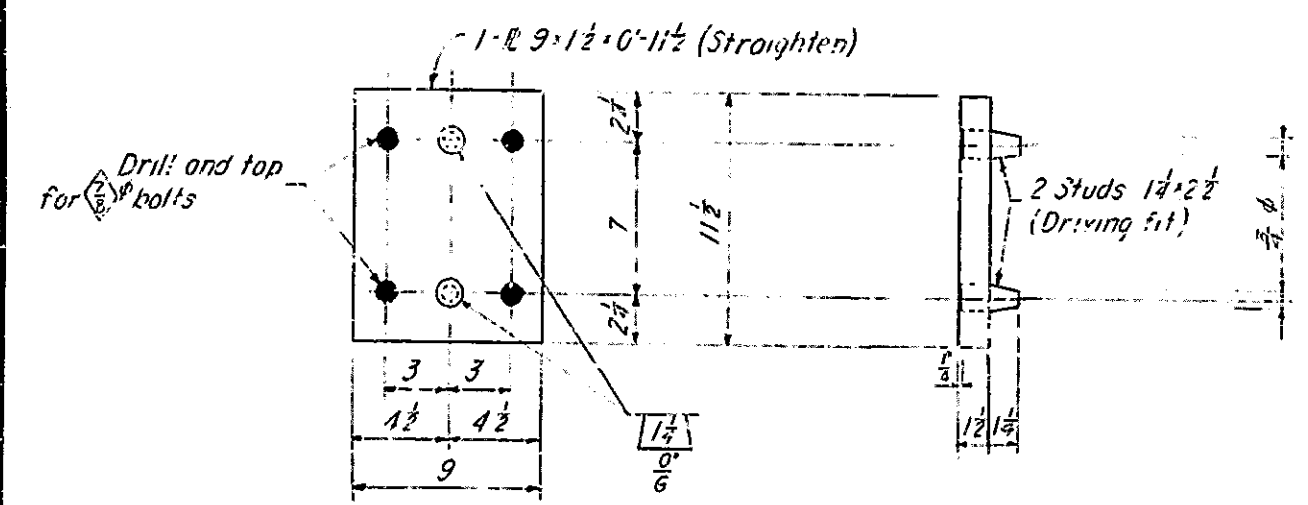
BRIDGES OVER 20' SPAN				
STATE ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
4	IND.	1-70-190101	1963	19
				TOTAL SHEETS 39



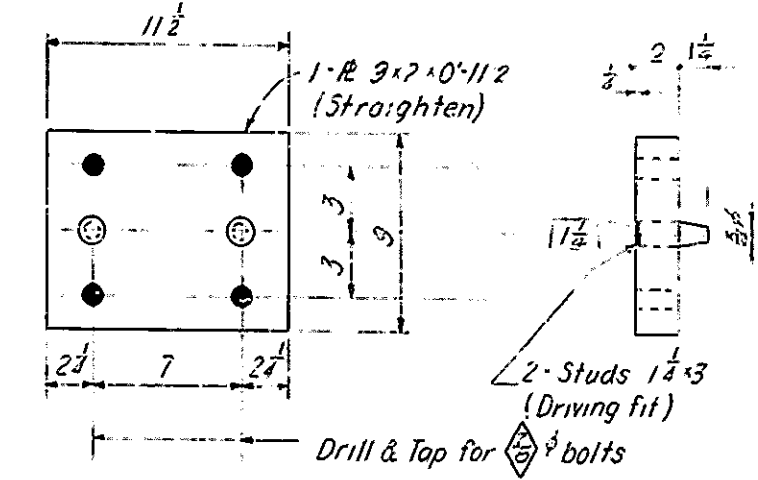
EXPANSION SHOE ASSEMBLY AT PIERS No 2 & No 4



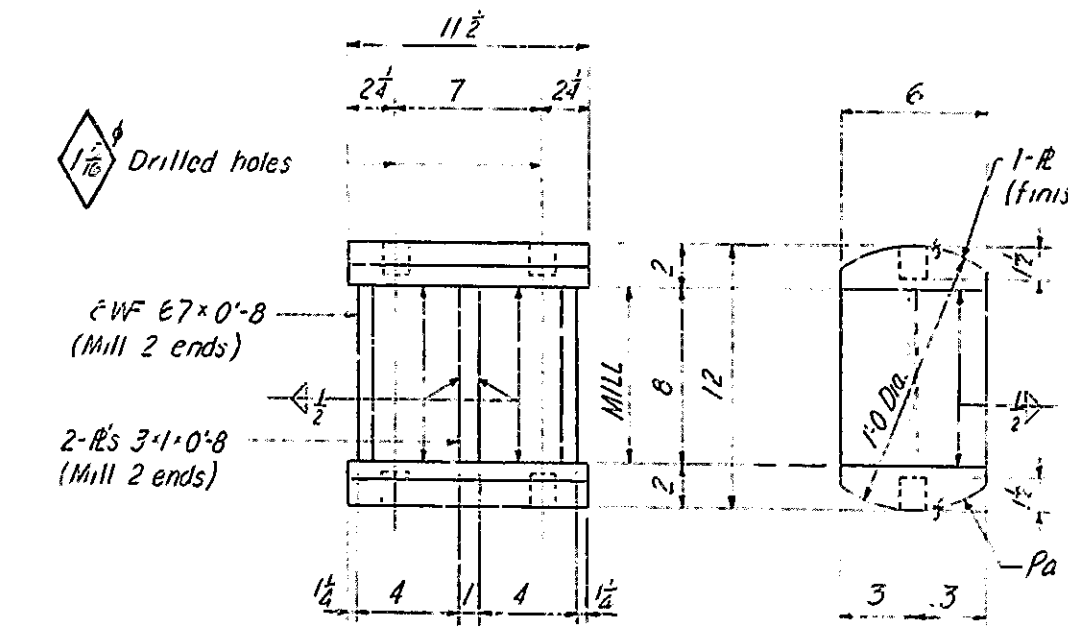
FIXED SHOE ASSEMBLY AT PIER No 3



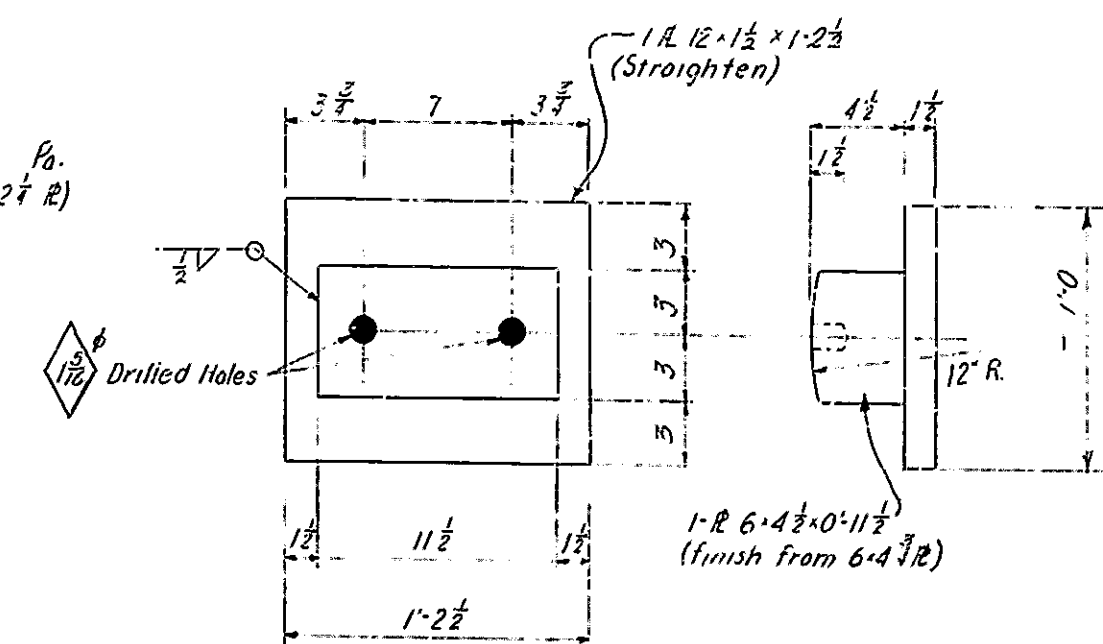
TOP SHOE AT PIERS No 2 & No 4



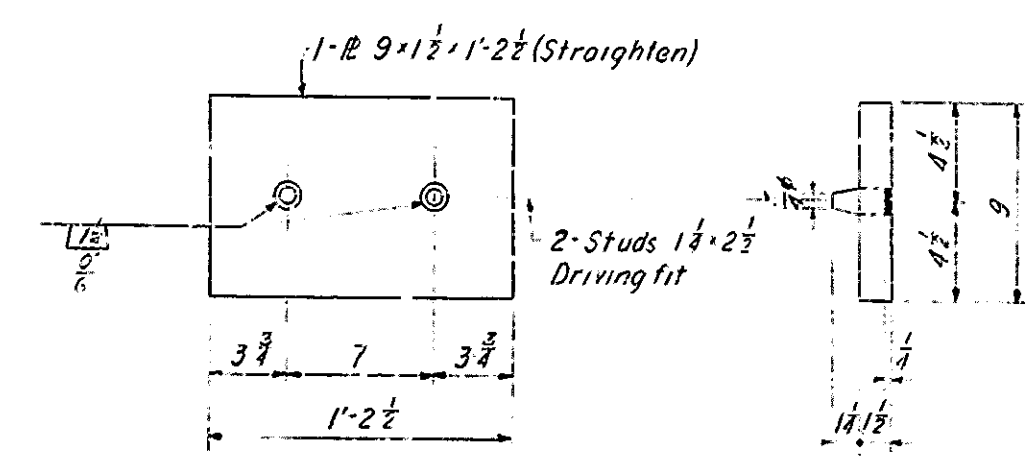
TOP SHOE AT PIER No 3



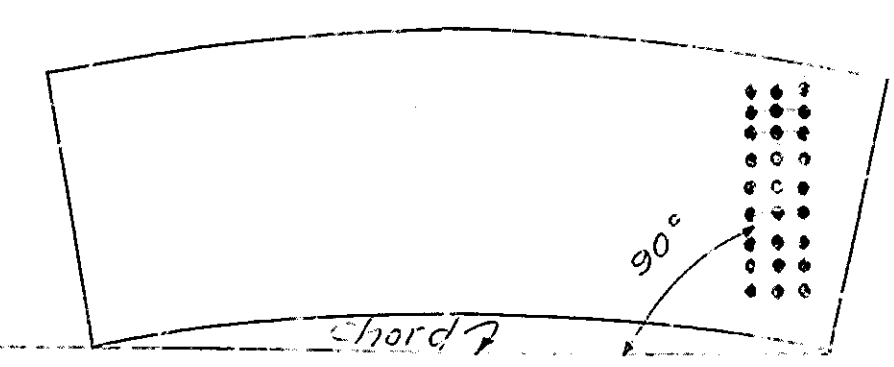
EXPANSION SHOE AT PIERS No 2 & No 4



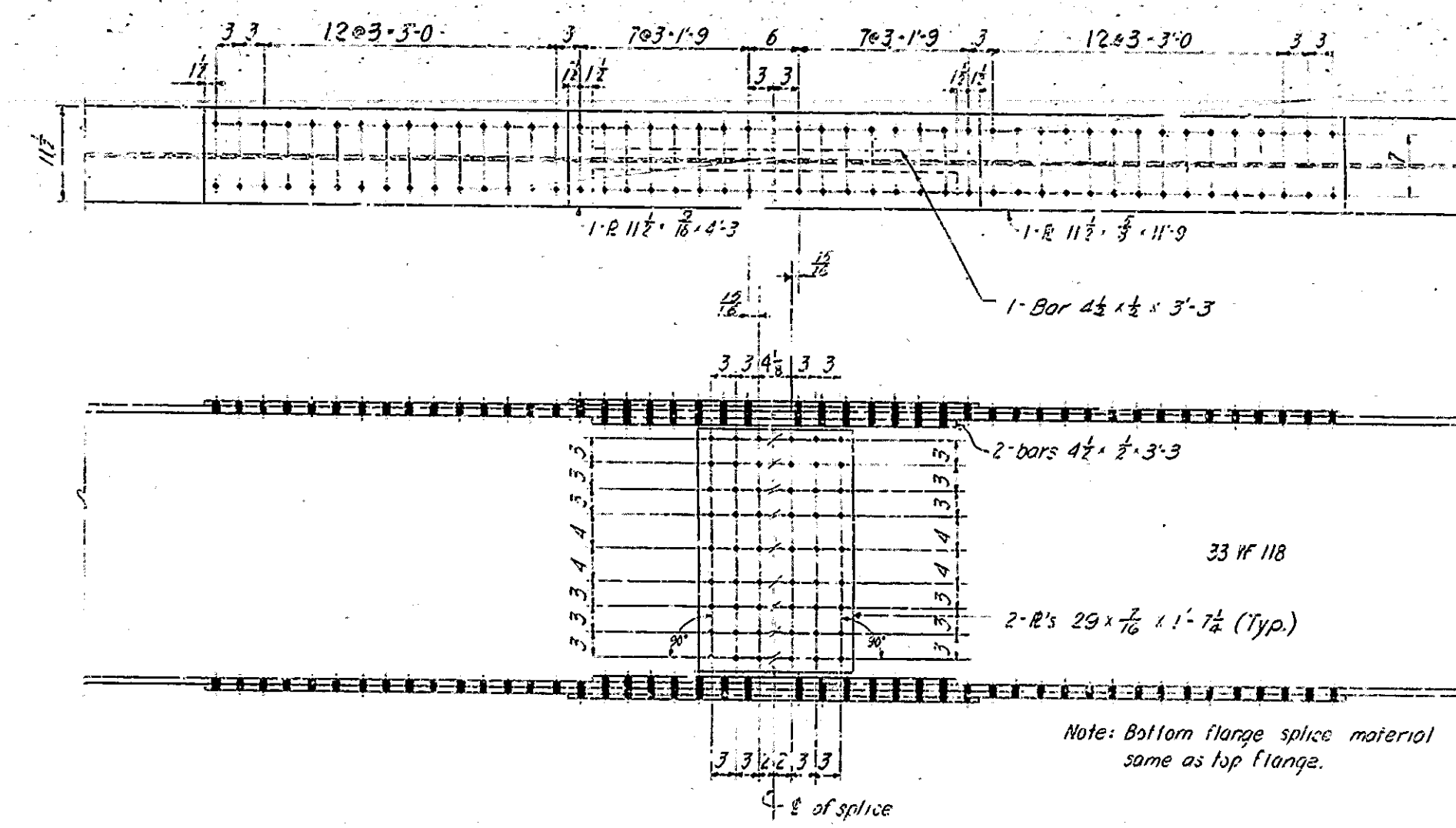
FIXED SHOE AT PIER No 3



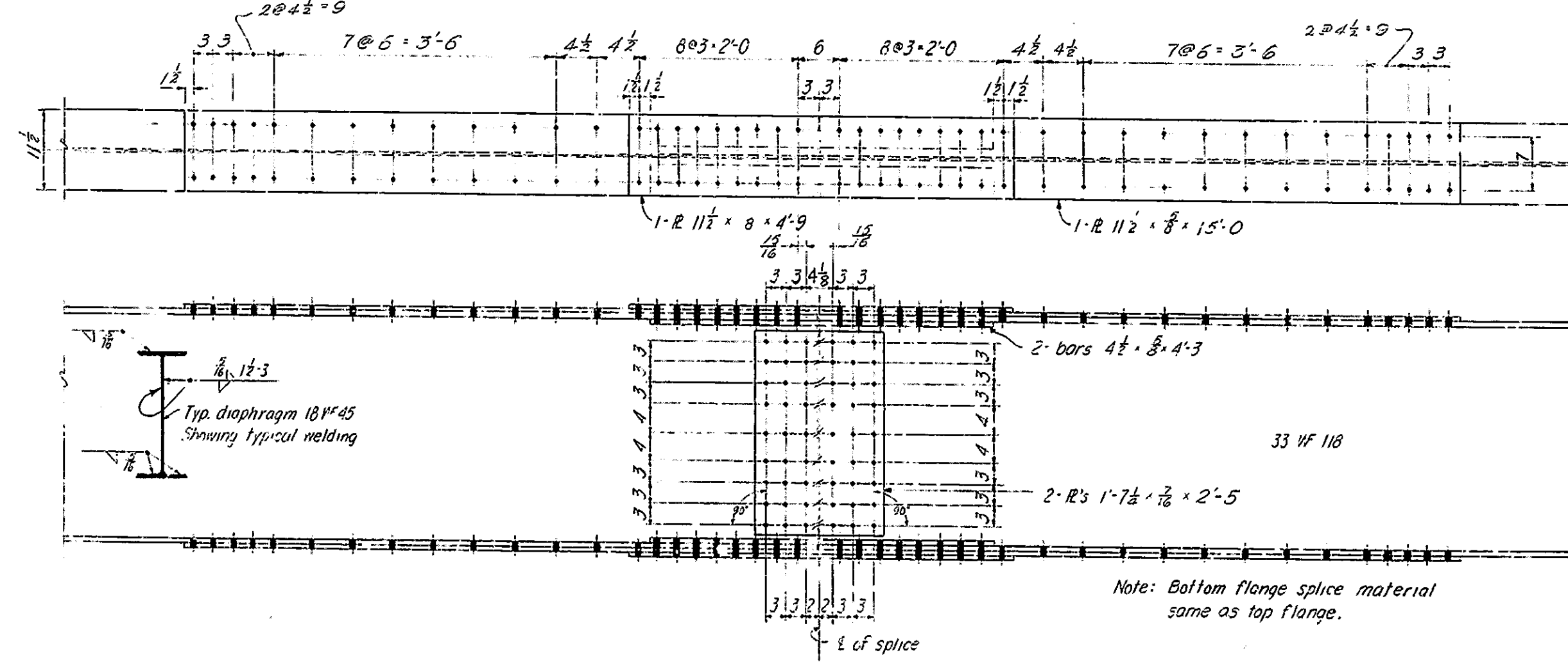
EXPANSION PLATE AT PIERS No 2 & No 4



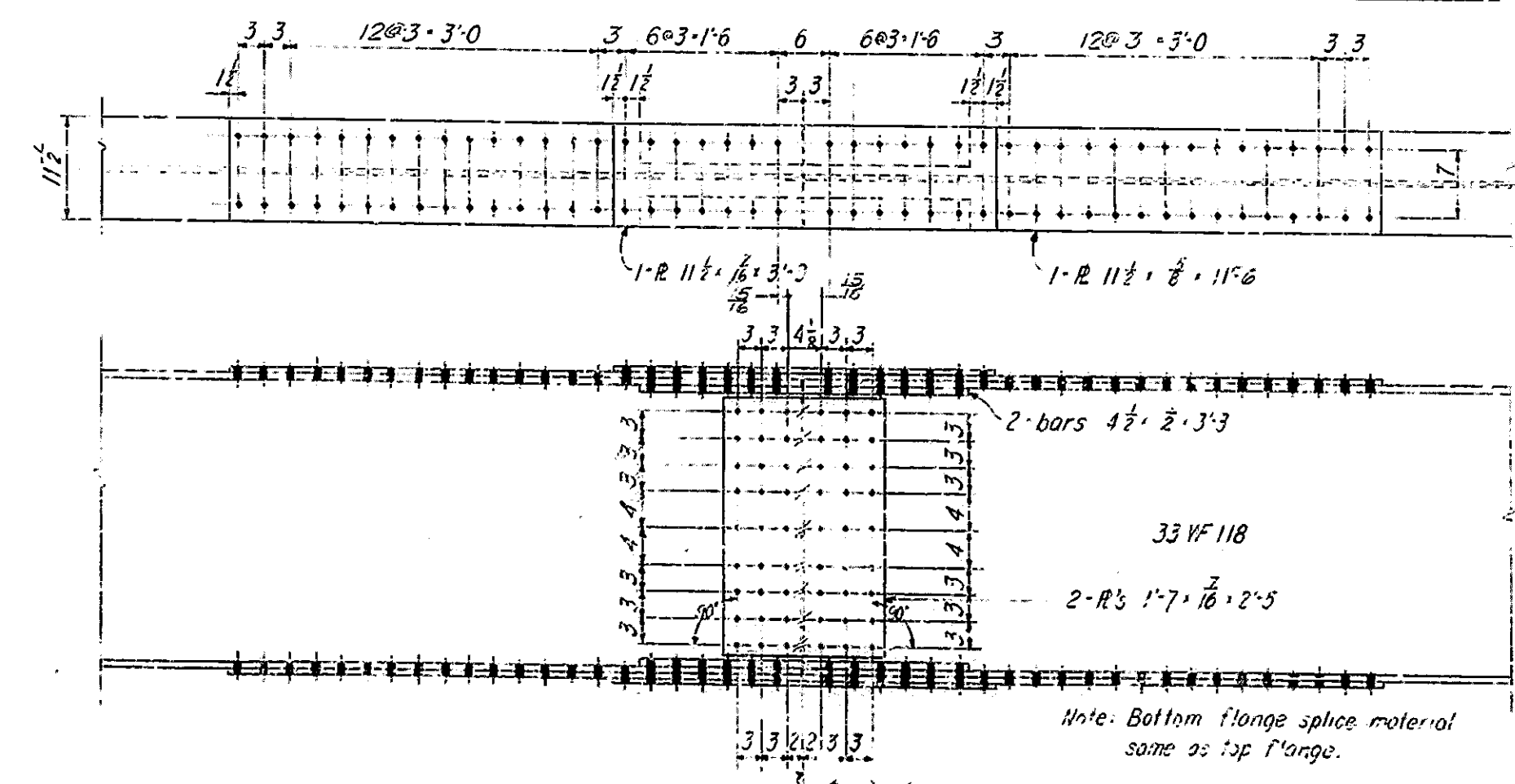
PUNCHING OF BEAM WEBS No Scale



SPLICE DETAIL FOR OUTSIDE BEAMS 'A' Scale 3/4"=1'-0"



SPLICE DETAIL FOR OUTSIDE BEAMS 'B' Scale 3/4"=1'-0"



SPLICE DETAIL FOR INTERIOR BEAMS Scale 3/4"=1'-0"

STEEL DETAILS SPANS 'B' & 'C'

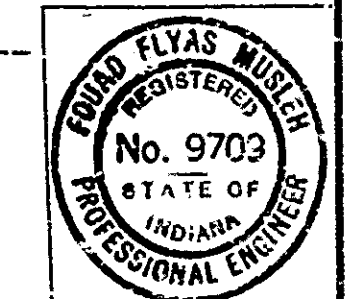
INDIANA STATE HIGHWAY COMMISSION

SCALE: 1/4"=1'-0" Except as noted

APRIL 4, 1963

SUBMITTED FOR APPROVAL: *Paul E. Muske*

DRAWING: 5-10 OF 5 14  
PROJECT: 1-70-190101  
BRIDGE CONTRACT NO. R-6685  
BRIDGE FILE: 9-F-5120

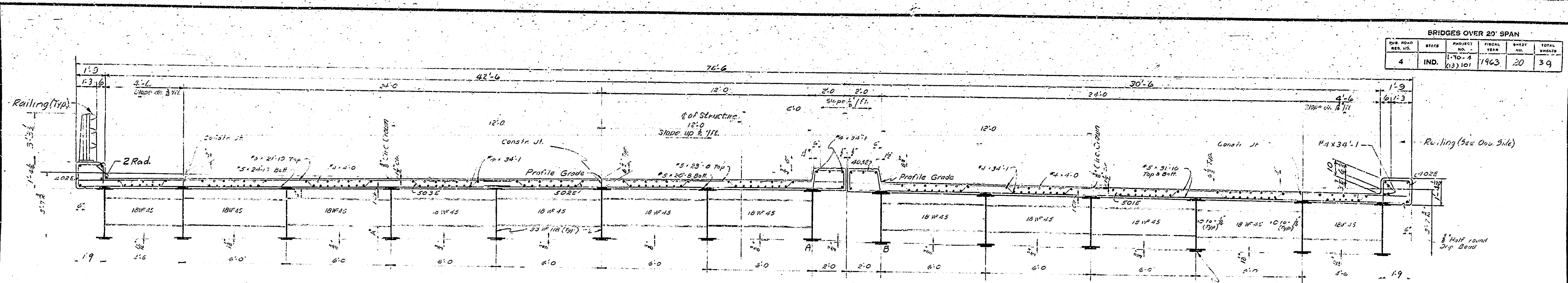


DESIGNED: BAP	C.K.D.	F.C.M.
DRAWN: P.D.C.	C.K.D.	B.A.P.
TRACED: _____	C.K.D.	

REV. 5-1-64 Anchor Rts. Web Punching



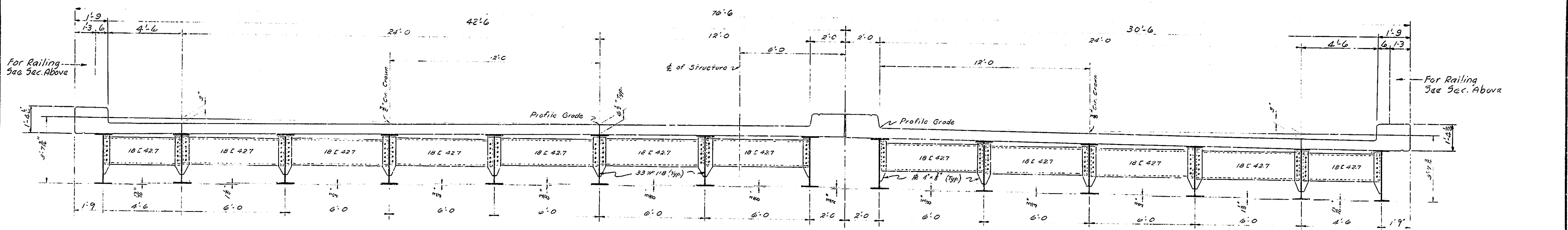
STATE	PROJECT NO.	FISCAL YEAR	BRIDGE NO.	TOTAL SPAN
IND.	I-70-4(13) 101	1963	20	39



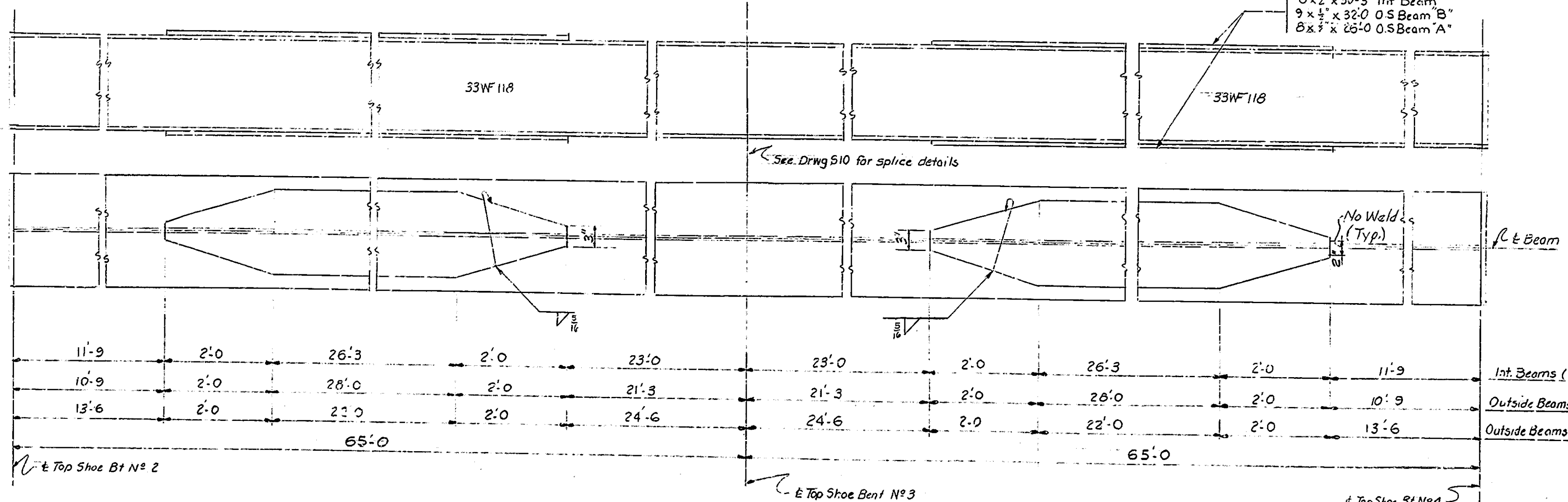
\* Dimensions "A" to be equal #1

SECTION 1 TO 6 OF ROADWAY  
SHOWING DIMENSIONS, INTERIOR DIAPHRAGMS &  
SLAB REINFORCEMENT  
Scale 1/8" = 1'-0"

NOTE:-  
Floor forms shall not be blocked against adjacent beams A or B. If blocking is used Pours #1 and #2 or Pours #5 and #6 shall be made simultaneously.



SECTION 1 TO 6 OF ROADWAY  
SHOWING END STEEL DIAPHRAGMS  
Scale 1/8" = 1'-0"



NOTE: See Br. Sid. C-1 for reinforcing bar notes

FLOOR AND STEEL DETAILS  
SPANS B & C

INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED APRIL 4, 1963

SUBMITTED FOR APPROVAL: *Paul E. Hush*

DRAWING: 5-11 OF 5-14  
PROJECT: I-70-4(13) 101  
BRIDGE CONTRACT NO. R-6685  
BRIDGE FILE: 9-F-5130

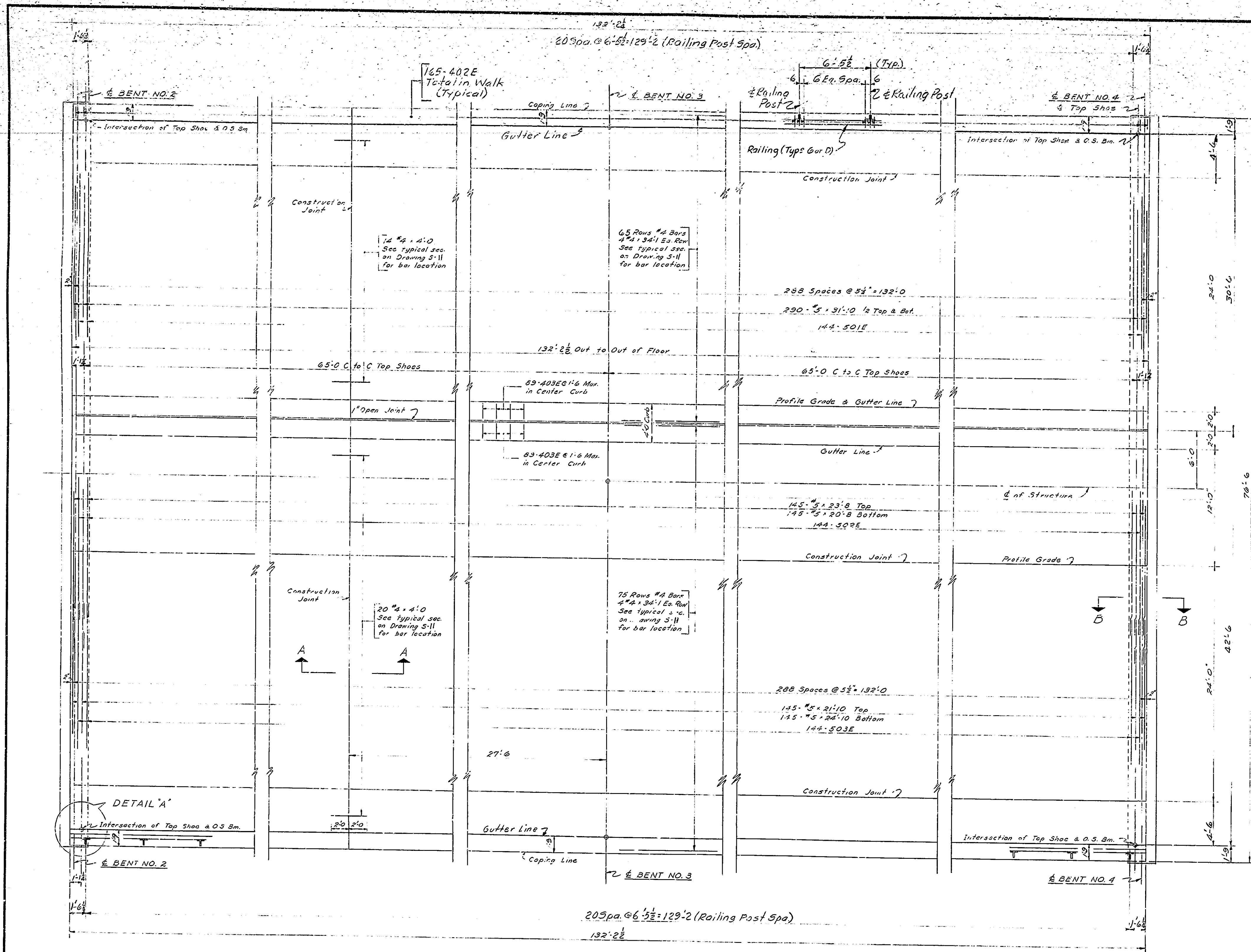


DESIGNED: F.E.M. C.K'D. B.A.P.  
DRAWN: S.A.R. & J.R.M. C.K'D. F.E.M.  
TRACED: C.K'D.

POSITIVE COVER PLATES DETAILS  
NO SCALE

Note: Splice details not shown on this plan

Rev. 3-24-65 Clear Relay, Slab Reinf.  
Rev. 5-11-64 Railing  
Rev. 11-25-60 Railing



PLAN  
Scale: 3/16" = 1'-0"

BRIDGES OVER 20' SPAN					
PROJ. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	(15) 101	1963	21	39

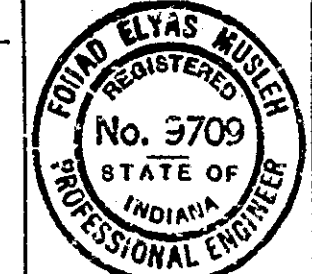
SUPERSTRUCTURE SPANS 'B' & 'C'			
REINFORCING STEEL			
SIZE OR MARK	NUMBER OF BARS	LENGTH	WEIGHT
501E	144	33'-4"	
502E	144	21'-7"	
503E	144	20'-0"	
#3	290	31'-10"	
#5	145	24'-10"	
#5	145	23'-9"	
#5	145	21'-10"	
#5	145	20'-9"	
Total Wgt. #5 Bars			35,544
402E	330	3'-7"	
403E	178	3'-8"	
#4	616	34'-1"	
#4	34	4'-0"	
Total Wgt. #4 Bars			15,342
TOTAL REINFORCING STEEL 50846			
CONCRETE			
			Cu. Yds.
Pour No. 1			22.6
Pour No. 2			12.9
Pour No. 3			15.1
Pour No. 4 RT			4.8
Pour No. 4 LT			4.8
Pour No. 5			54.1
Pour No. 6			30.9
Pour No. 7			45.6
Pour No. 8 RT			16.8
Pour No. 8 LT			16.8
Total Slab Class F			232.4
MISCELLANEOUS			
Railing (Type G or D)			265 Lin. Ft.
1 1/2" Exp. Jt. (Type IA)			159 Lin. Ft.

NOTE: See Bridge S14 C1 for Reinforcing Bar Sizes  
See Dwg. S-13 for Sections 'A-A' and 'B-B'  
See Dwg. S-13 for Detail 'A'  
See Dwg. S-13 for Pour Diagram.

FLOOR DETAILS  
SPANS 'B' & 'C'  
**INDIANA STATE HIGHWAY COMMISSION**

SCALE: AS NOTED  
APRIL 4, 1963

SUBMITTED FOR APPROVAL: *James E. Blush*



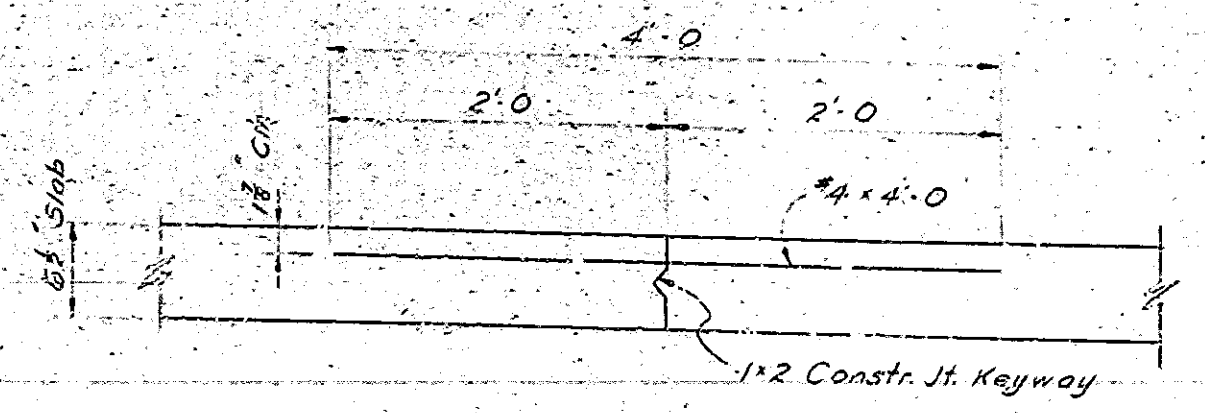
DESIGNED: F.E.M. CKD E.A.P.  
DRAWN: J.R.M. CKD F.E.M.  
TRACED: CKD

Rev. 3-24-65 Clear Rdwy. Slab Rein. & Bill of Material  
Rev. 11-25-64 Railing  
Rev. 5-11-64 Railing & Bill of Materials

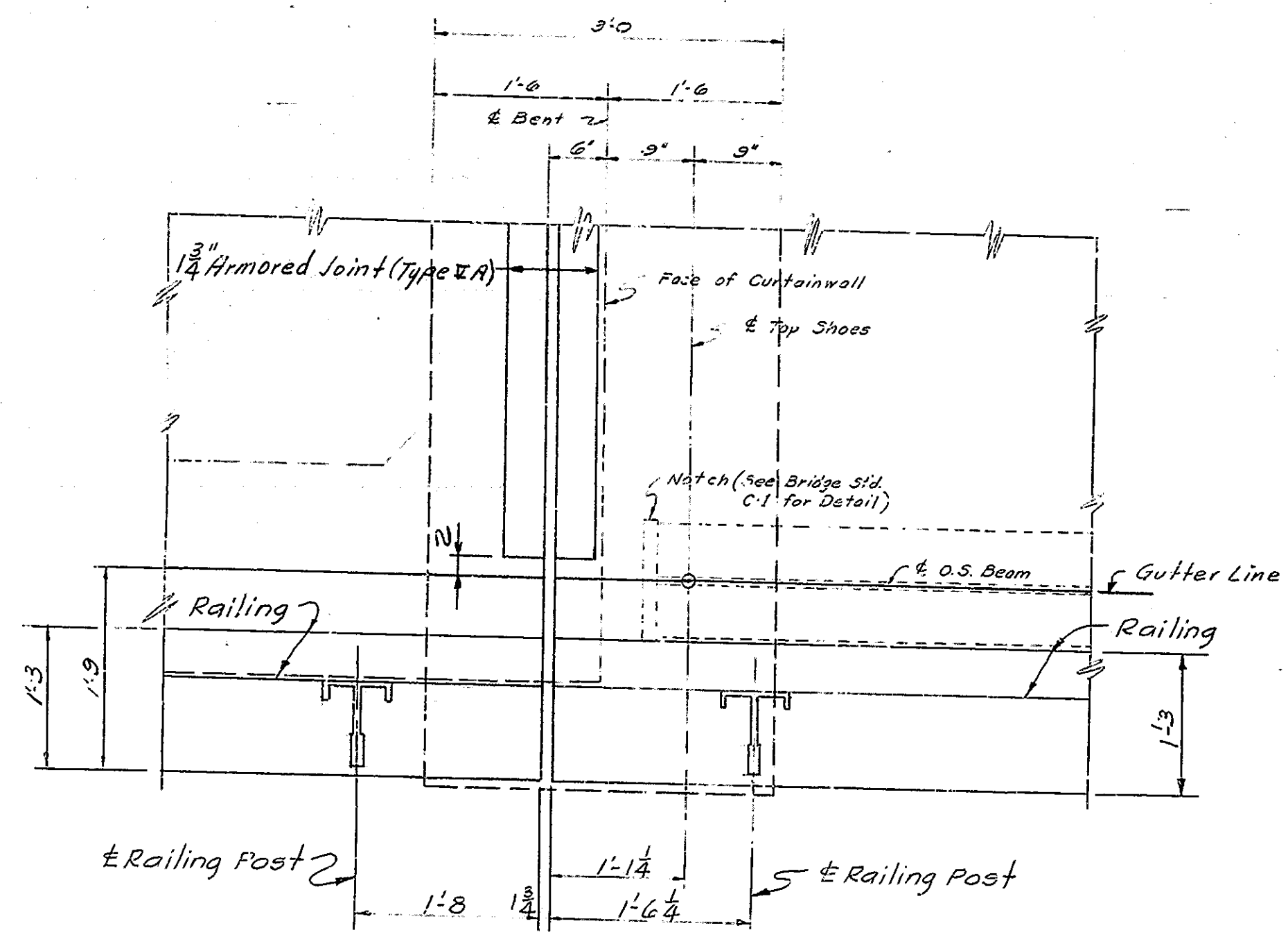
DRAWING: 5-12 OF 5-14  
PROJECT: I-70-4(13) 101  
BRIDGE CONTRACT NO. R-6685  
BRIDGE FILE: S-F-5130



BRIDGES OVER 20' SPAN					
PUR. ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL
NO.	NO.	NO.	YEAR	NO.	SHEETS
4	IND.	1-70-4 (13)101	1963	22	39

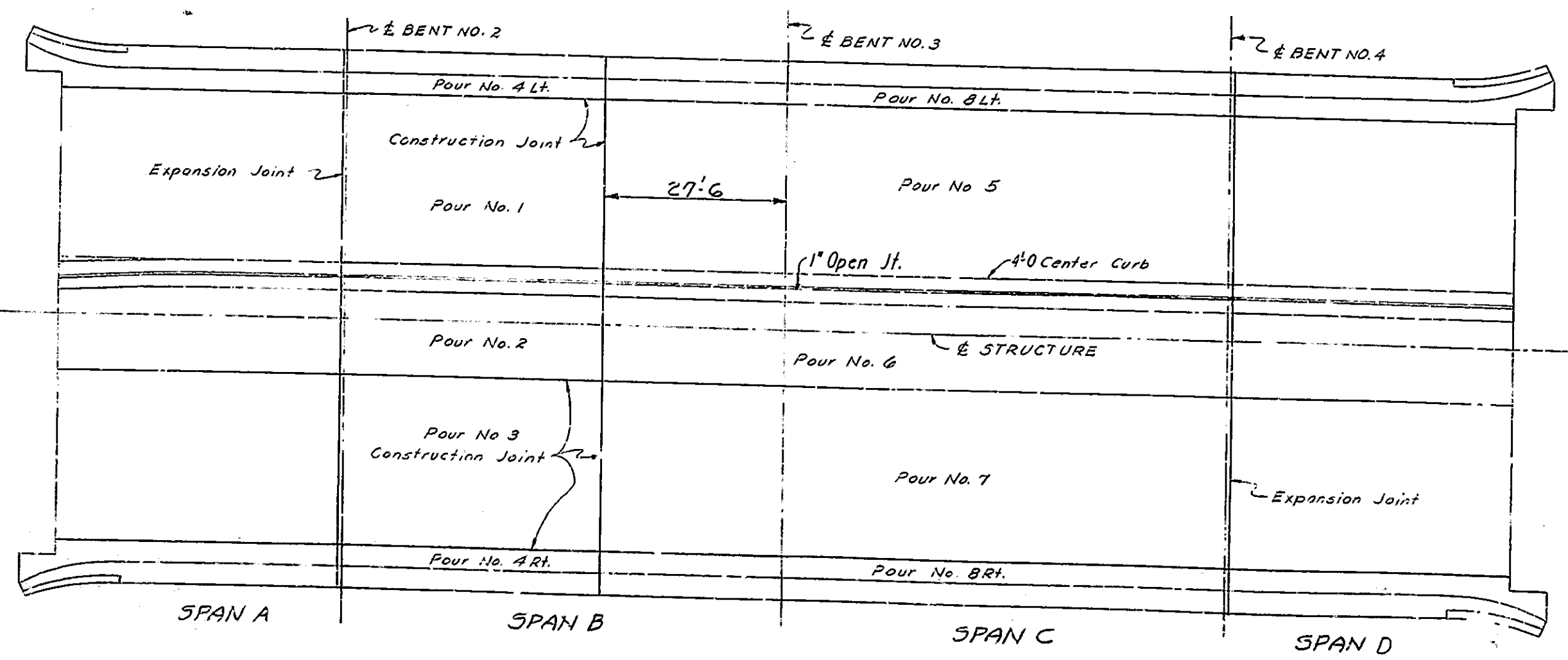


SECTION 'A-A'  
Scale: 1"=1'-0"

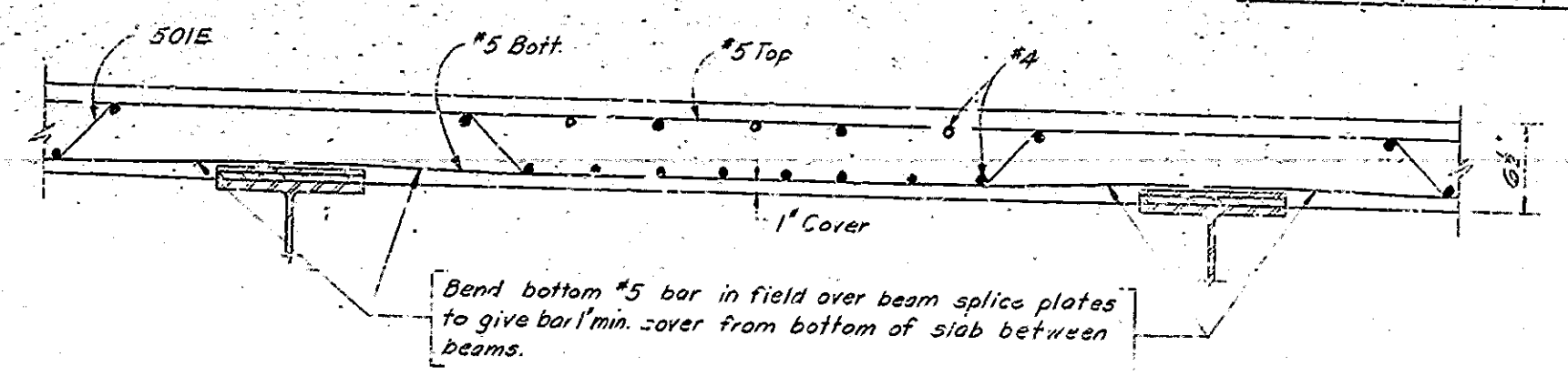
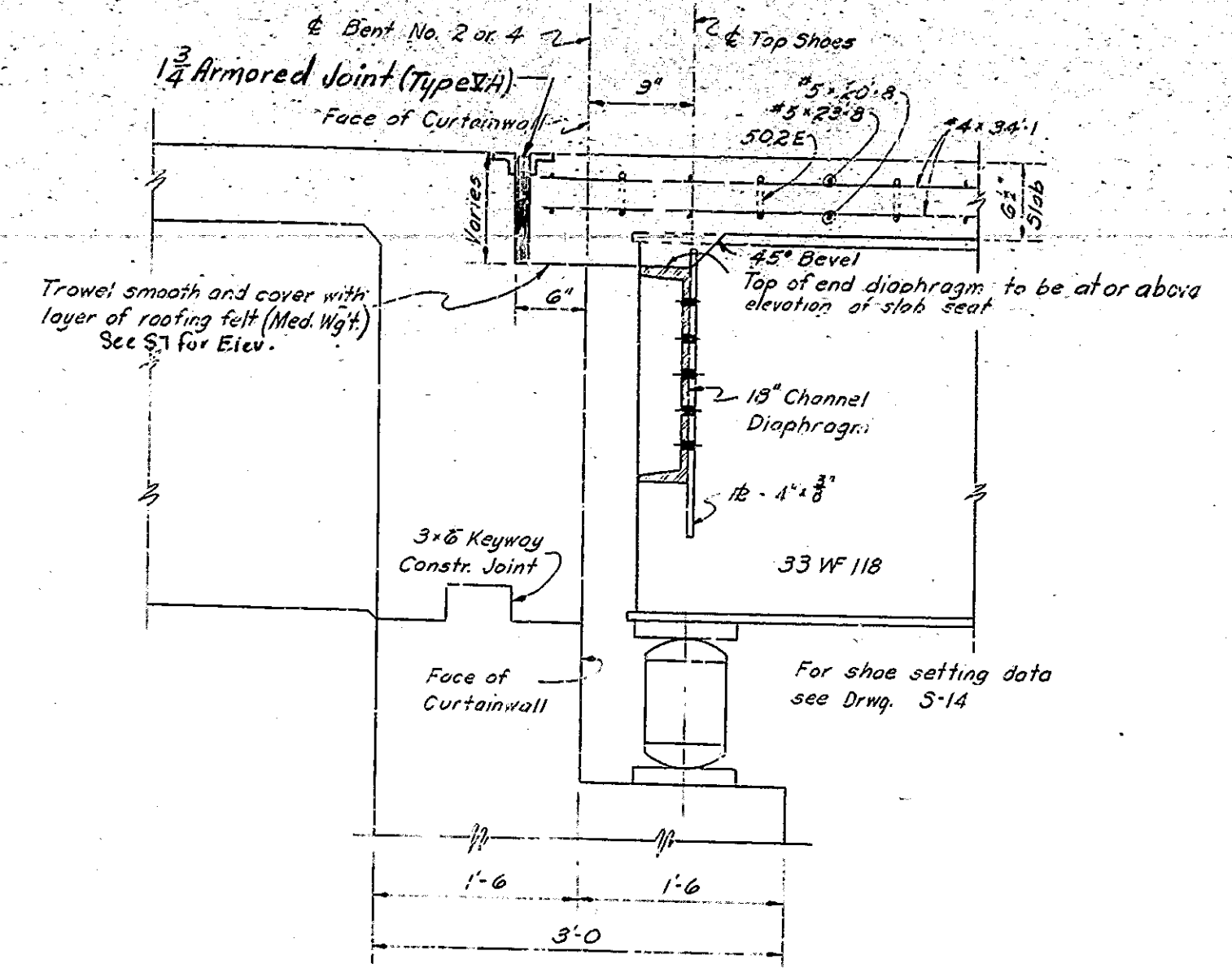


SECTION 'B-B'  
Scale 1"=1'-0"

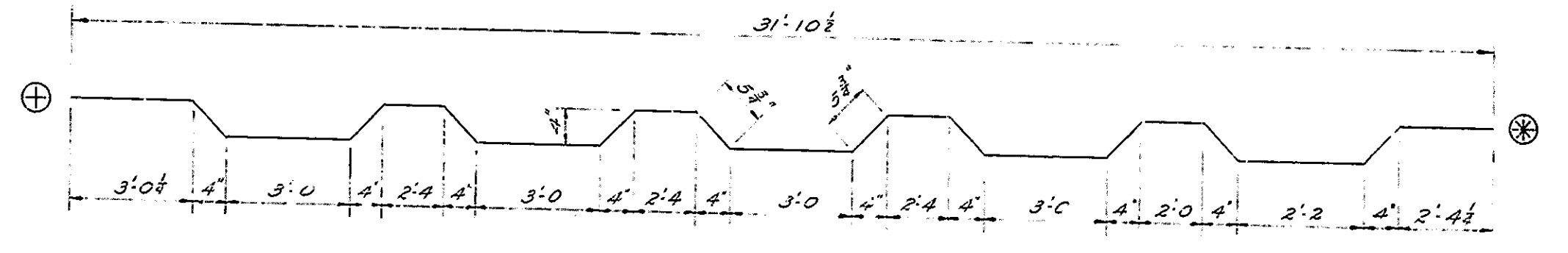
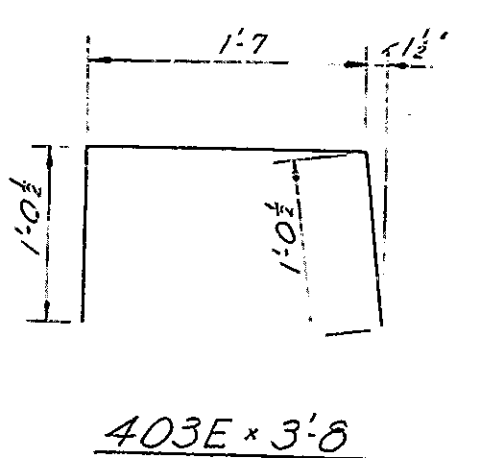
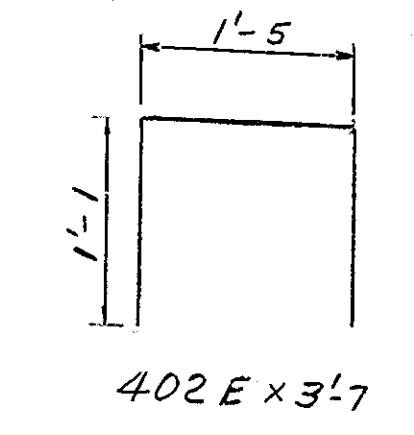
DETAIL 'A'  
Scale: 1"=1'-0"



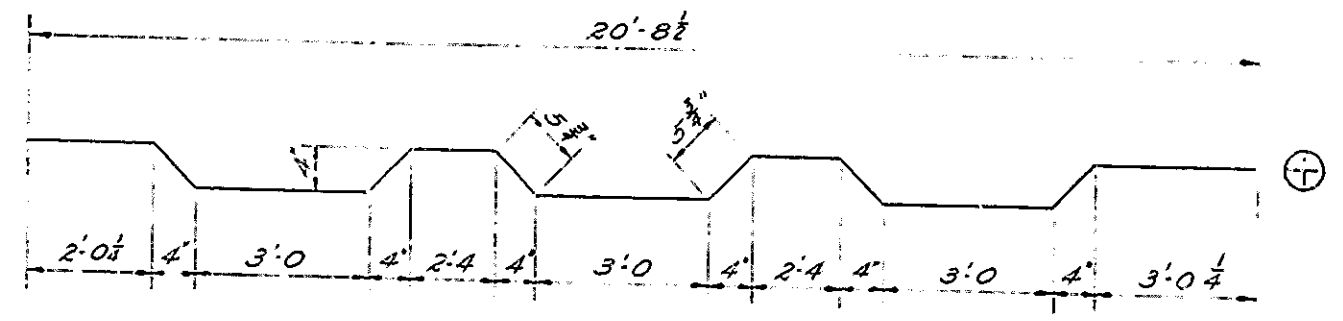
PLAN SHOWING LOCATION OF POURS  
Scale 1/8"=1'-0"



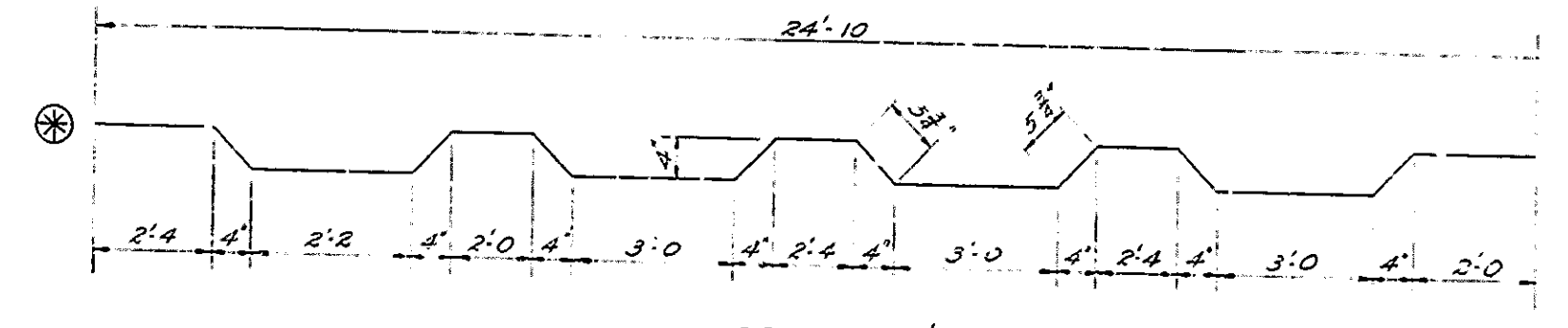
FIELD BEND REQUIRED ON BOTTOM BARS OVER BEAM SPLICES



501E x 33'-4"



502E x 21'-7"



503E x 26'-0"  
BENDING DIAGRAMS  
(No Scale)

NOTE: See S(12) for location of sections 'A-A' and 'B-B' & Detail A. For Reinf. Bar Notes see Br. Std. C-1.

FLOOR DETAILS  
SPANS 'B' & 'C'

INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED

APRIL 4, 1963

SUBMITTED FOR APPROVAL: *Paul E. Miller*

DRAWING: S-13 OF S-14  
PROJECT: 1-70-4(13)101  
BRIDGE CONTRACT NO. R-6685  
BRIDGE FILE: S-F-5130

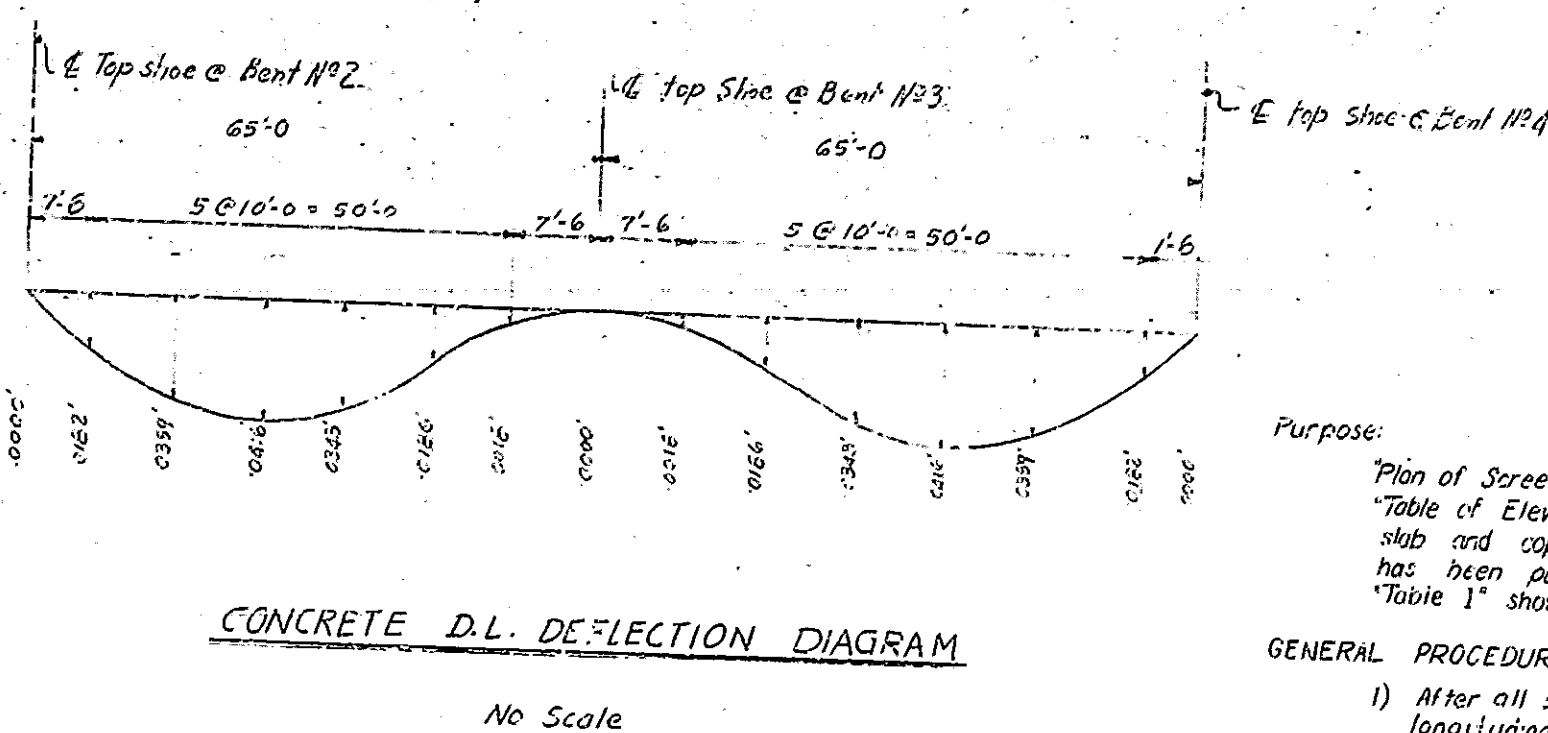


Rev. 3-24-65 Clear Rdwy., Armored Joint  
Rev. 11-25-64 Railing  
Rev. 5-11-64 Railing & Diaph. Conn.

DESIGNED: F.E.M., C.W.D., B.A.P.  
DRAWN: J.B.J., C.W.D., F.E.M.  
TRACED: C.W.D.

**TABLE OF ELEVATIONS**

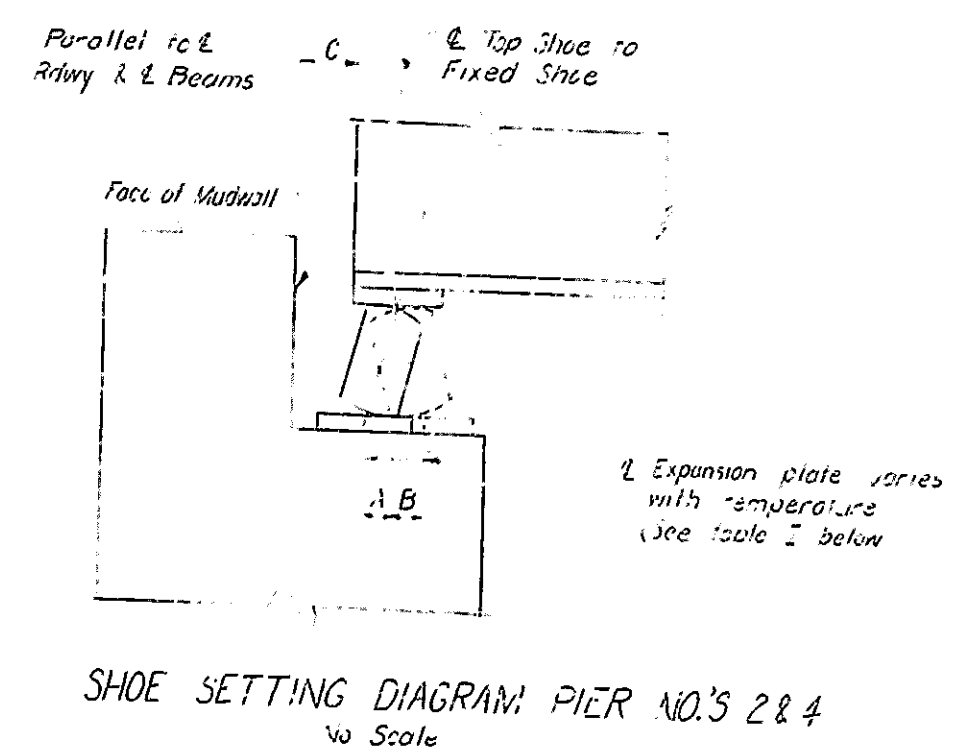
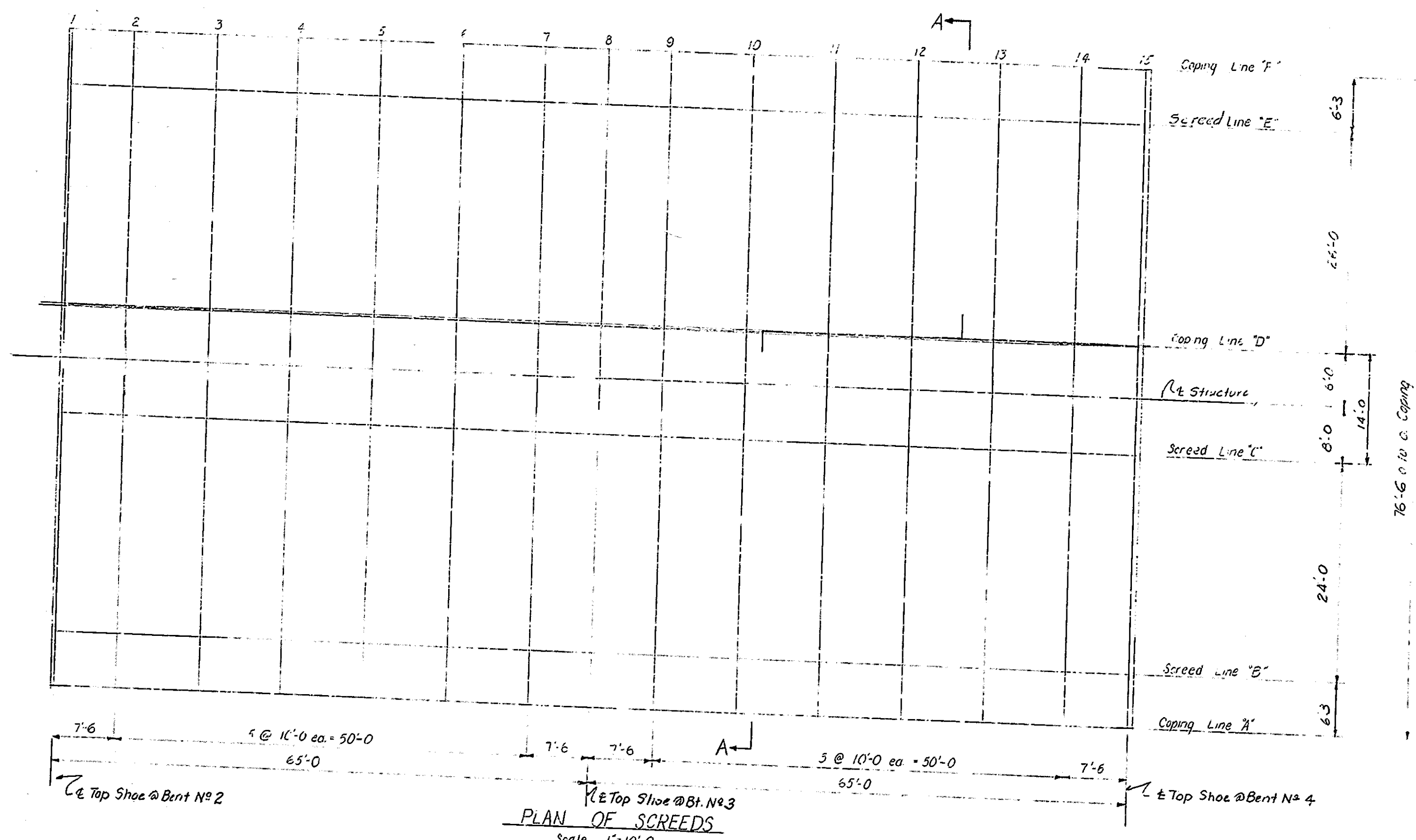
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A Elevation Top of Coping Form	927.550	927.555	927.555	927.555	927.505	927.465	927.415	927.370	927.365	927.345	927.320	927.285	927.250	927.165	927.110
B Elevation Top of Outside Beam															
C Distance Top of Beam to Top of Coping Form															
D Elevation Top of Seread	926.790	926.795	926.795	926.780	926.745	926.705	926.660	926.635	926.610	926.585	926.560	926.525	926.475	926.410	926.350
E Elevation Top of Beam															
F Distance Top of Beam to Top of Seread															
G Elevation Top of Seread	927.050	927.045	927.050	927.050	926.995	926.955	926.910	926.885	926.860	926.835	926.810	926.775	926.725	926.660	926.600
H Elevation Top of Beam															
I Distance Top of Beam to Top of Seread															
J Elevation Top of Coping Form	927.770	927.775	927.775	927.760	927.725	927.685	927.640	927.610	927.585	927.565	927.540	927.505	927.455	927.385	927.330
K Elevation Top of Beam															
L Distance Top of Beam to Top of Coping Form															
M Elevation Top of Coping Form	926.790	926.795	926.795	926.780	926.750	926.705	926.660	926.635	926.610	926.590	926.565	926.525	926.475	926.410	926.350
N Elevation Top of Beam															
O Distance Top of Outside Beam															
P Elevation Top of Coping Form	927.550	927.555	927.555	927.535	927.505	927.465	927.415	927.370	927.365	927.345	927.320	927.285	927.230	927.165	927.110
Q Elevation Top of Outside Beam															
R Distance Top of Beam to Top of Coping Form															



**BRIDGES OVER 20' SPAN**

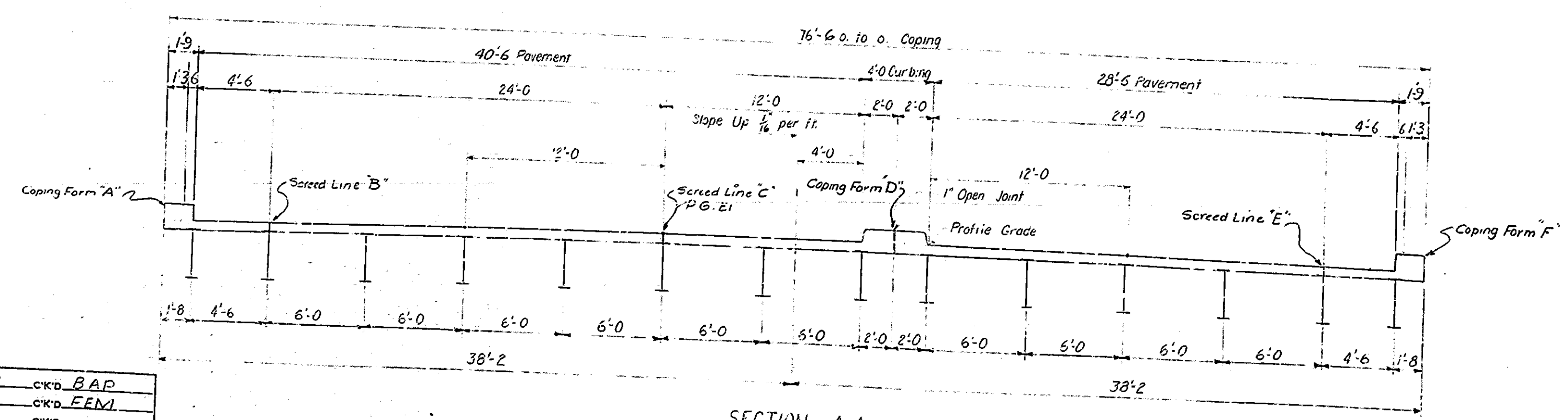
PUB. ROAD REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-4 (13) 101	1963 23	39

- NOTES**
- Purpose:  
 "Plan of Sereads" shows location of sereads.  
 "Table of Elevations" shows data for setting coping forms, so that the slab and copings will be at the final grade elevations after all concrete has been poured.  
 "Table I" shows data for setting expansion plates.
- GENERAL PROCEDURE FOR SETTING SEREADS**
- After all structural steel has been erected, adjust the superstructure longitudinally so that the dimensions "C" on bents #2 and #4 are equal.
  - With the superstructure in the adjusted position called for No. 1, weld fixed shoe to Anchor Plates AP2.
  - Adjust the expansion plate under each expansion shoe in accordance with dimension "A" or "B" in "Table I" for the prevailing temperature. Note that dimension "A" is always the distance from a vertical line through the CL of the top shoe in a direction away from the fixed shoe of that span. Weld expansion plates to Anchor Plates AP2.
  - After the shoes are set, take elevations at all seread points on top of adjacent beam. Enter these elevations in the "TABLE OF ELEVATIONS." Subtract these elevations from the tabulated elevations and use the resulting dimension as the height for setting the sereads on coping form above this point. This dimension remains constant regardless of how much or in what order the concrete is poured. Do not set seread or coping form by leveling.
  - No concrete is to be poured until the above operations are completed.



**TABLE I**

TEMPERATURE	DIMENSION A			DIMENSION B		
	0°	20°	60°	0°	100°	120°
Top Shoe to Exp. Pl. Pier #2	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"
Top Shoe to Exp. Pl. Pier #4	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"

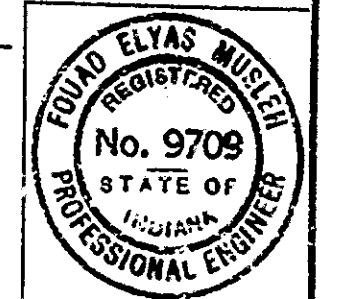


DESIGNED F.E.M. ckd. B.A.P.  
 DRAWN R.C.M. ckd. F.E.M.  
 TRACED C.V.D.

**SCREEDS**  
**INDIANA STATE HIGHWAY COMMISSION**

SCALE: -  
 SUBMITTED FOR APPROVAL: *James E. Misher* APRIL 4, 1963

DRAWING: S14 OF S14  
 PROJECT: I-70-4(13)101  
 BRIDGE CONTRACT NO. R-6685  
 BRIDGE FILE: R-F-5130



Rev. 3-24-65 Clear Rdwy, Screeds  
 Rev. 11-25-64 Railing  
 Rev. 5-11-64 Railing



ITEM	STRUCTURE QUANTITIES													REINFORCING STEEL (1934 STD WT)				ANCHOR PLATES AP2				EXP. JT. ARMOR (TYPE IA)		EXP. JT. ARMOR (TYPE IIA)	
	CONCRETE CLASS			CONCRETE CLASS			CONCRETE CLASS			CONCRETE CLASS			CONCRETE CLASS			CONCRETE CLASS			CONCRETE CLASS		CONCRETE CLASS		CONCRETE CLASS		
	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS		
<b>SUBSTRUCTURE</b>																									
BENT NO. 1	19.2																								
BENT NO. 2	36.7	52.5	27.3																						
BENT NO. 3	23.2	53.5	34.8																						
BENT NO. 4	36.7	51.5	27.3																						
BENT NO. 5	19.2																								
<b>SUPERSTRUCTURE</b>																									
SPAN A	190.0			3.2	15820	12001																			
SPAN B&C	232.4																								
SPAN D	190.1			3.2	15820	12001																			
SPLICE BARS					175	90																			
TOTALS	747.6	157.5	89.4	6.4	45125	24092																			

ITEM	QUANTITY	UNIT	AMOUNT
EXP. JT. ARMOR (TYPE IA)	11	440	4840
EXP. JT. ARMOR (TYPE IIA)	14		154
ANCHOR PLATES AP2	14		154
TOTALS			181,334

ITEM	QUANTITY	UNIT	AMOUNT
11	3	11'-0"	175
10	2	10'-6"	90
9	0	9'-6"	
8	0	8'-6"	
7	1	8'-0"	16
6	3	7'-6"	34
5	6	6'-9"	42
4	4	6'-0"	16
3	0	5'-6"	
TOTALS			373

ITEM	QUANTITY	UNIT	AMOUNT
11	3	11'-0"	175
10	2	10'-6"	90
9	0	9'-6"	
8	0	8'-6"	
7	1	8'-0"	16
6	3	7'-6"	34
5	6	6'-9"	42
4	4	6'-0"	16
3	0	5'-6"	
TOTALS			373

ITEM	QUANTITY	UNIT	AMOUNT
11	3	11'-0"	175
10	2	10'-6"	90
9	0	9'-6"	
8	0	8'-6"	
7	1	8'-0"	16
6	3	7'-6"	34
5	6	6'-9"	42
4	4	6'-0"	16
3	0	5'-6"	
TOTALS			373

SEE SHEET #8 FOR R.C. BRIDGE APPROACH PAVEMENT DETAILS NOT IN BRIDGE PROJECT PAY ITEM

ITEM	QUANTITY	UNIT	AMOUNT
83-B	115	6" Perf. C.M. Pipe	115
83-C	115	6" Perf. C.M. Pipe	115
TOTALS			230

ITEM	QUANTITY	UNIT	AMOUNT
11	3	11'-0"	175
10	2	10'-6"	90
9	0	9'-6"	
8	0	8'-6"	
7	1	8'-0"	16
6	3	7'-6"	34
5	6	6'-9"	42
4	4	6'-0"	16
3	0	5'-6"	
TOTALS			373

ITEM	QUANTITY	UNIT	AMOUNT
11	3	11'-0"	175
10	2	10'-6"	90
9	0	9'-6"	
8	0	8'-6"	
7	1	8'-0"	16
6	3	7'-6"	34
5	6	6'-9"	42
4	4	6'-0"	16
3	0	5'-6"	
TOTALS			373

Place as directed by the Engineer  
 \*\* The weight of the structural steel shown is approximate only, and it shall be the contractors responsibility to determine the weight upon which he bases his bid.

NOTE:-  
 Where Sign Standards are used in unpaved areas the Contractor may use two posts set (3) three feet in the ground.  
 "W-35A" safe speed to be determined by the Engineer at the site.  
 Directional, advisory or warning signs shall be right hand or left hand as the location of the sign requires.

FLOYD E. BURROUGHS & ASSOC.

