

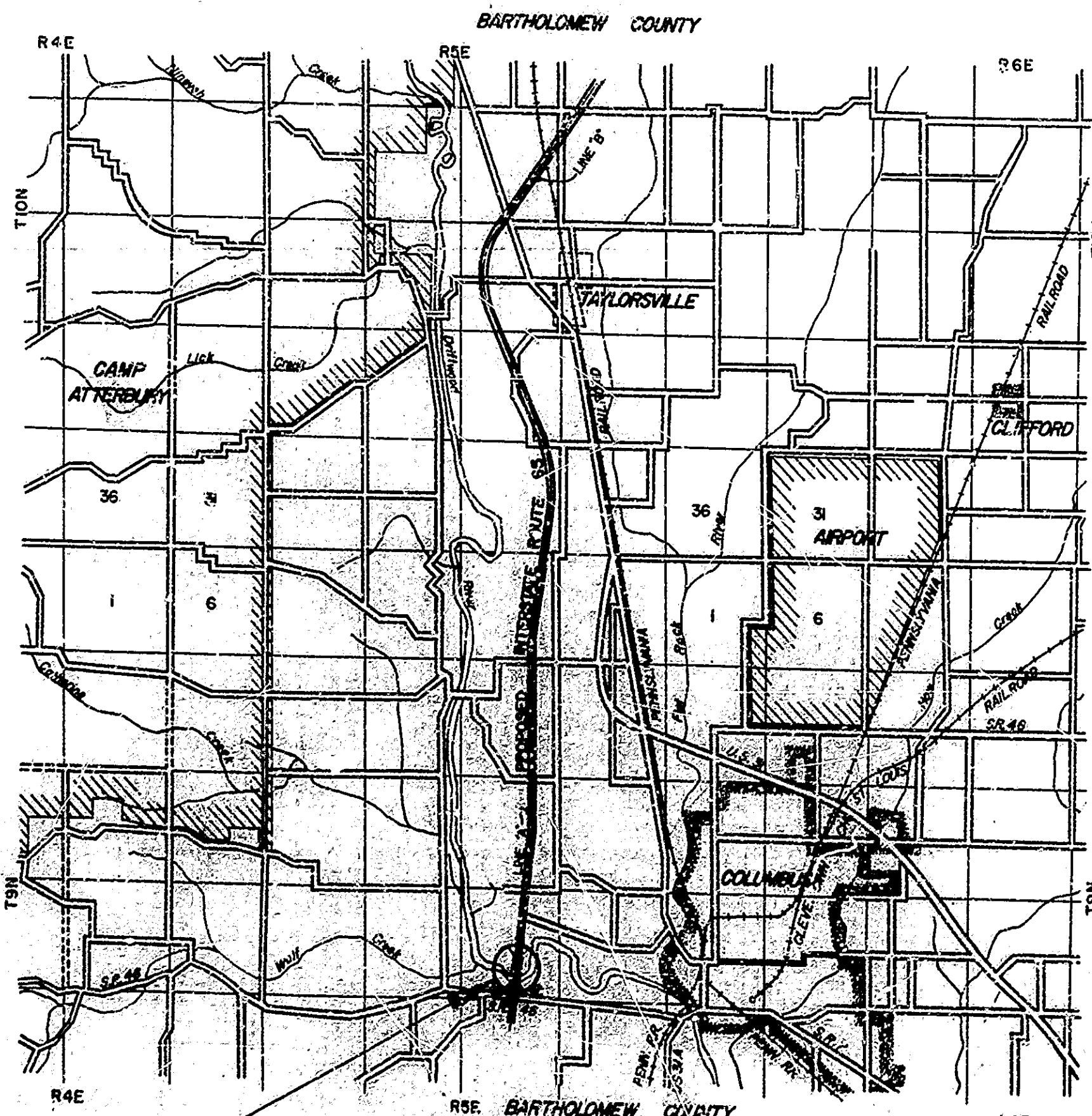
INDEX						
PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION	CONTRACT NO.
1-65-2(52) 68	1-65-68-4699, 4699 J	CONTINUOUS STEEL BEAMS & R.C. GRIDERS	15 SPANS: 30'-0" @ 2'-6" @ 75'-0" @ 62'-6" @ 30'-0" @ 30'-0" @ LT.	DRIFTWOOD RIVER	STRUCTURE STA. 3192+58.89	5427
SHEET NO.	SHEET DESIGNATION	SUBJECT				
1	ONE SHEET	TITLE SHEET				
2	ROAD STD.	STANDARD DIVIDED LANE SECTION Rev. 7-13-61. @ P.P. APPROVED 8-11-61				
3	ROAD SHEET NO. 10	ROAD PLAN & PROFILE STA. 3185+10 TO STA. 3199+58.89 R.L.P. 266-30108				
4	ONE SHEET	CHANNEL CHANGE				
5-6	TWO SHEETS	LEVEE DETAILS				
7	ONE SHEET	SPECIAL HEADWALL DETAILS				
8-9	SIX SHEETS	STRUCTURE 7-65-66-4699 J, 66-4699 J, 66-4699 J LAYOUT				
10-12	THREE SHEETS	TEST PIT DATA				
13-14	TWO SHEETS	GENERAL PLAN				
15	ONE SHEET	END BENT NO. 1 SOUTHBOUND, NO. 13 SOUTHBOUND & NO. 16 NORTHBOUND				
16	ONE SHEET	END BENT NO. 1 NORTHBOUND				
17	ONE SHEET	BENT NO. 2 NORTHBOUND				
18	ONE SHEET	BENT NO. 3 NORTHBOUND				
19	ONE SHEET	BENT NO. 4 NORTHBOUND & BENT NO. 5 NORTHBOUND				
20	ONE SHEET	BENT NO. 6 NORTHBOUND				
21	ONE SHEET	BENT NO. 7 NB., BENT NO. 8 NB., BENT NO. 9 SB. & BENT NO. 7 SB.				
22	ONE SHEET	BENT NO. 13 NB., BENT NO. 14 NB., BENT NO. 15 SB. & BENT NO. 14 SB.				
23	ONE SHEET	BENT NO. 9 NORTHBOUND & BENT NO. 9 SOUTHBOUND				
24	ONE SHEET	BENT NO. 3 SOUTHBOUND, BENT NO. 3 SOUTHBOUND & BENT NO. 5 SOUTHBOUND				
25	ONE SHEET	BENT NO. 10 NB., NO. 11 NB., NO. 12 NB., NO. 10 SB., NO. 11 SB., NO. 12 SB.				
26	ONE SHEET	BENT NO. 15 NORTHBOUND & BENT NO. 15 SOUTHBOUND				
27	ONE SHEET	BENT NO. 3 SOUTHBOUND				
28	ONE SHEET	BENT NO. 3 SOUTHBOUND				
29	ONE SHEET	PLAN, SPANS 1 & 15 SOUTHBOUND, SPAN NO. 15 NORTHBOUND				
30	ONE SHEET	DETAILS, SPANS 1 & 15 SOUTHBOUND, SPAN NO. 15 NORTHBOUND				
31	ONE SHEET	PLAN, SPAN NO. 1 NORTHBOUND				
32	ONE SHEET	DETAILS, SPAN NO. 1 NORTHBOUND				
33	ONE SHEET	BILL OF MATERIALS, SPANS NO. 1 & 15 SOUTHBOUND, NO. 1 & 15 NORTHBOUND				
34	ONE SHEET	FRAMING PLAN, SPANS NO. 2 THRU 7 NORTH & SOUTHBOUND LANES				
35	ONE SHEET	FRAMING PLAN, SPANS NO. 8 THRU 14 NORTH & SOUTHBOUND LANES				
36	ONE SHEET	SPICE DETAILS, CAMBER DIAGRAMS, TABLES OF MOMENTS & REACTIONS				
37	ONE SHEET	SHOP DETAILS, SHIM DETAILS & SHOP REPAIRING DETAILS				
38	ONE SHEET	EXPANSION JOINT (E-J-1) DETAILS				
39	ONE SHEET	EXPANSION JOINT (E-J-2) DETAILS				
40	ONE SHEET	FLOOR PLAN & DETAILS, SPANS 2 THRU 14 SOUTHBOUND LANE				
41	ONE SHEET	FLOOR DETAILS & BILL OF MATERIALS, SPAN NO. 2 THRU 14 SB. LANE				
42	ONE SHEET	FLOOR PLAN, SPANS 2 & 5 NORTHBOUND LANE				
43	ONE SHEET	FLOOR DETAILS & BILL OF MATERIALS, SPANS NO. 2 THRU 5 NB. LANE				
44	ONE SHEET	FLOOR PLAN, SPANS NO. 6 THRU 14 NORTHBOUND LANE				
45	ONE SHEET	FLOOR DETAILS & BILL OF MATERIALS, SPANS NO. 6 THRU 14 NB. LANE				
46	ONE SHEET	FLOOR PLAN, SPANS NO. 2 THRU 14 NORTHBOUND LANE				
47	ONE SHEET	FLOOR DETAILS & BILL OF MATERIALS, SPANS NO. 2 THRU 14 SB. LANES				
48	ONE SHEET	PART PLAN DETAILS & TABLES OF SCREED				
49	ONE SHEET	PART PLAN OF SCREEDS, PART TABLE OF ELEVATIONS				
50	ONE SHEET	PART TABLE OF ELEVATIONS FOR SCREEDS				
51-52	TWO SHEETS	SUMMARY				
53-55	SIX SHEETS	CROSS SECTIONS OF CHANNEL CHANGE				
56-60	FIVE SHEETS	CROSS SECTIONS OF NORTH & SOUTH APPROACHES				
61-67	SEVEN SHEETS	CROSS SECTIONS OF LEVEE				

STATE OF INDIANA  
STATE HIGHWAY DEPARTMENT

BRIDGE PLANS  
FOR SPANS OVER 20 FEET  
ON  
INTERSTATE HIGHWAY 65 SECTION 2  
I-PROJECT NO. 65-2 (52) 68

BEGINNING AT A POINT ON PAPER RELOCATION NO. 1 (PROPOSED CENTERLINE OF INTERSTATE ROUTE 1-65) APPROXIMATELY 1104.0' NORTH OF THE SOUTH LINE OF SECTION 22, T9N, R5E AND EXTENDING IN A NORTHERLY DIRECTION 1345.0' TO A POINT APPROXIMATELY 2449.0' NORTH OF THE SOUTH LINE OF SECTION 22, T9N, R5E ALL IN BARTHOLEMEW COUNTY

BRIDGE LENGTH = 193'  
ROADWAY LENGTH = 0.0E'  
TOTAL LENGTH = 254'  
MAX. GRADE = 0.35 %



STRUCTURE NO 1-65-68-4699, 1-65-68-4699 J  
2 SINGLE STRUCTURES  
R.C. GIRDER, CONT. STEEL BEAM, RC GIRDER  
30'-0" @ 62'-6", 11 SPANS @ 75'-0", 62'-6" @ 30'-0"  
SKEW 30° LEFT  
STRUCTURE STA. 3192+58.89  
BEGINNING OF PROJECT STA. 3186+10  
END OF PROJECT STA. 3199+58.89

STATE HIGHWAY DEPARTMENT OF INDIANA  
STANDARD SPECIFICATIONS DATED 1960  
TO BE USED WITH THESE PLANS.

REVISIONS	
DATE	SHEET NO.
7/12/61	2

RECOMMENDED FOR APPROVAL 9-11-61  
*C.R. Burrows*  
CHIEF ENGINEER

BRIDGES OVER 20' SPAN						
PUBLIC ROAD NO.	STATE	FED. ROAD DIST. NO.	LOCAL ROAD NO.	SHEET NO.	TOTAL SHEETS	
4	IND.	1-52-2	19-2	1	69	

INDEX CONTINUED STANDARD DRAWINGS						
SHEET NO.	SHEET DESIGNATION	SUBJECT	S.P. NO.	ADOPTED REVISION		
68	BRIDGE STD. G1	STANDARD MISCELLANEOUS DETAILS	1-12-60	R-12-2-58		
69	BRIDGE STD. D	CASTING DETAILS ROADWAY DRAINS	1-12-60	A-1-3-50		
70	BRIDGE STD. G2	STANDARD MISCELLANEOUS DETAILS				
71	BRIDGE STD. H	STANDARD MISCELLANEOUS DETAILS				
72	BRIDGE STD. M1	MISCELLANEOUS APPROACH DETAILS	11-23-60	R-3-28-60		
73	BRIDGE STD. M2	MISCELLANEOUS APPROACH DETAILS				
74	BRIDGE STD. M3	MISCELLANEOUS APPROACH DETAILS	8-10-61	A-4-29-61		
75	BRIDGE STD. P2	STANDARD CONCRETE PILE DETAILS				
76	BRIDGE STD. R1	STANDARD CONCRETE PILE DETAILS				
77	BRIDGE STD. R2	STANDARD CONCRETE PILE DETAILS				
78	BRIDGE STD. T SHEET A	STANDARD TEMPORARY BRIDGE				
79	BRIDGE STD. T SHEET B	STANDARD TEMPORARY BRIDGE				
80	ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS				
81	ROAD STD. SHEET B	MISCELLANEOUS STANDARDS				
82	ROAD STD. SHEET C	MISCELLANEOUS STANDARDS				
83	ROAD STD. SHEET D	MISCELLANEOUS STANDARDS				
84	ROAD STD. SHEET E	MISCELLANEOUS STANDARDS				
85	ROAD STD. SHEET F	MISCELLANEOUS STANDARDS				
86	ROAD STD. SHEET G	MISCELLANEOUS STANDARDS				
87	ROAD STD. SHEET H	MISCELLANEOUS STANDARDS				
88	ROAD STD. SHEET I	MISCELLANEOUS STANDARDS				
89	ROAD STD. SHEET J	MISCELLANEOUS STANDARDS				
90	ROAD STD. SHEET K	MISCELLANEOUS STANDARDS				
91	ROAD STD. SHEET L	MISCELLANEOUS STANDARDS				
92	ROAD STD. SHEET M	MISCELLANEOUS STANDARDS				
93	ROAD STD. SHEET N	MISCELLANEOUS STANDARDS				
94	ROAD STD. SHEET O	MISCELLANEOUS STANDARDS				
95	ROAD STD. SHEET P	MISCELLANEOUS STANDARDS				
96	ROAD STD. SHEET Q	MISCELLANEOUS STANDARDS				
97	ROAD STD. SHEET R	MISCELLANEOUS STANDARDS				
98	ROAD STD. SHEET S	MISCELLANEOUS STANDARDS				
99	ROAD STD. SHEET T	MISCELLANEOUS STANDARDS				
100	ROAD STD. SHEET U	MISCELLANEOUS STANDARDS				

TRAFFIC DATA	
A.D.T. (1956 ADJUSTED)	5784 V.P.D.
A.D.T. (1976 PROJECTED)	15075 V.P.D.
TRUCKS	12 %
DESIGN SPEED	70 M.P.H.
ACCESS CONTROL	FULL

PLANS PREPARED & SUBMITTED BY

BURROUGHS & MULLINX INC. CONSULTING ENGINEERS	FINK, ROBERTS & PETRE INC. CONSULTING ENGINEERS
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SEAL: FLOYD E. BURROUGHS, REGISTERED PROFESSIONAL ENGINEER, No. 4753, STATE OF INDIANA, CERTIFIED DATE Sept. 11, 1961

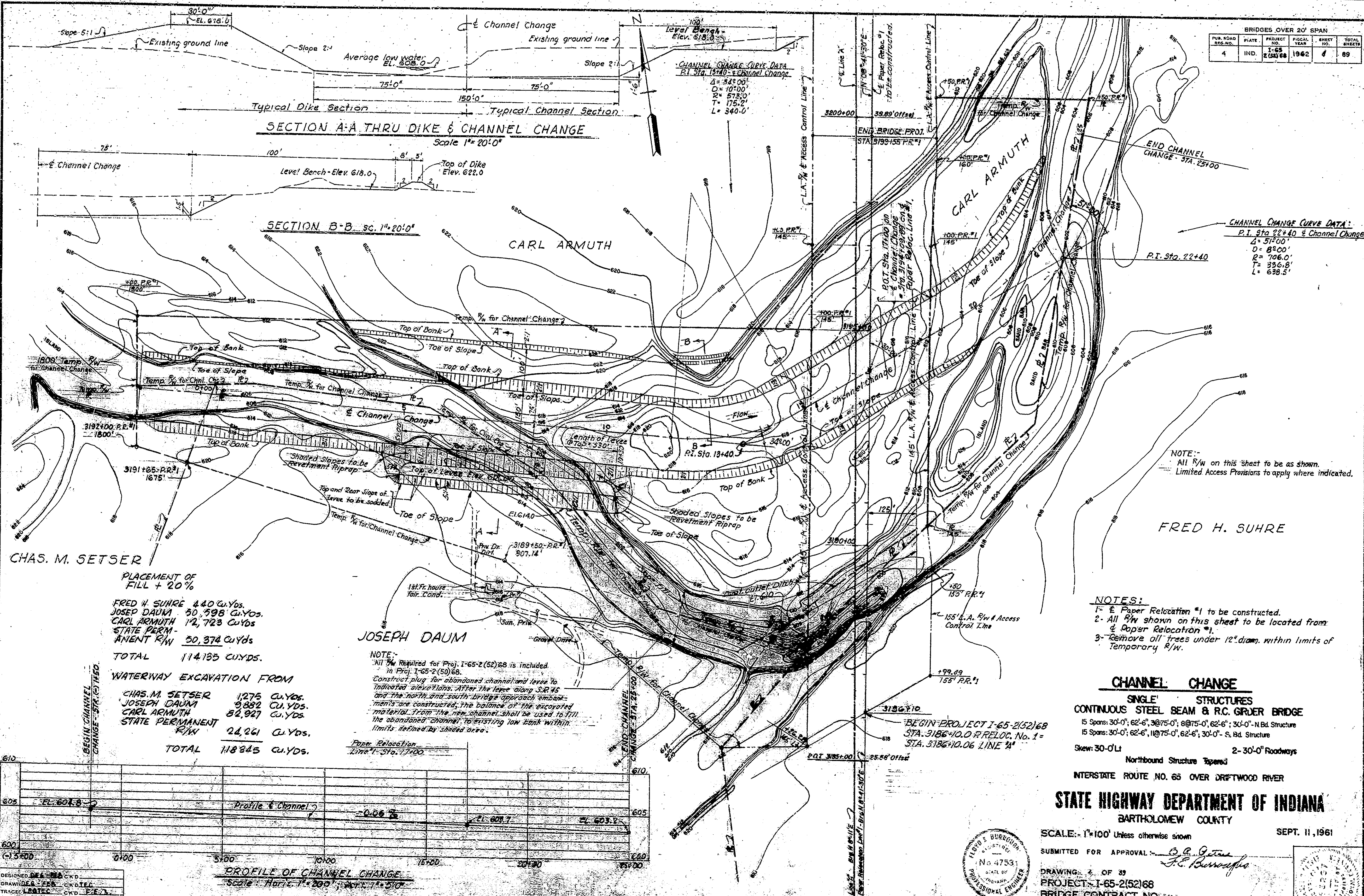
SEAL: BENJAMIN R. PETRE, REGISTERED PROFESSIONAL ENGINEER, No. 8297, STATE OF INDIANA, CERTIFIED DATE Sept. 11, 1961

APPROVED 9-12-61

ACTING CHIEF ENGINEER, INDIANA STATE HIGHWAY COMMISSION

DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS  
APPROVED: [Signature]  
DIVISION ENGINEER DATE

BRIDGES OVER 20' SPAN					
PUR. ROAD DIST. NO.	PLATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-2(52)68	1962	1	69



CHAS. M. SETSER

PLACEMENT OF FILL + 20%

FRED H. SUHRE 440 Cu.Yds.  
 JOSEPH DAUM 50,598 Cu.Yds.  
 CARL ARMUTH 12,723 Cu.Yds.  
 STATE PERMANENT R/W 50,374 Cu.Yds.  
**TOTAL 114,135 CU.YDS.**

WATERWAY EXCAVATION FROM

CHAS. M. SETSER 1,275 Cu.Yds.  
 JOSEPH DAUM 9,882 Cu.Yds.  
 CARL ARMUTH 82,927 Cu.Yds.  
 STATE PERMANENT R/W 24,261 Cu.Yds.  
**TOTAL 118,345 CU.YDS.**

JOSEPH DAUM

NOTE:  
 All R/W Required for Proj. I-65-2(52)68 is included in Proj. I-65-2(50)68.  
 Construct plug for abandoned channel and levee to indicated elevations. After the levee along S.R. 45 and the north and south bridge approach embankments are constructed, the balance of the excavated material from the new channel shall be used to fill the abandoned channel to existing low bank within limits defined by shaded area.

NOTES:  
 1- E Paper Relocation #1 to be constructed.  
 2- All R/W shown on this sheet to be located from E Paper Relocation #1.  
 3- Remove all trees under 12" diam. within limits of Temporary R/W.

**CHANNEL CHANGE**

**SINGLE STRUCTURES**  
**CONTINUOUS STEEL BEAM & R.C. GIRDER BRIDGE**

15 Spans: 30'-0", 62'-6", 3@75'-0", 8@75'-0", 62'-6", 30'-0" - N Bd. Structure  
 15 Spans: 30'-0", 62'-6", 1@75'-0", 62'-6", 30'-0" - S. Bd. Structure

Skew: 30'-0" U 2- 30'-0" Roadways  
 Northbound Structure Tapered

INTERSTATE ROUTE NO. 65 OVER DRIFTWOOD RIVER

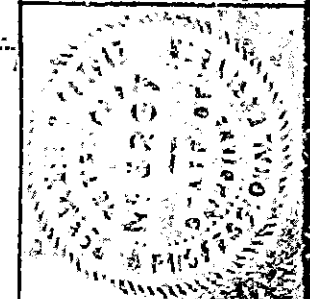
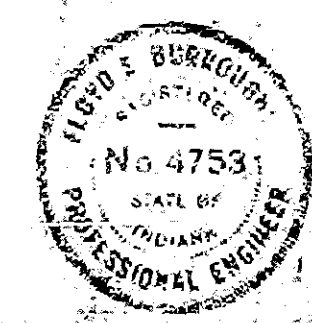
STATE HIGHWAY DEPARTMENT OF INDIANA  
 BARTHOLOMEW COUNTY

SCALE: 1" = 100' Unless otherwise shown

SEPT. 11, 1961

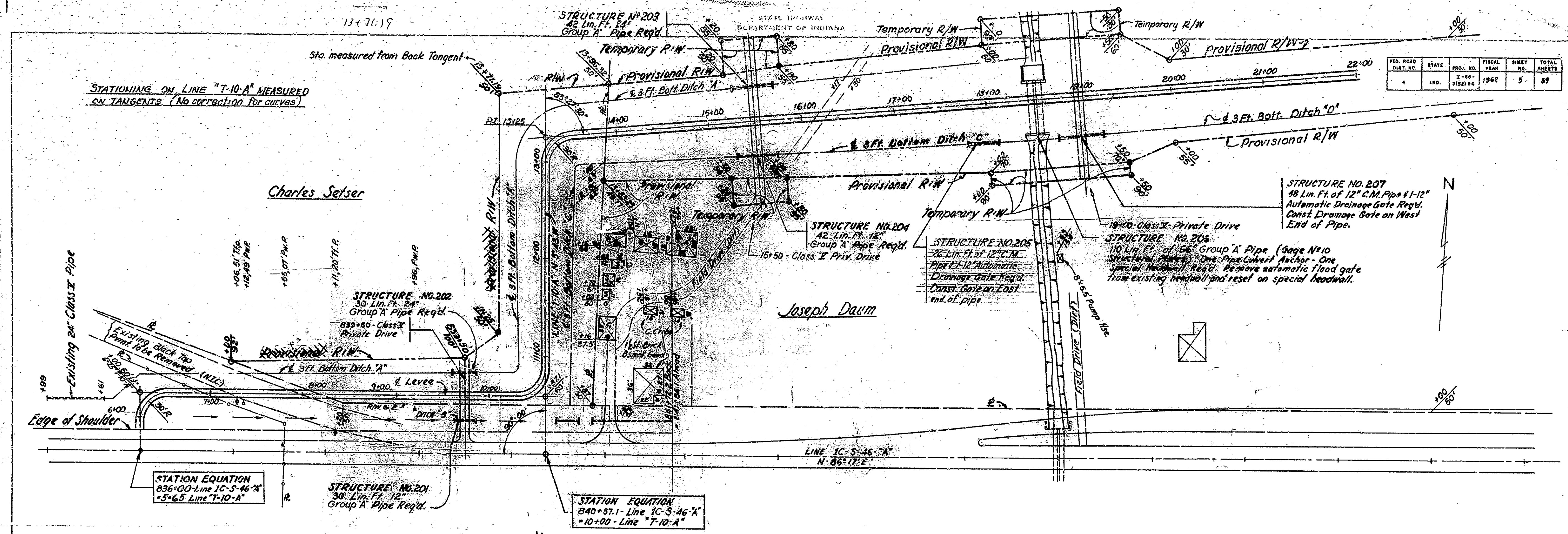
SUBMITTED FOR APPROVAL: *B. G. Gentry*  
*F. E. Burroughs*

DRAWING: 2 OF 33  
 PROJECT: I-65-2(52)68  
 BRIDGE CONTRACT NO. 312  
 BRIDGE FILE: I-65-68-4699, 4699J



FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-109188	1962	5	67

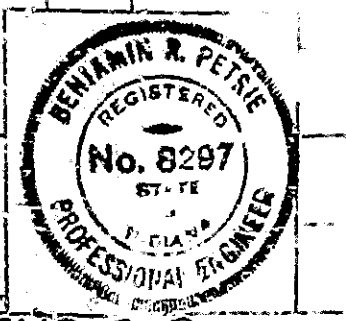
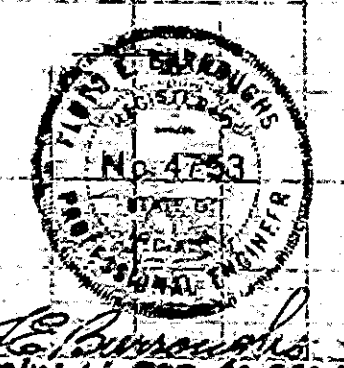
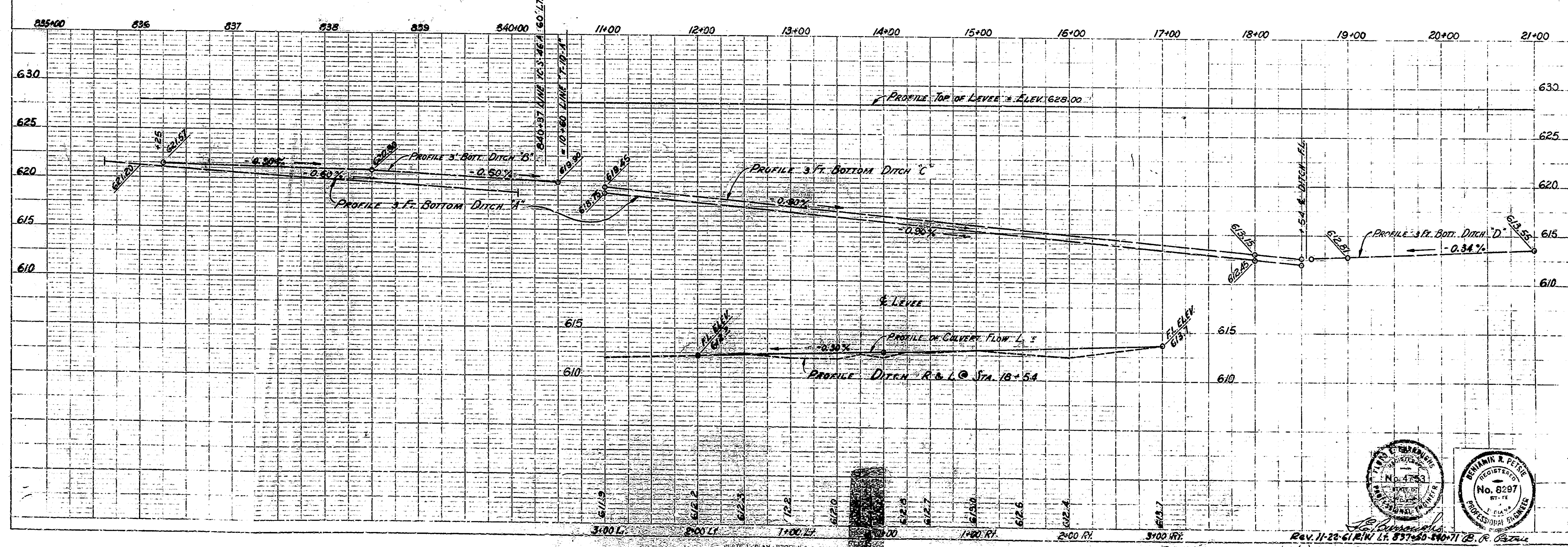
STATIONING ON LINE "T-10-A" MEASURED ON TANGENTS (No correction for curves)



STATION EQUATION  
836+00 - Line IC-S-46-A  
+5+65 - Line T-10-A

STRUCTURE NO. 201  
30 Lin. Ft. 12" Group A Pipe Req'd.

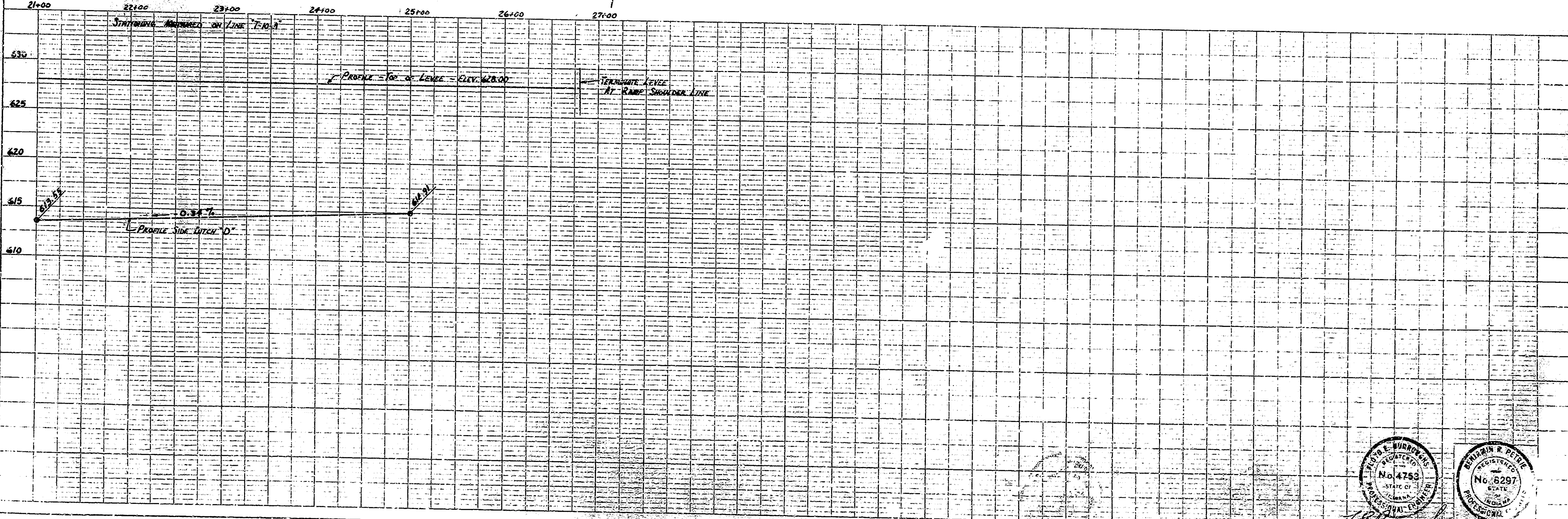
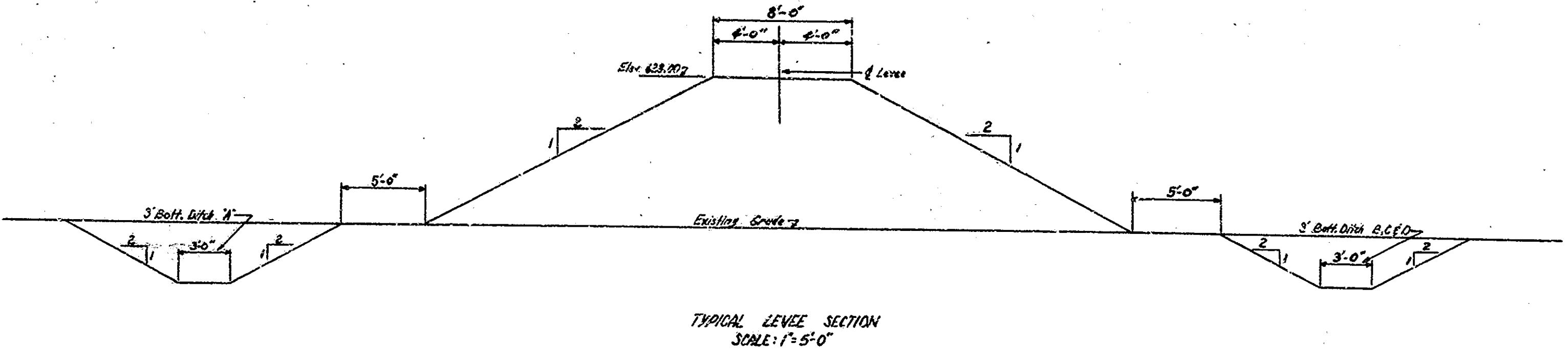
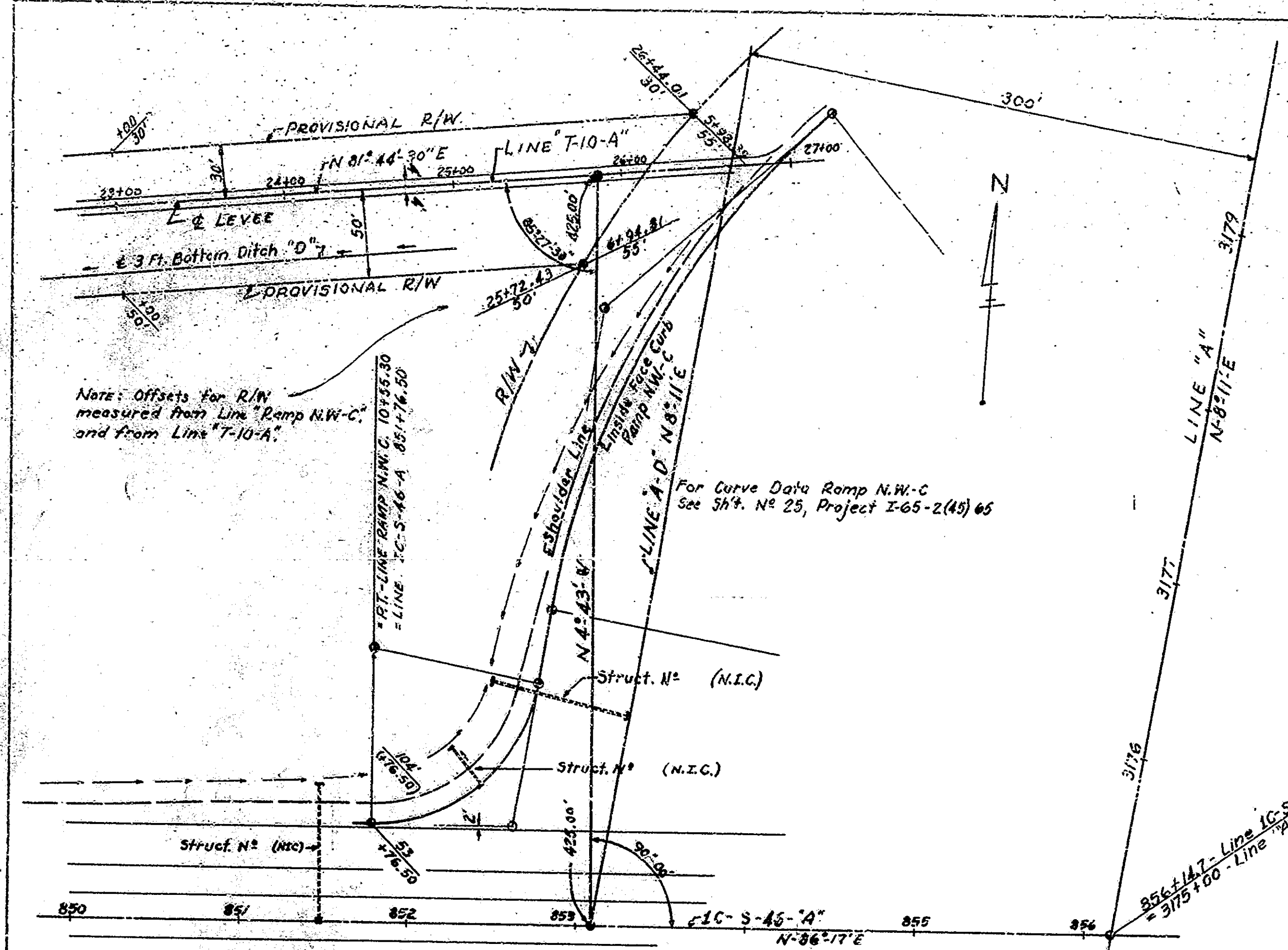
STATION EQUATION  
840+37.1 - Line IC-S-46-X  
+10+00 - Line T-10-A



BRIDGE FILE I-65-68-4699 & J

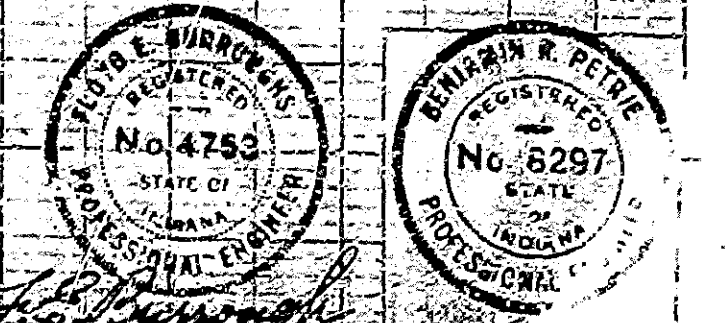
Rev. 11-23-61 R/W Lt. 837+60-840+71 B. R. P. B. 1962

DATE	1-18-48	1948	6	85
FILE	I-65-68-4699			

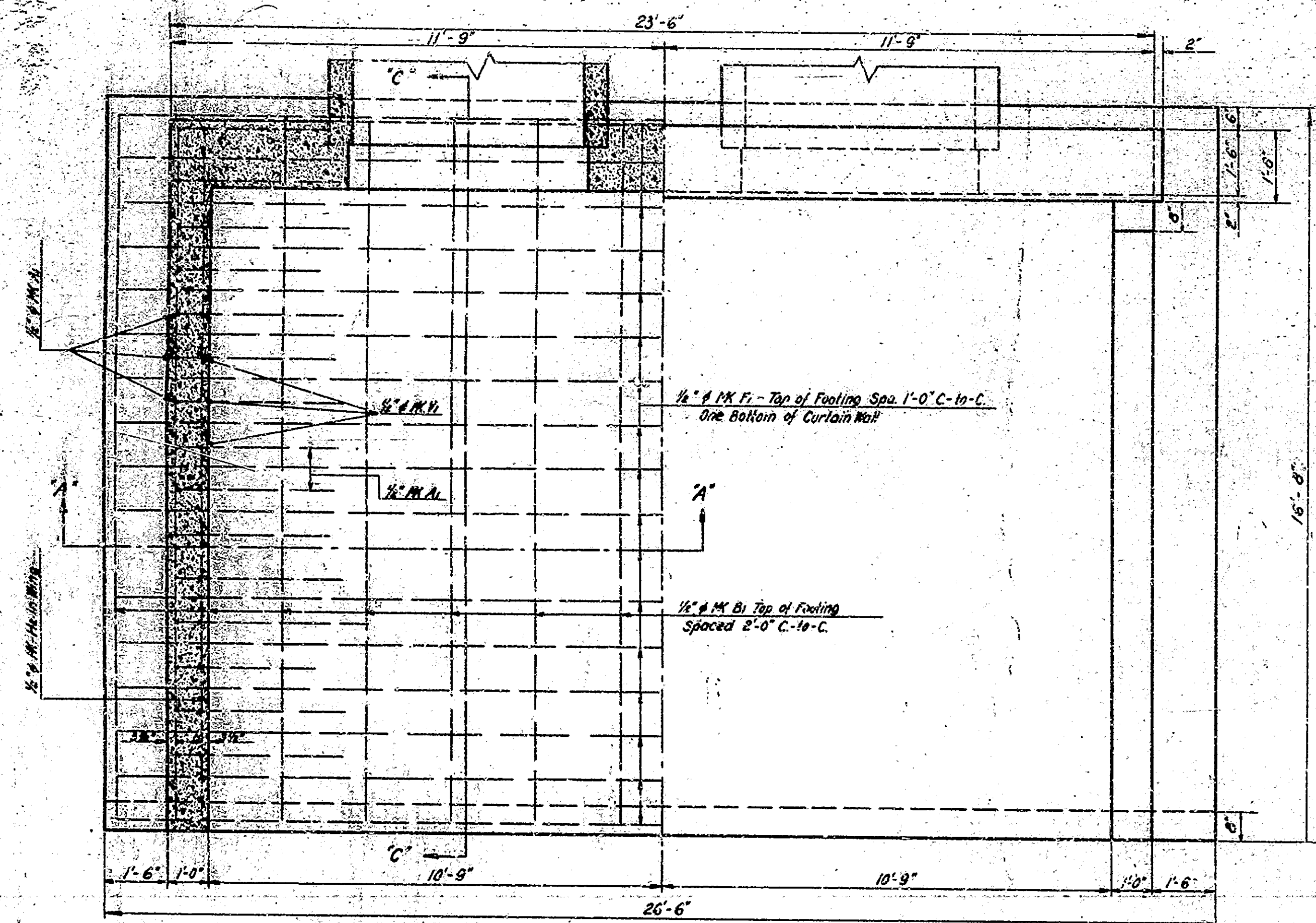


DATE	
FILE	
NO.	

DATE	
FILE	
NO.	

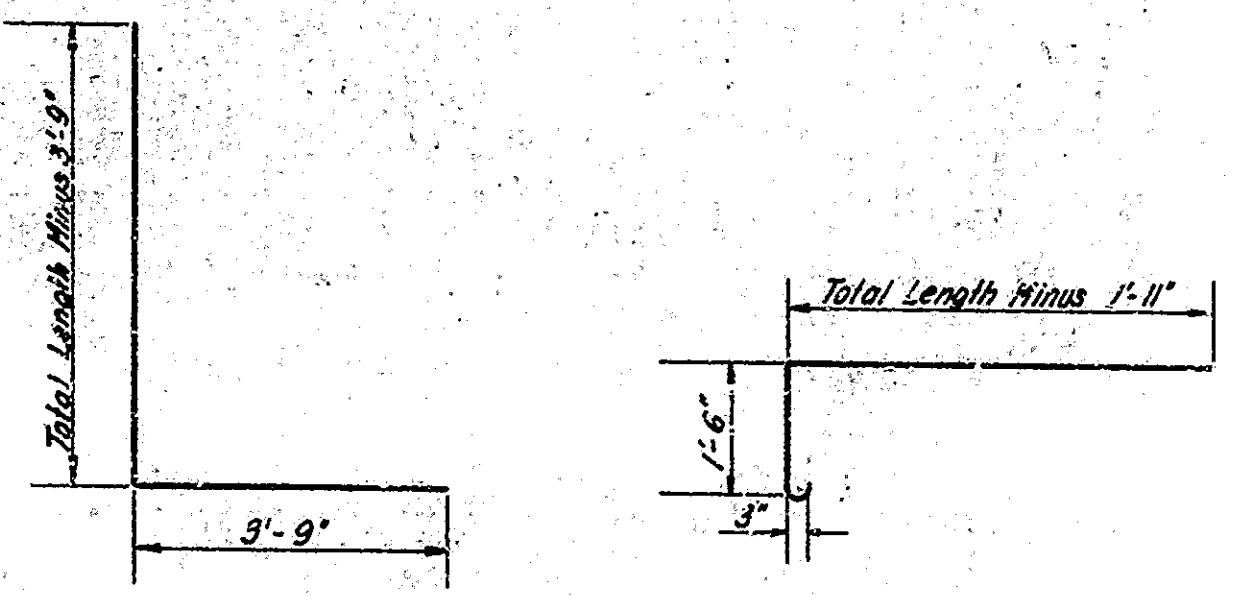


FEDERAL ROAD DISTRICT NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND	1-85 215366	1962	7	89

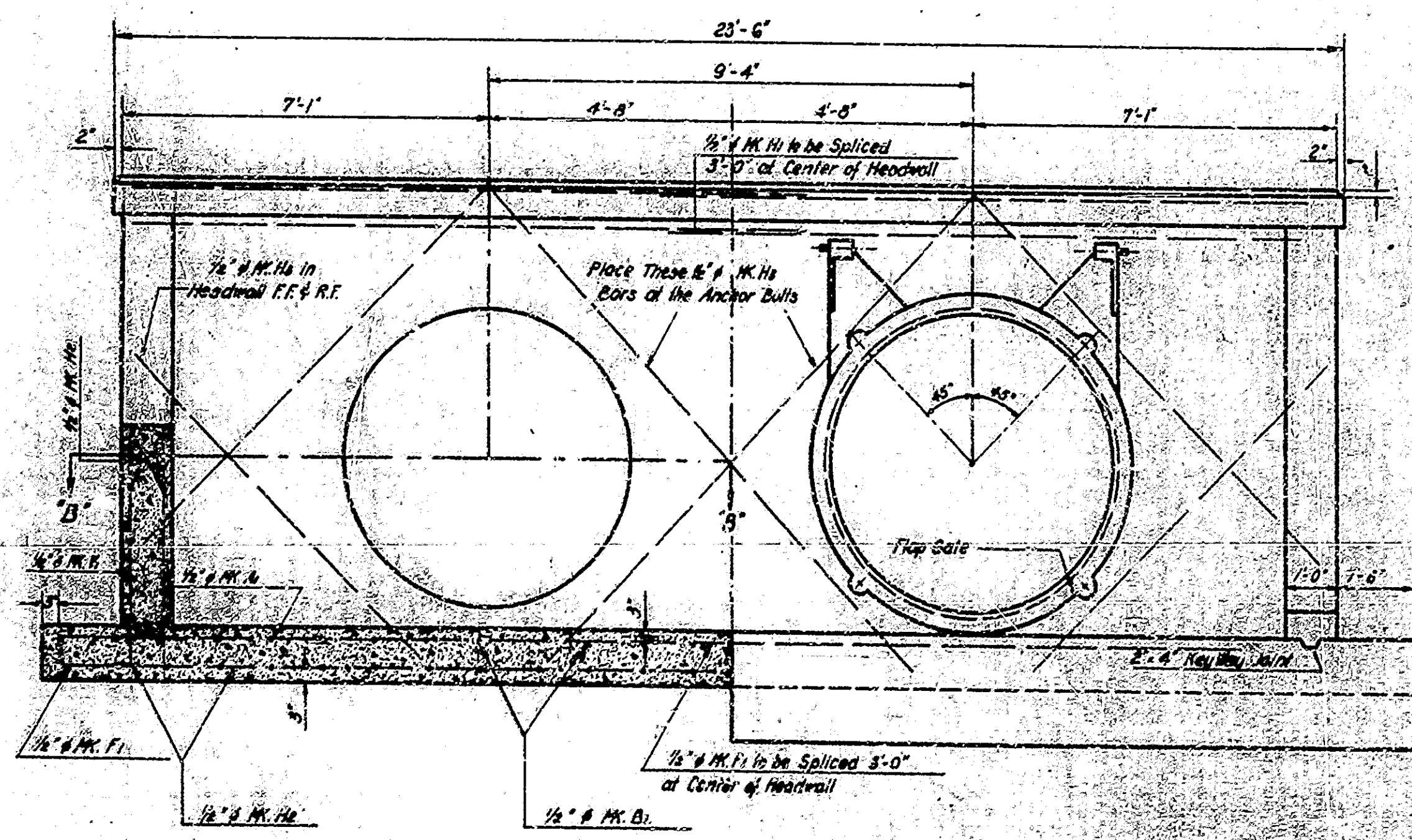


SECTION 'B-B' PART PLAN

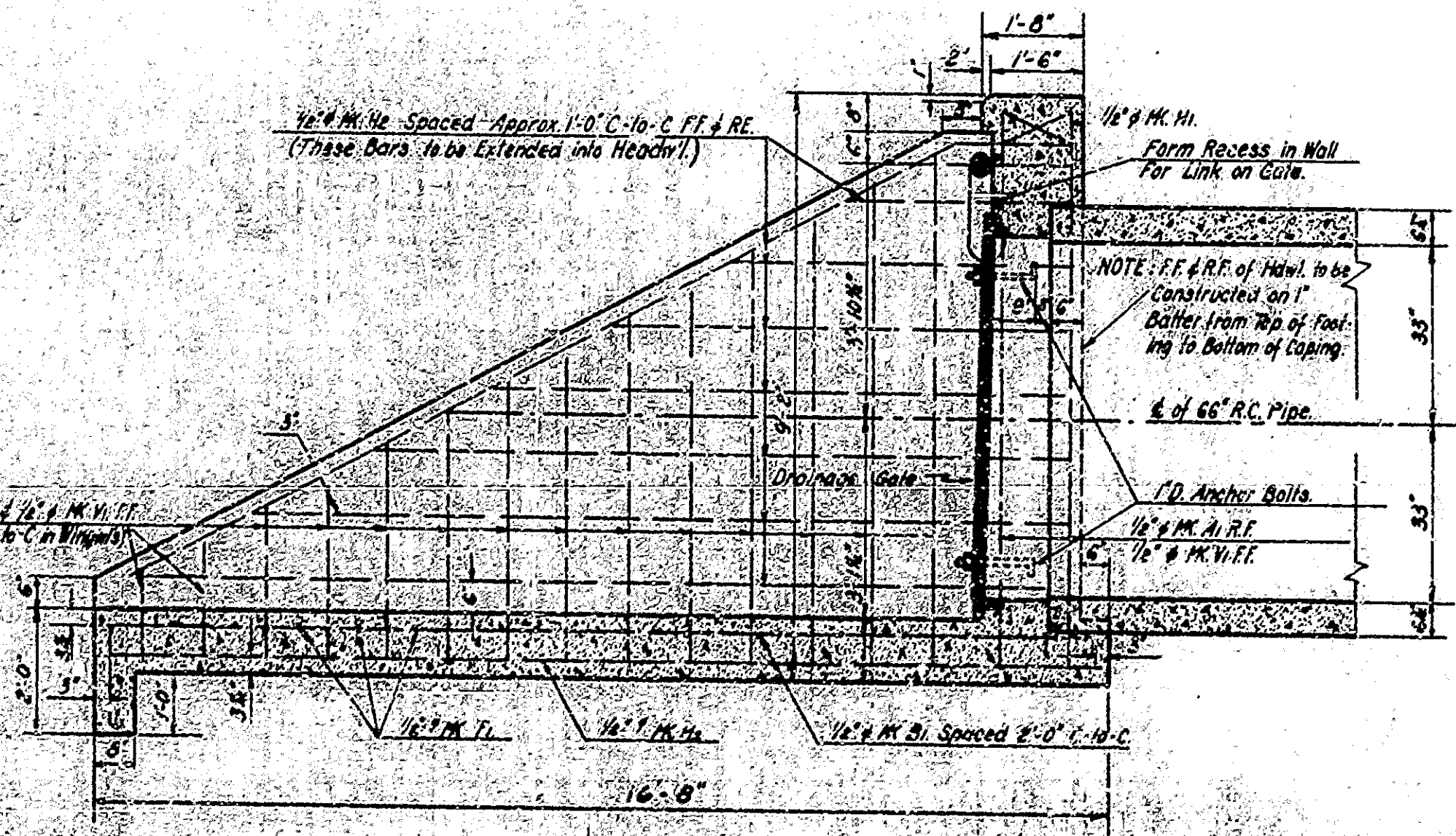
HEADWALL INCLUDING WINGS AT OUTLET END									
REINFORCING STEEL 1/2" #									
BARS A	BARS B	BARS C	BARS D	BARS E	BARS F	BARS G	BARS H	BARS I	BARS J
No.	Length	No.	Length	No.	Length	No.	Length	No.	Length
4	5'-2"	4	18'-1"	36	14'-6"	8	15'-0"	4	3'-6"
4	6'-0"			(120)				4	9'-6"
4	7'-0"							4	12'-3"
4	8'-0"							4	4'-3"
4	9'-0"							4	5'-3"
4	10'-0"							4	6'-3"
4	11'-0"							4	7'-3"
4	12'-0"							4	8'-3"
4	13'-0"							4	9'-3"
4	14'-0"							4	10'-3"
4	15'-0"							4	11'-3"
4	16'-0"							4	12'-3"
4	17'-0"							4	13'-3"
4	18'-0"							4	14'-3"
4	19'-0"							4	15'-3"
4	20'-0"							4	16'-3"
4	21'-0"							4	17'-3"
4	22'-0"							4	18'-3"
4	23'-0"							4	19'-3"
4	24'-0"							4	20'-3"
4	25'-0"							4	21'-3"
4	26'-0"							4	22'-3"
4	27'-0"							4	23'-3"
4	28'-0"							4	24'-3"
4	29'-0"							4	25'-3"
4	30'-0"							4	26'-3"
4	31'-0"							4	27'-3"
4	32'-0"							4	28'-3"
4	33'-0"							4	29'-3"
4	34'-0"							4	30'-3"
4	35'-0"							4	31'-3"
4	36'-0"							4	32'-3"
4	37'-0"							4	33'-3"
4	38'-0"							4	34'-3"
4	39'-0"							4	35'-3"
4	40'-0"							4	36'-3"
4	41'-0"							4	37'-3"
4	42'-0"							4	38'-3"
4	43'-0"							4	39'-3"
4	44'-0"							4	40'-3"
4	45'-0"							4	41'-3"
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4	47'-0"							4	43'-3"
4	48'-0"							4	44'-3"
4	49'-0"							4	45'-3"
4	50'-0"							4	46'-3"
4	51'-0"							4	47'-3"
4	52'-0"							4	48'-3"
4	53'-0"							4	49'-3"
4	54'-0"							4	50'-3"
4	55'-0"							4	51'-3"
4	56'-0"							4	52'-3"
4	57'-0"							4	53'-3"
4	58'-0"							4	54'-3"
4	59'-0"							4	55'-3"
4	60'-0"							4	56'-3"
4	61'-0"							4	57'-3"
4	62'-0"							4	58'-3"
4	63'-0"							4	59'-3"
4	64'-0"							4	60'-3"
4	65'-0"							4	61'-3"
4	66'-0"							4	62'-3"
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4	83'-0"							4	79'-3"
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4	85'-0"							4	81'-3"
4	86'-0"							4	82'-3"
4	87'-0"							4	83'-3"
4	88'-0"							4	84'-3"
4	89'-0"							4	85'-3"
4	90'-0"							4	86'-3"
4	91'-0"							4	87'-3"
4	92'-0"							4	88'-3"
4	93'-0"							4	89'-3"
4	94'-0"							4	90'-3"
4	95'-0"							4	91'-3"
4	96'-0"							4	92'-3"
4	97'-0"							4	93'-3"
4	98'-0"							4	94'-3"
4	99'-0"							4	95'-3"
4	100'-0"							4	96'-3"



1/2" # MK A1, 1/2" # MK B1



SECTION 'A-A' HALF END ELEVATION



SECTION C-C

**GENERAL NOTES**

- All concrete to be Class 'D'
- Bevel forms 1/4" on under side of all copings.
- Chamfer all exposed edge 3/4" except coping.
- Rear faces of wings & headwalls to be waterproofed in accordance with specifications.
- Reinforcing steel bar areas & weight in accordance with standards adopted in 1934, by Concrete Reinforcing Steel Institute.
- Reinforcing Steel to be embedded 2' unless otherwise noted.

SEPT. 11, 1961

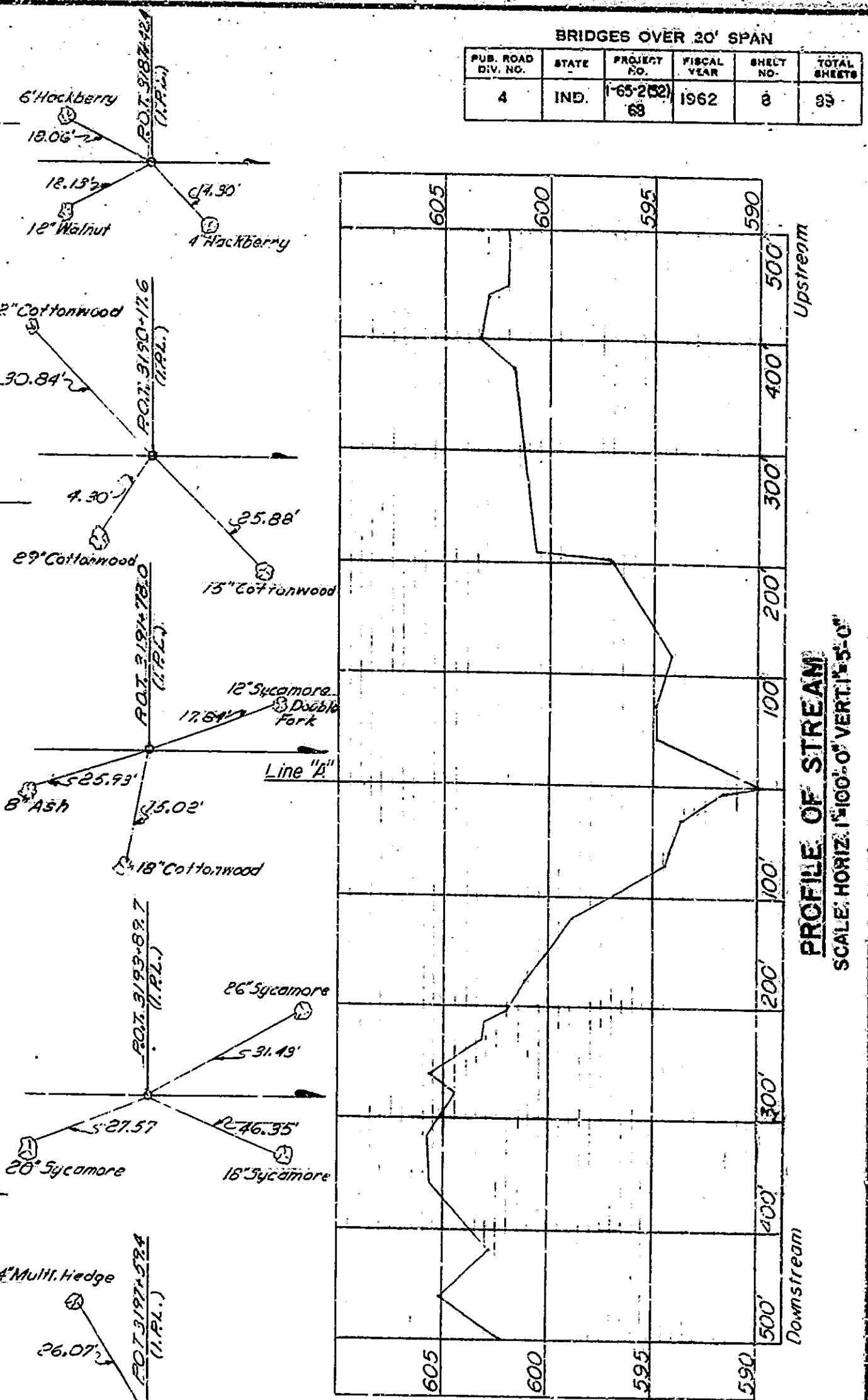
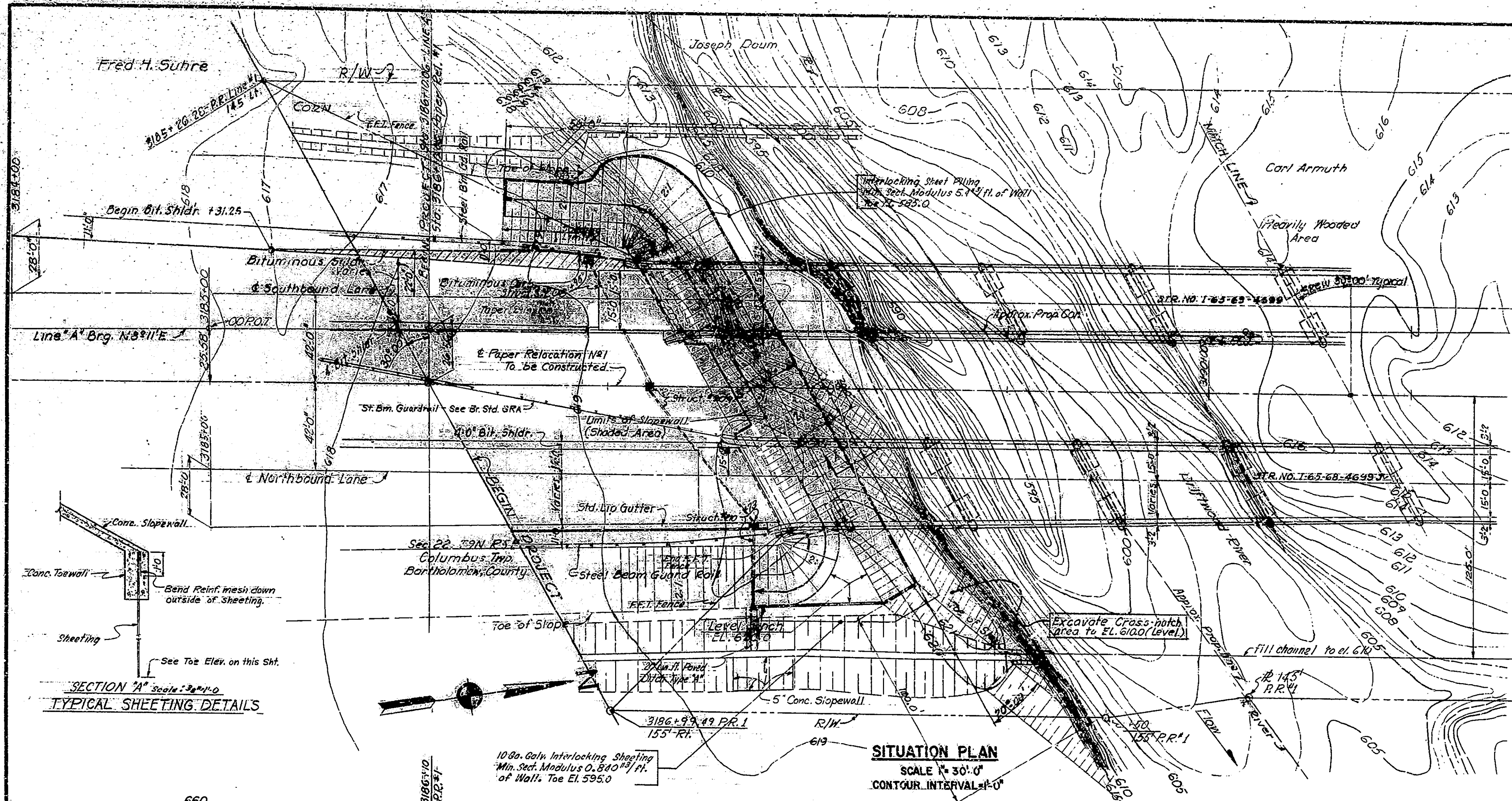
**DETAILS**  
SPECIAL HEADWALL  
OUTLET END  
STRUCTURE NO 206

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

NO. 4783

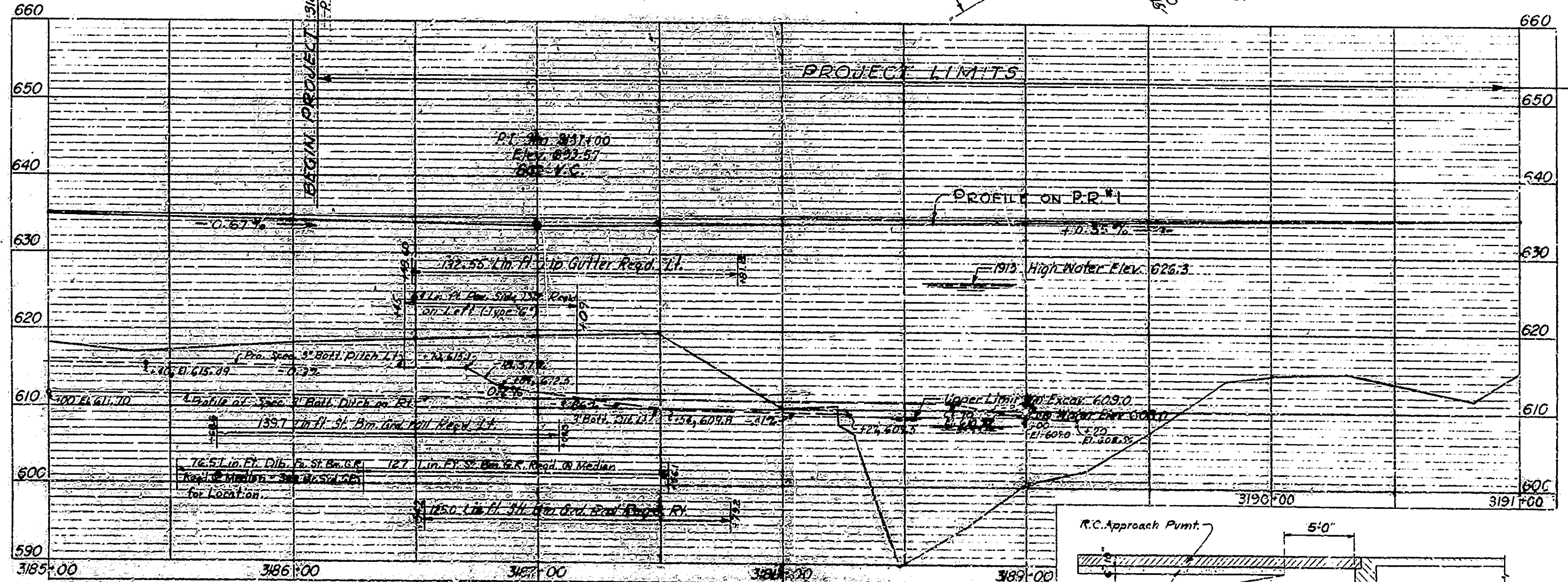
NO. 5221

BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2(52)	1962	8	99



SECTION A' Scale: 1"=10'-0"  
TYPICAL SHEETING DETAILS

SITUATION PLAN  
SCALE 1"=30'-0"  
CONTOUR INTERVAL=1'-0"



PROFILE ON SURVEY & 'X'  
SCALE HORIZ. 1"=30'-0" VERT. 1"=5'-0"

STREAM DATA:  
Drainage Area = 1147.9 sq. mi.  
Rolling, wooded and cultivated.

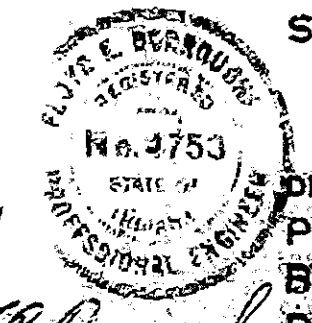
EARTHWORK TABULATION  
Fill Plus 20% = 114,135 Cu. Yds.  
Waterway Excavation = 118,345 Cu. Yds.  
Surplus Foundation Excavation = 695 Cu. Yds.  
Common Excavation = 7,420 Cu. Yds.  
Waste = 12,325 Cu. Yds.

LAYOUT  
SINGLE STRUCTURES  
CONTINUOUS STEEL BEAM & R.C. GIRDER BRIDGE  
15 Spans: 30'-0", 62'-6", 3@75'-0", 8@75'-0", 62'-6", 30'-0" - M. Bd. Structure  
15 Spans: 30'-0", 62'-6", 11@75'-0", 62'-6", 30'-0" - S. Bd. Structure  
Skew: 30'-0" Lt.  
Northbound Structure Tapered  
INTERSTATE ROUTE NO. 65 OVER DRIFTWOOD RIVER

STATE HIGHWAY DEPARTMENT OF INDIANA  
BARTHOLOMEW COUNTY

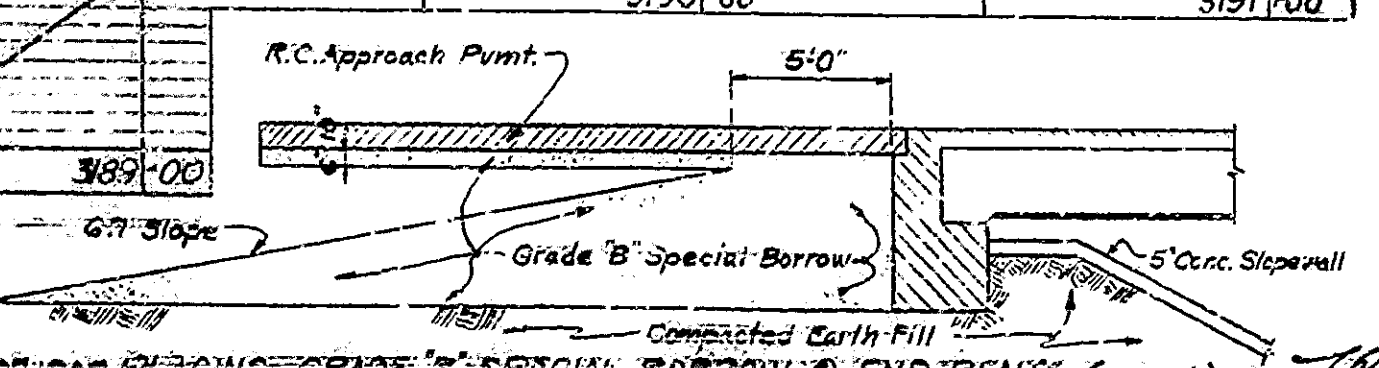
SEPT. 11, 1961

SCALE: As Noted  
SUBMITTED FOR APPROVAL: B. R. ...



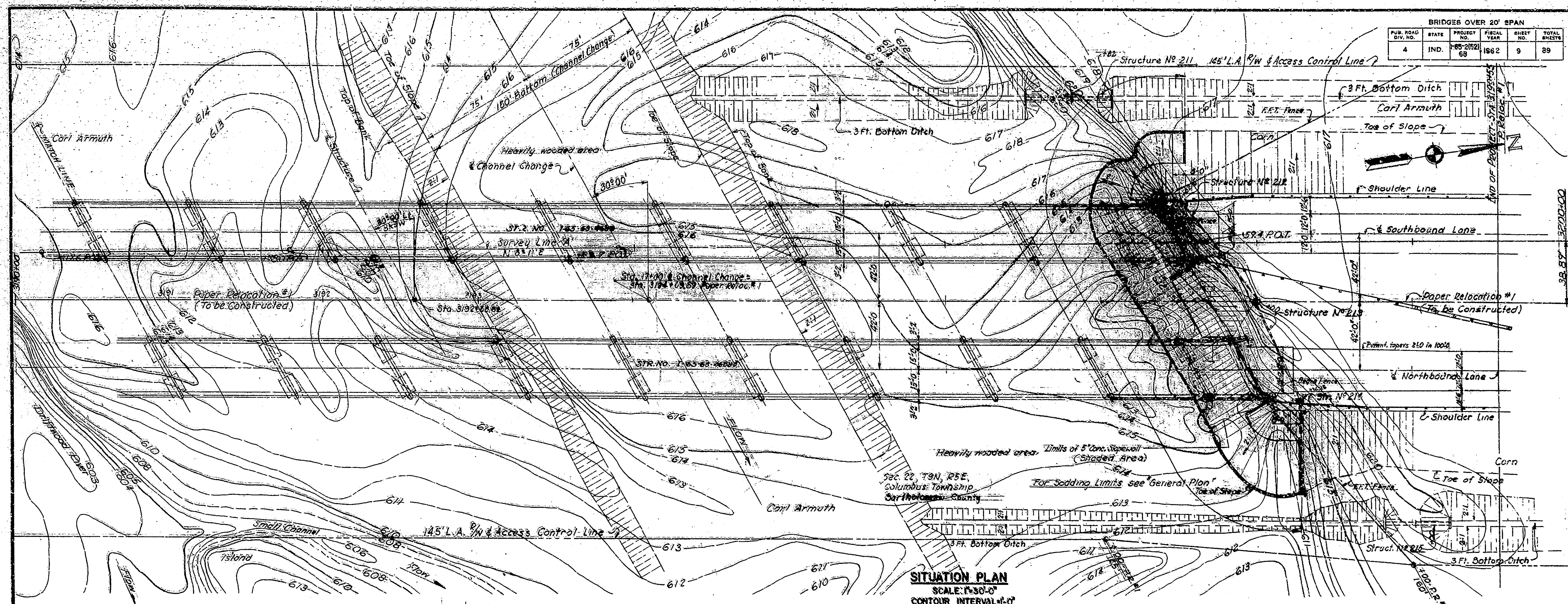
DRAWING: S1 OF 543  
PROJECT: 1-65-2 (52) 68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: 1-65-68-4699, 4699 J

DESIGNED: J.C.C. C.W.D.  
DRAWN: J.C.C. C.W.D. E.A.D.  
TRACED: J.C.C. C.W.D. E.A.D.



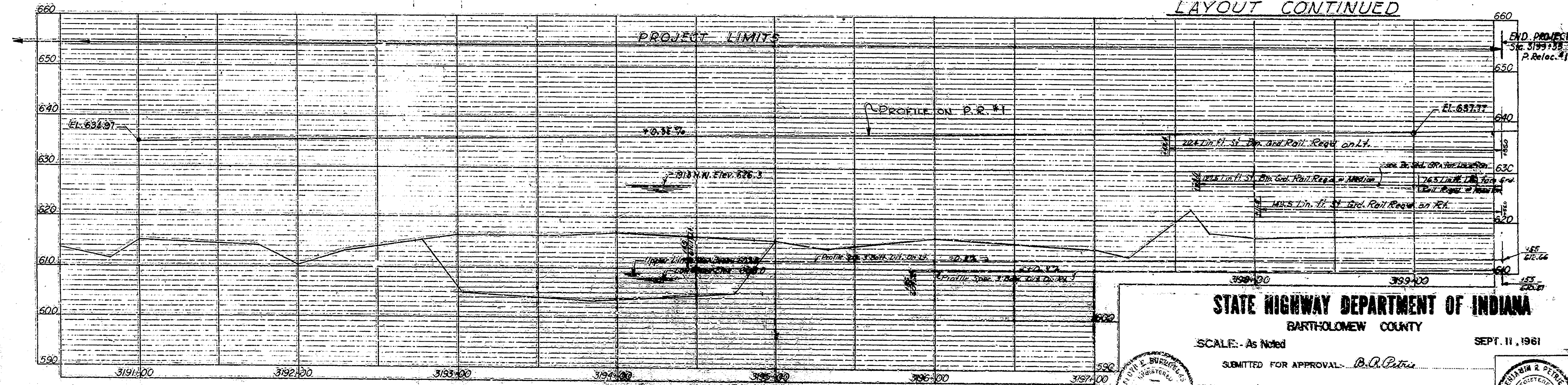
NOTE: END BENTS ARE NOT TO BE PLACED ON GRADE B SPECIAL BORROW. END BENTS (No scale)

BRIDGES OVER 20' SPAN						
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
4	IND.	I-65-2(52)68	1962	9	89	



**SITUATION PLAN**  
SCALE: 1"=30'-0"  
CONTOUR INTERVAL: 1'-0"

LAYOUT CONTINUED



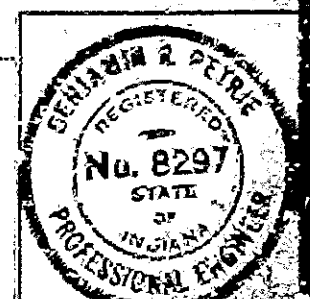
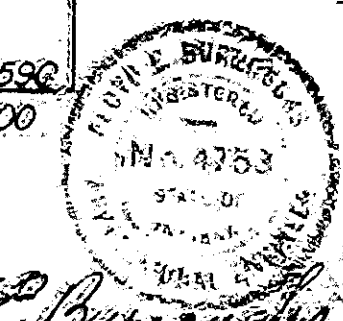
**PROFILE ON SURVEY S.M.**  
SCALE: HORIZ. 1"=30'-0" VERT. 1"=6'-0"

**STATE HIGHWAY DEPARTMENT OF INDIANA**  
BARTHOLOMEW COUNTY

SCALE: - As Noted  
SEPT. 11, 1961

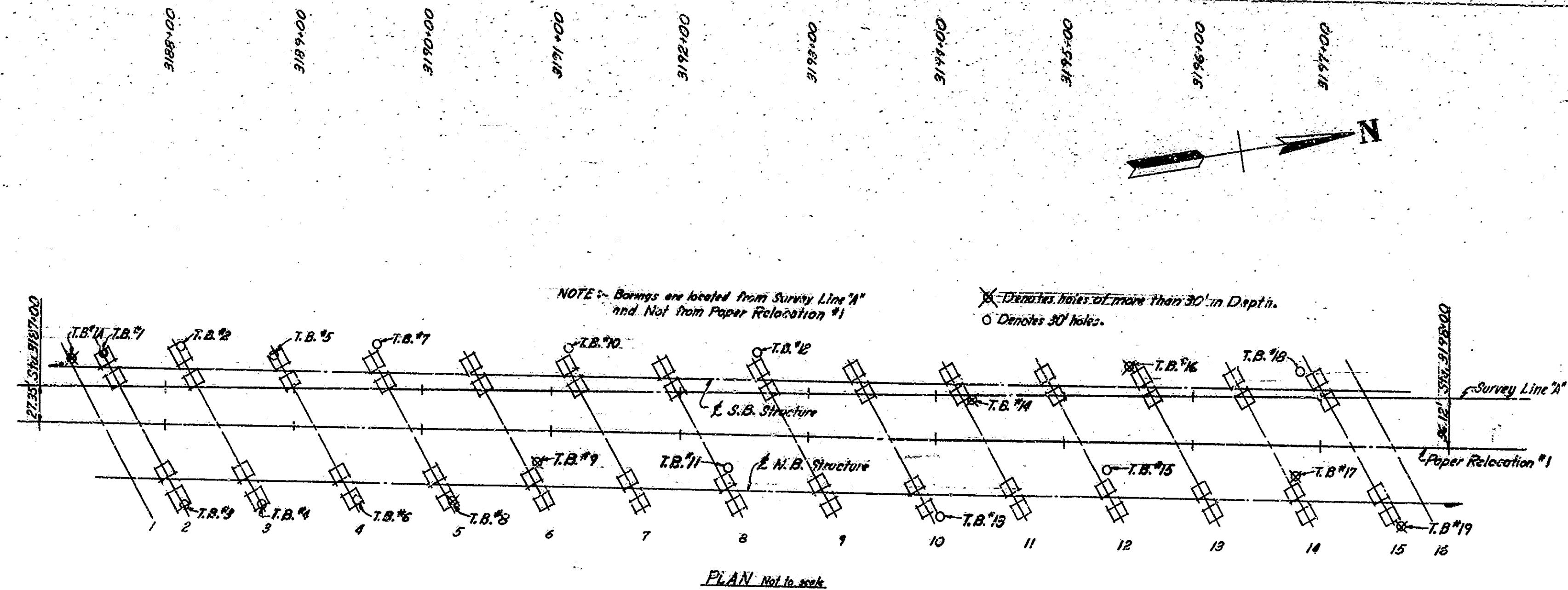
SUBMITTED FOR APPROVAL: *B. A. Petrus*

DRAWING: S2 OF S45  
PROJECT: I-65-2(52)68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: I-65-68-4699, 4699J



DESIGNED: C.K.D.  
DRAWN: J.C.C. C.K.D. J.E.B.  
TRACED: J.E.B. C.K.D. J.E.B.

DATE	1-23-65	BY	J.P.
SCALE	1"=10'-0"	PROJECT	1-65-2(S2)68
NO.	10	BRIDGE CONTRACT NO.	5427
		BRIDGE FILE NO.	1-65-08-4699



NOTE: - Denotes Ground Water Table.  
N Indicates the number of Blows required to Drive a 14" I.D. 2" O.D. Split Spoon sampler 12" by means of a 140 lb weight falling 30".

BORING NO.	T.B. #1 3187+00		T.B. #2 3188+25		T.B. #3 3189+21.5		T.B. #4 3188+80		T.B. #5 3188+80		T.B. #6 3187+40		T.B. #7 3187+65	
	NO.	N	NO.	N	NO.	N	NO.	N	NO.	N	NO.	N	NO.	N
620					621.5									
					612.5									
610					607.5									
					602.5									
600					597.5									
					592.5									
590					587.5									
					582.5									
580					577.5									
					572.5									
570					567.5									
					562.5									
560					557.5									
					552.5									
550					547.5									
					542.5									
530					537.5									
					532.5									
520					527.5									
					522.5									

**SOIL BORINGS**  
 SCALE: HORIZ. NONE, VERT. 1"=10'-0"  
 SUBMITTED FOR APPROVAL: *L. J. Burroughs*  
 PROJECT: 1-65-2(S2)68  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: 1-65-08-4699

SEPT. 11, 1961

FIELD BUREAU  
 No. 4753  
 ST. LOUIS  
 MISSOURI



NOTE:  
For Plan of Borings see Sht. # 53

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 12" by  
means of a 140# Weight Falling 30".

BORING No.	T.B. #8 3194.34 31' RL GROUND ELEV. 668.10			T.B. #9 3194.38 31' RL 612.5			T.B. #10 3194.47 30' RL 618.5			T.B. #11 3194.57 30' RL 619.0			T.B. #12 3194.67 30' RL 616.8			T.B. #13 3194.09 30' RL 616.0			T.B. #14 3194.30 31' RL 615.7					
	SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION
				618.8				Ground Level				618.8				Ground Level				616.0				Ground Level
				618.2				Topsoil				618.2				Topsoil				616.2				Topsoil
610				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
600				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand				616.2				Moist sand
				618.0				Moist sand				618.0				Moist sand								

NOTES  
For Plan of Borings see Sht. #59

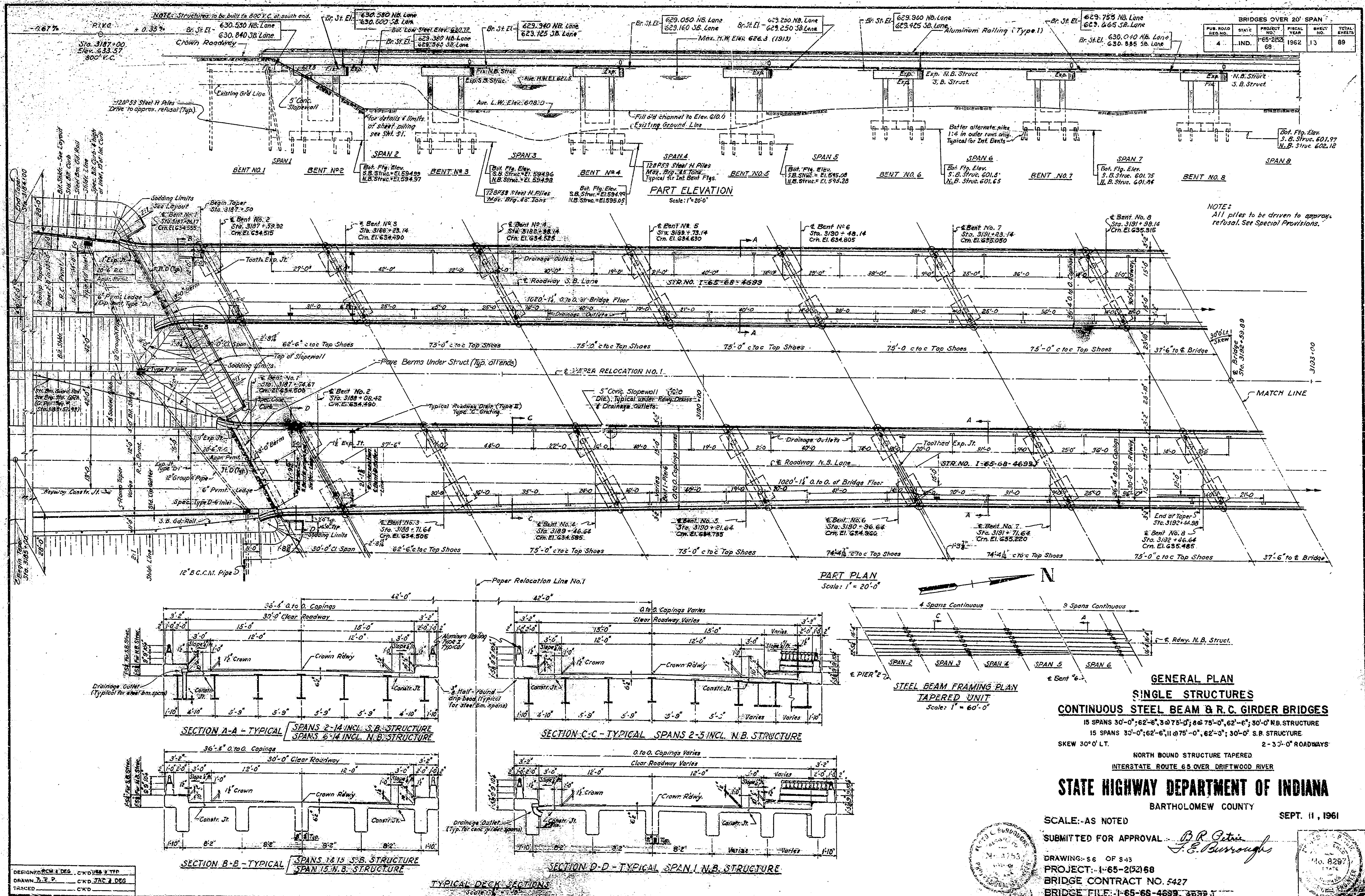
NOTES  
\*Denotes Ground Water Table.  
N indicates the number of Blows required to Drive  
a 1 1/2" I.D. 2" O.D. Split Spoon sampler 12" by  
means of a 140# weight falling 30".

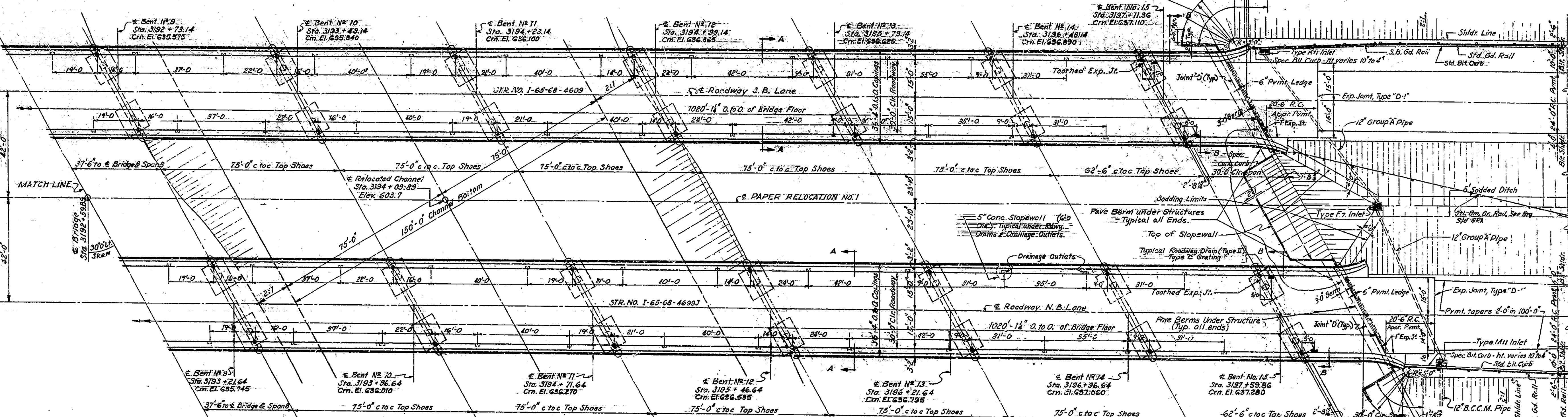
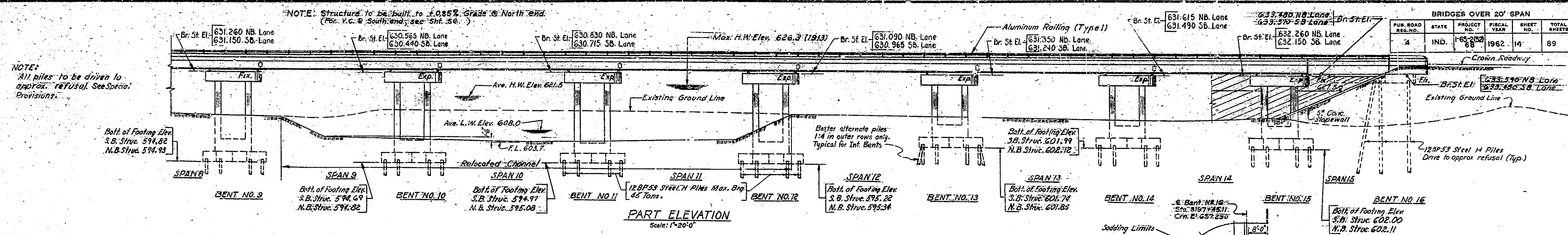
BORING NO.	T.B. #15	T.B. #16	T.B. #17	T.B. #18	T.B. #19	T.B. #1A													
STATION	3195+00	3195+88	3196+90	3197+05	3197+66	3197+25													
OFFSET	65' RS	18' L.	65' RS	17' LL	89' RS	21' LL													
GROUND ELEV.	616.0	616.7	616.0	618.6	618.5	619.7													
SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION
620	616.0		Ground Level	616.7			Ground Level	618.6			Ground Level	618.5			Ground Level	619.7			Ground Level
	616.2		Topsoil	616.2			Topsoil	618.6			Topsoil	618.5			Topsoil	619.7			Topsoil
610	616.4	1	Brown moist heavy fine SAND.	616.4	1	1	Brown moist heavy fine SAND.	618.6	1	1	Brown moist heavy fine SAND.	618.5	1	1	Brown moist heavy fine SAND.	619.7	1	1	Brown moist heavy fine SAND.
	616.4	2		616.4	2	2		618.6	2	2		618.5	2	2		619.7	2	2	
	616.4	3		616.4	3	3		618.6	3	3		618.5	3	3		619.7	3	3	
500	596.0	7	Brown moist heavy coarse SAND and gravel.	596.0	7	7	Brown moist heavy coarse SAND and gravel.	596.0	7	7	Brown moist heavy coarse SAND and gravel.	596.0	7	7	Brown moist heavy coarse SAND and gravel.	596.0	7	7	Brown moist heavy coarse SAND and gravel.
	596.0	8		596.0	8	8		596.0	8	8		596.0	8	8		596.0	8	8	
580	591.0	7	Gray wet clayey SILT with fine gray sand layers.	591.0	7	7	Gray wet soft clayey SILT.	591.0	7	7	Gray stiff clayey SILT with fine sand.	591.0	7	7	Gray moist medium SILT clayey SILT with sand layers.	591.0	7	7	Gray fine willy SAND.
	591.0	8		591.0	8	8		591.0	8	8		591.0	8	8		591.0	8	8	
	591.0	9		591.0	9	9		591.0	9	9		591.0	9	9		591.0	9	9	
580	586.0	7	End of Boring	586.0	7	7	End of Boring	586.0	7	7	End of Boring	586.0	7	7	End of Boring	586.0	7	7	End of Boring
	586.0	8		586.0	8	8		586.0	8	8		586.0	8	8		586.0	8	8	
	586.0	9		586.0	9	9		586.0	9	9		586.0	9	9		586.0	9	9	
570	571.7	5		571.7	5	5		571.7	5	5		571.7	5	5		571.7	5	5	
	571.7	6		571.7	6	6		571.7	6	6		571.7	6	6		571.7	6	6	
	571.7	7		571.7	7	7		571.7	7	7		571.7	7	7		571.7	7	7	
550	562.4	18	Gray moist medium dense willy SAND.	562.4	18	18	Gray moist medium dense willy SAND.	562.4	18	18	Gray moist medium dense willy SAND.	562.4	18	18	Gray moist medium dense willy SAND.	562.4	18	18	Gray moist medium dense willy SAND.
	562.4	19		562.4	19	19		562.4	19	19		562.4	19	19		562.4	19	19	
	562.4	20		562.4	20	20		562.4	20	20		562.4	20	20		562.4	20	20	
550	552.8	119/14	Gray SHALE.	552.8	119/14	119/14	Gray SHALE.	552.8	119/14	119/14	Gray SHALE.	552.8	119/14	119/14	Gray SHALE.	552.8	119/14	119/14	Gray SHALE.
	552.8	120/14		552.8	120/14	120/14		552.8	120/14	120/14		552.8	120/14	120/14		552.8	120/14	120/14	
	552.8	121/14		552.8	121/14	121/14		552.8	121/14	121/14		552.8	121/14	121/14		552.8	121/14	121/14	
540	541.7	11	Low recovery on shale likely due to grinding action of gravel found in core barrel.	541.7	11	11	Low recovery on shale likely due to grinding action of gravel found in core barrel.	541.7	11	11	Low recovery on shale likely due to grinding action of gravel found in core barrel.	541.7	11	11	Low recovery on shale likely due to grinding action of gravel found in core barrel.	541.7	11	11	Low recovery on shale likely due to grinding action of gravel found in core barrel.
	541.7	12		541.7	12	12		541.7	12	12		541.7	12	12		541.7	12	12	
	541.7	13		541.7	13	13		541.7	13	13		541.7	13	13		541.7	13	13	
530	531.7	5		531.7	5	5		531.7	5	5		531.7	5	5		531.7	5	5	
	531.7	6		531.7	6	6		531.7	6	6		531.7	6	6		531.7	6	6	
	531.7	7		531.7	7	7		531.7	7	7		531.7	7	7		531.7	7	7	
520	520.7	20	Gray moist medium dense willy SAND.	520.7	20	20	Gray moist medium dense willy SAND.	520.7	20	20	Gray moist medium dense willy SAND.	520.7	20	20	Gray moist medium dense willy SAND.	520.7	20	20	Gray moist medium dense willy SAND.
	520.7	21		520.7	21	21		520.7	21	21		520.7	21	21		520.7	21	21	
	520.7	22		520.7	22	22		520.7	22	22		520.7	22	22		520.7	22	22	
510	511.7	11		511.7	11	11		511.7	11	11		511.7	11	11		511.7	11	11	
	511.7	12		511.7	12	12		511.7	12	12		511.7	12	12		511.7	12	12	
	511.7	13		511.7	13	13		511.7	13	13		511.7	13	13		511.7	13	13	
500	501.7	11		501.7	11	11		501.7	11	11		501.7	11	11		501.7	11	11	
	501.7	12		501.7	12	12		501.7	12	12		501.7	12	12		501.7	12	12	
	501.7	13		501.7	13	13		501.7	13	13		501.7	13	13		501.7	13	13	

SOIL BORINGS  
SCALE: HORIZ. NONE, VERT. 1"=10'-0"  
SUBMITTED FOR APPROVAL: *H. Burroughs*  
PROJECT - 1-65-2(52)68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE - 1-65-68-4639

SEPT. 11, 1961

FLOYD E. BURROUGHS  
REGISTERED PROFESSIONAL ENGINEER  
NO. 4753





**GENERAL NOTES**

No present structure at proposed bridge site.

Depth of footings to be extended if found necessary. See Art. B 403.2 (a) of Specifications.

Piles shall have minimum bearing value shown on the detail drawings. Determine pile lengths by Art. F 203 of Specifications.

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

Reinforcing steel covering shall be 1 inch in floor slabs, 3 inches in footings except bottom steel which shall be 4 inches in all other parts unless noted.

Concrete in footings to be Class "1" Columns & Tie Beam to be Class "D".

Concrete in superstructure, including railing, parapet walls, bent caps and pier caps to be Class "1".

Concrete in structure not noted above, in steel encased concrete piles, concrete stopwall, headwalls, and abutments to be Class "D".

Continuous concrete pours will be required between construction joints as shown on detail plans.

Waterproof backs of bent caps and wings in accordance with Specifications.

Bevel forms 4' under copings, and chamfer exposed edges 1 inch unless noted.

Superstructure falsework to be released before pouring railing parapet wall.

100' roadway drainage outlets to be placed as shown on this drawing.

Construct 5' concrete stopwall at locations shown on layout.

Tolerance in position of pile head maximum 2 inches.

Three inch Exp. joints with Lead Transfer to be placed in approach pavement. See Bridge Standard M3.

All railings to be constructed vertical.

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

See Special Provisions for items included in this Contract.

**DESIGN DATA:**

Designed for H20-S16-44 loading in accordance with 1957 AASHTO Specifications.

Checked for 2-24000 lb. axle loads spaced 4'-0" apart.

Maximum Pile Load: 45.0 Tons

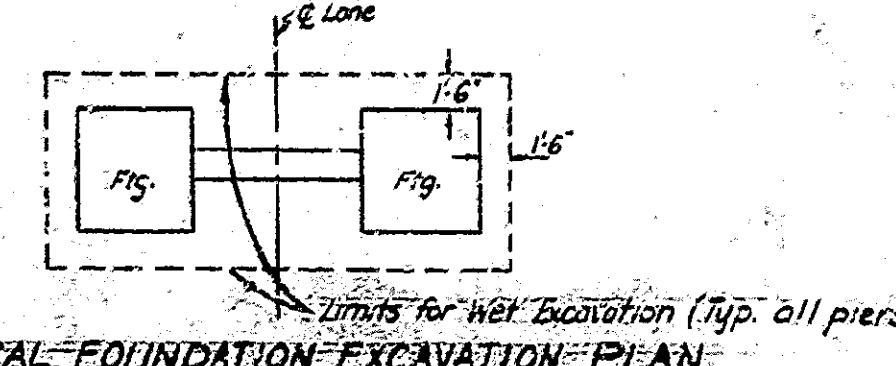
**TYPICAL CROSS SECTIONS:**

For typical cross section, see Road Standard's Divided Lane Sections for Federal Aid Interstate Projects.

**JOINT LEGEND:**

Joint "D" indicates a prepared joint filler under front of girder bearing area.

Exp. Joints: Same as 1" Exp. Jt. except thickness.



**STANDARD DRAWINGS**

BR. STD.	R.D. STD.	PURPOSE
C1		Pile Shell Splice, Bar Bending Details, Test Bar Samples, Reinf. Bar Notes, Notch in Slab End of Beams, Top, Rdwy. Drain Outlet details, 1" Exp. Jt., Splicing Steel H Piles.
D		Casting Details Roadway Drains
DRA		Top Beam Guard Rail Details
M		Paint Offsets, Soded Shld. Details, R/W Marker
MS		Slopewall - Special Concrete Curb
MS		R.C. Bridge Approach Details, Shldr. Drain Details, Location 1" Exp. Jt. with Lead Transfer
RCA		Aluminum Railing Details
A		Exp. Jts. Contr. Jts., Keyway Constr. Jt., Longit. Jt.
MD		Pavement offsets
MC		Joint Castings Type C & T
MD		Joint Castings Type II
MD		Trunks Type C & T
ME		Steel Culvert Details, Std. Lid Rafter, Faced Side Ditch
MP		Shldr. Pipe Pipe Anchors, Pipe for Surface Drainage
MQ		Right of Way Fence
EL/IR		Typ. Paint Details, Bit. Curb.
MS		Standard Detail Signs
MD		Class V Private Drive

**GENERAL PLAN**

**SINGLE STRUCTURES**

**CONTINUOUS STEEL BEAM & R.C. GIRDER BRIDGES**

15 SPANS 30'-0", 62'-6", 30'-0", 80'-75'-0", 62'-6", 30'-0" N.B. STRUCTURE

15 SPANS 30'-0", 62'-6", 110'-75'-0", 62'-6", 30'-0" S.B. STRUCTURE

SKREW 30° 0' LT. 2-30'-0" ROADWAYS

NORTH BOUND STRUCTURE TAPERED

INTERSTATE ROUTE 65 OVER DRIFTWOOD RIVER

**STATE HIGHWAY DEPARTMENT OF INDIANA**

BARTHOLOMEW COUNTY

SCALE: AS NOTED

SEPT. 11, 1961

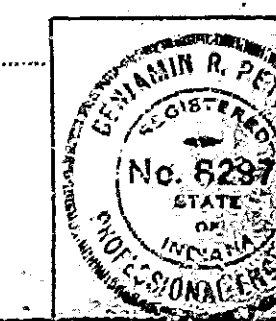
SUBMITTED FOR APPROVAL: *P. P. Patten*

DRAWING: 47 OF 543

PROJECT: I-65-2(52)68

BRIDGE CONTRACT NO. 5427

BRIDGE FILE: I-65-68-400-46003

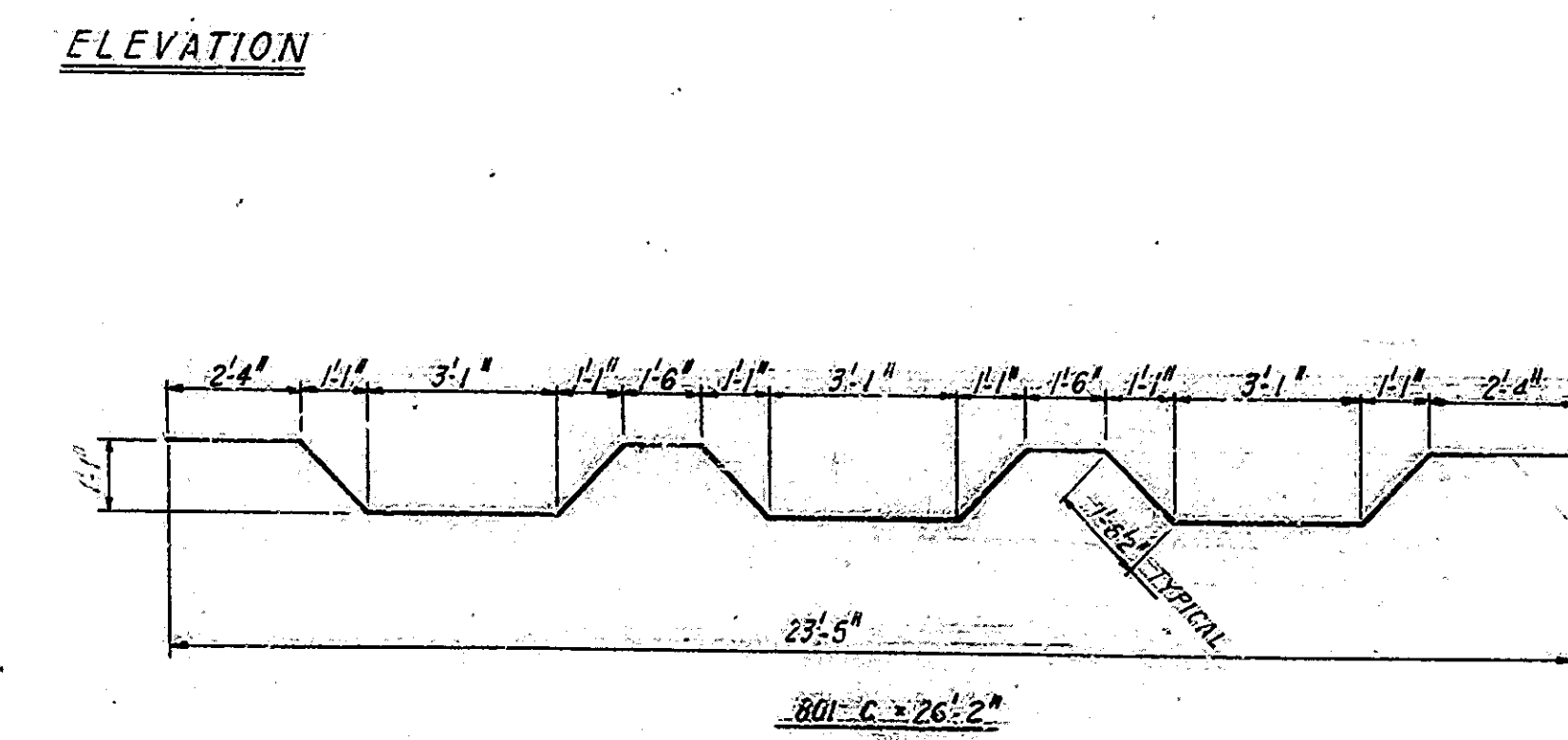
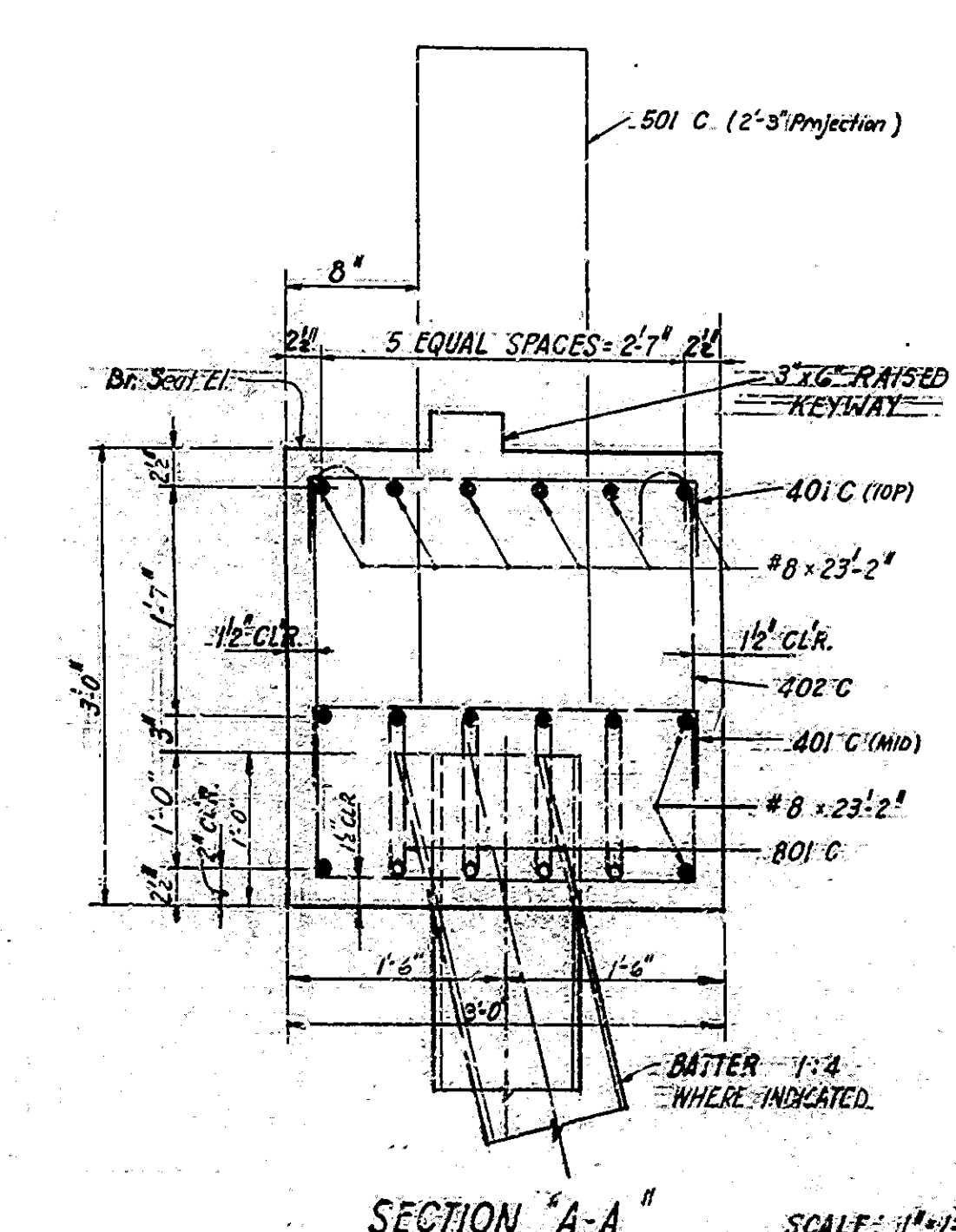
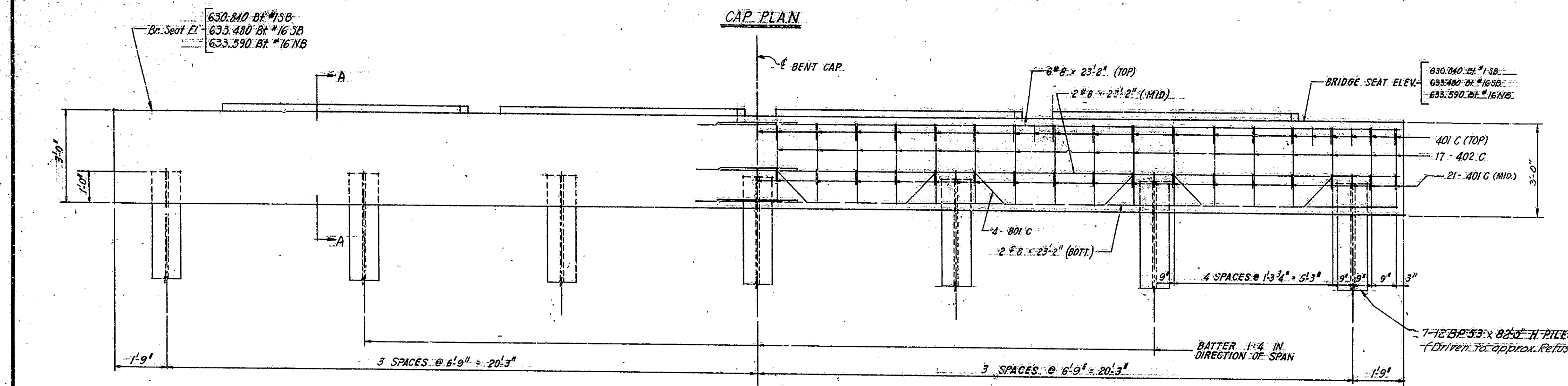
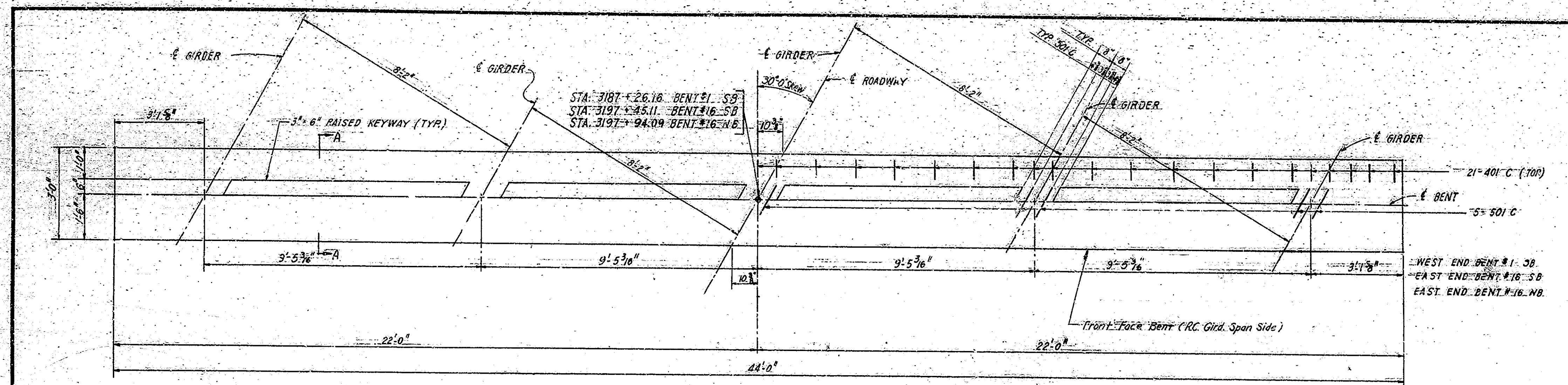


DESIGNED: R.H. DEG. C.W.D. DRG. & TYP.

DRAWN: S.W.P. C.W.D. JAC. & DEG.

TRACED: C.W.T.

BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (62)68	1962	18	89

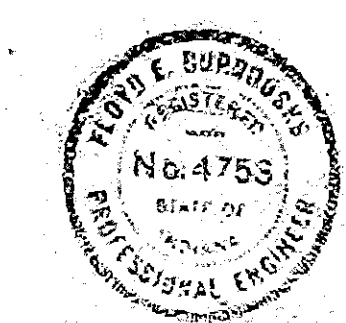
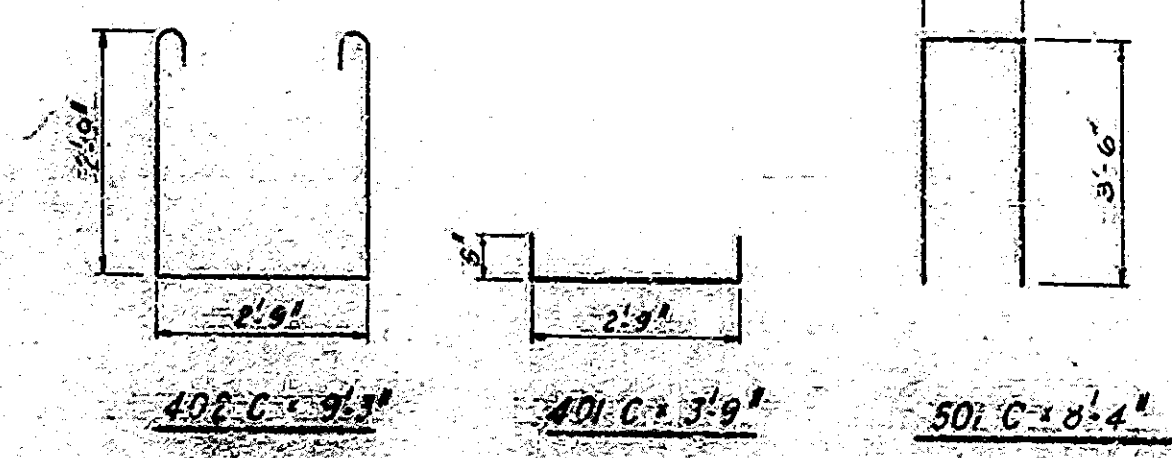


NOTES:  
 For reinforcing bar notes, see D.P.S.N.C.I.  
 Bent caps shall be poured until they top  
 2' above the top of the cap elevation  
 of the bottom of the cap.

BILL OF MATERIALS			
BENT # 1 SB			
REINFORCING STEEL			
SIZE OR MARK	NUMBER OF BARS	LENGTH	WEIGHT
#8	20	26'-2"	
			TOTAL# 81789
501 C	10	8'-4"	
			TOTAL# 587
401 C	22	3'-9"	
402 C	34	9'-3"	
			TOTAL# 416
TOTAL REINSTEEL 2392			
CONCRETE			
CLASS 1 F CAP 15453			
MISCELLANEOUS			
7-18 3/4" x 82'-0" H-PILES			
x-82'-0" 671000			

DESIGNED TEP CKD DCS  
 DRAWN LSPER CKD DEB  
 TRACED CKD

SECTION "A-A" SCALE: 1"=10'



BENT 1 & 16 SOUTHBOUND LANE  
 BENT 16 NORTHBOUND LANE  
 STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: 1/2"=1'-0" UNLESS NOTED

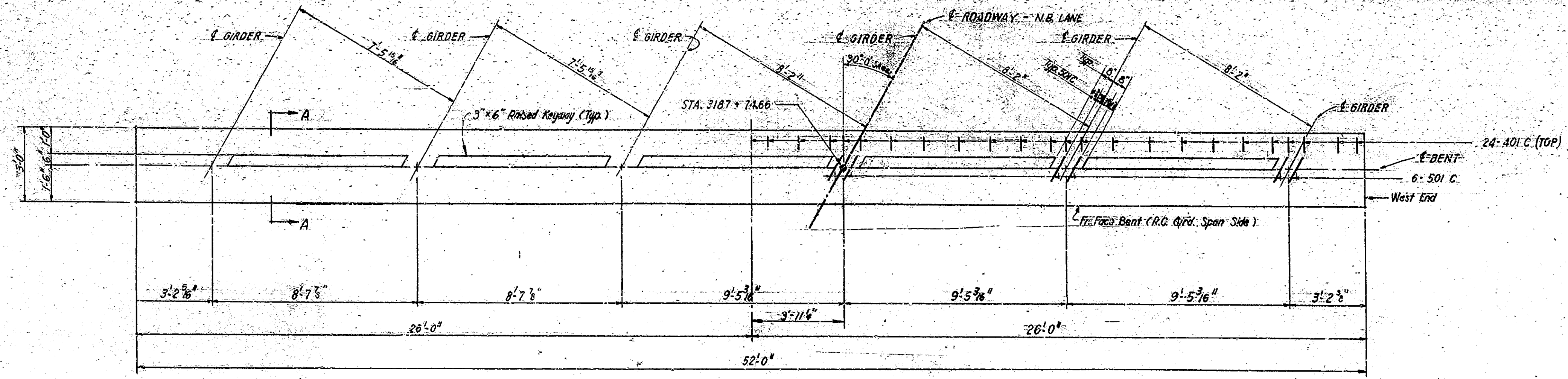
SUBMITTED FOR APPROVAL: *J. C. Burroughs*

DRAWING # 8 OF 543  
 PROJECT: 1-65-2(62)68  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: 1-65-68-4698, 4699J

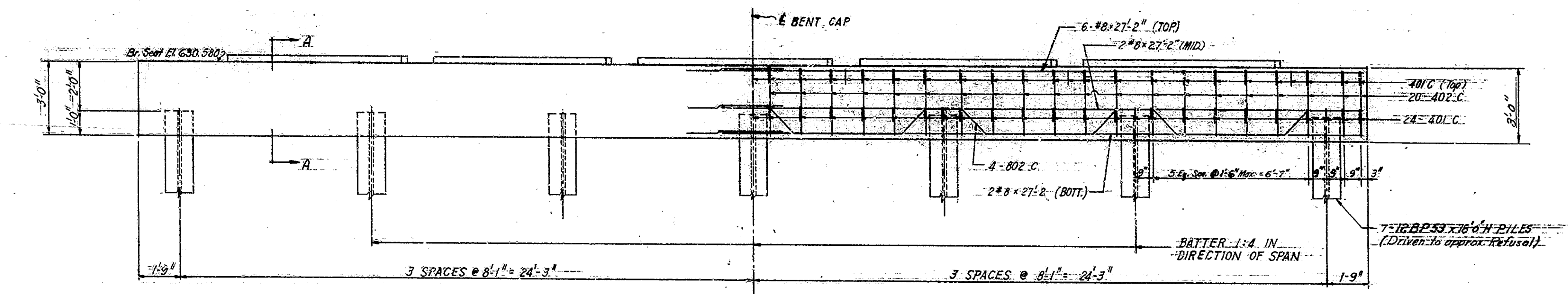
SEPT. 11, 1961



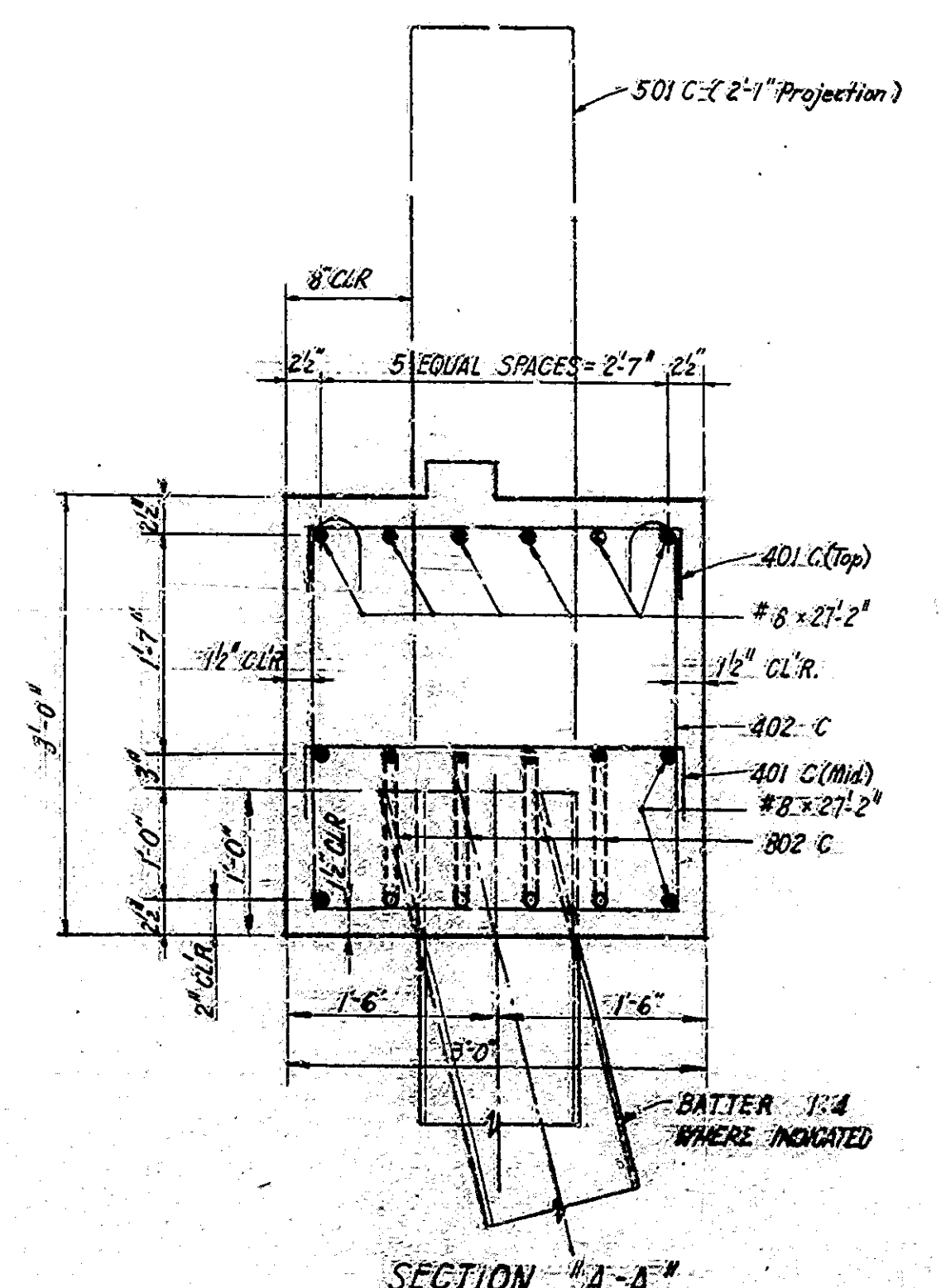
BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (52)68	1962	16	89



CAP PLAN

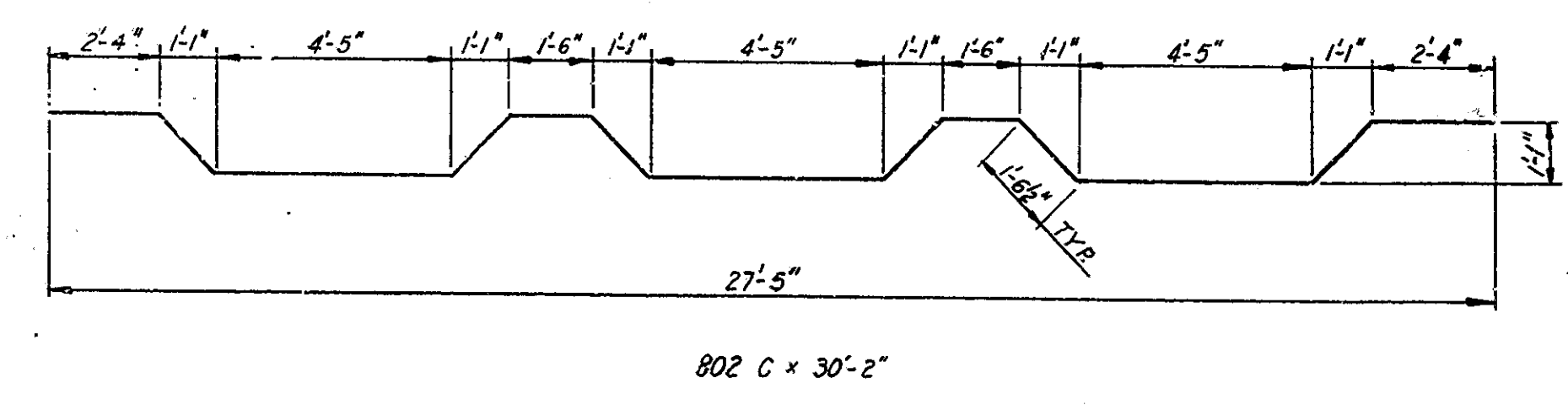


ELEVATION



SECTION A-A

SCALE: 3/4" = 1'-0"



NOTES:  
 For Reinforcing Bar Notes, See Bridge Std. D1.  
 Bent Cap Not To Be Poured Until After Fill Has Been Completed Up To Approx. Elevation Of The Bottom Of The Cap.  
 For Additional Bar Bending Details, See Dwg. 3B.

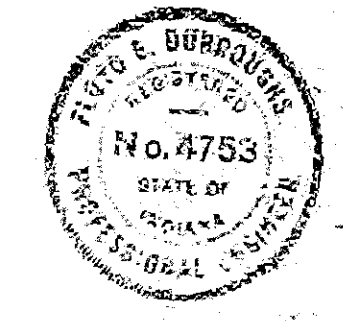
REINFORCING STEEL			
SIZE OR MARK	NUMBER OF BARS	LENGTH	WEIGHT
802 C	8	30'-2"	
#8	20	27'-2"	
TOTAL #8			2095
501 C	12	8'-1"	
TOTAL #5			104
401 C	94	3'-9"	
402 C	40	9'-3"	
TOTAL #4			618
TOTAL REIN. STEEL			2817
CONCRETE			
CLASS - F-1 CAP			
MISCELLANEOUS			
7-12 B.P. 53-H PILES			
x-78'-0"			
146 LBS.			

DESIGNED: J.E.P. C.K.D. D.E.G.  
 DRAWN: LeFeber C.K.D. D.E.S.  
 TRACED: C.K.D.

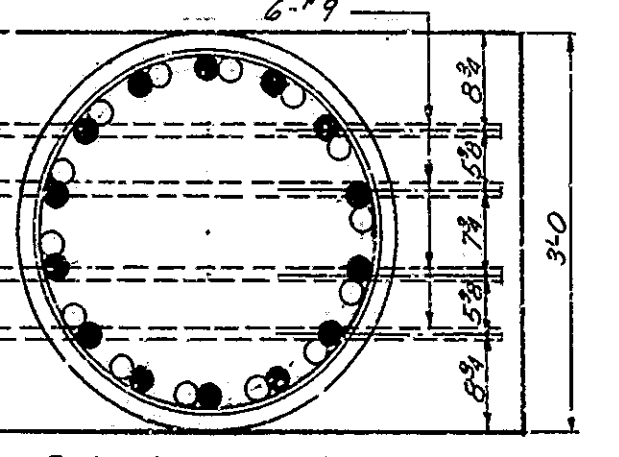
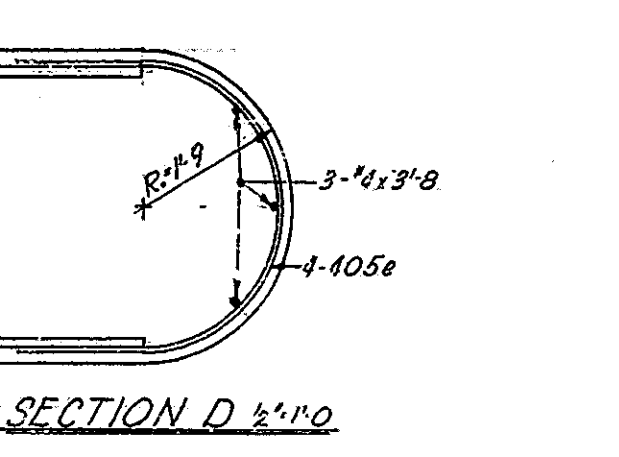
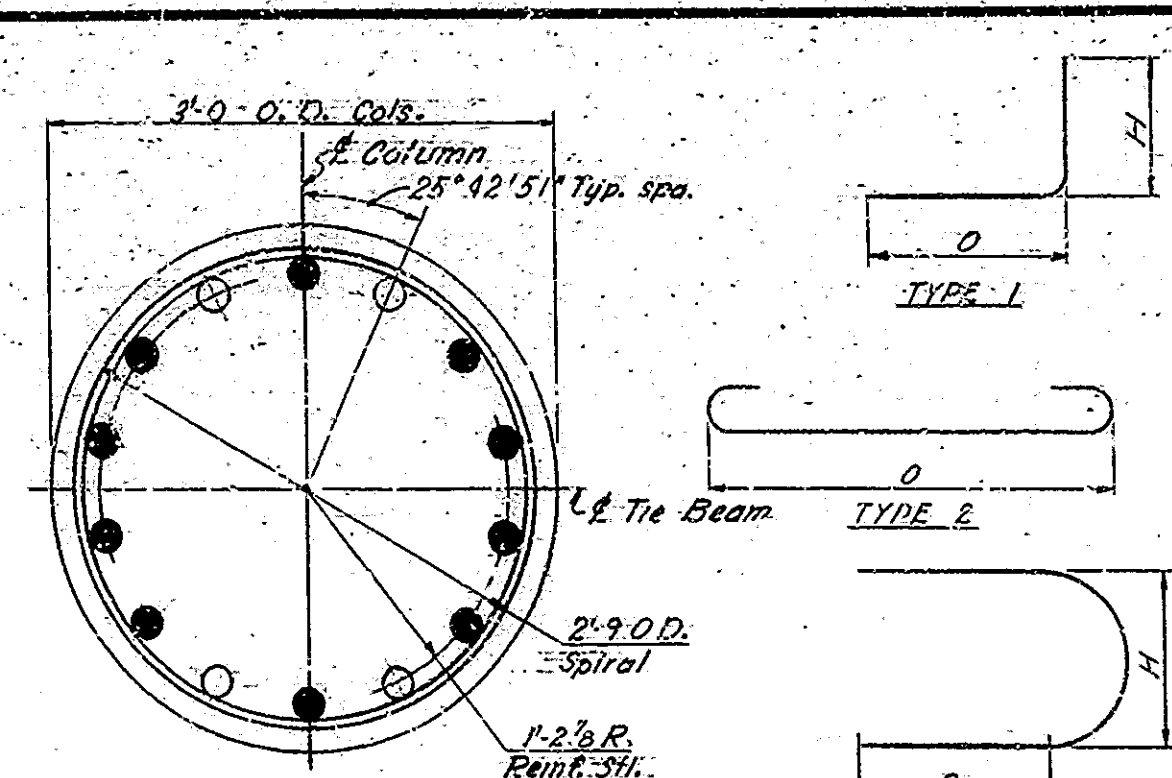
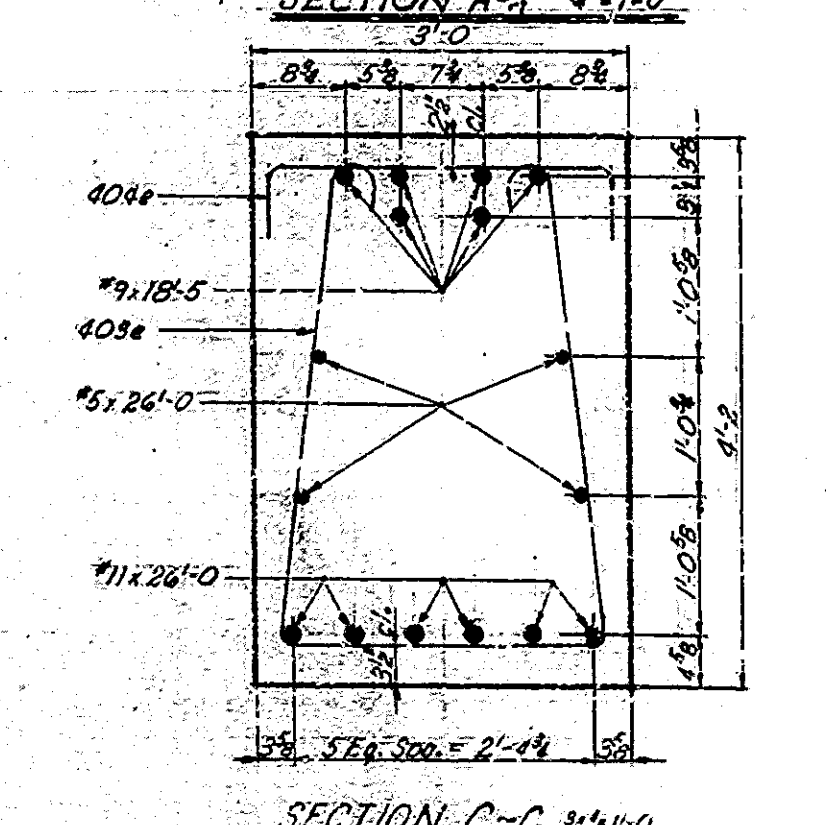
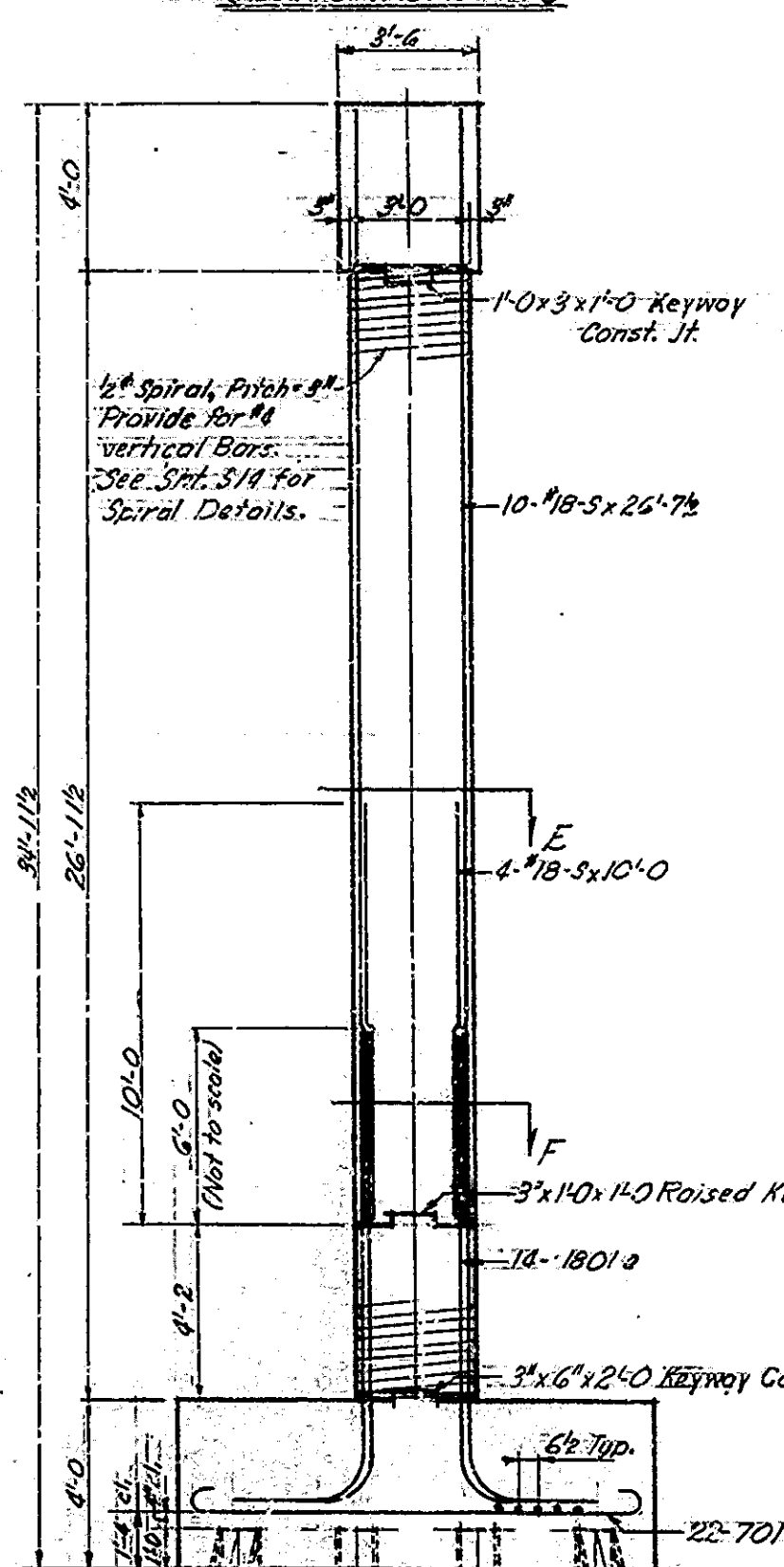
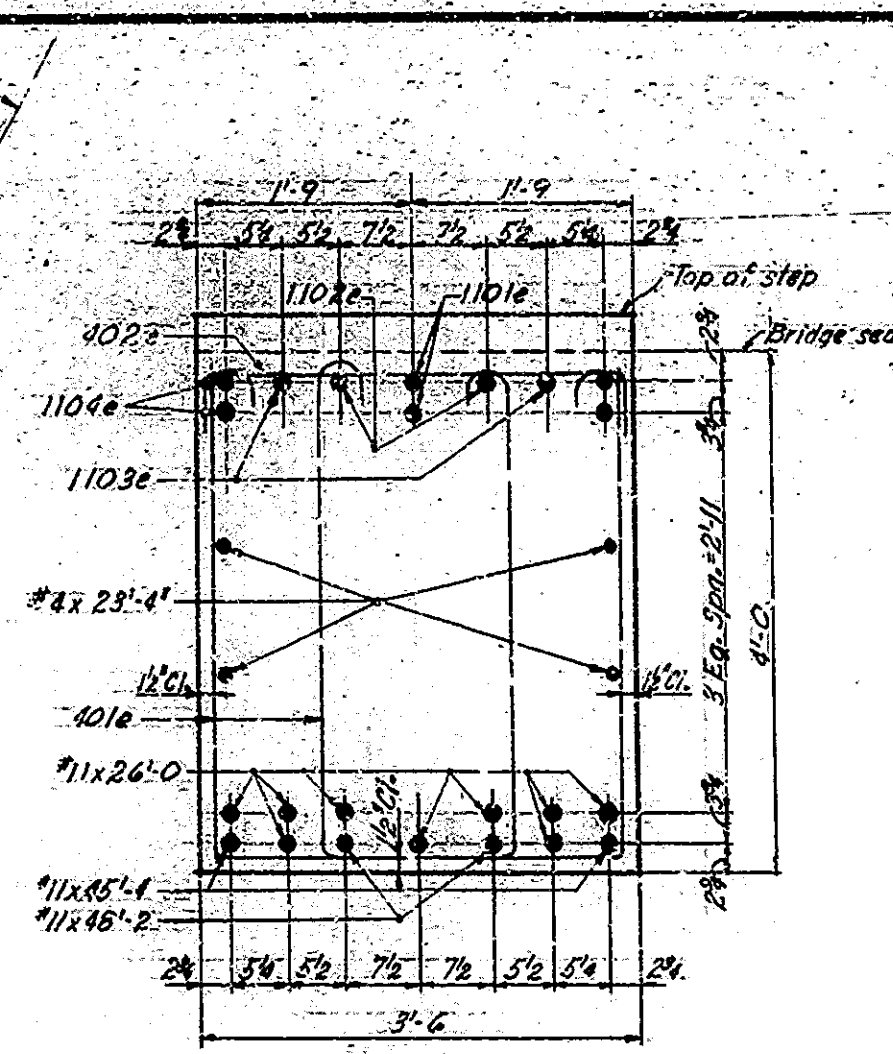
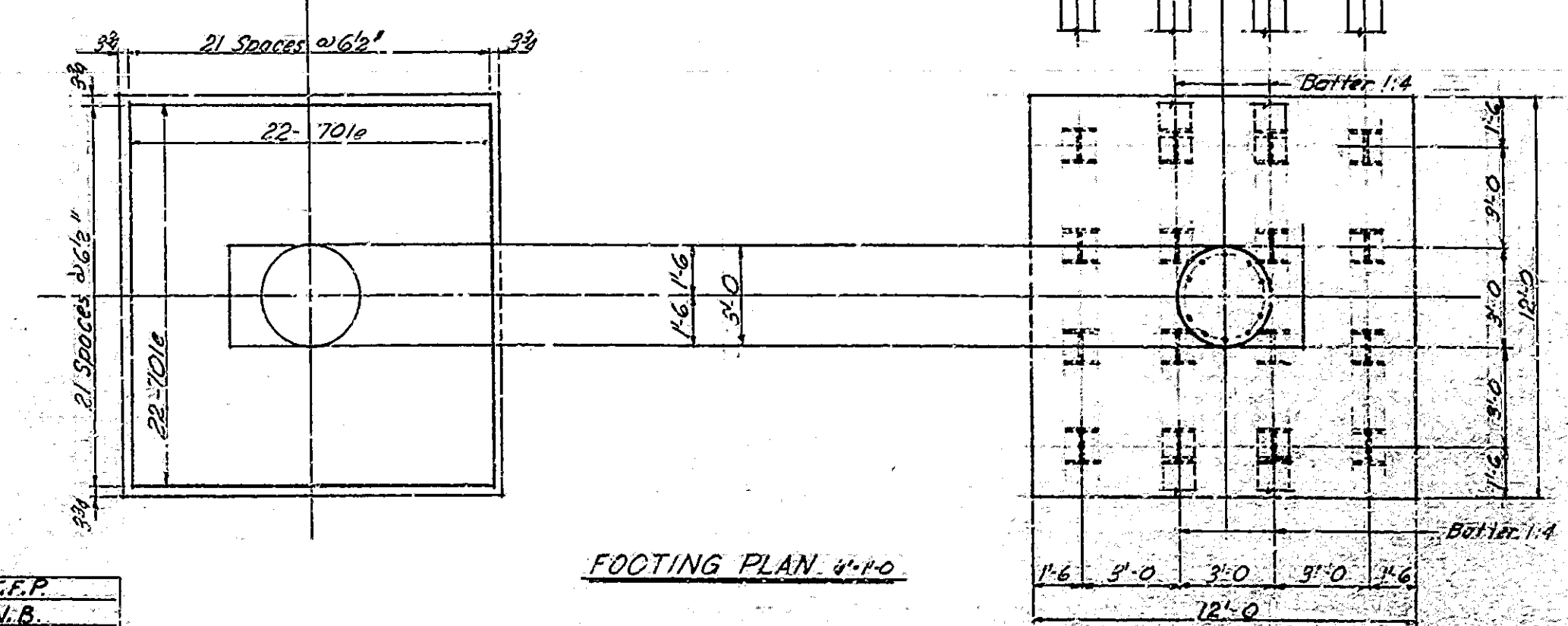
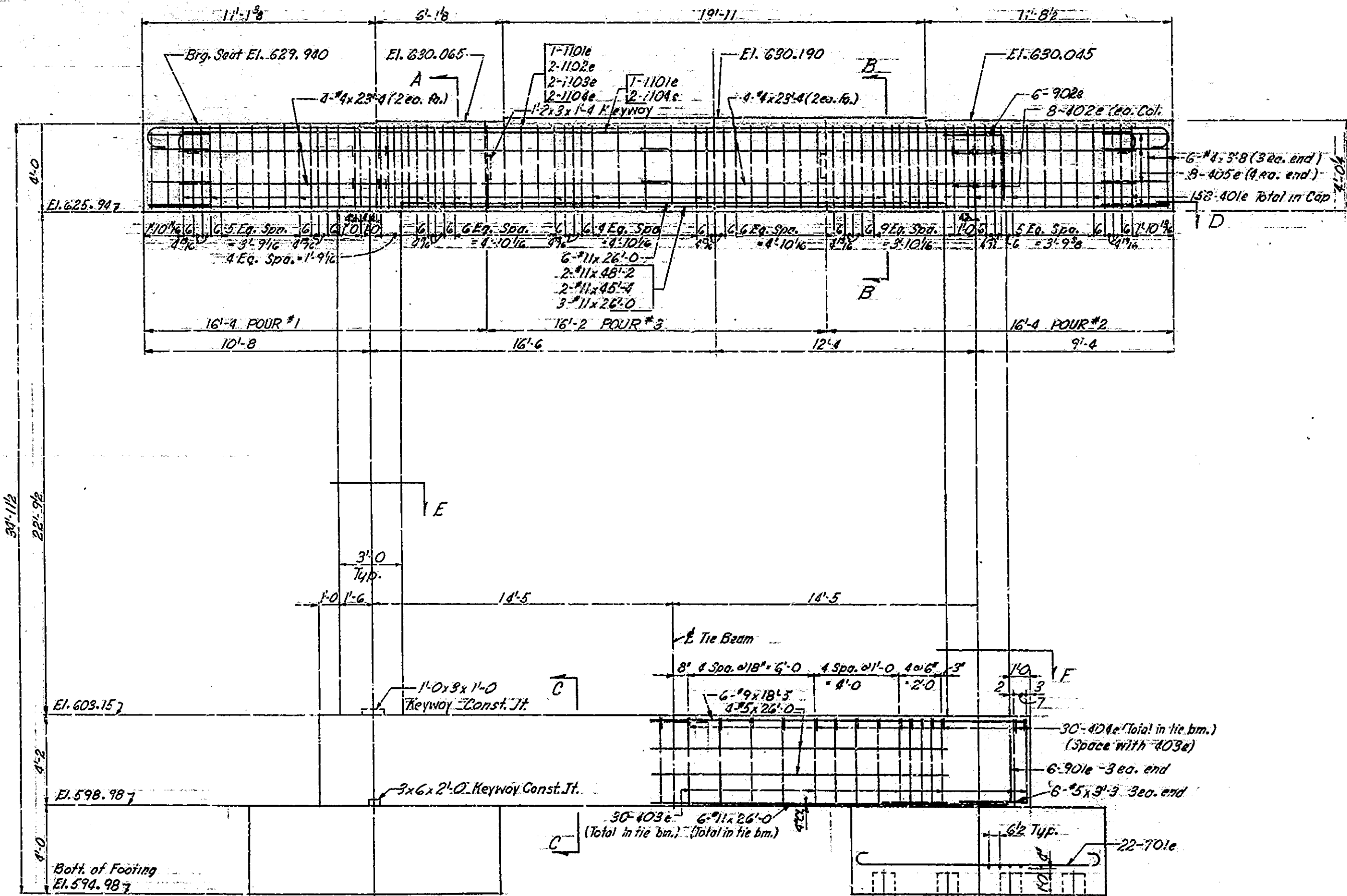
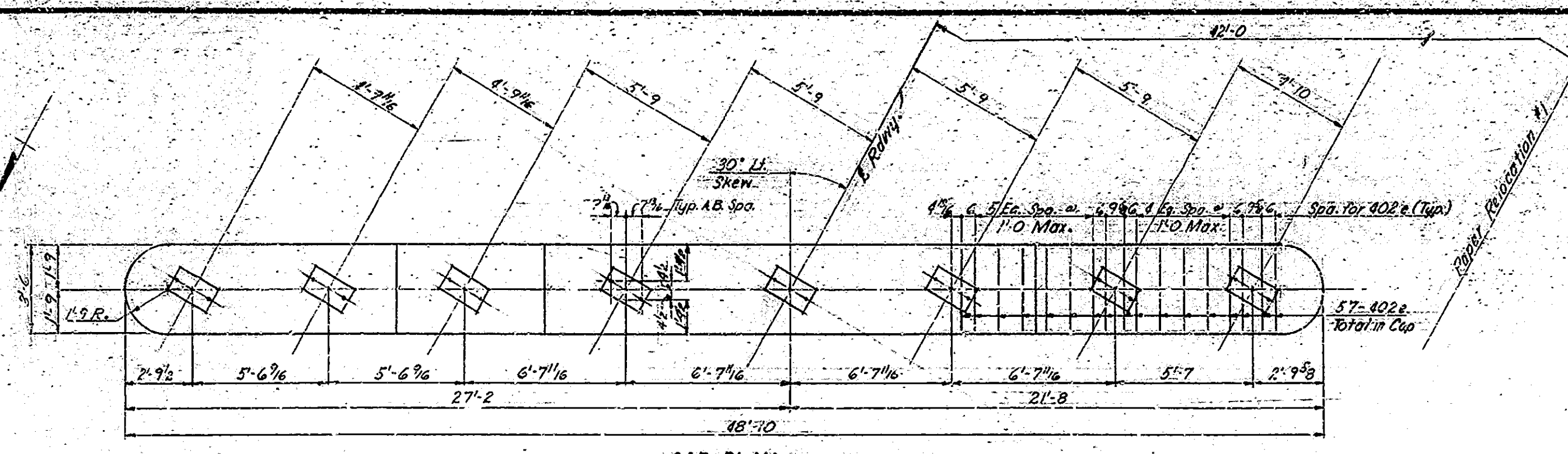
BENT I NORTHBOUND LANE  
 STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: 3/8" = 1'-0" UNLESS NOTED  
 SUBMITTED FOR APPROVAL: *[Signature]*  
 DRAWING: 59 OF 542  
 PROJECT: 1-65-2(52)68  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: 1-65-68-4699,4699J

SEPT. 11, 1961







BRIDGES OVER 20' SPAN					
PUR. ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL
NO. 4	IND.	NO. 68	YEAR 1962	NO. 18	NO. 89
MARK	TYPE	O	H	LENGTH	
1801e	4	21.3	11'-6"	15'-7"	
1102e	2	48'-2"		51'-5"	
1103e	2	48'-2"		51'-5"	
1104e	2	47'-6"		50'-8"	
1104e	2	45'-4"		48'-6"	
901e	1	8'-0"	3'-0"	9'-0"	
902e	1	3'-0"	3'-0"	6'-0"	
701e	2	11'-6"		18'-2"	
401e	6	2'-6"	3'-9"	11'-0"	
402e	5	3'-3"		4'-3"	
403e	7	2'-7"	3'-9"	10'-11"	
404e	5	2'-7"	6'-6"	9'-7"	
405e	3	1'-6"	3'-2"	8'-0"	

BILL OF MATERIALS				
BENT NO. 3 NORTHBOUND STRUCTURE				
REINFORCING STEEL				
SIZE OF MARK	NO. OF BARS	LENGTH	WEIGHT	
1801e	28	15'-7"		
18-s	20	26'-7 1/2"		
18-s	8	10'-0"		
		Total#	14,263	
1101e	2	51'-8"		
1102e	2	51'-4"		
1103e	2	50'-3"		
1104e	4	48'-6"		
11	2	48'-2"		
11	2	45'-4"		
11	15	24'-0"		
		Total#	5,726	
901e	6	9'-0"		
902e	12	6'-0"		
7	12	18'-5"		
		Total#	1,180	
701e	59	18'-2"		
		Total#	2,366	
#5	4	26'-0"		
#5	6	8'-3"		
		Total#	128	
401e	158	11'-0"		
402e	78	4'-3"		
403e	30	10'-11"		
404e	20	3'-7"		
405e	8	8'-0"		
#4	8	23'-4"		
#4	6	3'-2"		
		Total#	4,841	
4" Spiral	2	27'-2"		
		Total Reinf.	26,939	

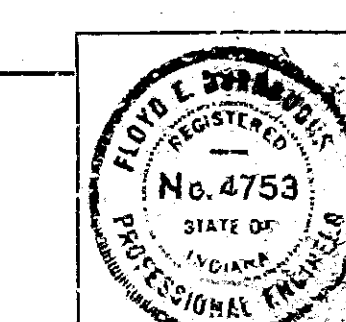
CONCRETE	
Class 'E' in Footings	42.7 Cu. Yds.
Class 'D' in Tie Beams	15.7 Cu. Yds.
Class 'D' in Columns	11.9 Cu. Yds.
Total Class 'D'	27.6 Cu. Yds.
Class 'C' in Cap	258 Cu. Yds.

MISCELLANEOUS	
32-12BP53-H Piles	1,594 Lin. Ft.
#47-0	

**NOTES:**  
 Holes for Anchor Bolts to be Drilled.  
 For Reinforcing bar notes, see brg. Sht. 01.  
 Dimensions shown for locating anchor bolts are for checking field clearance between reinforcing steel and anchor bolts.  
 Reinforcing steel shall be adjusted to maintain 1 1/2 inches clearance.  
 Spirals shall have one and one-half (1 1/2) extra turns provided at the ends; and one and one-half (1 1/2) turns of lap at adjoining sections. Cost of spacer bars to be included in costs of spiral. (Spirals to be 2/3 cold drawn wire)  
 See Sht. 07 for Typical Anchor Bolt spacing Detail.  
 Col. Bars to be hard grade steel.  
 For Exp. Plates and Anchor Bolts See Sht. 590

**BENT NO. 3 NORTHBOUND  
 STATE HIGHWAY DEPARTMENT OF INDIANA**

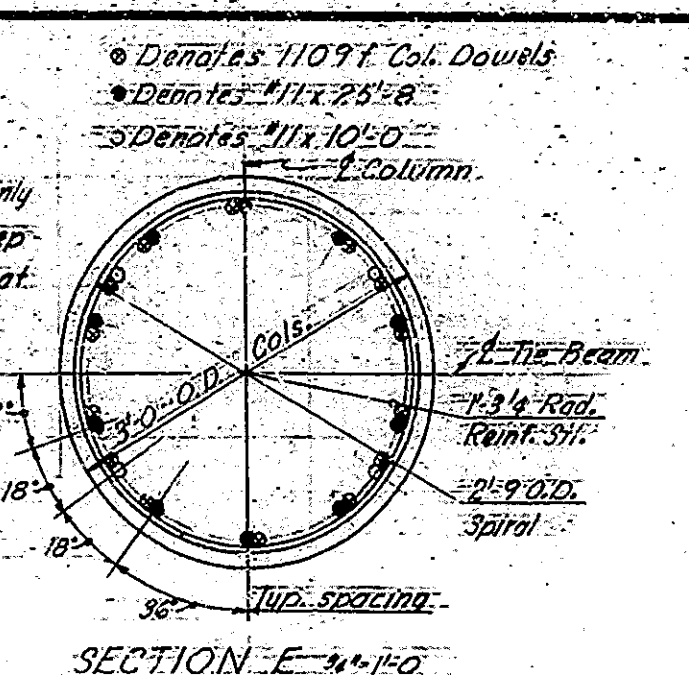
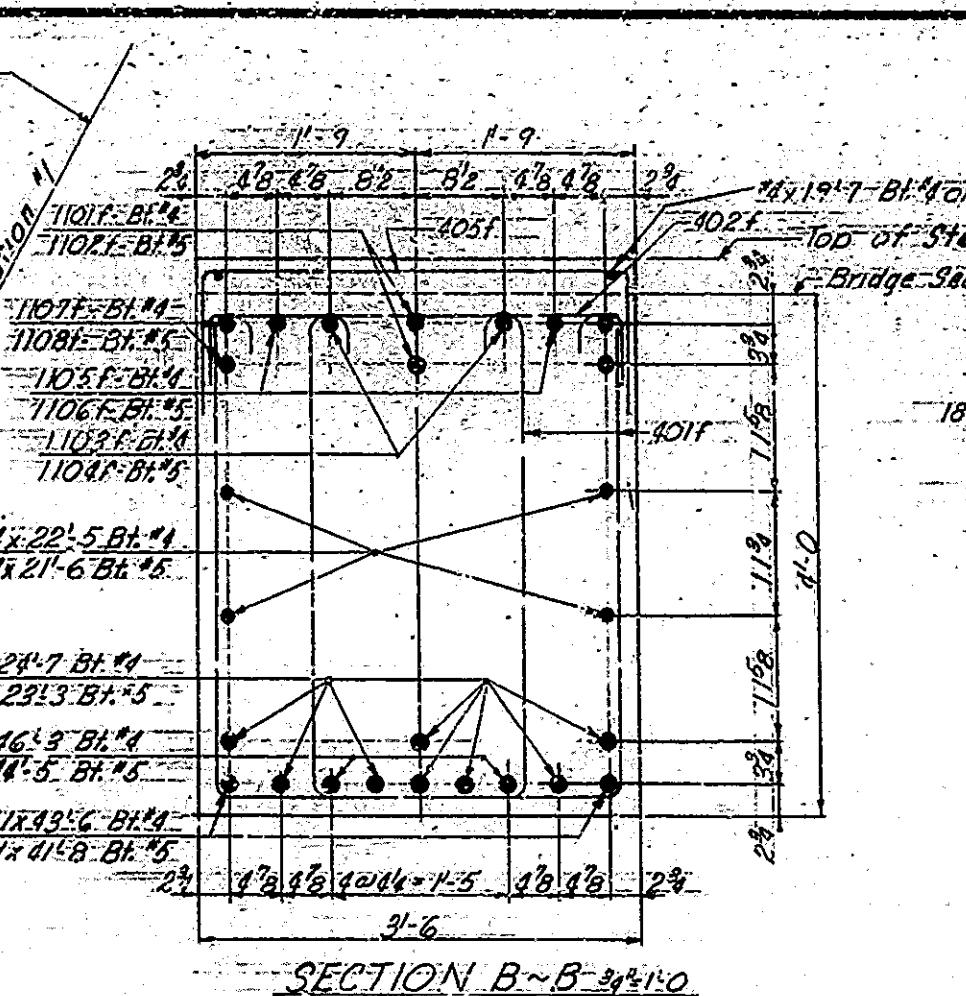
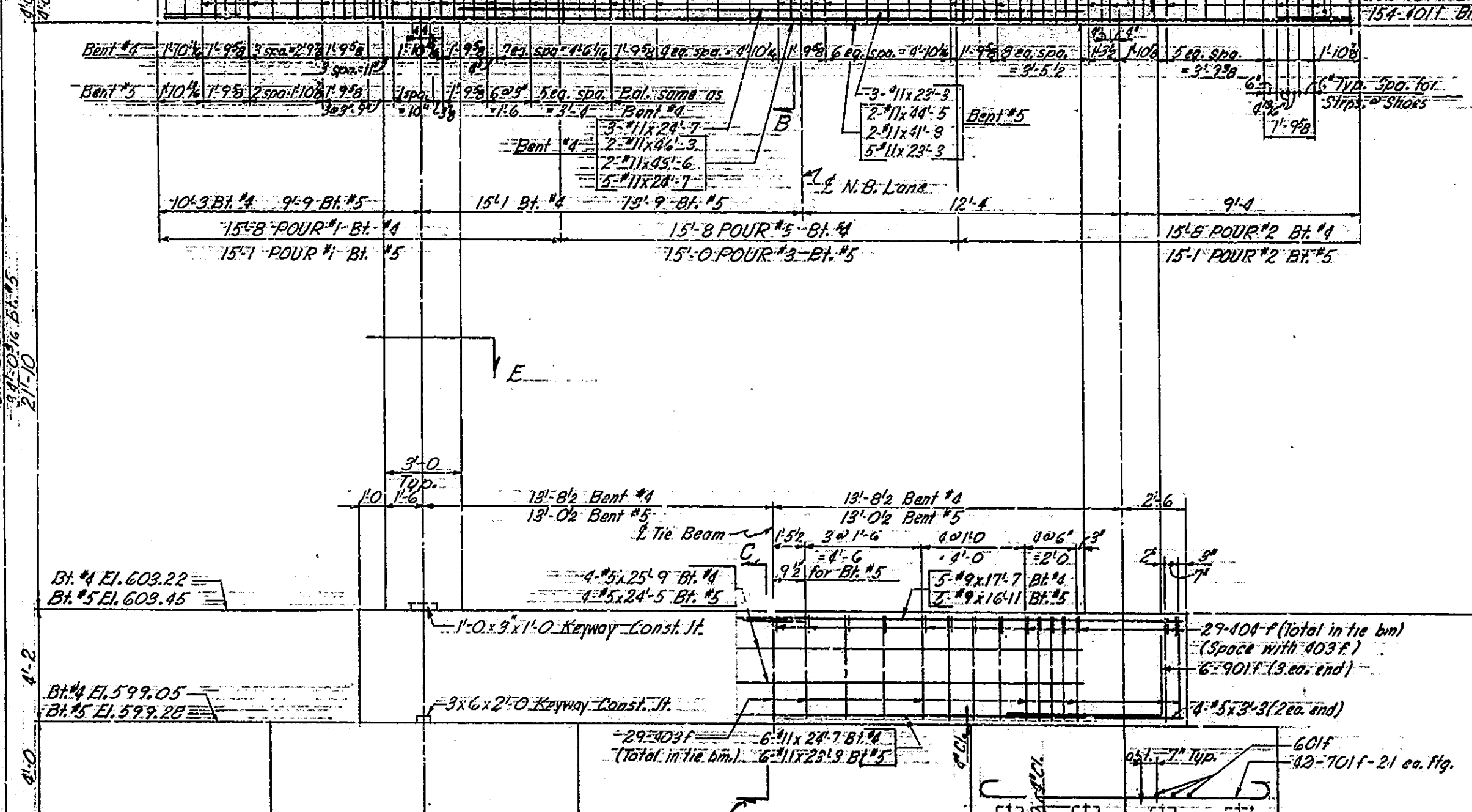
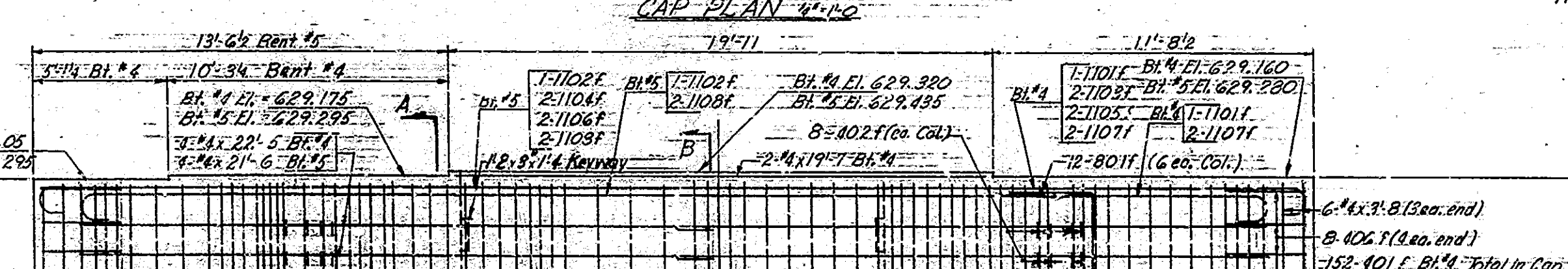
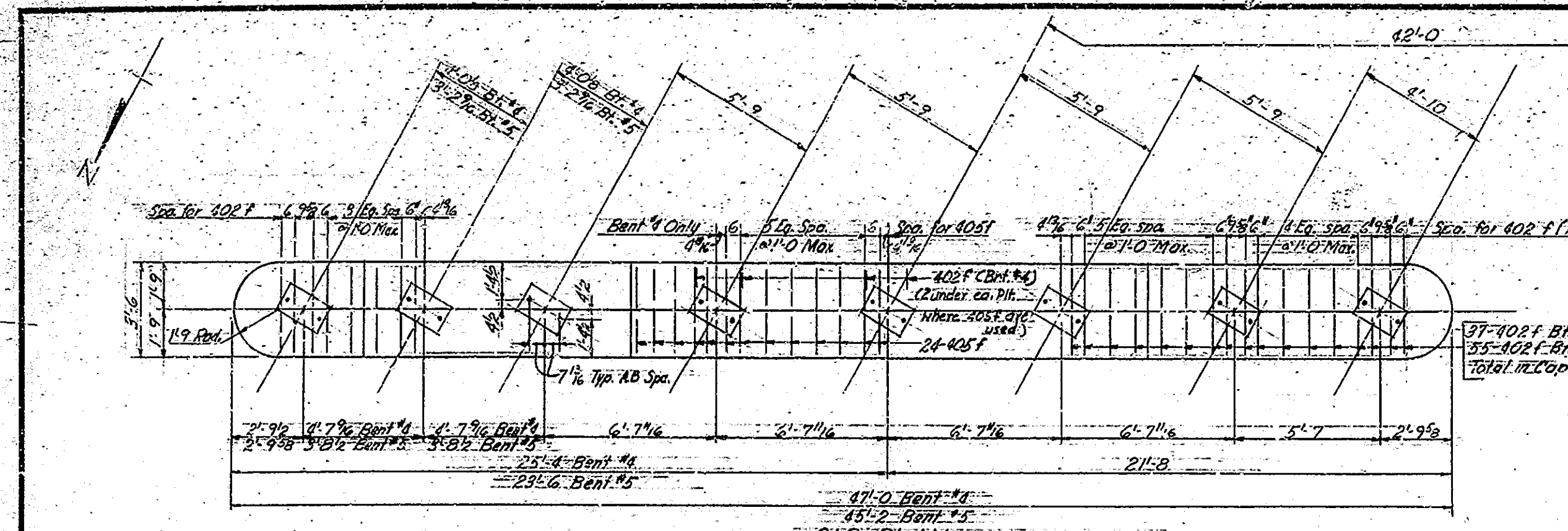
SCALE: AS NOTED  
 SUBMITTED FOR APPROVAL: *J.C. Burrroughs*  
*B.R. Payne*  
 DRAWING: S-11 OF 543  
 PROJECT: I-65-2(52)68  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: I-65-68-4699,4699J



DESIGNED: J.E.C. C.K.P.  
 DRAWN: J.E.C. C.K.P.  
 TRACED: C.K.P.

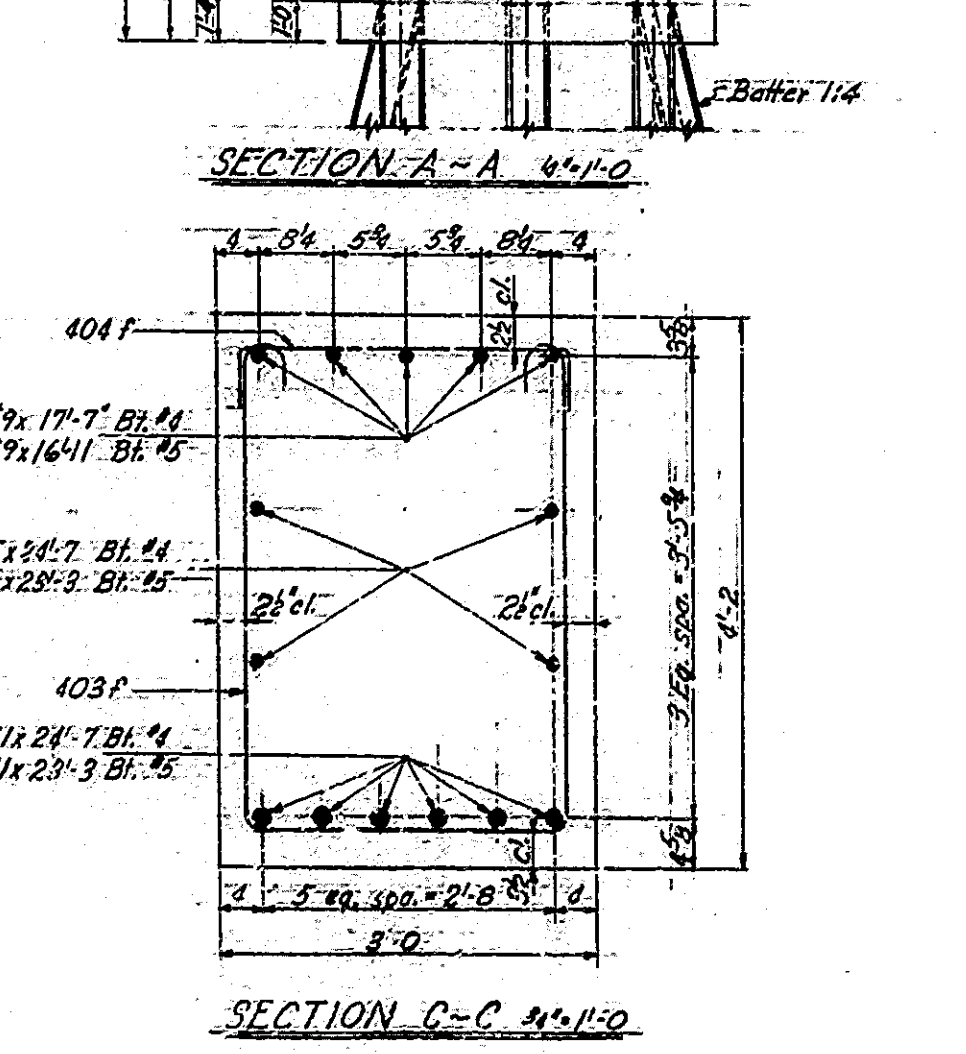
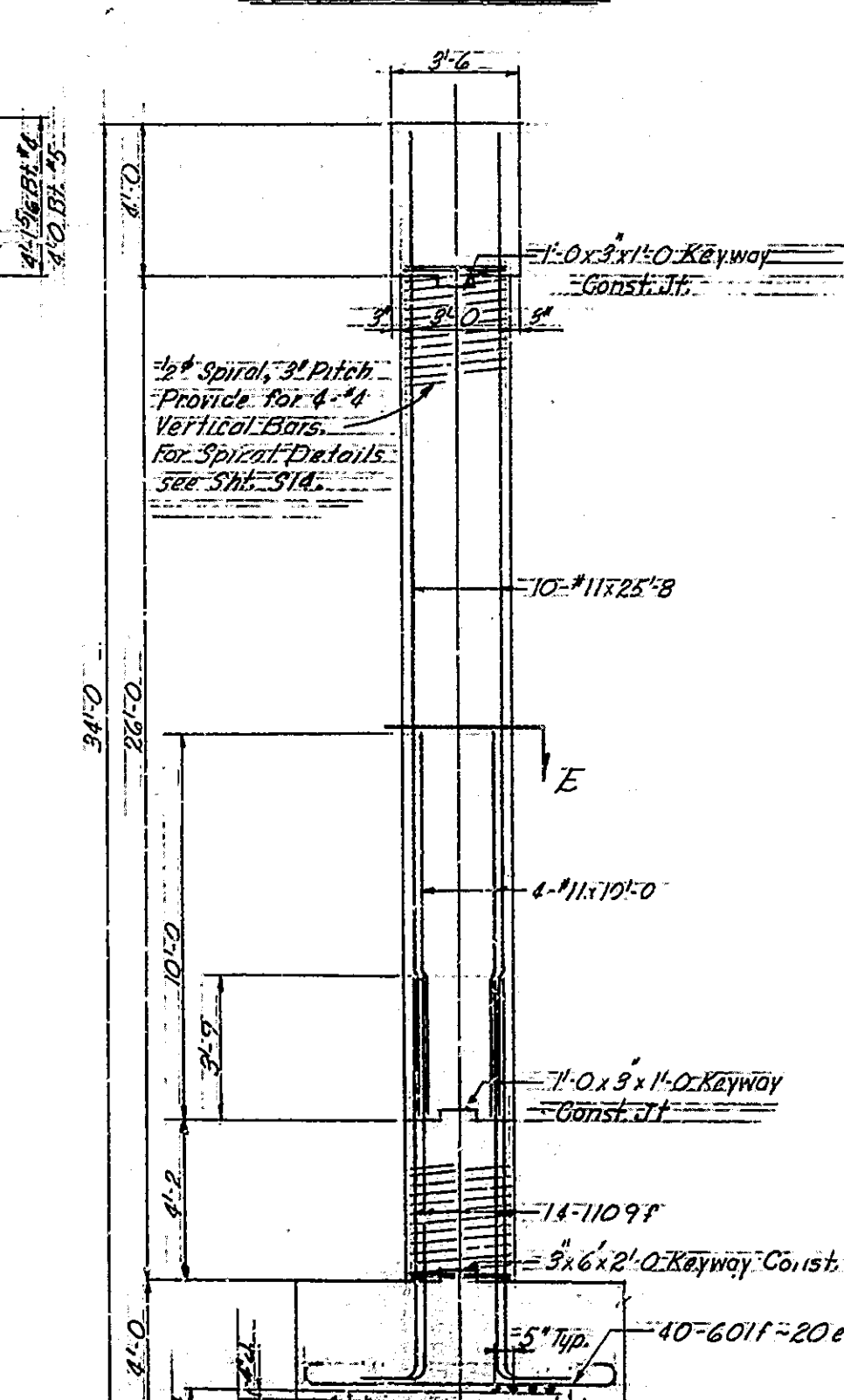


MANUFACTURED BY SUPPLY CO. INC.



SCHEDULE OF BENT BARS table with columns: MARK, TYPE, DIA., LENGTH.

NOTES: For Bar-Bending Diagrams see Sht. S10. For placing of bar check see Sect. D' Sht. S11.



BRIDGES OVER 20' SPAN table with columns: FISCAL YEAR, SHEET NO., TOTAL SHEETS.

BILL OF MATERIALS table for REINFORCING STEEL with columns: BENT NO., MARK, NO. OF BARS, LENGTH, WEIGHT.

BILL OF MATERIALS table for CONCRETE with columns: CLASS, NO. OF YDS., TOTAL.

BILL OF MATERIALS table for MISCELLANEOUS with columns: ITEM, QUANTITY, UNIT.

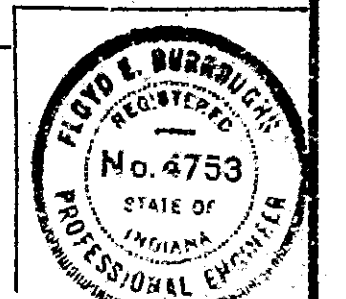
NOTES: For Reinforcing bar notes, see Brq. Sht. C1. Dimensions shown for locating anchor bolts...

BENT NO. 4 NORTHBOUND & BENT NO. 5 NORTHBOUND STATE HIGHWAY DEPARTMENT OF INDIANA

SEPT. 11, 1961

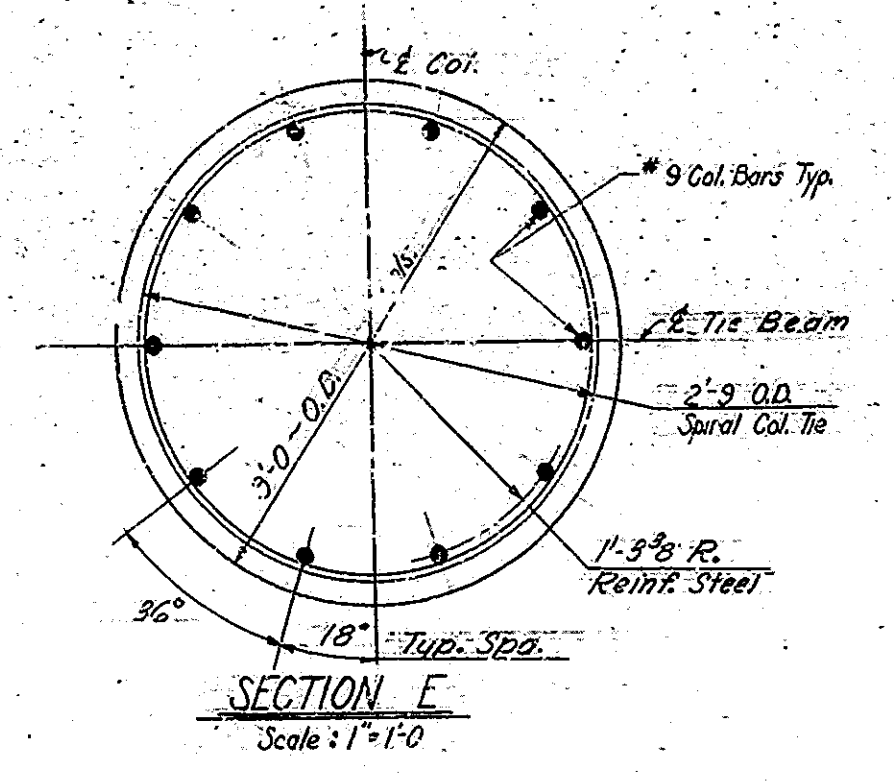
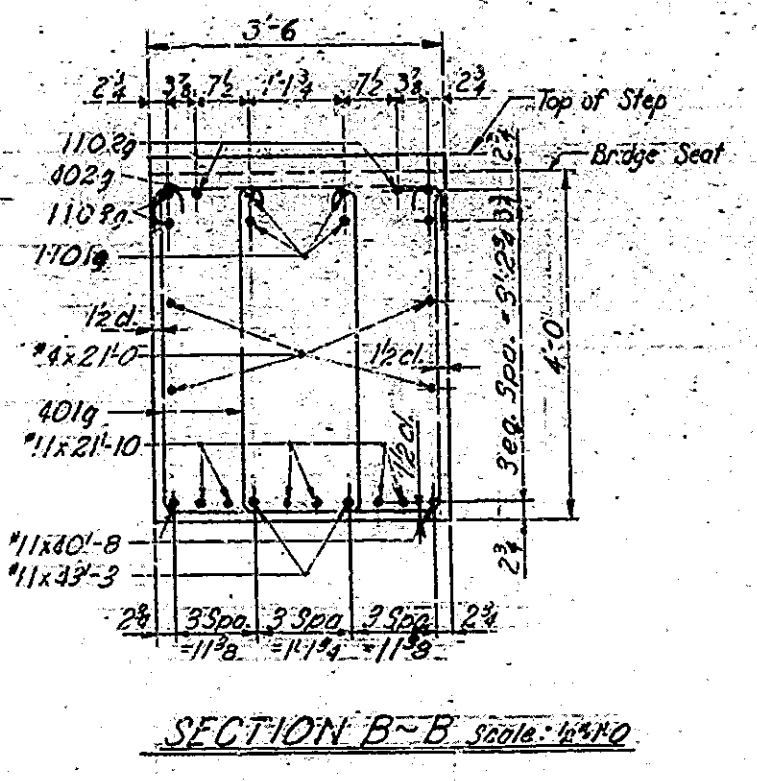
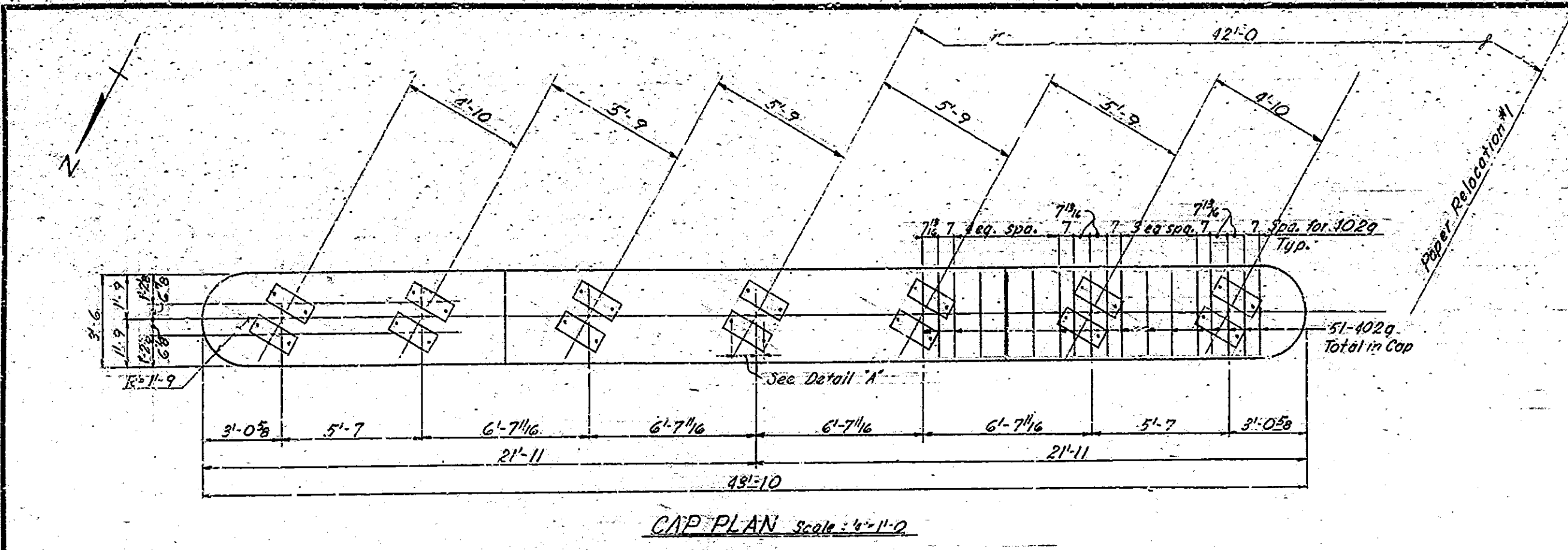
SCALE: AS NOTED SUBMITTED FOR APPROVAL: [Signature]

DRAWING: S-12 OF S-43 PROJECT: I-65-252/68 BRIDGE CONTRACT NO. 5427 BRIDGE FILE: I-35-68-4699-4699J



DESIGNED, DRAWN, CHECKED table with names and initials.

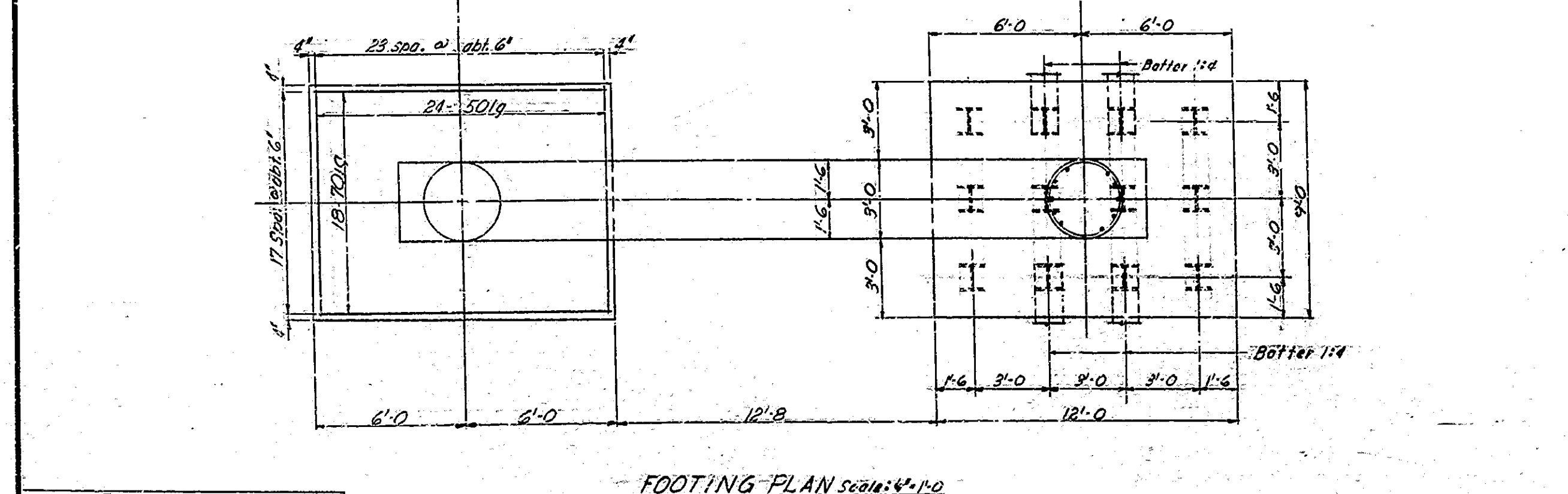
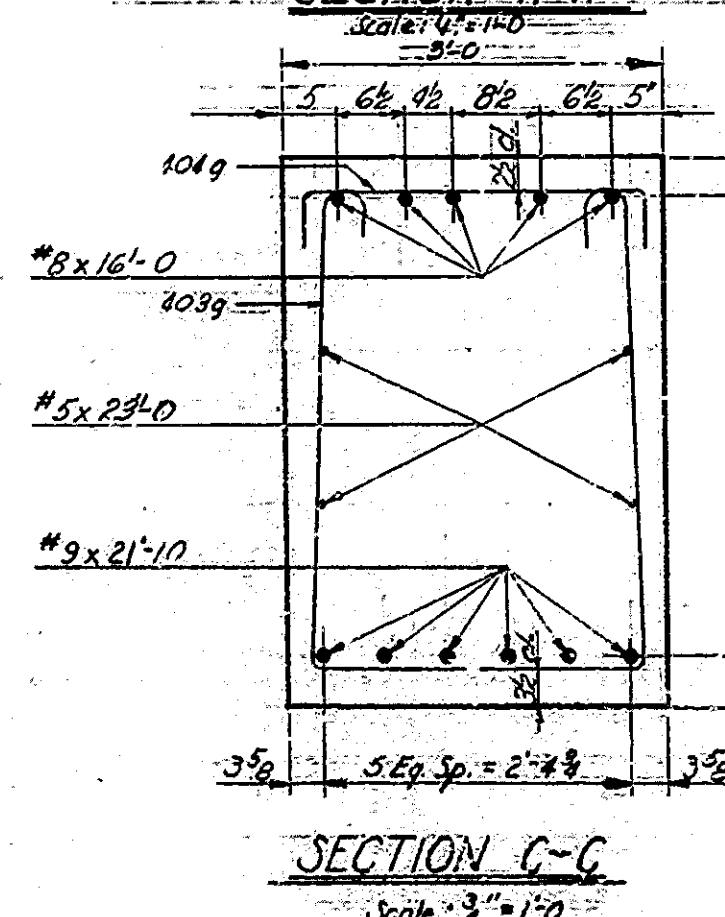
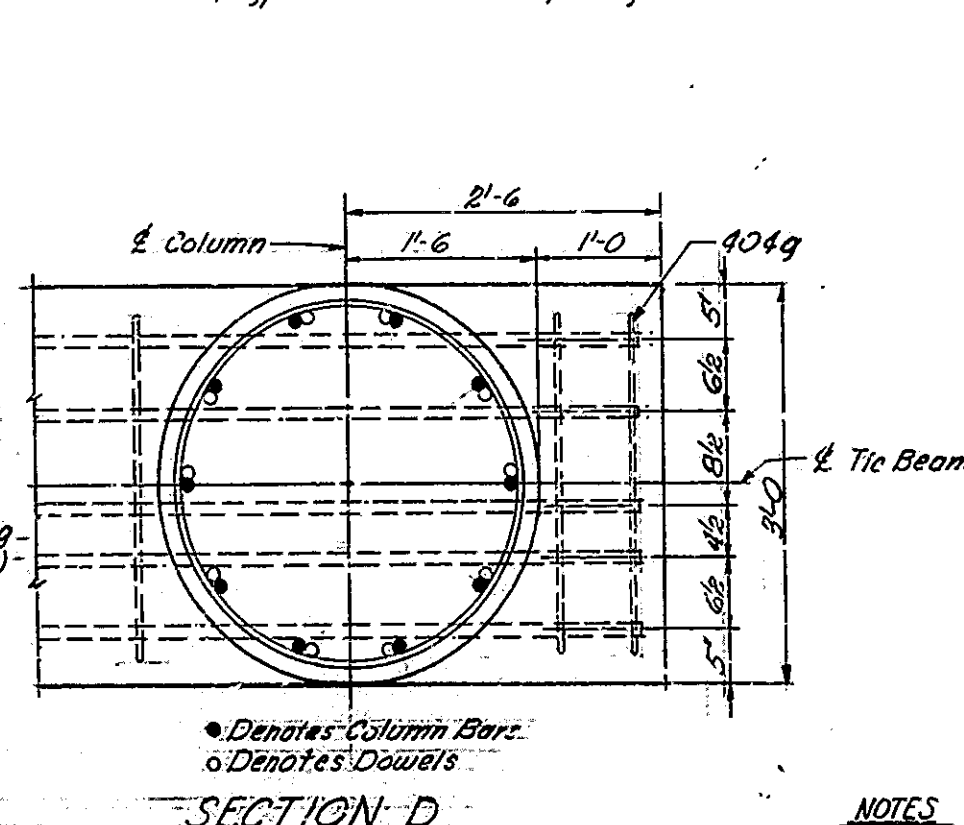
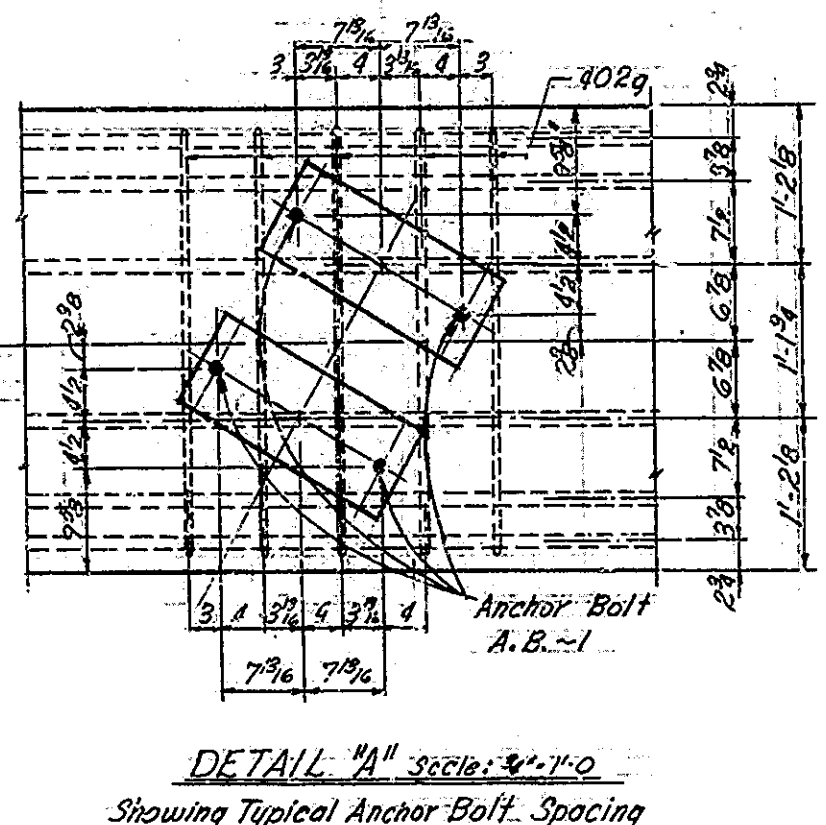
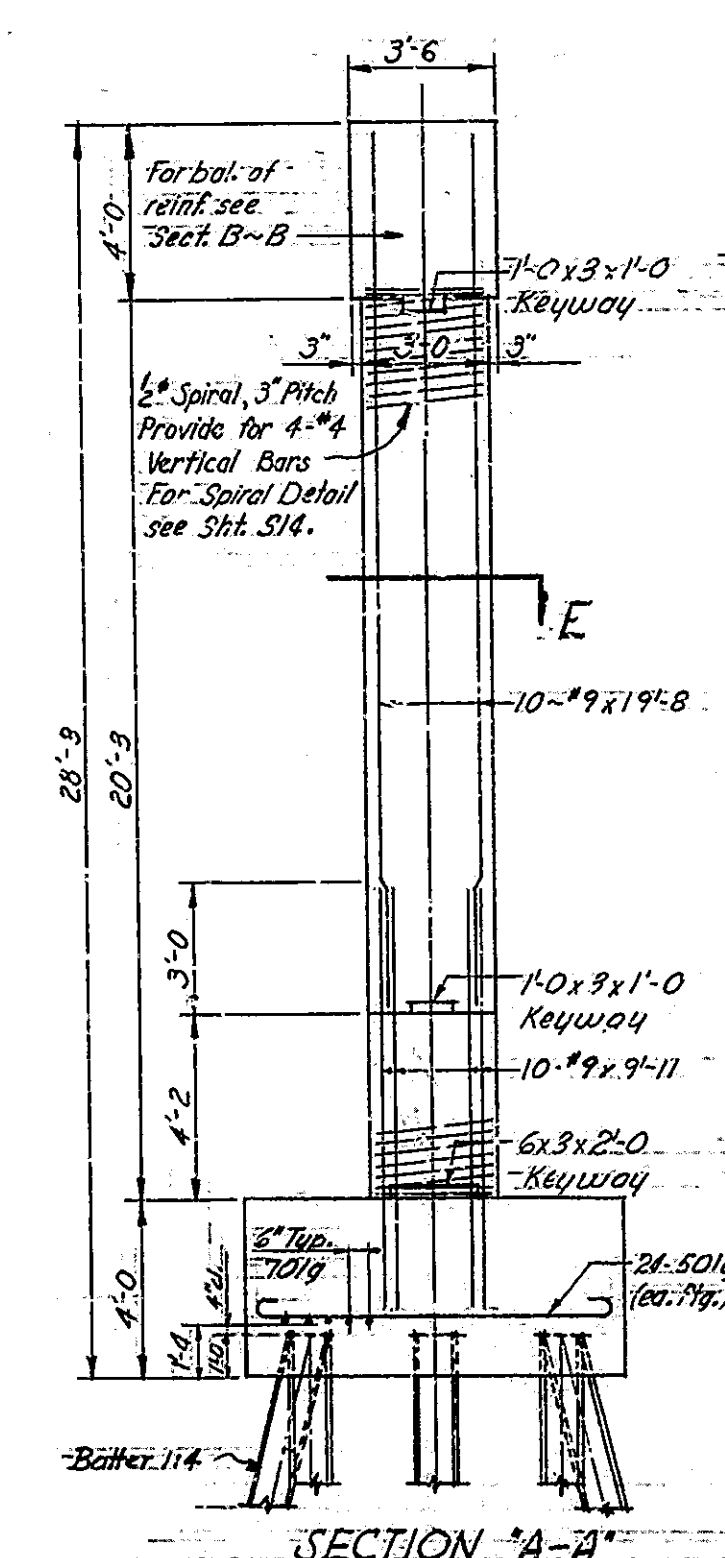
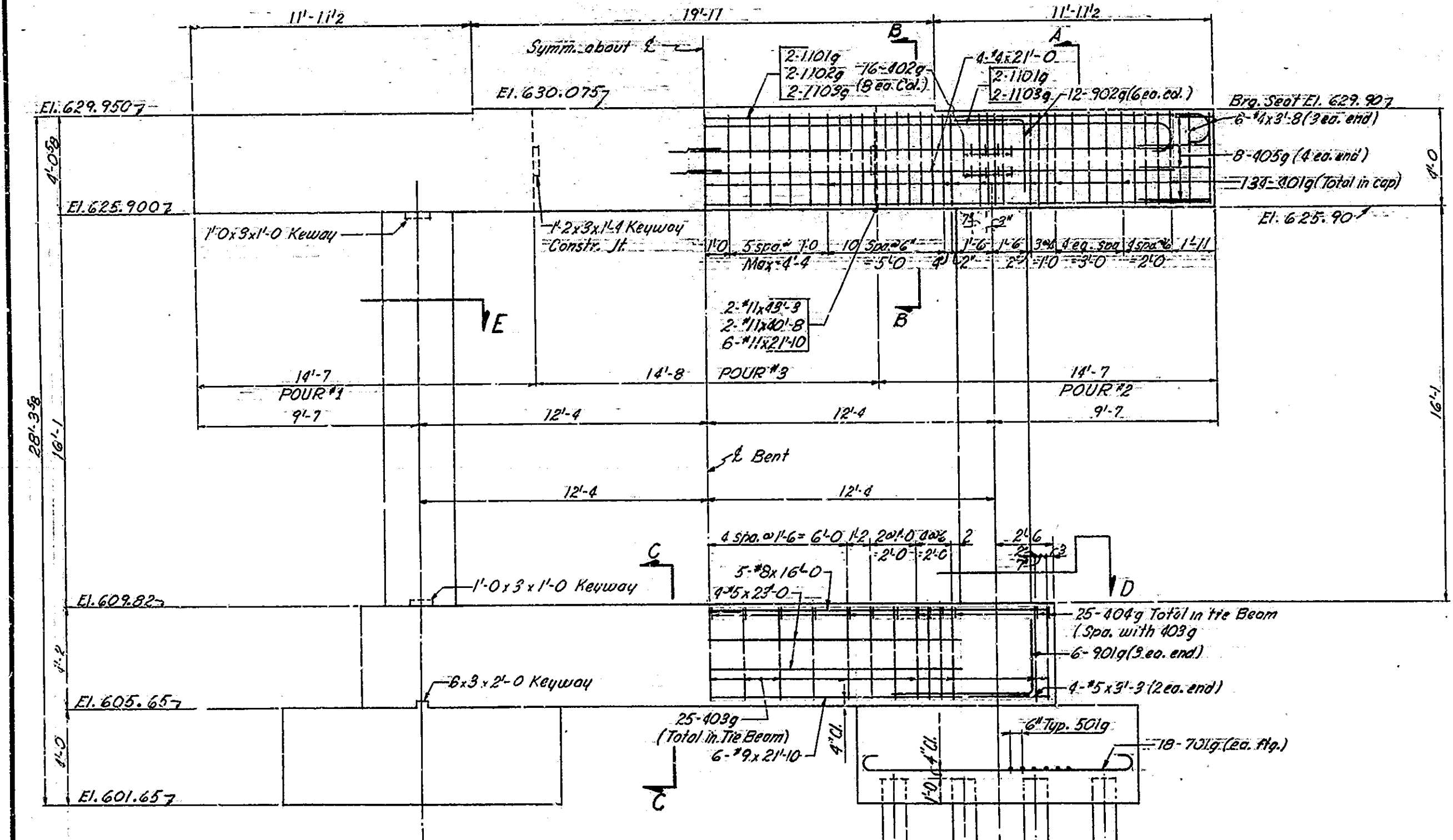
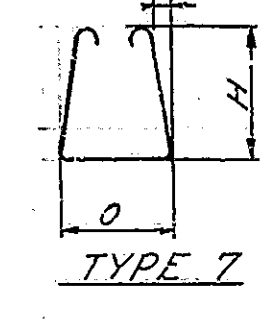
BRIDGES OVER 20' SPAN					
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-2 (52)68	1962	20	89



MARK	TYPE	NO.	LENGTH
1101g	2	48'3"	46'-5"
1102g	2	42'-4"	45'-6"
1103g	2	40'-8"	45'-10"
901g	1	6'-0"	4'-0"
902g	1	3'-0"	6'-0"
701g	2	11'-6"	13'-2"
501g	2	8'-6"	9'-8"
401g	6	2'-4"	10'-10"
402g	5	3'-3"	4'-3"
403g	7	2'-7"	10'-11"
404g	5	2'-7"	3'-7"
405g	3	1'-6"	8'-0"

BENT NO. 6 NORTHBOUND STRUCTURE REINFORCING STEEL					
SIZE OF MARK	NO. OF BARS	LENGTH	WEIGHT		
1101g	4	46'-5"			
1102g	2	45'-6"			
1103g	4	45'-10"			
901g	2	4'-0"			
902g	2	6'-0"			
701g	4	13'-2"			
501g	4	9'-8"			
401g	6	10'-10"			
402g	5	4'-3"			
403g	7	10'-11"			
404g	5	3'-7"			
405g	3	8'-0"			
Total #9				3,989	
Total #8				2,885	
Total #7				427	
Total #5				989	
Total #4				1,572	
Total Reinf.				11,522	

NOTE:  
 For Bar Bending Diagrams see SHEET 10  
 For placing of bar 405g see Sect. 'D' Sht. 5-11.

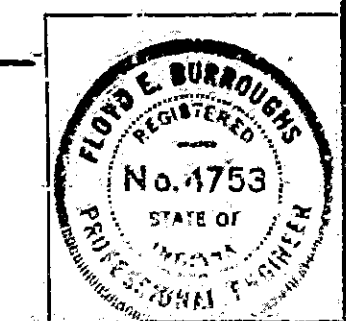


NOTES:  
 For Reinforcing bar notes, see Brg. Sht. C1.  
 Dimensions shown for locating anchor bolts are for checking field clearance between reinforcing steel and anchor bolts. Reinforcing steel shall be adjusted to maintain 1/2" clearance.  
 Spirals shall have one and one-half (1 1/2) extra turns provided at the ends; and one and one-half (1 1/2) turns of lap at adjoining sections. Cost of spacer bars to be included in cost of spiral. Spirals to be 1/2" cold drawn wire. Col. Bars to be hard grade steel.  
 For Exp. Plates and Anchor Bolts see Drawg. S-90.  
 HOLES FOR ANCHOR BOLTS to be drilled.

BENT NO. 6 NORTHBOUND  
 STATE HIGHWAY DEPARTMENT OF INDIANA

SEPT. 11, 1961

SCALE: AS NOTED  
 SUBMITTED FOR APPROVAL: *[Signature]*  
 DRAWING: 5 IS OF 843  
 PROJECT: I-65-2 (52)68  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: I-65-68-4699-4699 J



DESIGNED: J.E.B. CK'D: D.E.G.  
 DRAWN: J.E.C. CK'D: W.B.  
 TRACED: CK'D:

BRIDGES OVER 20' SPAN					
PUB. ROAD. PROJ. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (52)168	1962	21	89

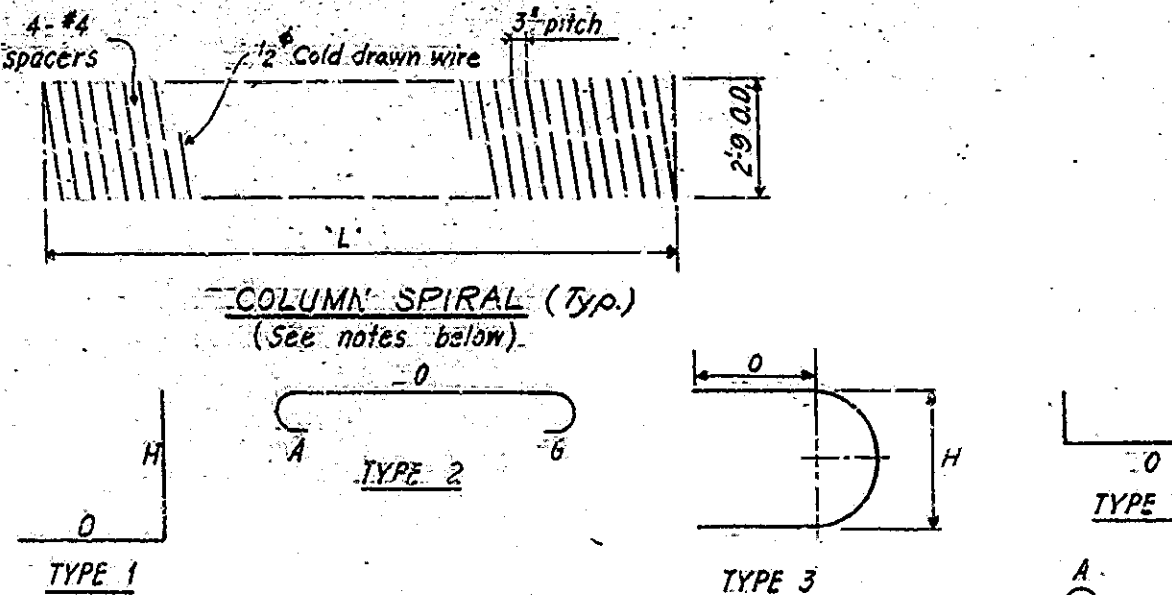
**BILL OF MATERIALS**  
 BENT NO. 6 S.B. STRUC.  
 BENT NO. 7 S.B. STRUC.  
 BENTS NO. 7, 8 N.B. STRUC.

REINFORCING STEEL			
SIZE OR MARK	N° OF BARS	LENGTH	WEIGHT
1101h	2	46-2	
1102h	2	45-10	
1103h	2	45-2	
1104h	4	43-2	
#11	2	42-8	
#11	5	40-0	
#11	5	21-11	
Total Weight #11 Bars			3836#
901h	12	6-0	
902h	6	9-1	
#9	6	21-11	
#9	20	19-6	
#9	20	9-11	
Total Weight #9 Bars			2878#
701h	42	13-2	
#7	10	15-9	
Total Weight #7 Bars			1452#
501h	56	9-8	
#5	4	23-0	
#5	4	3-3	
Total Weight #5 Bars			674#
401h	164	11-0	
402h	66	4-3	
403h	27	3-7	
404h	27	10-11	
405h	8	8-0	
#4	8	20-7	
#4	6	3-9	
Total Weight #4 Bars			1749#
# Spiral	2	20-1	
Total Weight Spirals			1070#
TOTAL REINFORCING STEEL			11639#

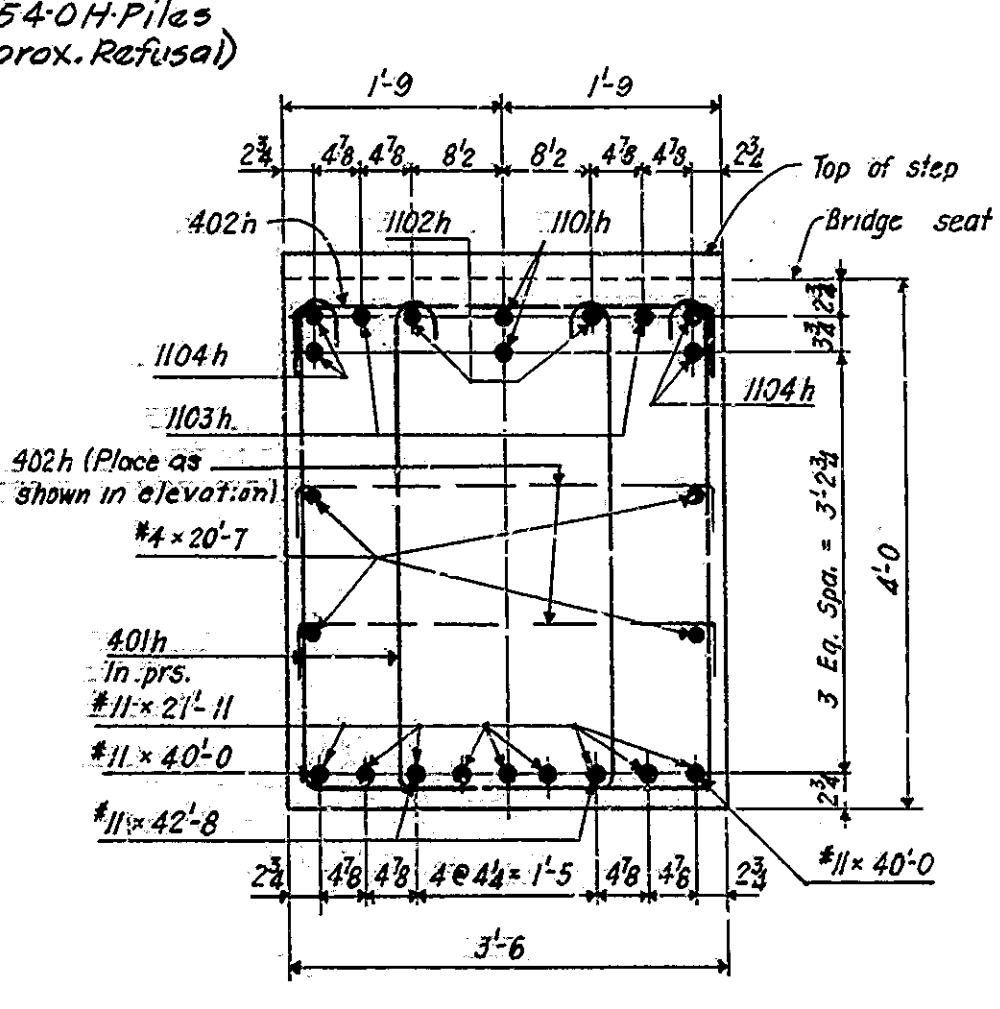
CONCRETE	
Class F in cap	22.7 cys.
Class D in Tie Bm.	13.7 cys.
Class D in Columns (2@4.1 cys.)	8.2 cys.
Total Class D	
Class E in Figs. (2@16.0 cys.)	32.0 cys.

MISCELLANEOUS	
24-12BP53 4-Pile x 54'-0	= 1296 Lin. Ft.

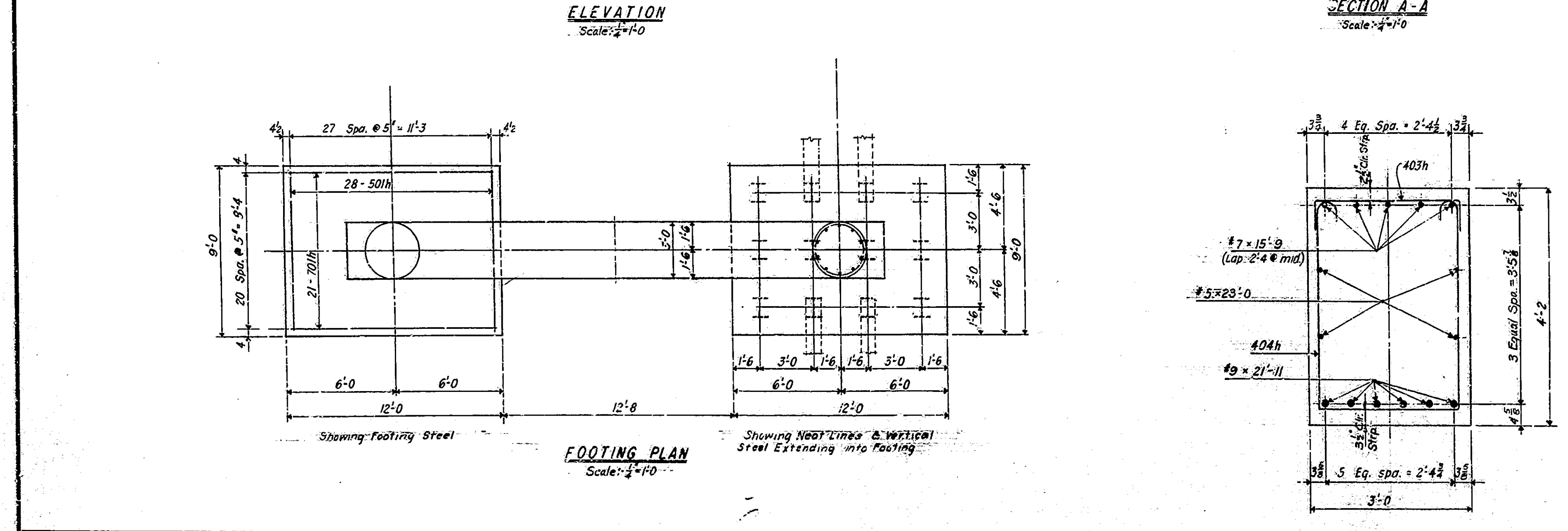
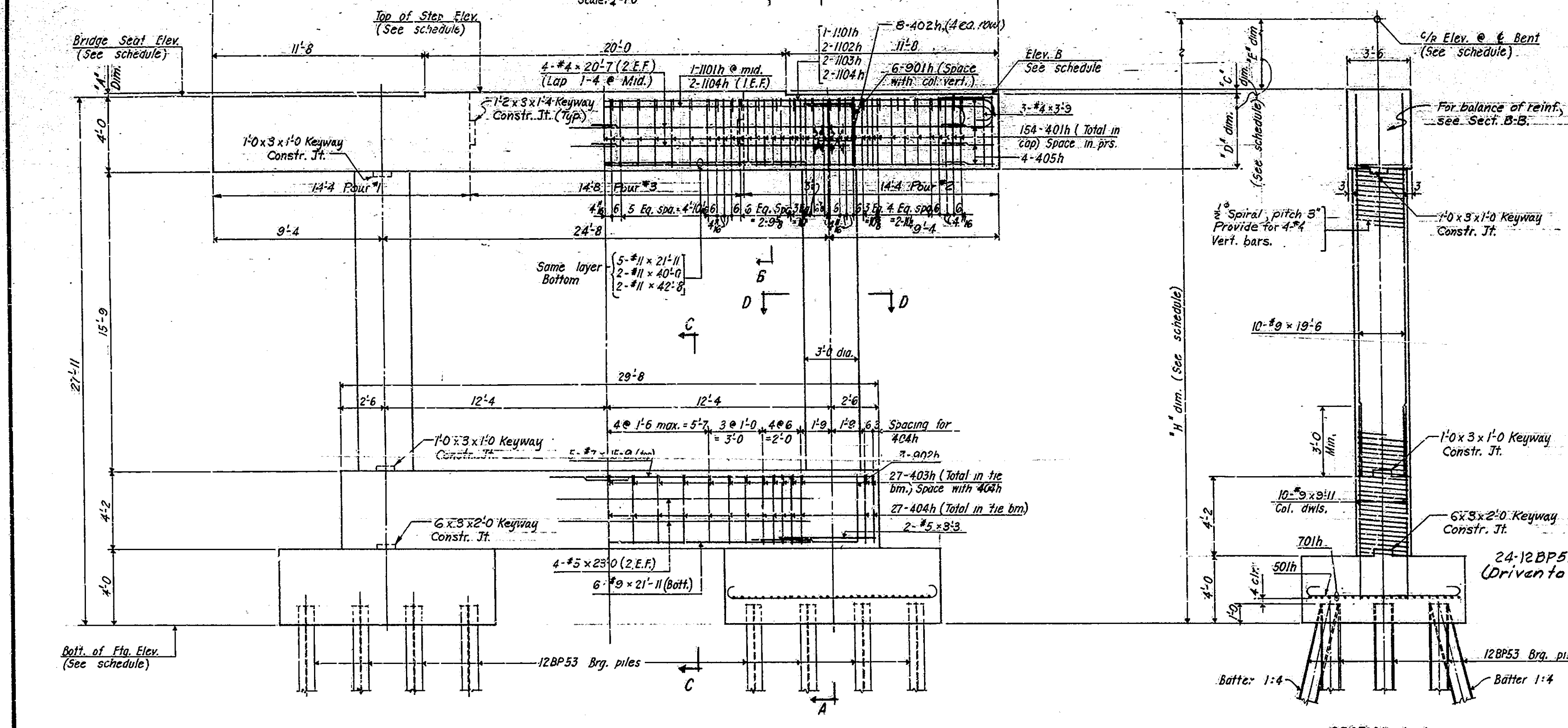
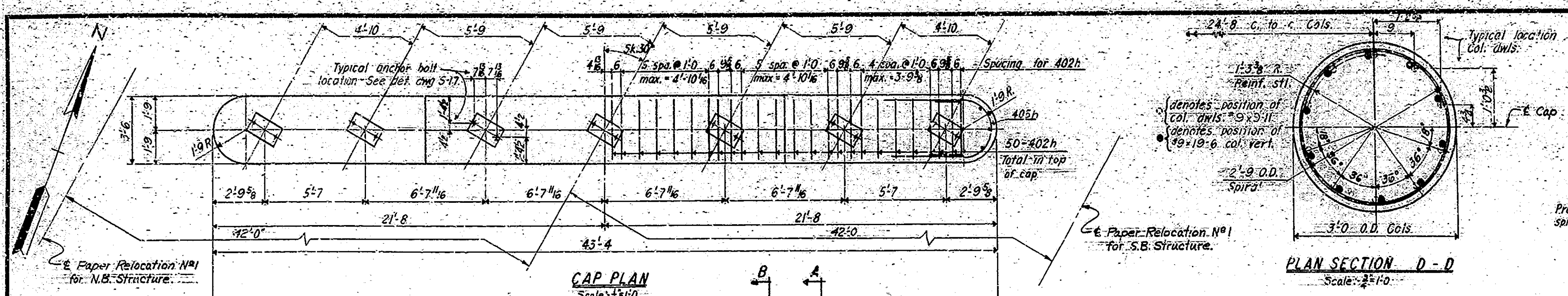
SCHEDULE OF ELEVATIONS & DIMENSIONS										
BENT NO.	A DIM.	BRIDGE SEAT ELEV.	TOP OF STEP ELEV.	B ELEV.	C DIM.	D DIM.	% ELEV. @ BENT	BOT. OF FTS. EL.	E DIM.	H DIM.
6 S.B.	24'	629.425	629.610	629.470	17'6"	4'-0"	634.81	601.51	5'-2 3/8"	33'-3 3/8"
7 S.B.	24'	629.665	629.850	628.720	17'6"	4'-0"	635.05	601.75	5'-2 3/8"	33'-3 3/8"
7 N.B.	24'	629.755	629.930	629.805	17'6"	4'-0"	635.22	601.84	5'-3 1/2"	33'-4 1/2"
8 N.B.	24'	630.040	630.205	630.080	17'6"	4'-0"	635.48	602.12	5'-3 3/8"	33'-4 1/8"



SCHEDULE OF BENT BARS						
MARK	TYPE	A	G	D	H	LENGTH
1101h	2	Std.	Std.	43-0	-	46-2
1102h	2	-	-	42-8	-	45-10
1103h	2	-	-	42-0	-	45-2
1104h	2	-	-	40-0	-	43-2
901h	1	-	-	3-0	3-0	6-0
902h	1	-	-	6-1	3-0	9-1
701h	2	Std.	Std.	11-6	-	13-2
501h	2	-	-	8-6	-	9-8
401h	5	-	-	2-5	3-9	11-0
402h	4	-	-	3-3	0-6	4-3
403h	4	-	-	2-7	0-6	3-7
404h	5	Std.	Std.	2-7	3-8	10-11
405h	3	-	-	1-6	3-2	8-0

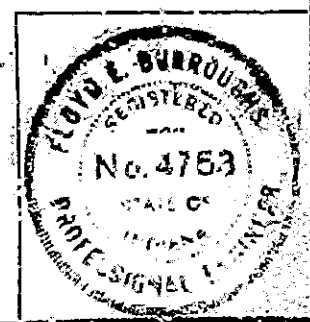


**NOTES:**  
 See Bridge Standard C-1 for reinforcing bar notes.  
 Holes for anchor bolts to be drilled.  
 Dimensions shown for locating anchor bolts are for checking field clearance between reinforcing steel & anchor bolts. Reinforcing steel shall be adjusted to maintain 1/2 inch clearance.  
 Spirals shall have one and one-half (1 1/2) extra turns provided at the ends; and one and one-half (1 1/2) turns of lap at adjoining sections. Cast of spacer bars to be included in cost of spiral. Spiral to be #4 cold drawn wire.  
 Column bars to be hard grade steel.  
 For Expansion Plate & Anchor Bolt details, see Dwg. S30.  
 Holes for Anchor Bolts to be drilled.



BENT NO. 7 & 8 NORTHBOUND  
 BENT NO. 6 & 7 SOUTHBOUND  
**STATE HIGHWAY DEPARTMENT OF INDIANA**  
 SEPT. 11, 1961  
 SCALE: AS NOTED  
 SUBMITTED FOR APPROVAL: *J.C. Burroughs*  
 DRAWING: S14 OF S43  
 PROJECT: 1-65-2(52)68  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: 1-65-68-4699-4699 J

DESIGNED: TFP	CHK'D: DEG
DRAWN: S.F.	CHK'D: JAC
TRACED: C.K.D.	

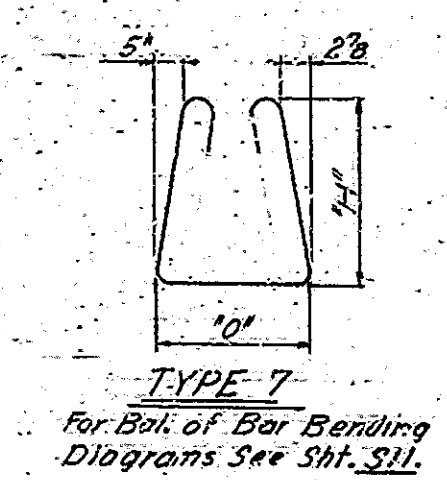
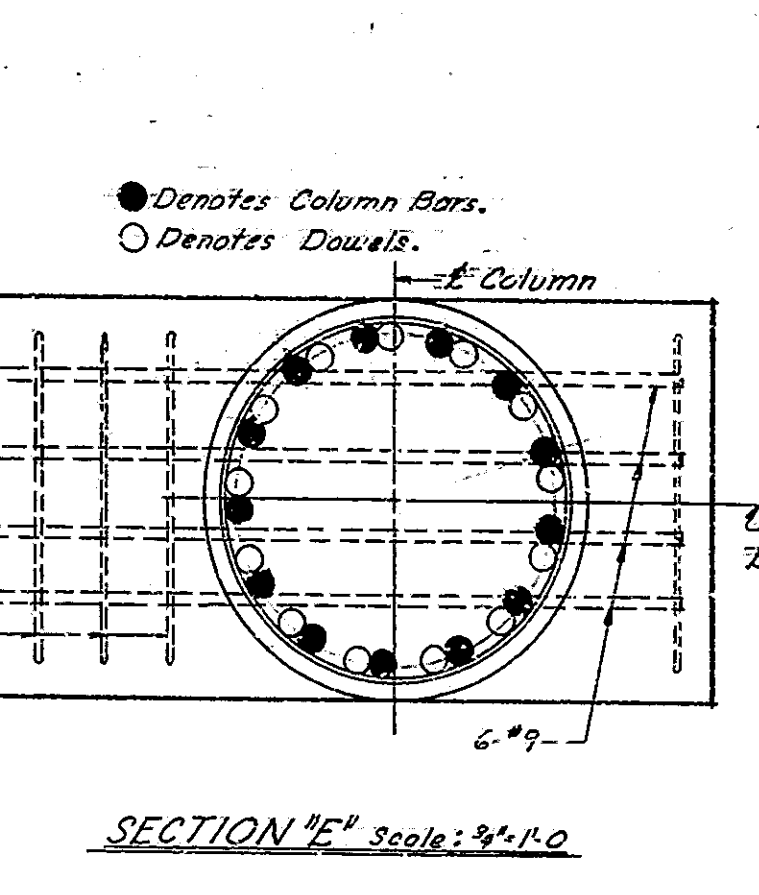
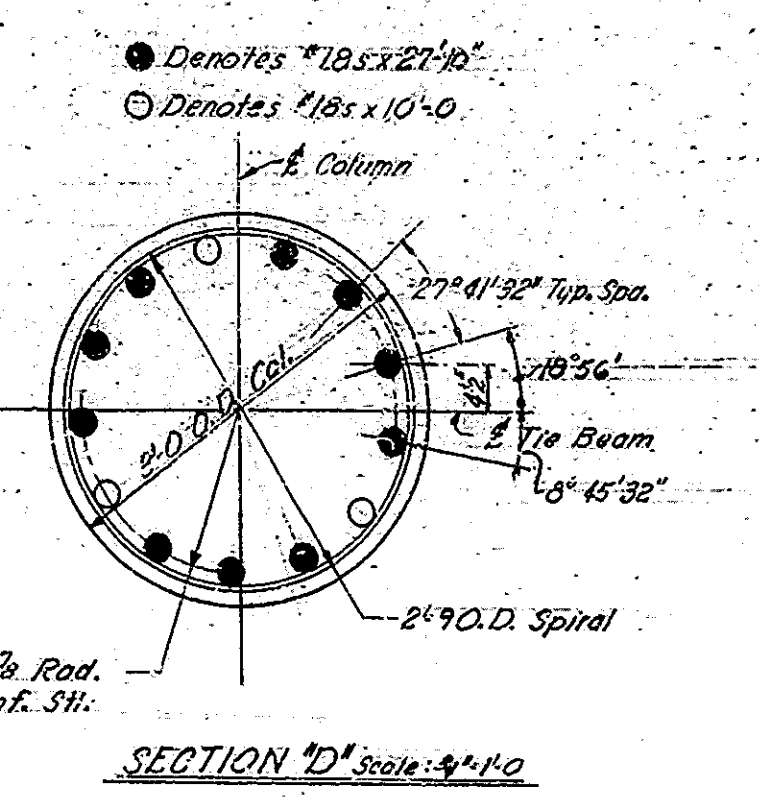
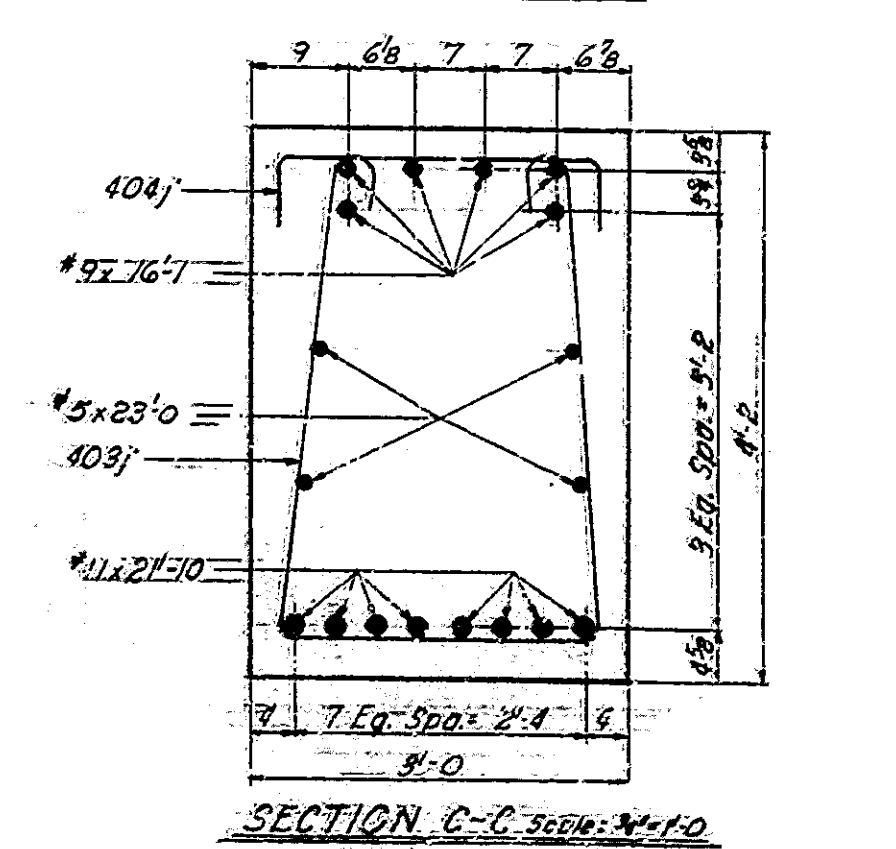
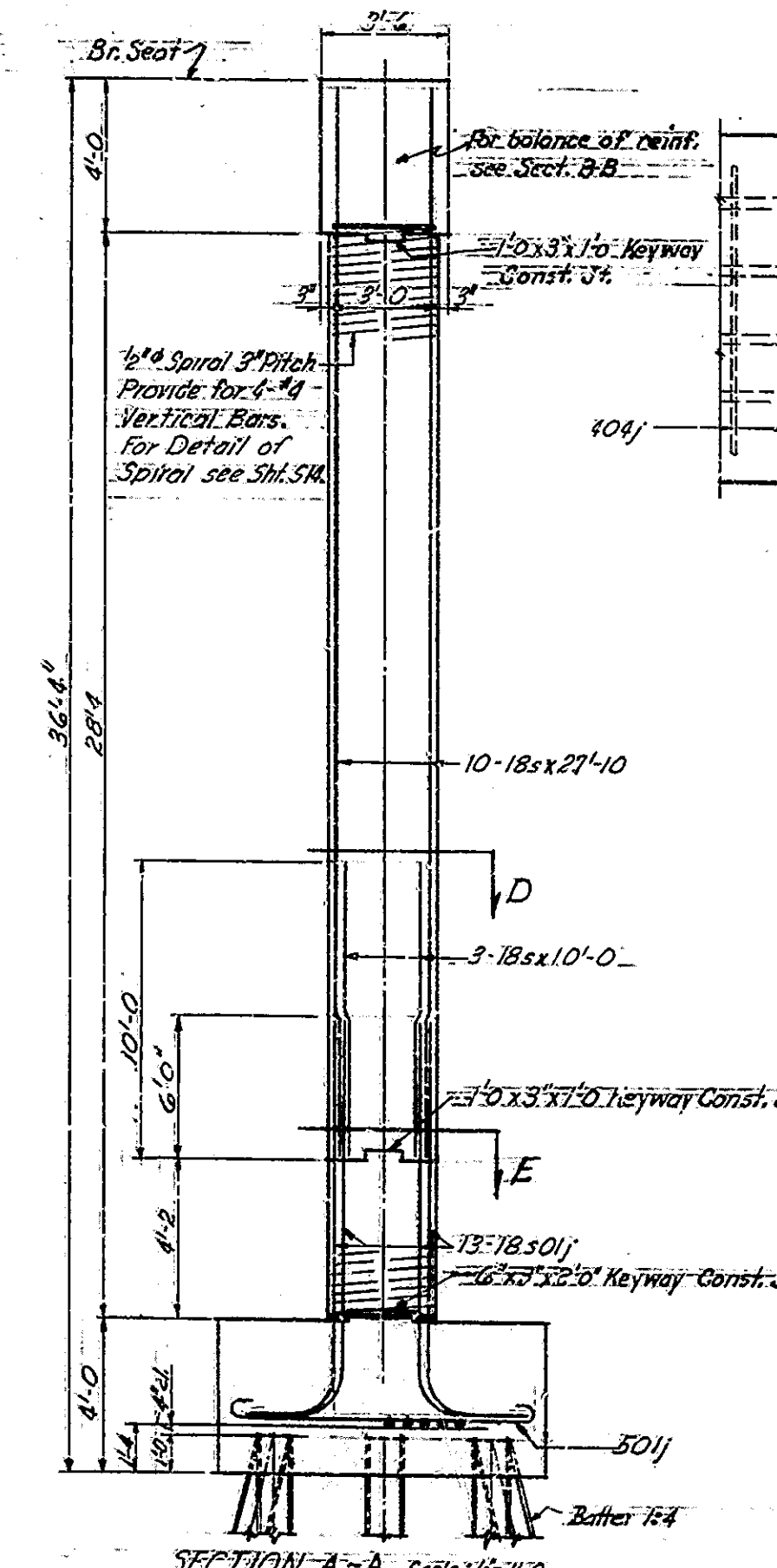
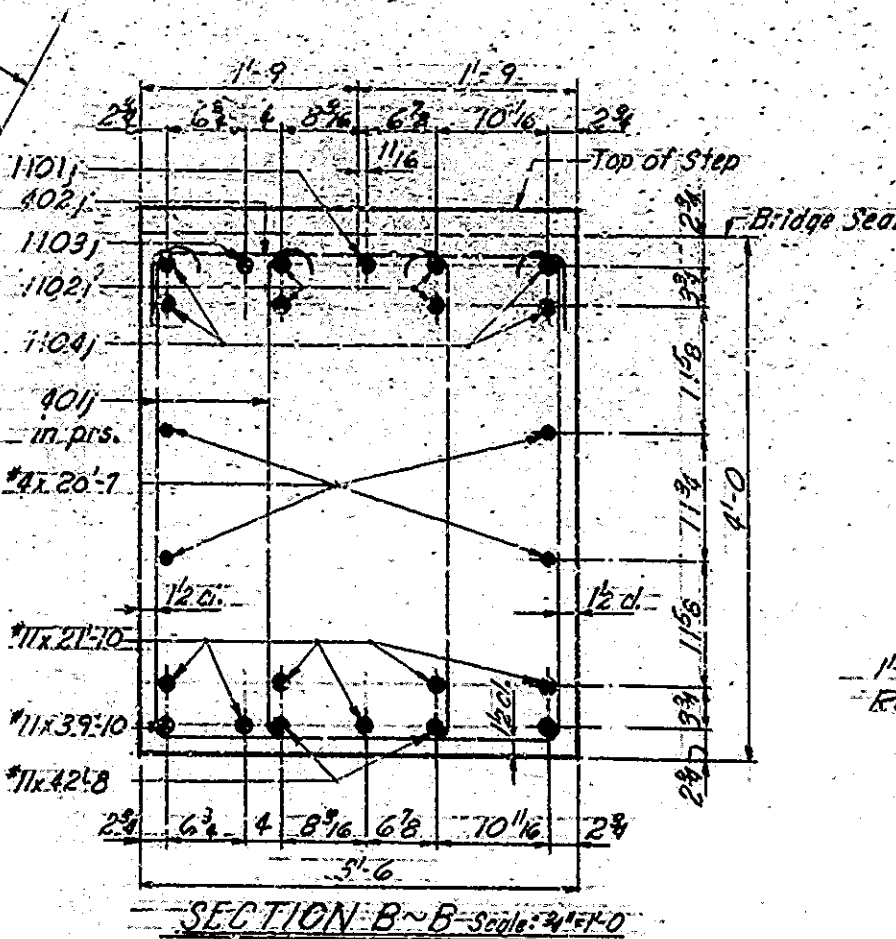
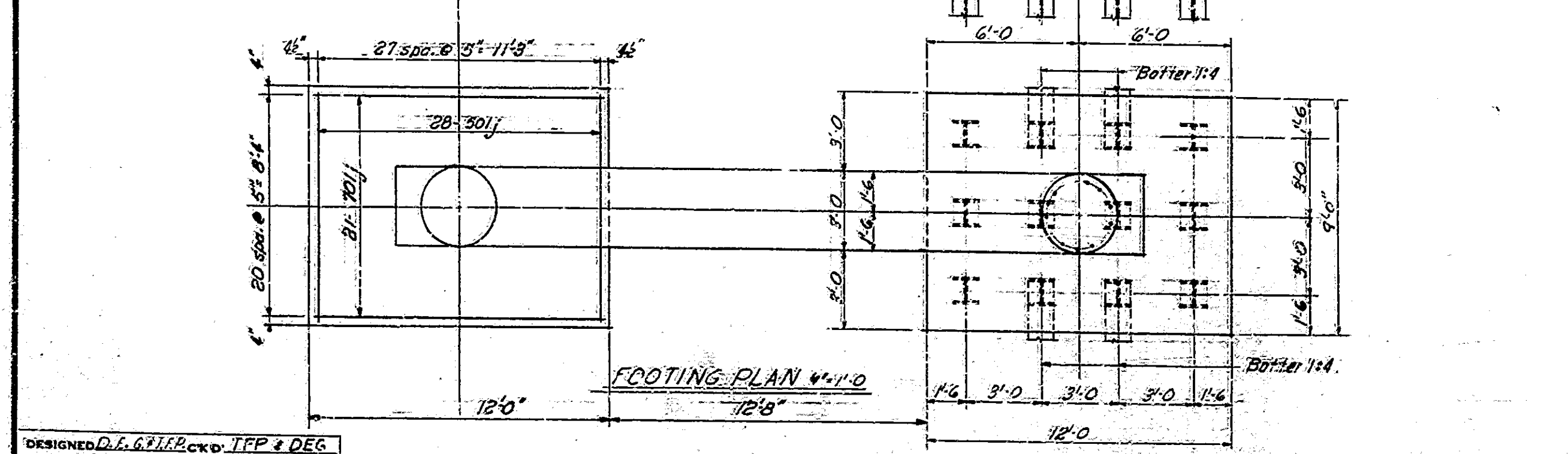
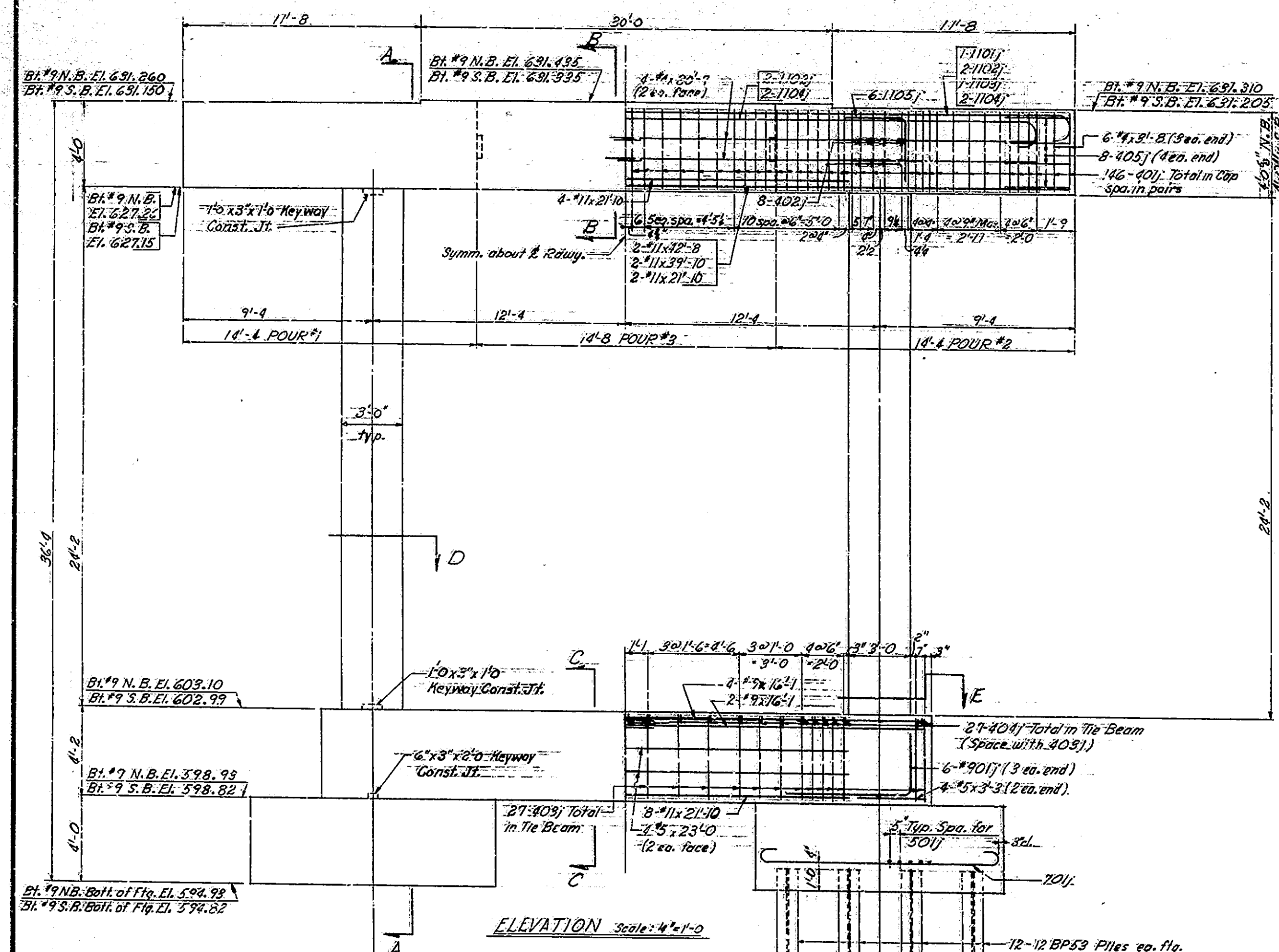
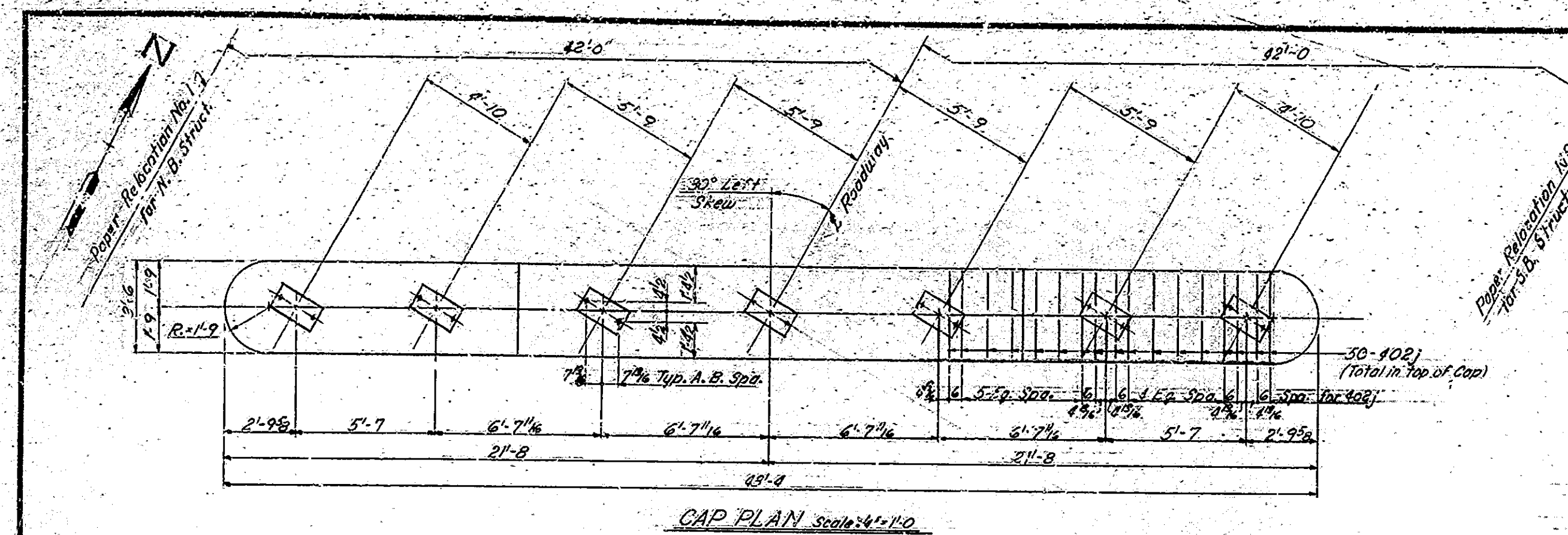


BRIDGES OVER 20' SPAN				
PUB. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	1-65-C (52)168	1962	23

**BILL OF MATERIALS**  
 BENT NO. 9 NORTHBOUND STRUCTURE  
 BENT NO. 9 SOUTHBOUND STRUCTURE

REINFORCING STEEL		SCHEDULE OF BENT BARS	
MARK	NO. OF BARS	MARK	LENGTH
1850J	26	1850J	15'7"
#18	20	#18	27'11"
#18	6	Total #18	15,920'
1101J	1	1101J	14'-2"
1102J	4	1102J	45'-10"
1103J	1	1103J	45'-6"
1104J	1	1104J	45'-0"
1105J	12	1105J	7'-6"
901J	1	901J	42'-8"
901J	2	901J	13'-2"
501J	2	501J	9'-8"
401J	6	401J	10'-10"
402J	5	402J	0'-6"
403J	7	403J	10'-11"
404J	5	404J	3'-7"
405J	3	405J	8'-0"
Total #18		Total #9	5354'
701J	42	701J	18'-2"
Total #7		Total #7	7780'
501J	36	501J	9'-8"
#5	4	#5	23'-0"
#5	4	#5	3'-2"
Total #5		Total #5	676'
401J	146	401J	10'-10"
402J	66	402J	4'-3"
403J	27	403J	10'-11"
404J	27	404J	3'-7"
405J	8	405J	8'-0"
#4	8	#4	20'-7"
#4	6	#4	3'-8"
Total #4		Total #4	1473'
4" Spiral	2	4" Spiral	1508'
Total Reinf.		Total Reinf.	25,039'

CONCRETE	
Class D in Footings	32.0 Cu Yds
Class D in the Beam	12.7 Cu Yds
Class D in Columns	12.7 Cu Yds
Total Class D	57.4 Cu Yds
Class F in Cap	22.3 Cu Yds
<b>MISCELLANEOUS</b>	
24 9P53-H Piles	26.9 Cu Yds
x 43'-0"	1038' Lin. Ft.



24-12BP53 x 43'-0" H-Piles  
(Driven to Approx. Refusal)

NOTES:  
 For Reinforcing Bar Notes see Eng. Sta. C1.  
 Dimensions shown for locating anchor bolts are for checking field clearance between reinf. steel and Anchor Bolts. Reinforcing steel shall be adjusted to maintain 2" clearance.  
 Spirals shall have one and one-half (1 1/2) extra turns provided at the ends and one and one-half (1 1/2) turns of top of adjoining sections. Cost of spacer bars to be included in cost of the spirals. Spirals to be cold drawn wire.  
 For Top Anchor Bolt Setting Detail see SHI 517.  
 Gal. bars to be hard grade steel.  
 For Fixed Shoes and Anchor Bolts see Eng. Sta. 530.  
 Notes for Anchor Bolts to be Drilled.

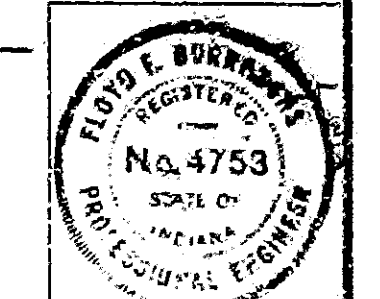
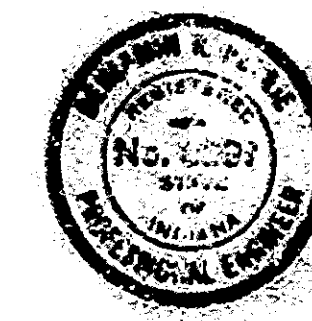
**SCHEDULE OF BENT BARS**

MARK	TYPE	O	H	LENGTH
1850J	2	2'-3"	11'-6"	15'-7"
1101J	2	45'-0"		46'-2"
1102J	2	42'-8"		45'-10"
1103J	2	42'-4"		45'-6"
1104J	2	39'-10"		43'-0"
1105J	1	3'-9"	3'-6"	7'-6"
901J	1	6'-0"	3'-0"	9'-0"
901J	2	11'-6"		13'-2"
501J	2	18'-6"		9'-8"
401J	6	2'-1"	3'-9"	10'-10"
402J	5	3'-3"	0'-6"	4'-3"
403J	7	2'-7"	3'-8"	10'-11"
404J	5	2'-7"	0'-6"	3'-7"
405J	3	1'-6"	3'-2"	8'-0"

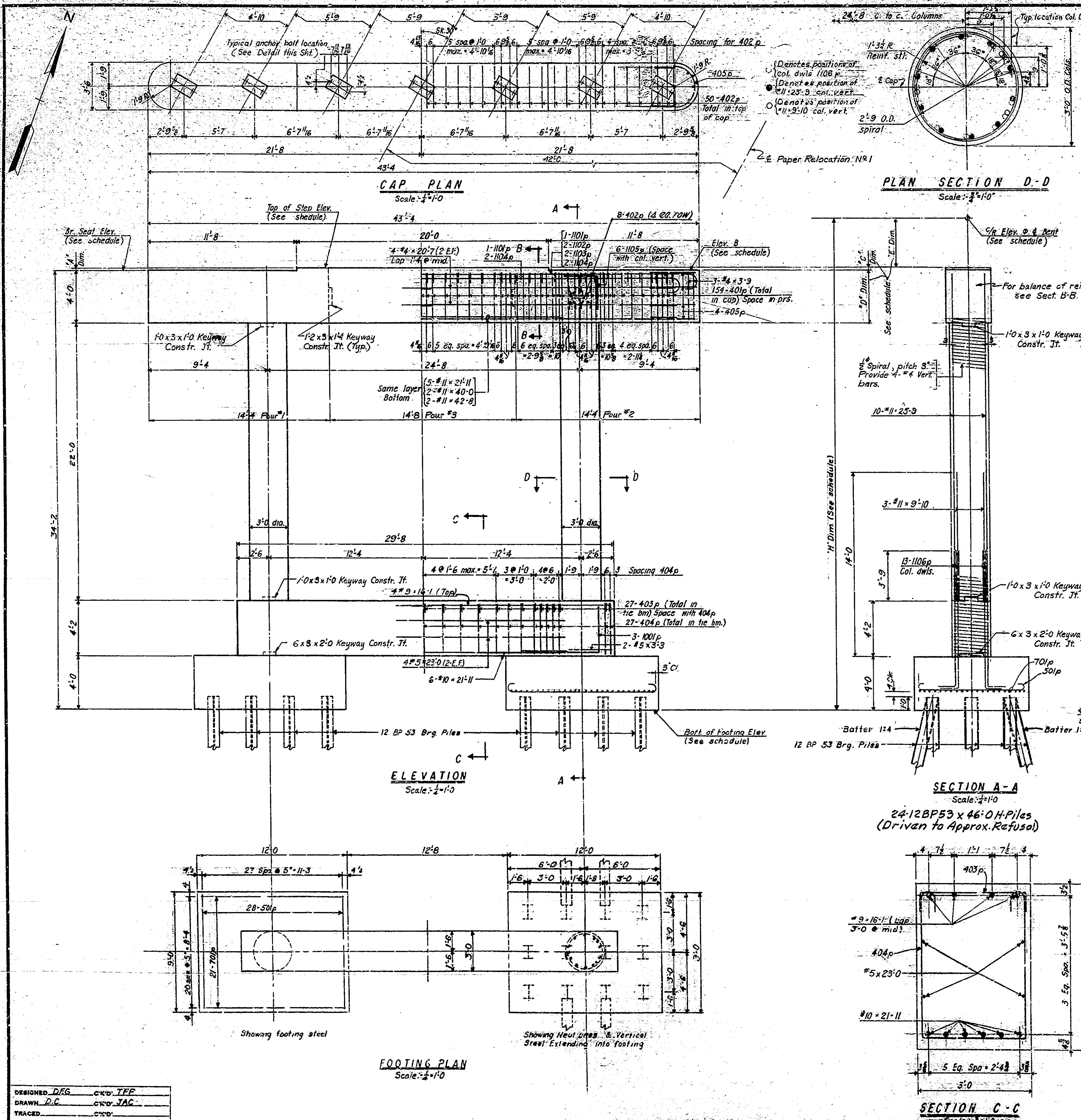
NOTE:  
 For placing of Bar 405J See Sect. D' 5'-4, 511

BENT NO. 9 NORTHBOUND  
 BENT NO. 9 SOUTHBOUND  
**STATE HIGHWAY DEPARTMENT OF INDIANA**

SCALE: AS NOTED  
 SUBMITTED FOR APPROVAL: *[Signature]*  
 DRAWING: S16 OF 543  
 PROJECT: 1-65-2(52)168  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: 1-65-68-4659-4699J



DESIGNED: D.L. GRIFFIN, CKD, TFP & DEG  
 DRAWN: J.E. C. CKD, JAG  
 TRACED: CKD



**SCHEDULE OF ELEVATIONS & DIMENSIONS**

BENT NO.	SPAN DIM.	BRIDGE SEAT ELEV.	TOP OF STEP ELEV.	ELEV. DIM.	C/D DIM.	1/2 R ELEV. DIM.	BOX OF FTG. EL.	E DIM.	H DIM.
3-S.B.	21'-8"	629.125	629.290	629.135	11'-8"	4'-0"	634.48	52'-96"	5'-2 1/2"
4-S.B.	21'-8"	629.160	629.325	629.160	11'-8"	4'-0"	634.52	52'-96"	5'-2 1/2"
5-S.B.	21'-8"	629.250	629.435	629.285	11'-8"	4'-0"	634.63	52'-96"	5'-2 1/2"

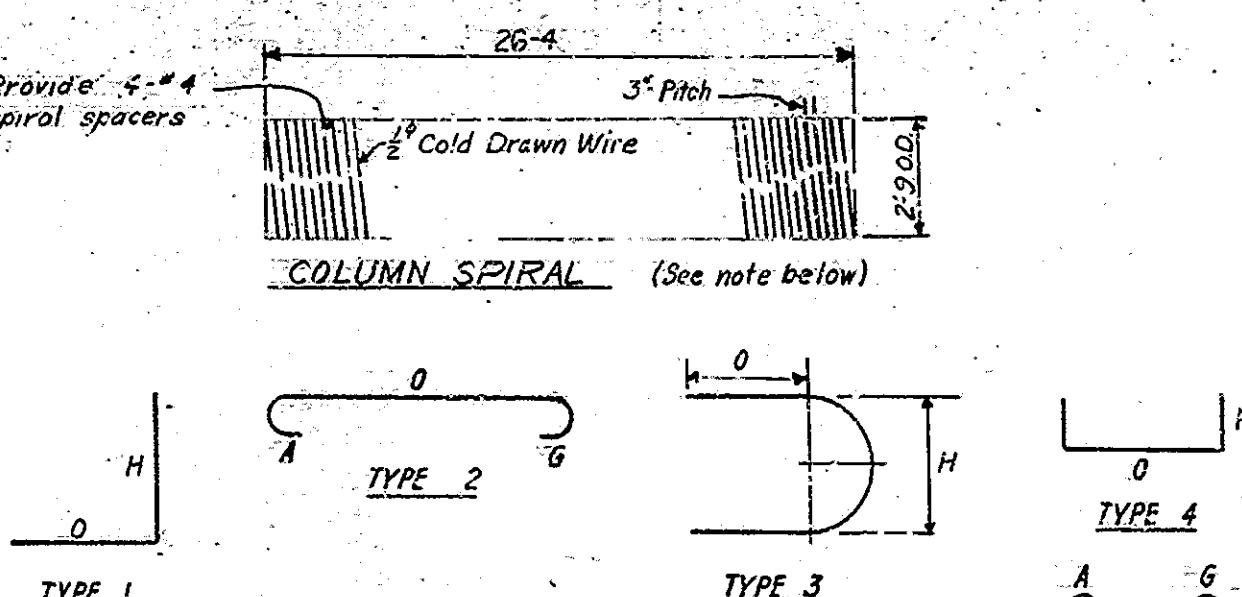
**BRIDGES OVER 20' SPAN**

PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (52)68	1962	24	89

**BILL OF MATERIALS**  
BENT NO. 3, 4 & 5 SOUTHBOUND  
(BENTS NO. 4 S.B. & NO. 5 S.B. SAME)

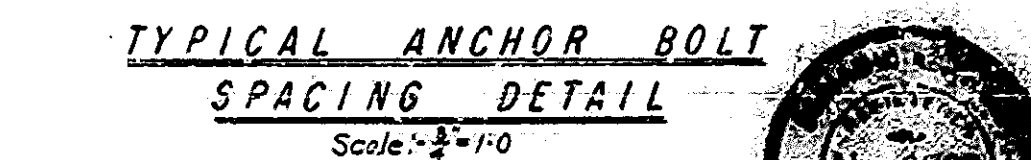
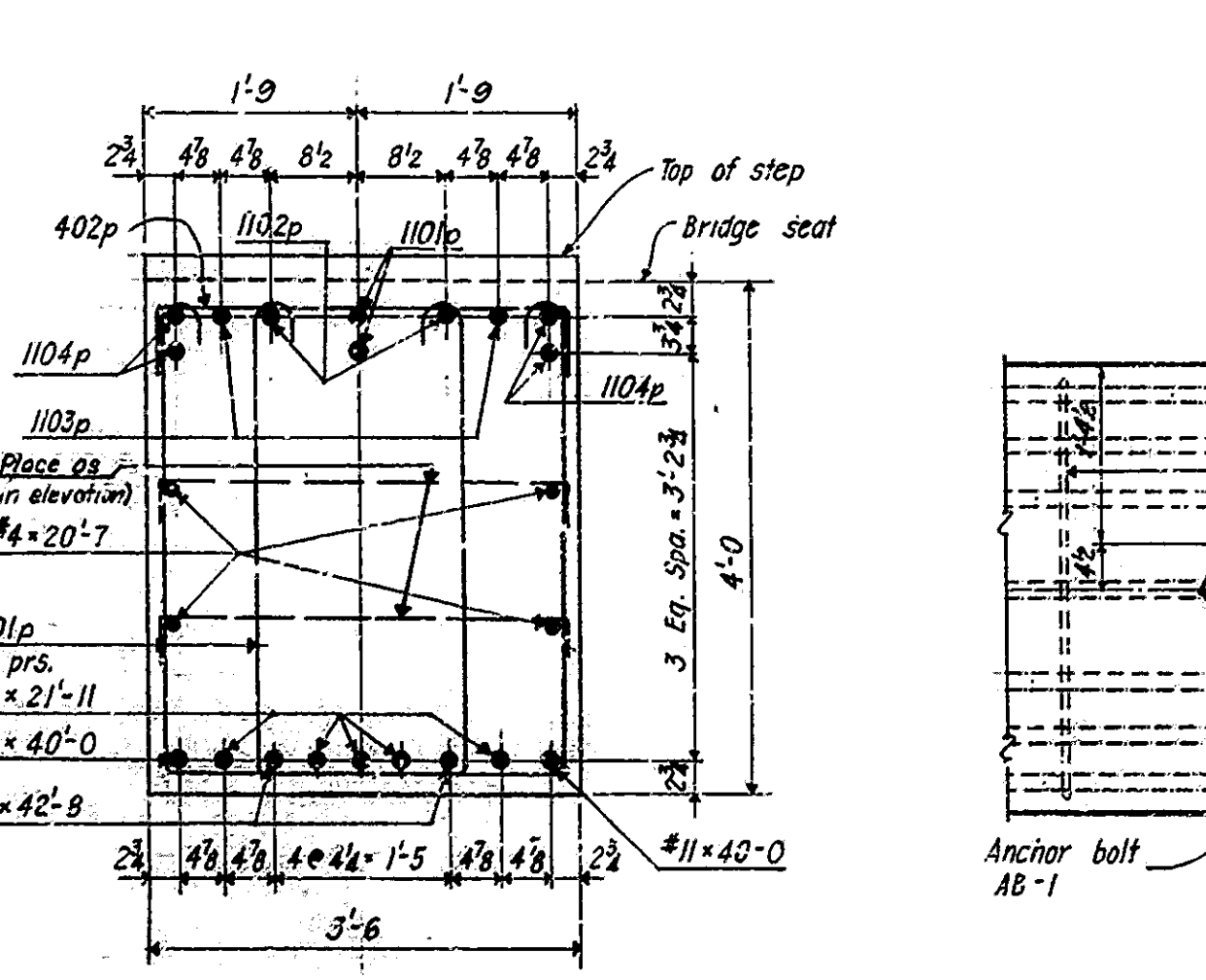
**REINFORCING STEEL**

SIZE OR MARK	NO. OF BARS	LENGTH	WEIGHT
1101p	2	45'-2"	
1102p	2	45'-10"	
1103p	2	45'-2"	
1104p	4	43'-2"	
1105p	12	7'-6"	
1106p	26	11'-11"	
#11	2	42'-0"	
#11	20	25'-3"	
#11	5	21'-11"	
#11	6	9'-10"	
Total Weight #11 Bars			9010
1001p	2	9'-9"	
#10	6	21'-11"	
Total Weight #10 Bars			611
#9	8	16'-1"	
Total Weight #9 Bars			437
701p	42	13'-2"	
Total Weight #7 Bars			1130
501p	56	9'-8"	
#5	4	23'-0"	
#5	4	9'-2"	
Total Weight #5 Bars			674
401p	154	7'-10"	
402p	66	4'-3"	
403p	27	3'-7"	
404p	27	10'-11"	
405p	8	8'-0"	
#4	8	20'-7"	
#4	6	3'-9"	
Total Weight #4 Bars			1749
#3 Spiral	2	26'-4"	
Total Weight #3 Spirals			1392
<b>TOTAL REINFORCING STEEL</b>			<b>18703</b>
<b>CONCRETE</b>			
Class F in Top			277.3 cu.
Class D in Tie Bm.			13.7 cu.
Class D in Columns (2@52c)			1165 cu.
Total Class D			253.2 cu.
Class E in Piers (2@100 cys)			32.0 cys.
<b>MISCELLANEOUS</b>			
24-12BP53 H-File x 4'-0"			1104 Lin. Ft.



**SCHEDULE OF BENT BARS**

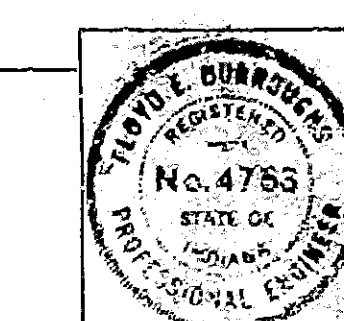
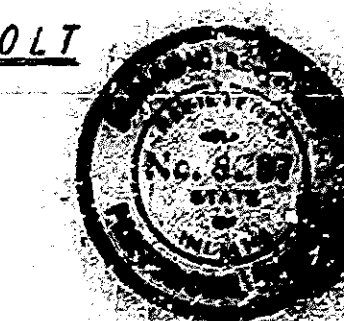
MARK	TYPE	A	G	O	H	LENGTH
1101p	2	Std.	Std.			43'-0"
1102p	2					42'-8"
1103p	2					42'-0"
1104p	2					43'-2"
1105p	1			3'-9"	7'-6"	
1106p	7			1'-6"	10'-5"	11'-11"
1001p	1			5'-2"	3'-7"	9'-9"
701p	2	Std.	Std.			13'-2"
501p	2			2'-6"		9'-8"
401p	5			2'-6"	3'-9"	11'-0"
402p	4			3'-3"	0'-8"	4'-3"
403p	4			2'-7"	0'-8"	3'-7"
404p	5	Std.	Std.	2'-7"	3'-8"	10'-11"
405p	3			1'-6"	3'-2"	8'-0"

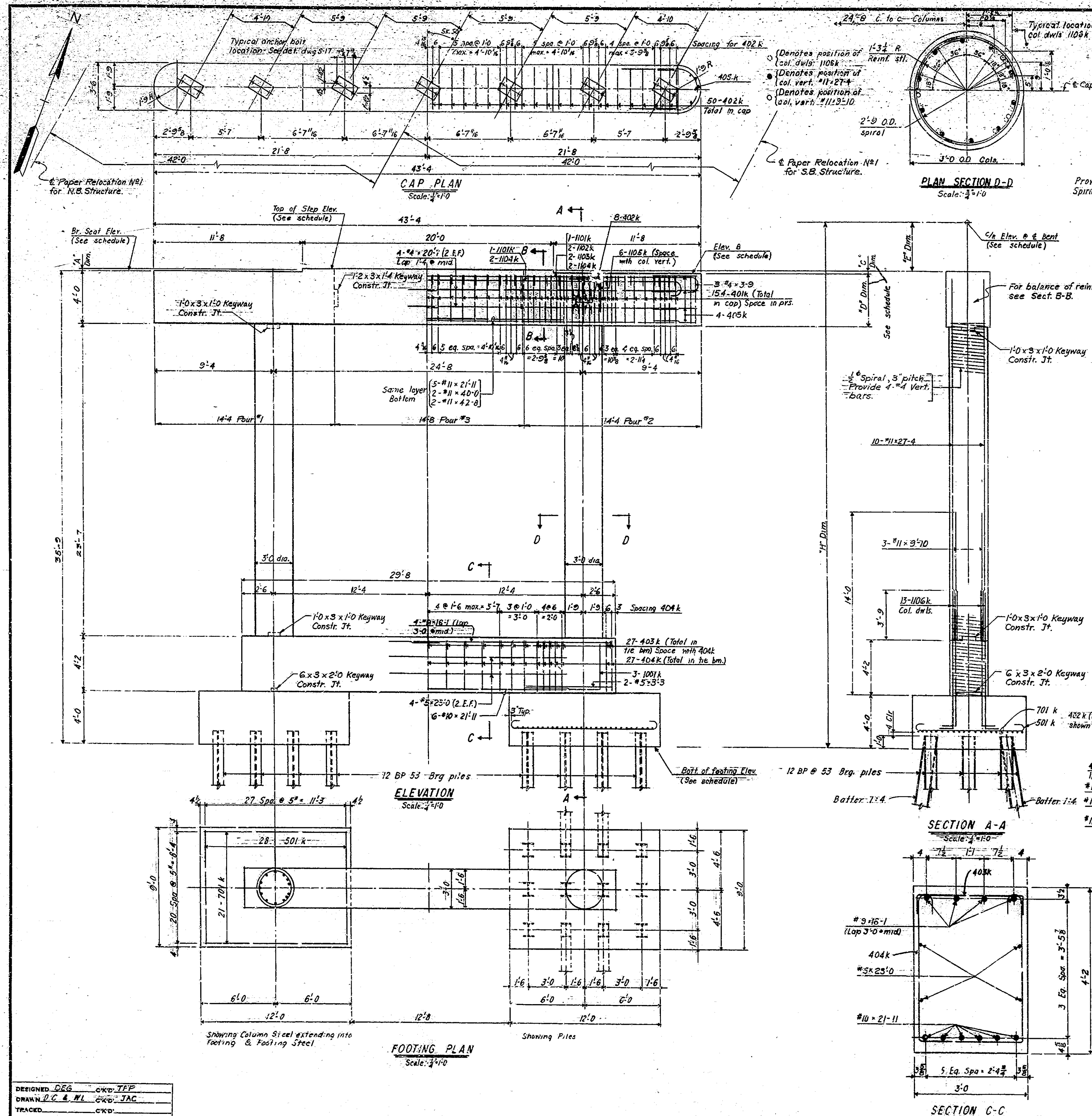


**NOTES**  
See Bridge Standard C-1 for reinforcing bar notes.  
Holes for anchor bolts to be drilled.  
For Expansion Plate & Anchor Bolt details, see DWG. S30.  
Dimensions shown for locating anchor bolts are for checking field clearance between reinforcing steel and anchor bolts. Reinforcing steel shall be adjusted to maintain 1/2" clearance.  
Spirals shall have one & one-half extra turns provided at the ends and one and one-half turns of lap at adjoining sections.  
Cost of spacer bars to be included in cost of spirals.  
Spiral bars to be cold drawn wire.  
Column bars to be hard grade steel.  
Holes for Anchor Bolts to be Drilled.

**BENT NO. 3, 4 & 5 SOUTHBOUND**  
**STATE HIGHWAY DEPARTMENT OF INDIANA**  
SCALE: AS NOTED  
SUBMITTED FOR APPROVAL *F. L. Burroughs*  
DRAWING: S17 OF S43  
PROJECT: 1-65-2(52)68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: 1-65-68-4699-4699 J  
SEPT. 11, 1961

DESIGNED: D.E.G. CKD: T.F.F.  
DRAWN: D.C. CKD: J.A.C.  
TRACED: C.K.D.





**SCHEDULE OF ELEVATIONS & DIMENSIONS**

BENT NO.	BRIDGE DIM.	TOP OF STEP ELEV.	ELEV.	C DIM.	B DIM.	W/ELEV. OF BENT	BOT. OF FIG. EL.	E. DIM.	H. DIM.
10-S.B.	24	630.440	630.510	7 1/2	4'0"	635.84	594.60	5-2 1/2'	41-1 1/4'
11-S.B.	24	630.715	630.770	7 1/2	4'0"	636.10	594.97	5-2 1/2'	41-1 1/4'
12-S.B.	24	630.865	631.035	7 1/2	4'0"	636.36	595.215	5-2 1/2'	41-1 1/4'
10-N.B.	24	630.545	630.615	7 1/2	4'0"	636.01	594.915	5-3 1/2'	41-2 1/4'
11-N.B.	24	630.830	630.875	7 1/2	4'0"	636.27	595.06	5-3 1/2'	41-2 1/4'
12-N.B.	24	631.090	631.140	7 1/2	4'0"	636.53	595.34	5-3 1/2'	41-2 1/4'

**SCHEDULE OF BENT BARS**

MARK	TYPE	A	G	O	H	LENGTH
1101k	2	Std	Std	43'-0"		46'-2"
1102k	2			42'-8"		45'-10"
1103k	2			42'-0"		45'-2"
1104k	2			40'-0"		43'-2"
1105k	2			3'-9"	3'-9"	7'-6"
1106k	2			1'-6"	10'-5"	10'-11"
1001k	1			6'-2"	3'-7"	9'-9"
701k	2	Std	Std	11'-6"		13'-2"
501k	2			8'-6"		9'-8"
401k	5			2'-6"	5'-9"	11'-0"
402k	4			2'-3"	0'-6"	4'-3"
403k	4			2'-7"	0'-6"	4'-7"
404k	5	Std	Std	2'-7"	3'-8"	10'-11"
405k	3			1'-6"	3'-2"	8'-0"

**BRIDGES OVER 20' SPAN**

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2(52)68	1962	25	89

**BILL OF MATERIALS**  
 BENT NO. 10, 11 & 12 NORTHBOUND  
 (BENTS NO. 11, 12 S.B. STRUCT. SAME)  
 BENTS NO. 10, 11, 12 N.B. STRUCT. SAME.)

**REINFORCING STEEL**

SIZE OR MARK	Nº OF BARS	LENGTH	WEIGHT
1101k	2	46'-2"	
1102k	2	45'-10"	
1103k	2	45'-2"	
1104k	4	43'-2"	
1105k	12	7'-6"	
1106k	26	10'-11"	
#11	3	42'-8"	
#11	2	40'-0"	
#11	20	27'-4"	
#11	5	21'-11"	
#11	6	9'-10"	
Total Weight #11 bars			917#
1001k	6	9'-9"	
#10	6	21'-11"	
Total Weight #10 bars			88#
#9	8	16'-1"	
Total Weight #9 bars			437#
701k	42	13'-2"	
Total Weight #7 bars			1130#
501k	56	9'-8"	
#5	4	25'-0"	
#5	4	3'-3"	
Total Weight #5 bars			674#
401k	164	11'-0"	
402k	36	4'-3"	
403k	27	3'-7"	
404k	27	10'-11"	
405k	3	8'-0"	
#4	6	20'-7"	
#4	6	3'-9"	
Total Weight #4 bars			1749#
#3 Spiral	22	27'-11"	
Total Weight #3 Spiral			1474#
<b>TOTAL REINFORCING STEEL</b>			<b>15460#</b>
<b>CONCRETE</b>			
Class F in cap			22.7 cys
Class D above footing (via beam)			24.0 cys
Class E in footing (2:1:14.0)			32.0 cys
<b>MISCELLANEOUS</b>			
24-12 BP 53-7 1/2 Pile @ 43'-0"			1032 Lm Ft.

**BENT NO. 10, 11 & 12 NORTHBOUND**  
**BENT NO. 10, 11 & 12 SOUTHBOUND**  
**STATE HIGHWAY DEPARTMENT OF INDIANA**

SCALE: AS NOTED  
 SUBMITTED FOR APPROVAL: *[Signature]*  
 DRAWING: S18 OF S43  
 PROJECT: 1-65-2(52)68  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: 1-65-68-4699-4699 J



SEPT. 11, 1961

DESIGNED: DEG  
 CHECKED: TEP  
 DRAWN: P.C. & W.L.  
 CHECKED: JAC  
 TRACKED: CKD

BRIDGES OVER 20' SPAN					
PUB. ROAD DIST. NO.	DATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (52)68	1962	22	89

**BILL OF MATERIALS**

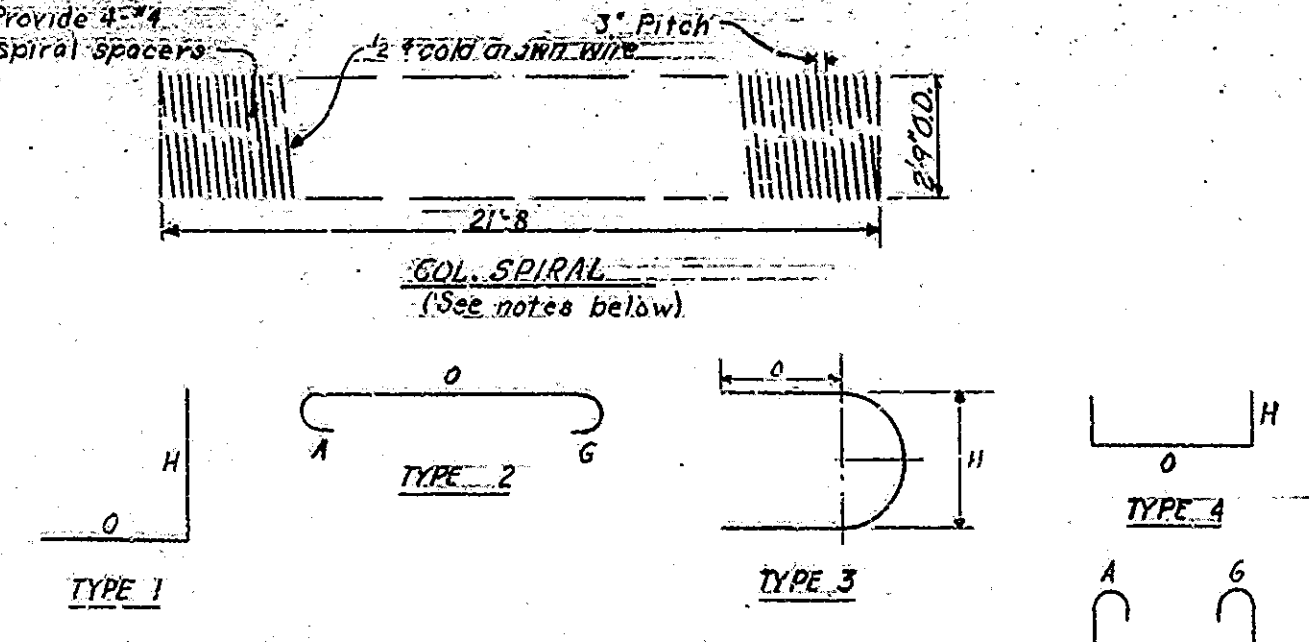
BENT NO. 13 S.B. STRUCTURE  
(BENT NO. 14 S.B. STRUCT. & BENTS NO. 13, 14 N.B. STRUCT. SAME)

REINFORCING STEEL			
SIZE OR MARK	N° OF BARS	LENGTH	WEIGHT
1101r	2	46'-2"	
1102r	2	45'-10"	
1103r	2	45'-2"	
1104r	4	43'-2"	
#11	2	48'-8"	
#11	2	40'-0"	
#11	5	21'-11"	
Total Weight #11 Bars			3836 #
901r	12	6'-0"	
902r	6	9'-1"	
#9	6	21'-11"	
#9	20	21'-0"	
#9	20	9'-11"	
Total Weight #9 Bars			2460 #
701r	42	13'-2"	
#7	10	15'-9"	
Total Weight #7 Bars			1452 #
501r	56	9'-8"	
#5	4	23'-0"	
#5	4	3'-5"	
Total Weight #5 Bars			674 #
401r	154	11'-0"	
402r	56	4'-3"	
403r	27	3'-7"	
404r	27	10'-11"	
405r	8	8'-0"	
#4	8	20'-7"	
#4	6	3'-9"	
Total Weight #4 Bars			1749 #
#4 spiral	2	21'-8"	
Total Weight Spirals			1151 #
TOTAL REINFORCING STEEL			11862 #

CONCRETE	
Class F in cap	22.7 cys.
Class D above footings (tie beam)	13.7 cys.
Columns (2 @ 4.55 cys.)	22.8 cys.
Class E in Footings (2 @ 16.0 cys.)	32.0 cys.

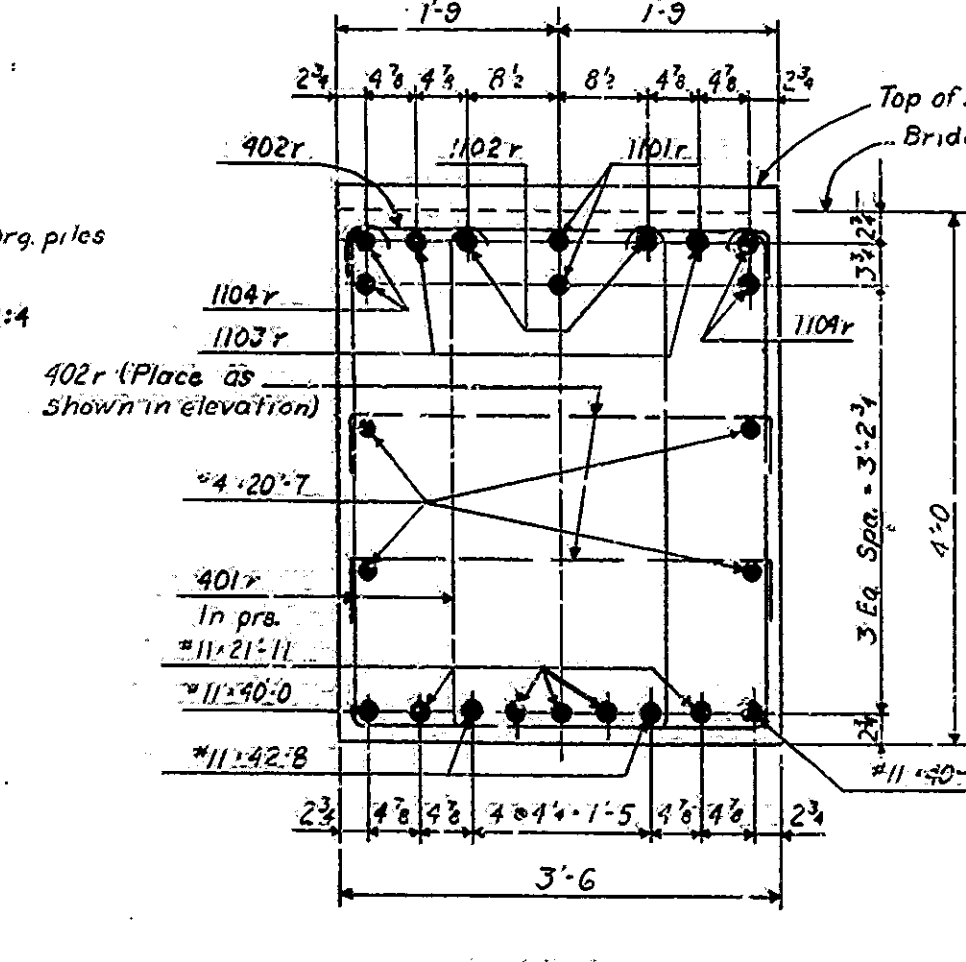
MISCELLANEOUS	
24-12BP53-H.Piles x 54'-0"	1296 Lin.Ft.

SCHEDULE OF ELEVATIONS & DIMENSIONS											
BENT NO.	MARK	SEAT ELEV.	TOP OF STEP ELEV.	ELEV.	DIM.	DIM.	7/8" ELEV.	2" BENT ELEV.	BOT. OF FTG. ELEV.	DIM.	DIM.
13-S.B.	24	631.240	631.425	631.235	14'	4'-0"	636.63	601.74	5'-2"	34'-10 1/2"	
14-S.B.	23	631.490	631.675	631.540	14'	4'-0"	636.89	601.99	5'-2"	34'-10 1/2"	
13-N.B.	24	631.330	631.525	631.400	14'	4'-0"	636.80	601.85	5'-3 1/4"	34'-11 1/4"	
14-N.B.	23	631.615	631.790	631.625	14'	4'-0"	637.06	602.12	5'-3 1/4"	34'-11 1/4"	



SCHEDULE OF BENT BARS						
MARK	TYPE	A	G	O	H	LENGTH
1101r	2	Std.	Std.	43'-0"		46'-2"
1102r	2			42'-8"		45'-10"
1103r	2			42'-0"		45'-2"
1104r	2			40'-0"		43'-2"
901r	1			3'-0"	3'-0"	6'-0"
902r	1			6'-4"	3'-0"	9'-1"
701r	2	Std.	Std.	7'-6"		13'-2"
501r	2			8'-6"		9'-8"
401c	5			2'-6"	3'-9"	11'-0"
402r	4			3'-3"	0'-6"	4'-3"
403r	4			2'-7"	0'-8"	3'-7"
404r	5	Std.	Std.	2'-7"	3'-3"	10'-11"
405r	3			12'-6"	3'-2"	8'-0"

24-12BP53 x 54'-0" H-Piles (Driven to Approx. Refusal)

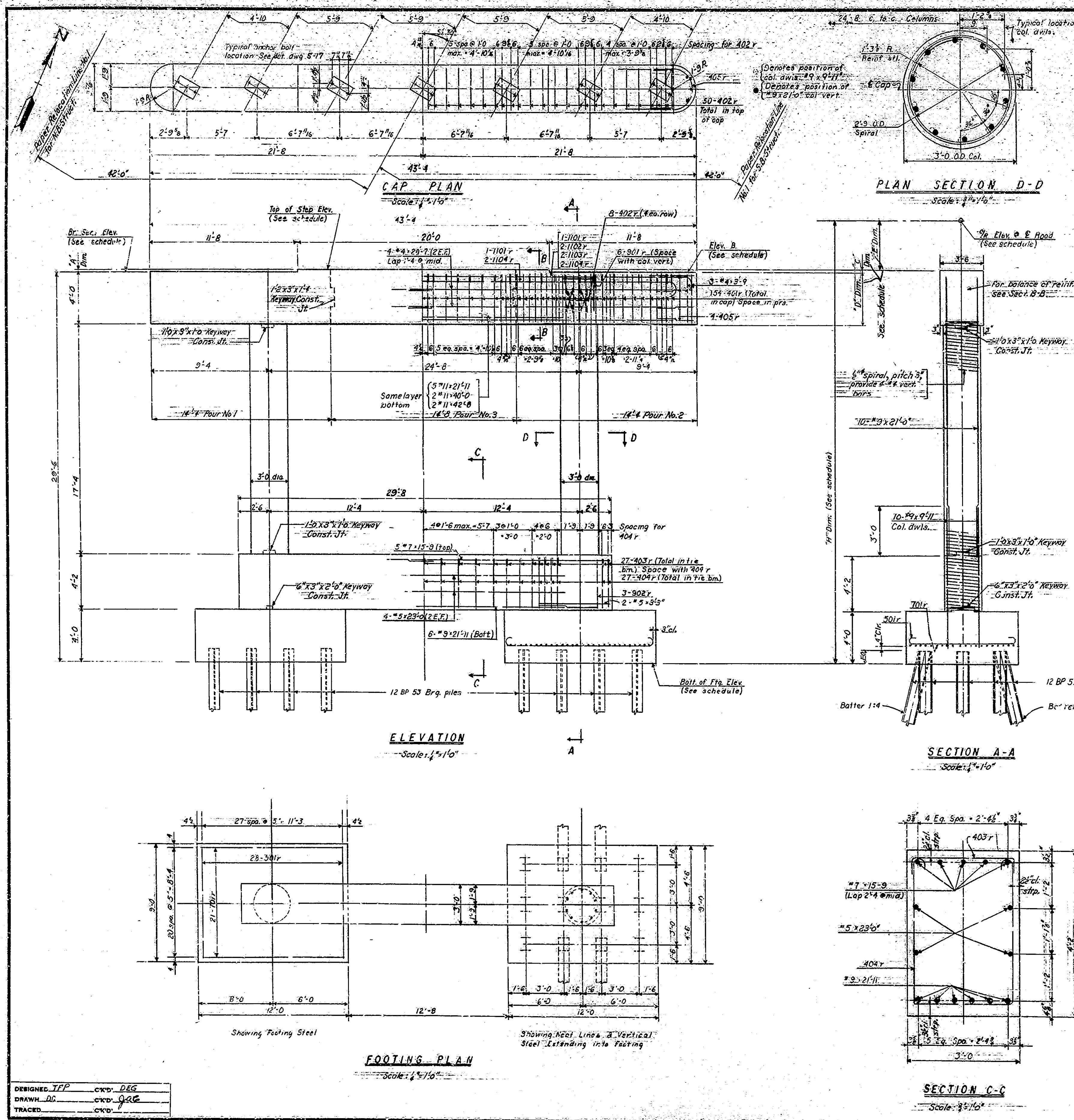
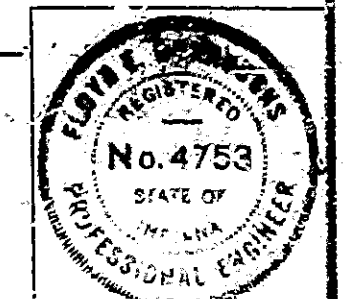


**NOTES:**  
 Holes for Anchor Bolts to be Drilled.  
 See Bridge Standard C-1 for reinforcing bar rates.  
 Holes for anchor bolts to be drilled.  
 Dimensions shown for locating anchor bolts are for checking field clearance between reinforcing steel & anchor bolts. Reinforcing steel shall be adjusted to maintain 1/2 inch clearance.  
 For Exp. Pile and Anchor Bolt Details see Dwg. 530.  
 Spirals shall have one and one half (1 1/2) extra turns provided at the ends and one and one half (1 1/2) turns of lap at adjoining sections. Spirals to be 1/2" cold drawn wire.  
 Cost of spacer bars to be included in cost of spiral.  
 Col. bars to be hard grade steel.

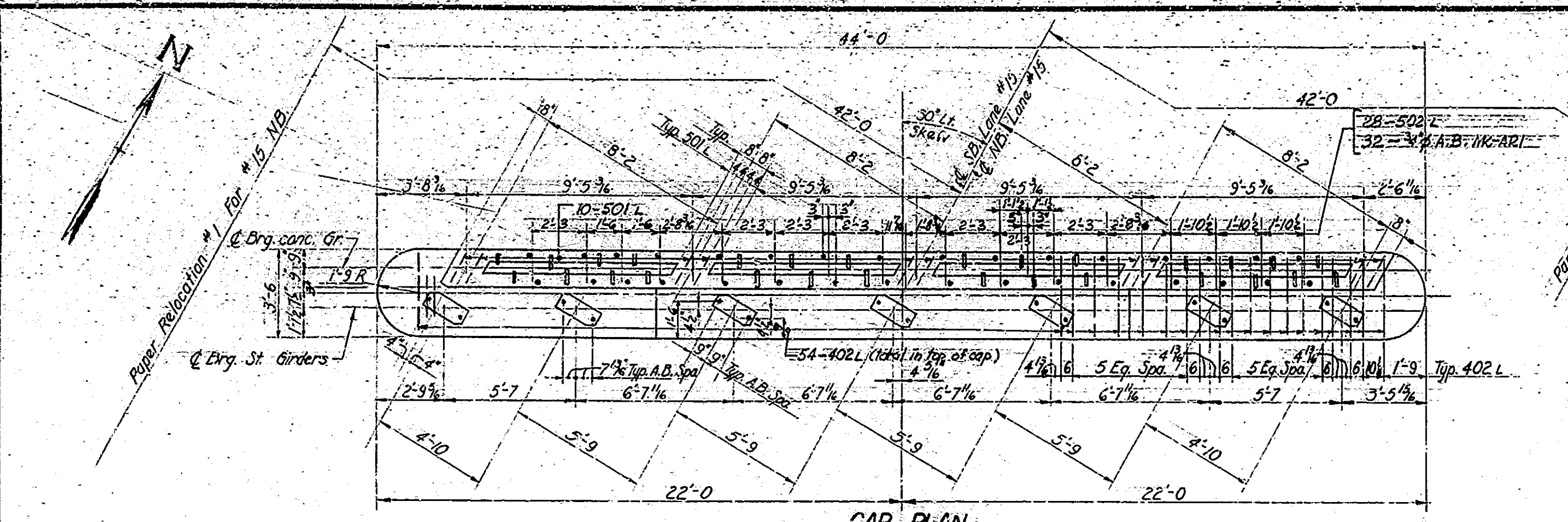
BENT NO. 13 & 14 NORTHBOUND  
 BENT NO. 13 & 14 SOUTHBOUND  
**STATE HIGHWAY DEPARTMENT OF INDIANA**

SEPT. 11, 1961

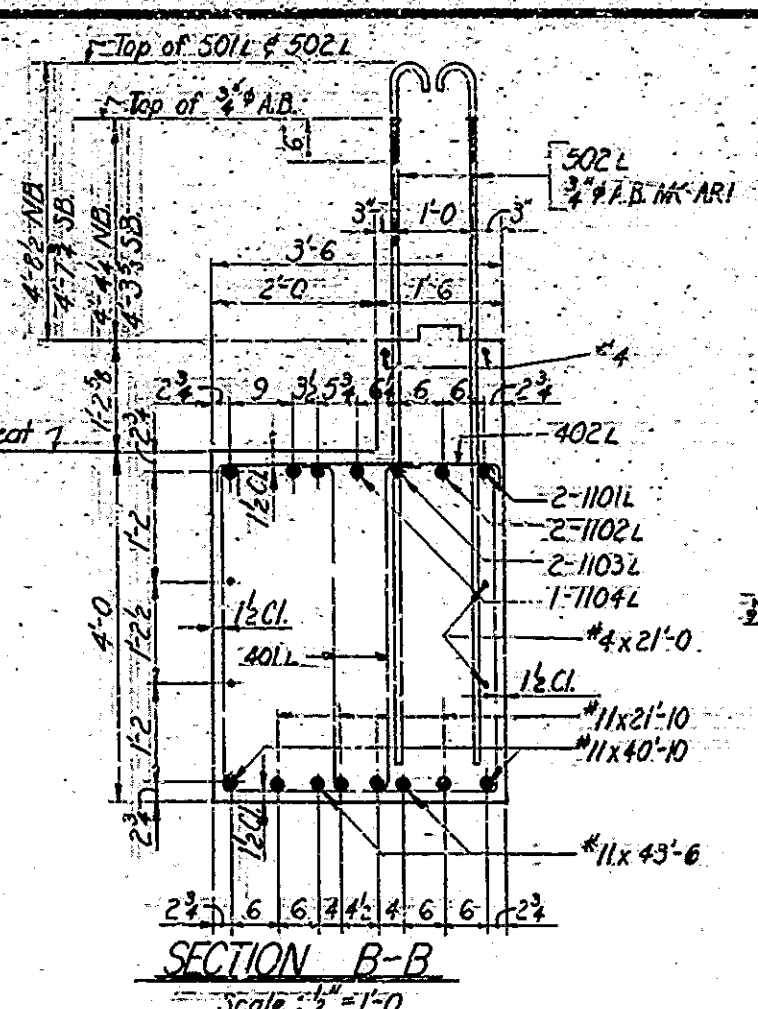
SCALE: AS NOTED  
 SUBMITTED FOR APPROVAL: *J. B. Burroughs*  
 DRAWING: S15 OF S43  
 PROJECT: 1-65-2(52)68  
 BRIDGE CONTRACT NO. 54-27  
 BRIDGE FILE: 1-65-68-4699-4699 J



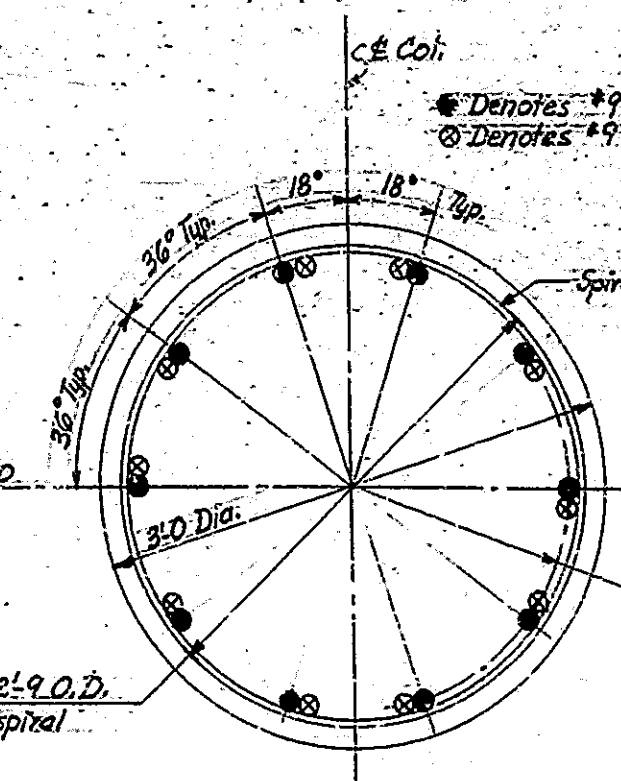
DESIGNED: JFP	CHK'D: DEG
DRAWN: DG	CHK'D: GAE
TRACED: CK'D	



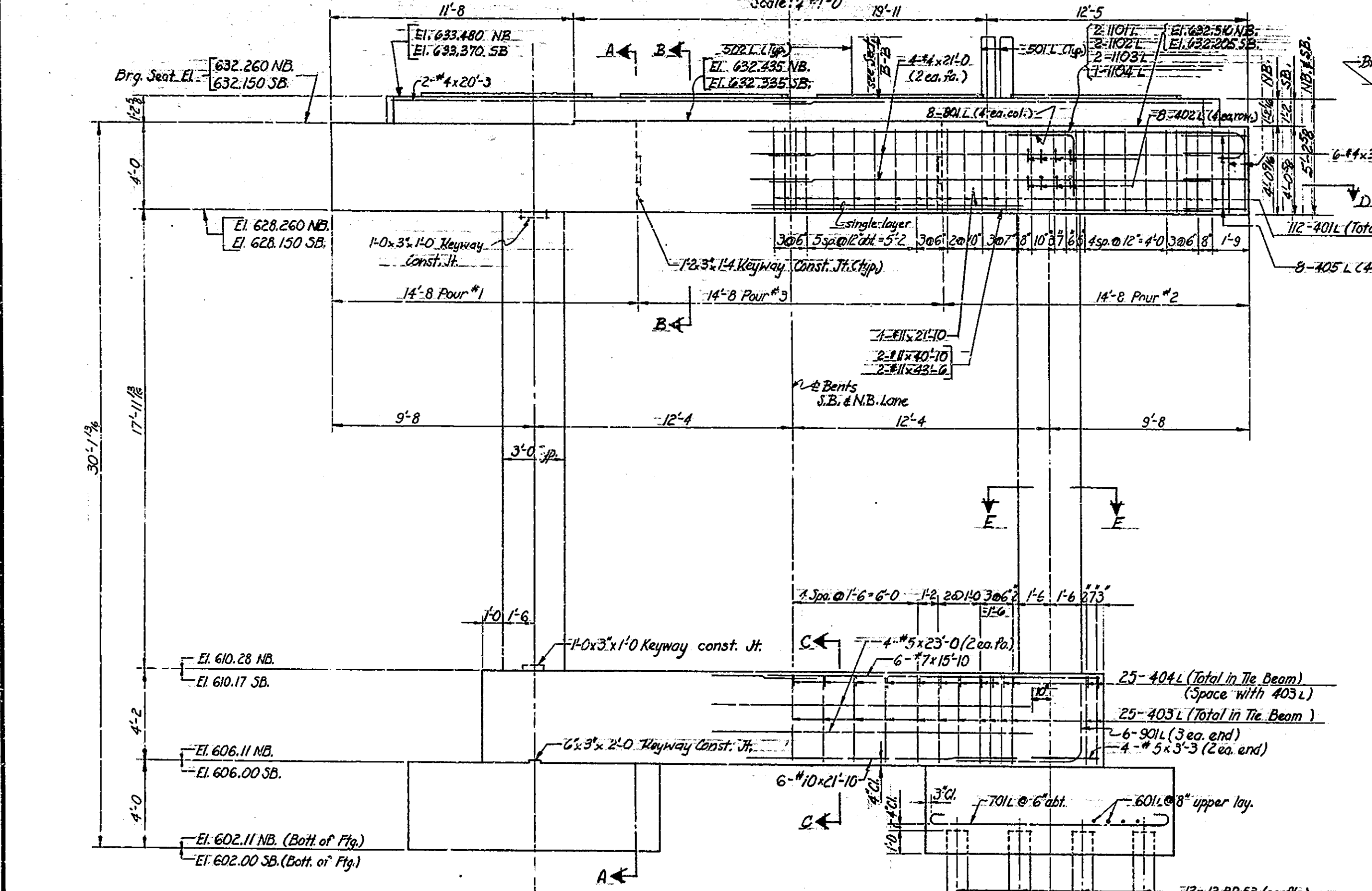
**CAP PLAN**  
Scale: 1/4" = 1'-0"



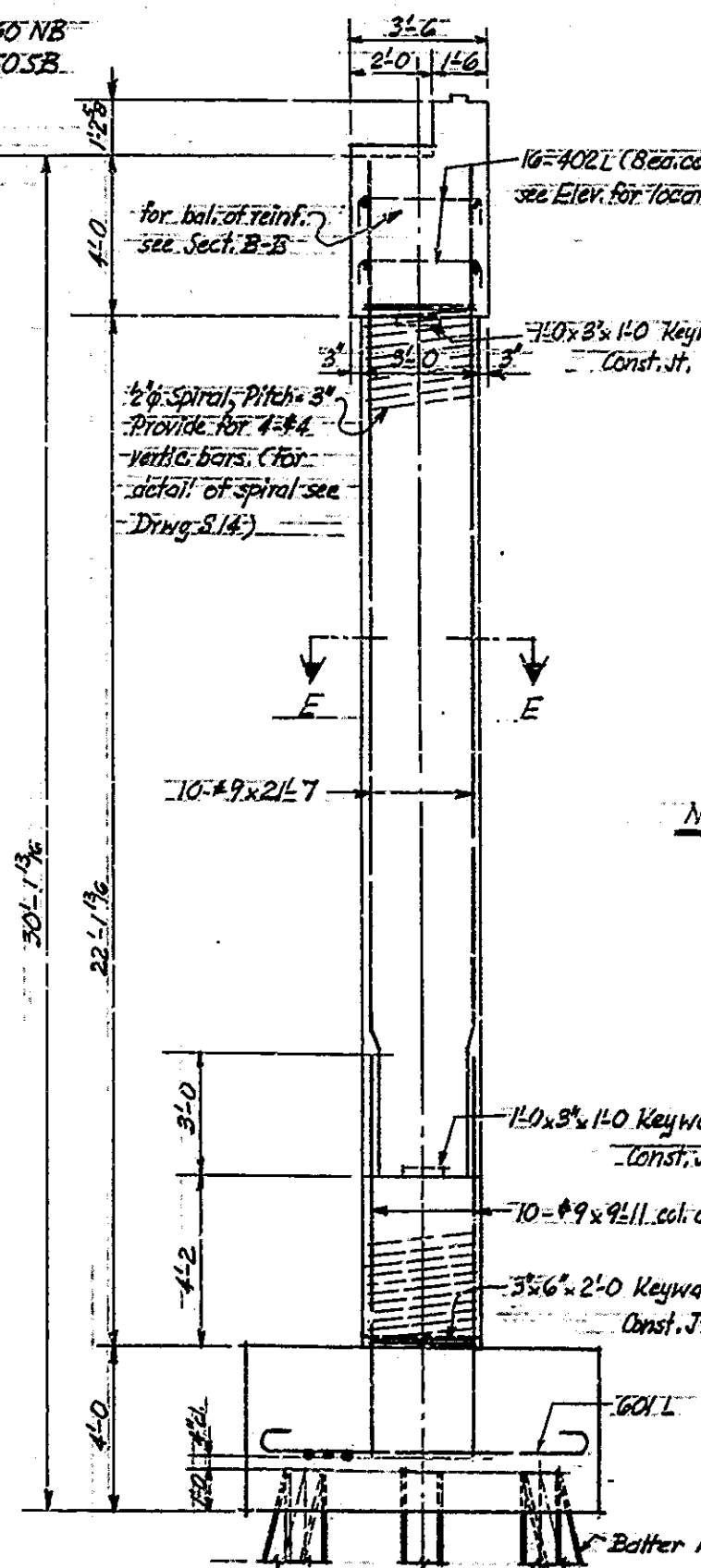
**SECTION B-B**  
Scale: 1/2" = 1'-0"



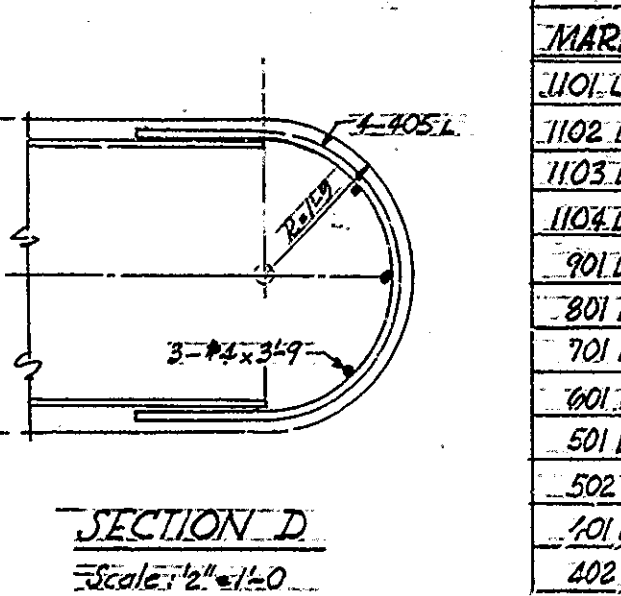
**SECTION E**  
Scale: 1" = 1'-0"



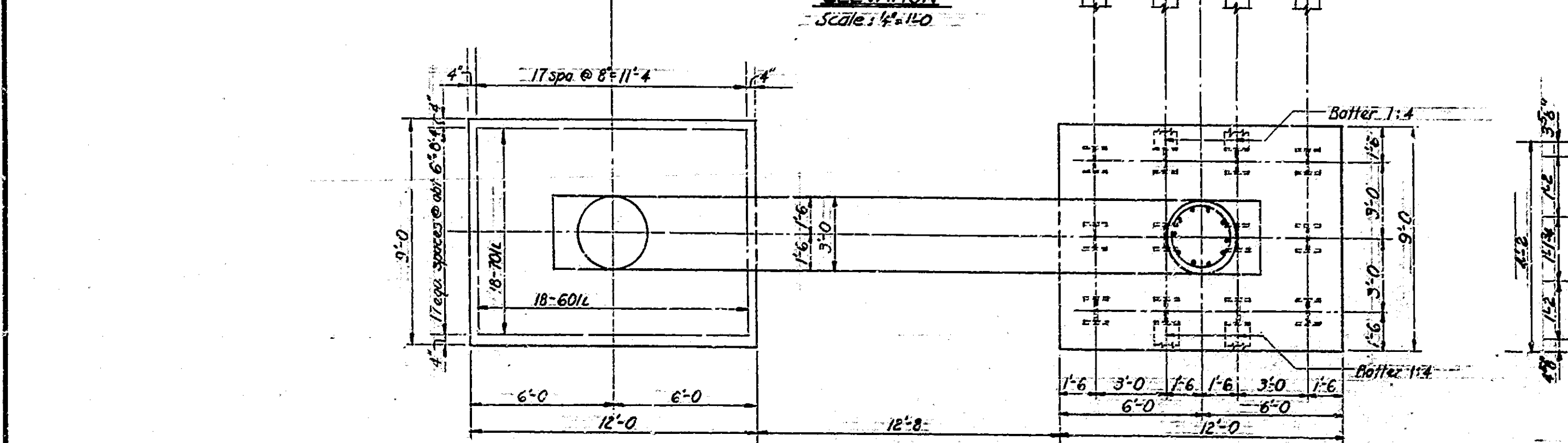
**ELEVATION**  
Scale: 1/4" = 1'-0"



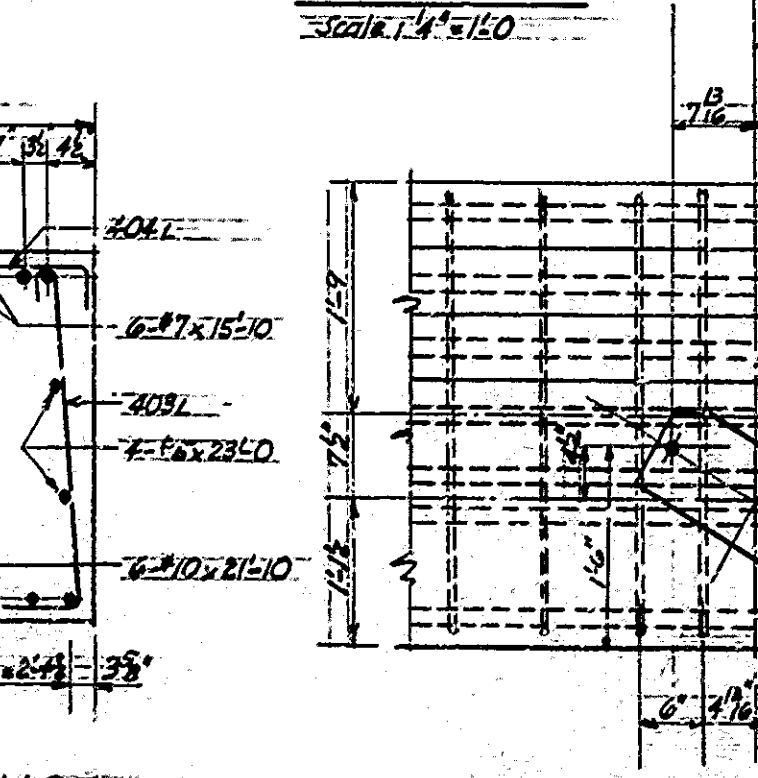
**SECTION A-A**  
Scale: 1/4" = 1'-0"



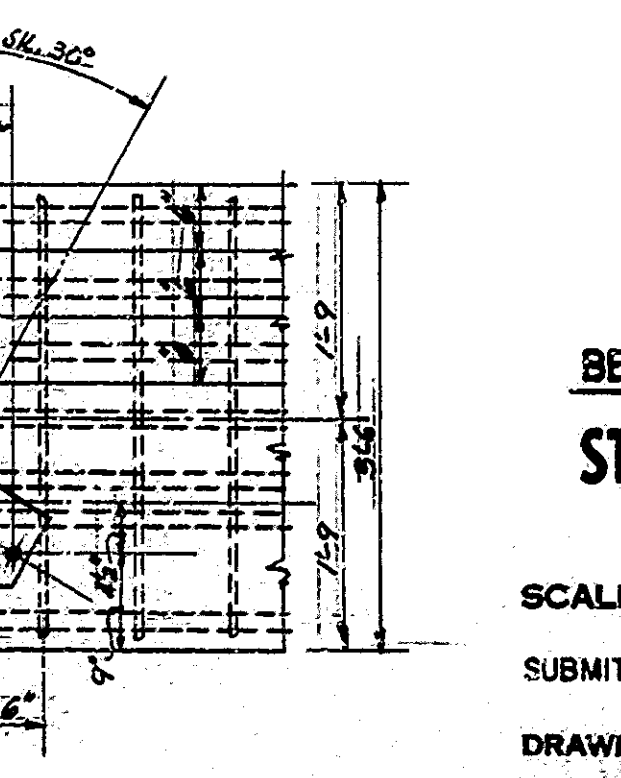
**SECTION D**  
Scale: 1/2" = 1'-0"



**FOOTING PLAN**  
Scale: 1/4" = 1'-0"

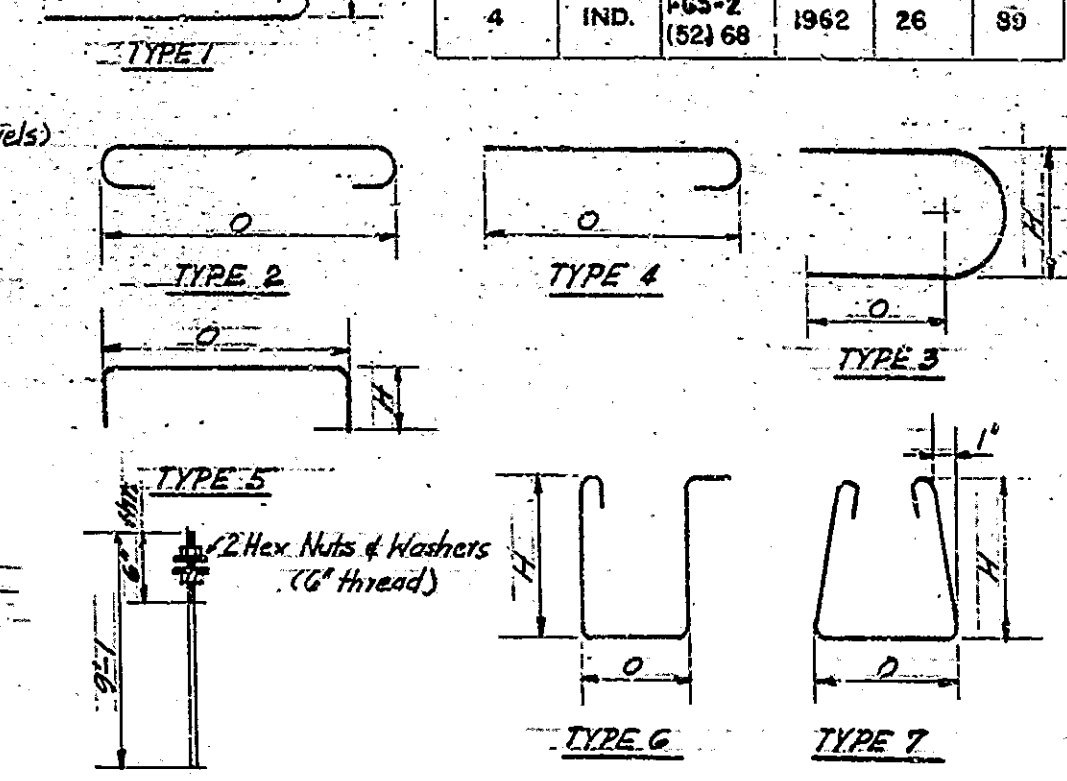


**SECTION C-C**  
Scale: 1/2" = 1'-0"



**TYP. ANCHOR BOLT SPACING DETAIL**  
Scale: 1/2" = 1'-0"

BRIDGES OVER 20' SPAN					
PUR. ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL
NO.	IND.	NO.	YEAR	NO.	SHEETS
4	IND.	65-2 (S2) 68	1962	26	99



SCHEDULE OF BENT BARS				
MARK	TYPE	O	H	LENGTH
1101 L	2	40-10		44-0
1102 L	2	42-11		46-1
1103 L	2	43-5		46-9
1104 L	2	43-8		46-10
901 L	1	4-1	2-0	9-1
801 L	1	2-9	2-9	5-6
701 L	2	4-6		13-2
601 L	2	8-6		9-10
501 L	5	1-4	7-5	16-2
502 L	4		7-5	8-0
401 L	6	1-11	3-9	10-6 1/2
402 L	5	2-3	0-6	4-3
403 L	7	2-7	3-8	10-11
404 L	5	2-7	0-6	3-7
405 L	3	1-6	3-2	8-0

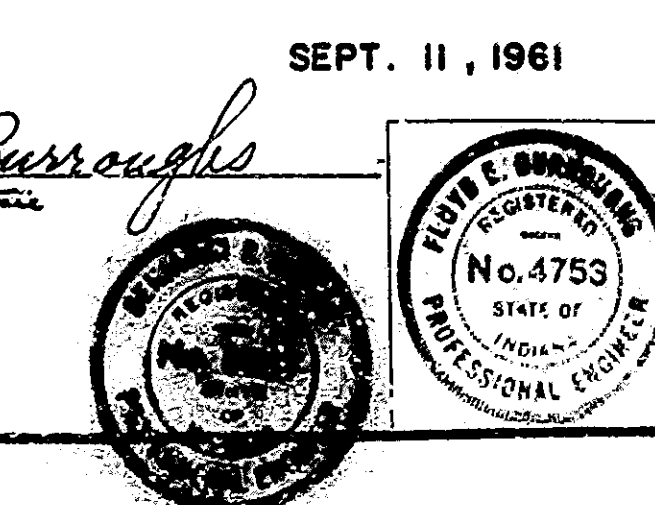
BILL OF MATERIALS				
BENT NO. 15, N.B. STRUCTURE				
(BENT NO. 15 S.B. SAME)				
SIZE OR NO. OF MARK	NO. OF BARS	LENGTH	WEIGHT	
1101 L	2	44-0		
1102 L	2	46-1		
1103 L	2	46-9		
1104 L	1	46-10		
#11	2	43-6		
#11	2	40-10		
#11	4	21-10		
		Total #11		3161. #
#10	6	21-10		
		Total #10		564. #
901 L	6	9-1		
#9	20	21-7		
#9	20	9-11		
		Total #9		2327. #

**NOTES:**  
For Reinforc. Bar Notes, see Brg. Sect. C1  
Dimensions shown for locating anchor bolts are for checking field clearance between reinforce steel and anchor bolts. Reinforce steel shall be adjusted to maintain 1/2" inches clearance.  
Spirals shall have one and one-half extra turns provided at the ends and one and one-half turns at adjoining sections. Cost of spacer bars to be included in cost of spiral. Spirals to be 6/8 cold drawn wire.  
For Expans. Pils and Anchor Bolts see Drwg. S90  
Col. bars to be hard grade steel.  
Holes for Anchor Bolts to be drilled

BILL OF MATERIALS continued				
SIZE OR NO. OF MARK	NO. OF BARS	LENGTH	WEIGHT	
801 L	8	5-6		
		Total #8		117. #
#4	4	20-3		
#4	6	31-9		
		Total #4		1454. #
2" Spiral	2	22-3 1/2	118.4 #	
		Total #6		532. #
Total Reinforc.			11208. #	
<b>CONCRETE</b>				
Class "E" in Footings	32.0 Cu. Yds.	#5	4	231.0
Class "D" in the Beams (18") and in Columns (18")	23.1 Cu. Yds.	#5	4	31-3
Class "E" in Cap	25.4 Cu. Yds.			
		Total #5		572. #
<b>MISCELLANEOUS</b>				
24-12 BP53 + H PILES x 52'-0" (248) Lin. Ft.		401 L	112	102-6 1/2
		402 L	70	4-3
		403 L	25	10-11
		404 L	25	3-7
		405 L	8	8-0
Anchor Rods - ART	32 pieces	#4	8	21-0

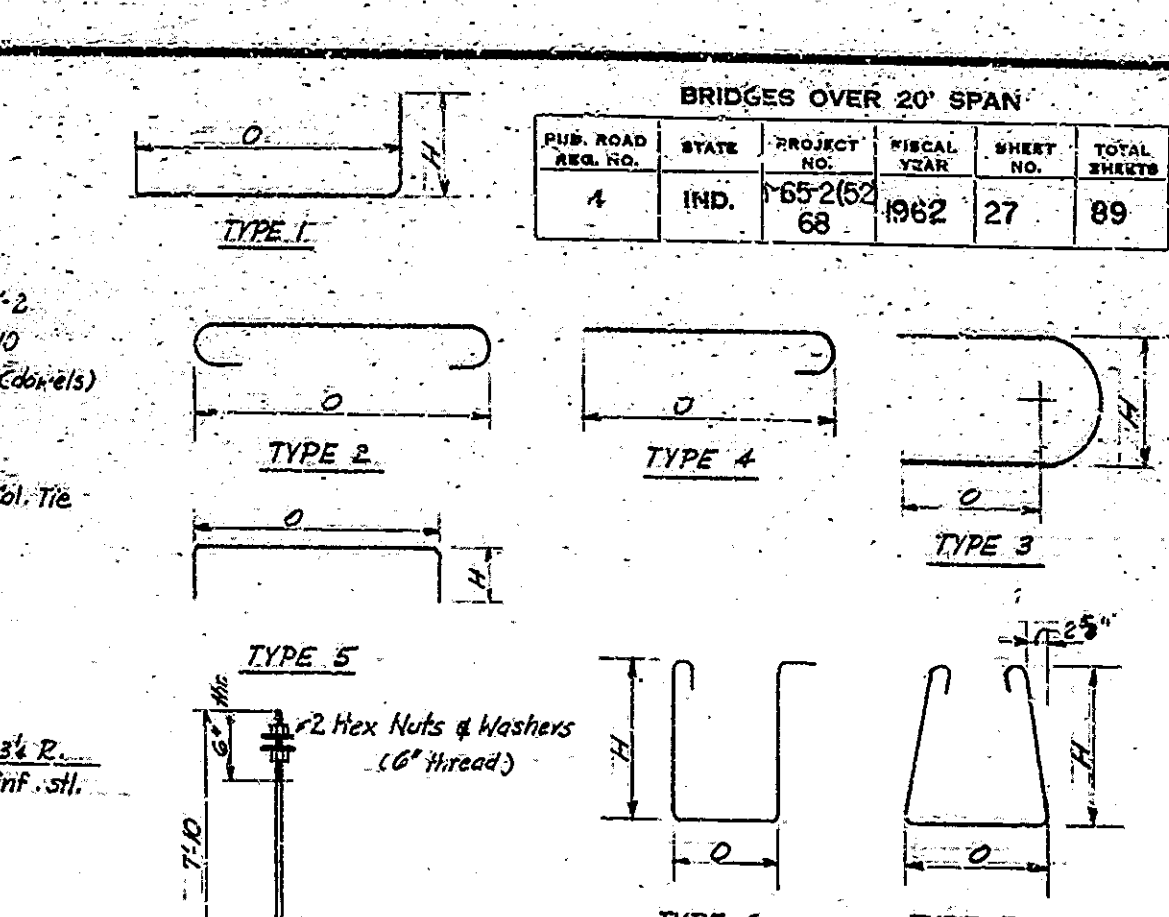
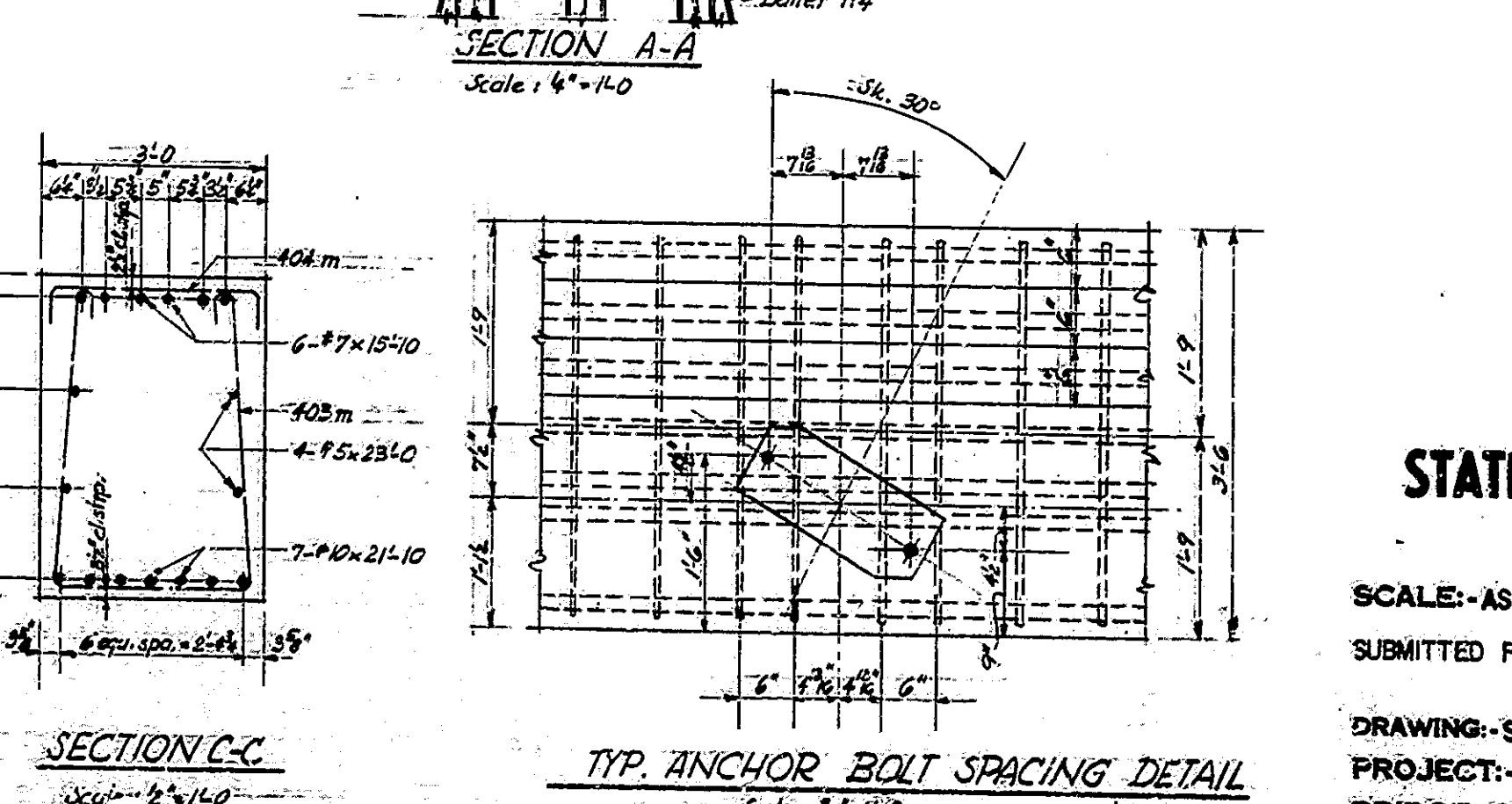
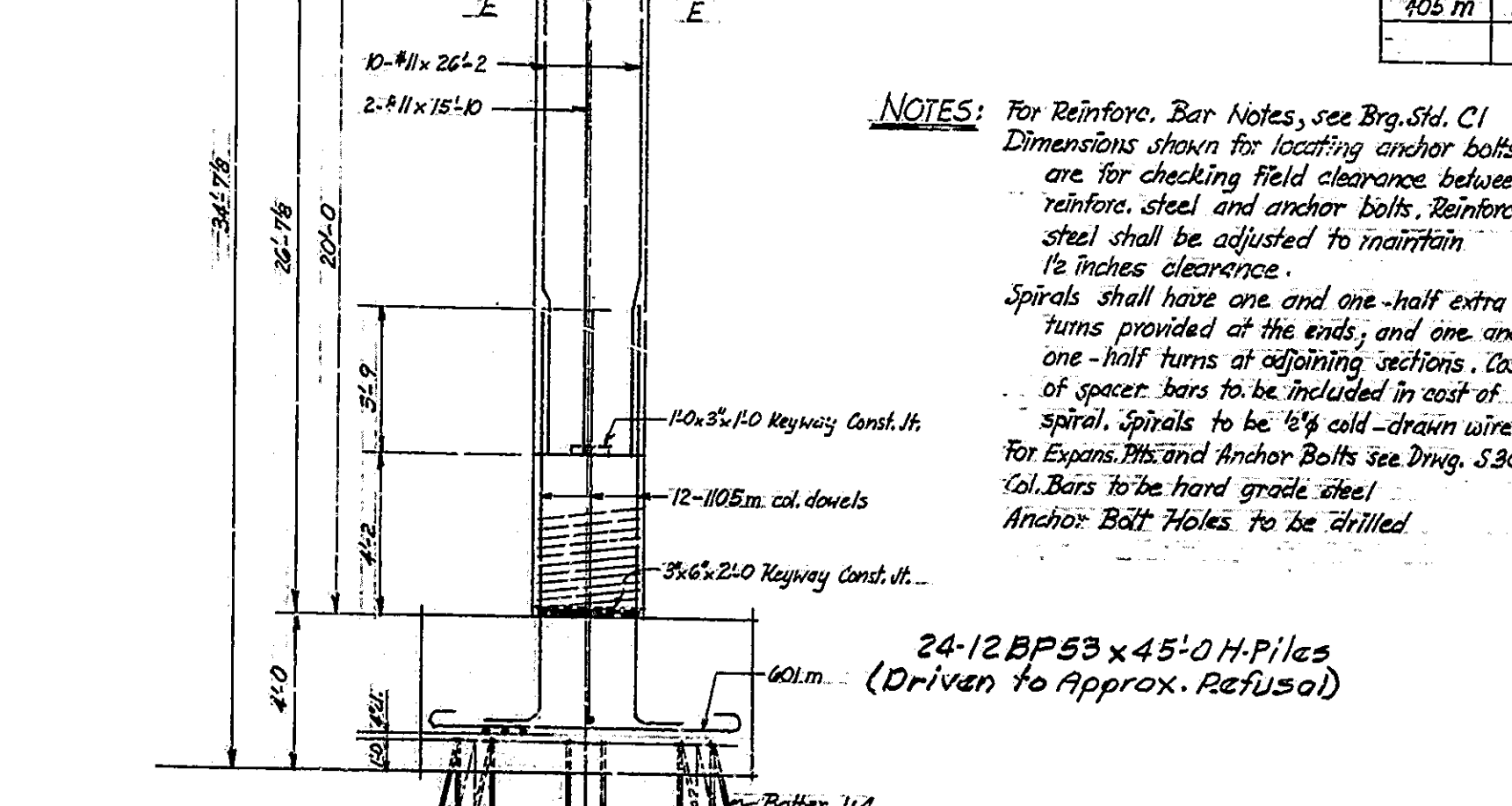
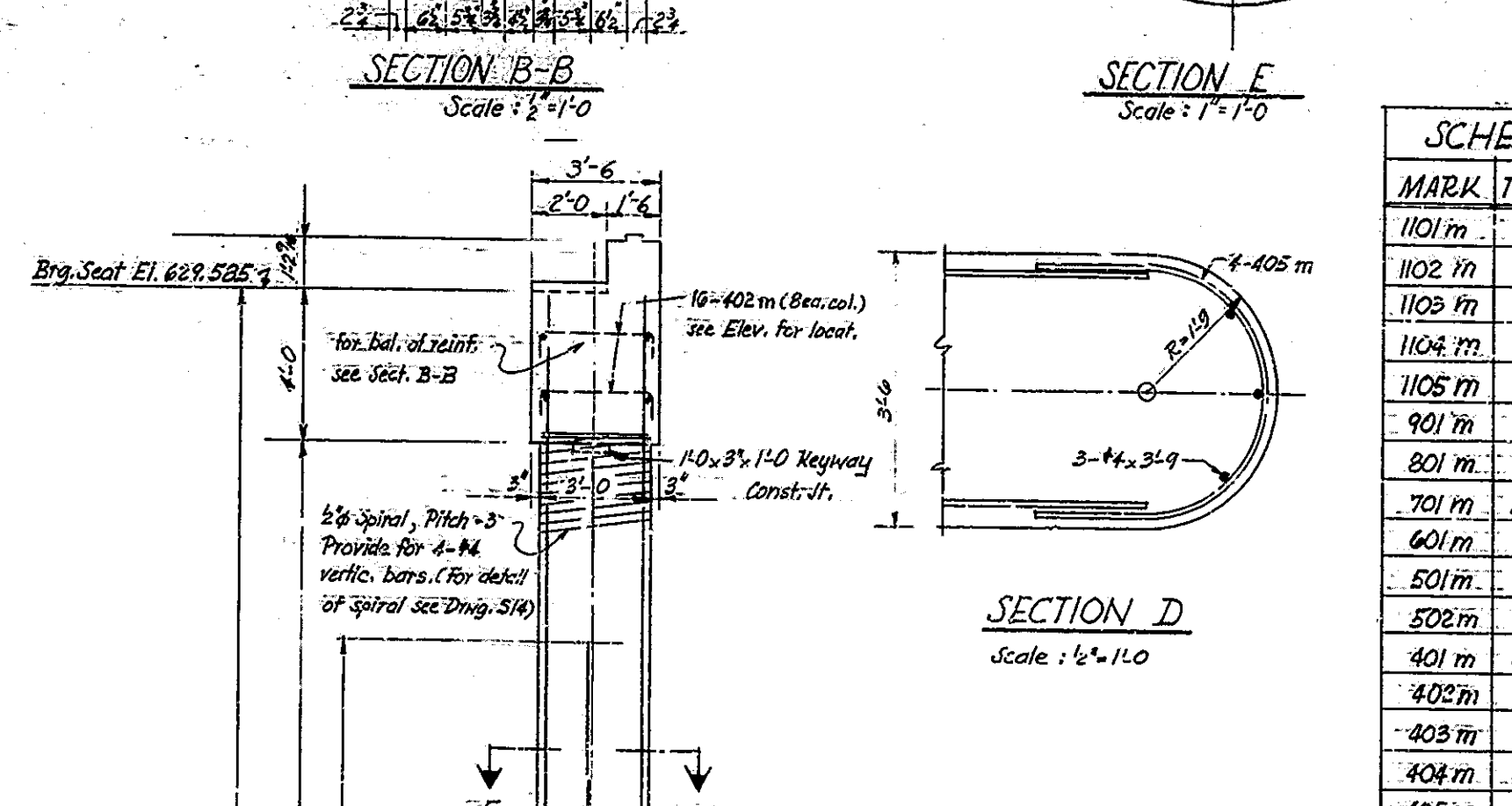
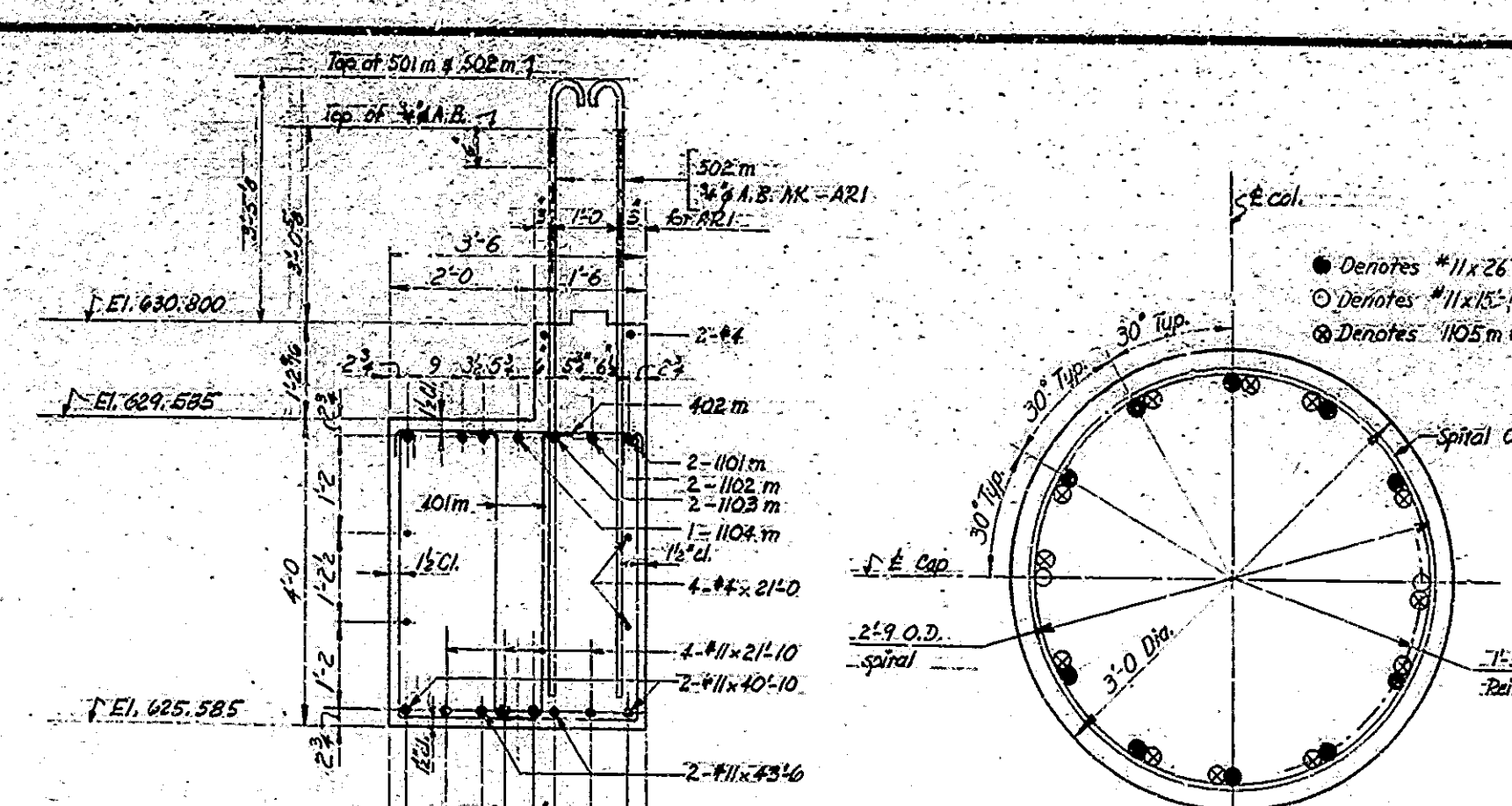
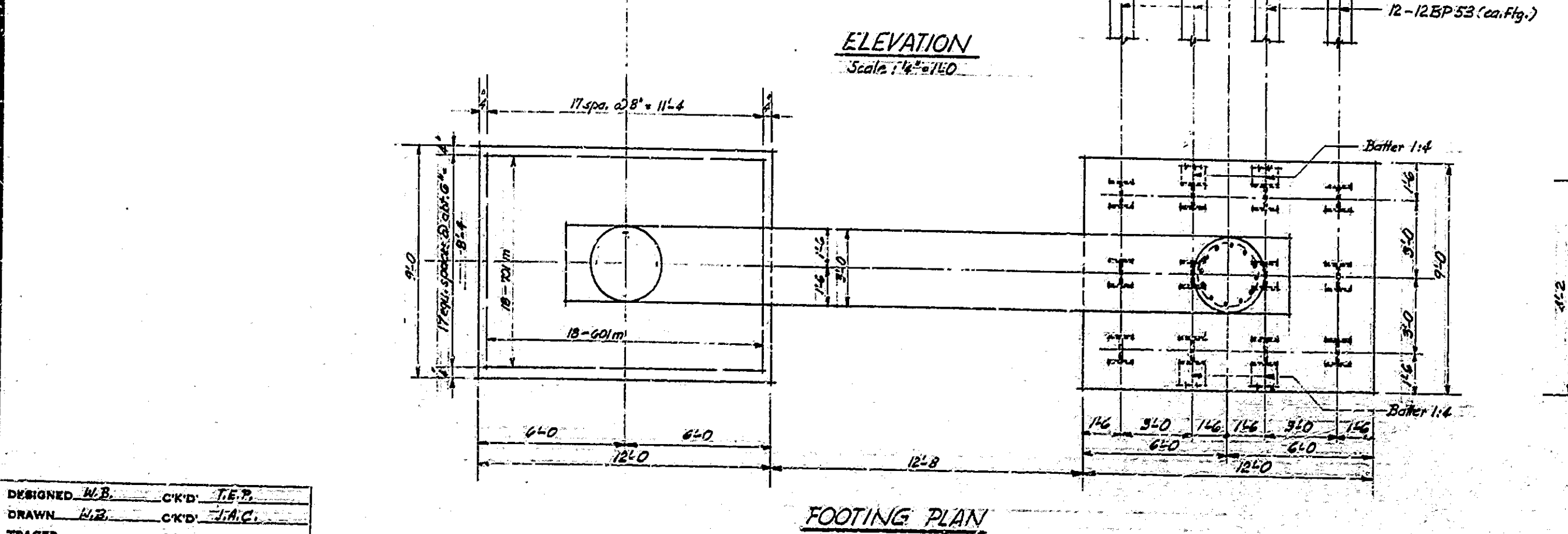
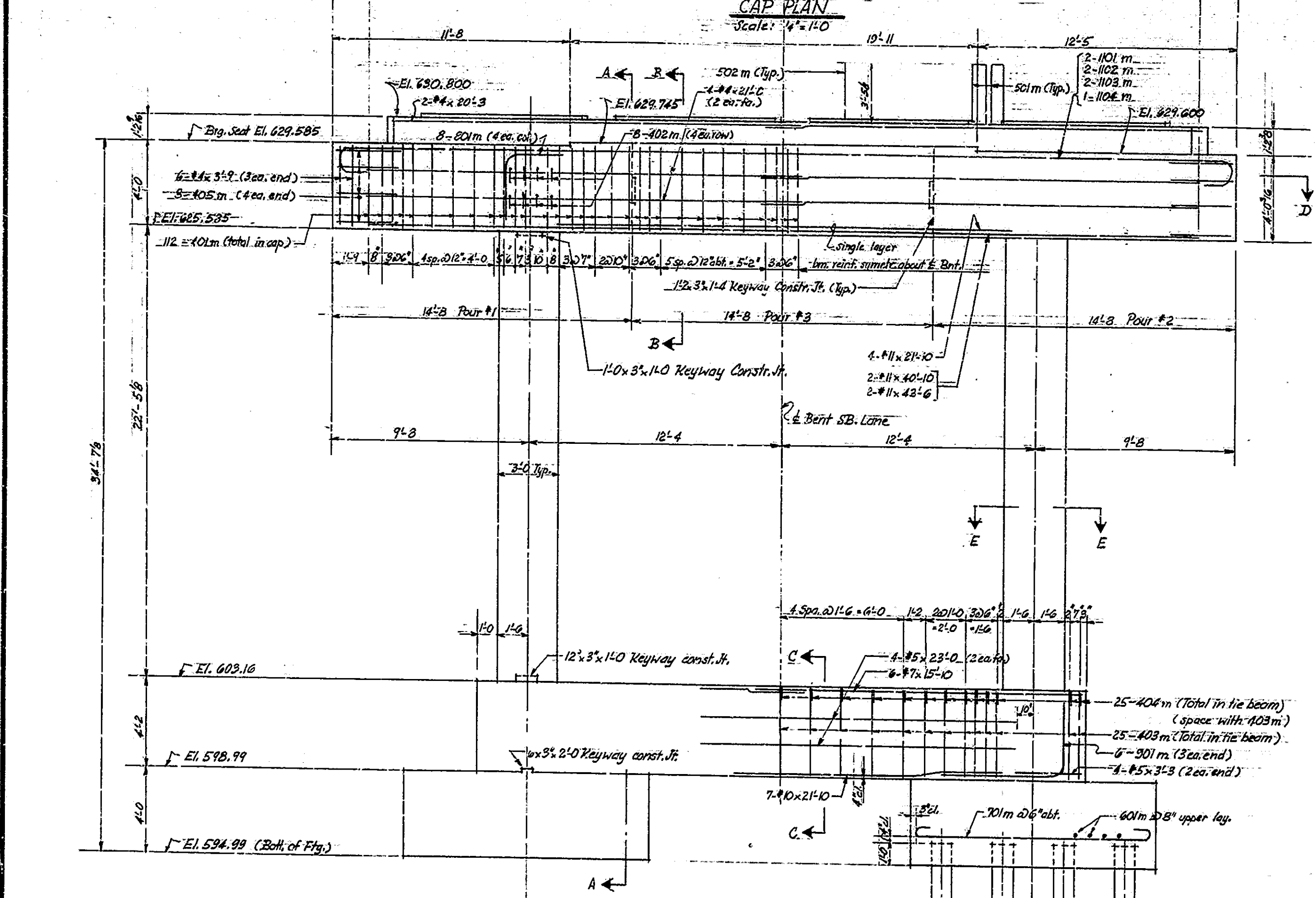
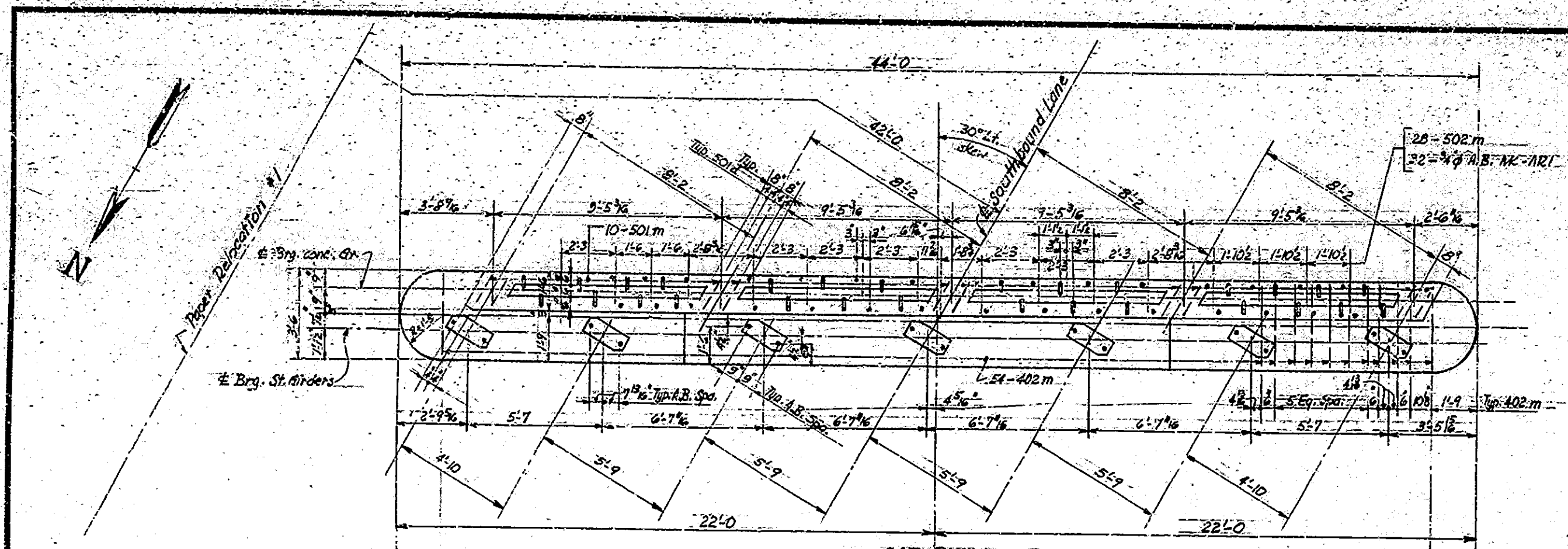
**BENT NO. 15 NORTHBOUND & BENT NO. 15 SOUTHBOUND**  
**STATE HIGHWAY DEPARTMENT OF INDIANA**

SCALE - AS NOTED  
SUBMITTED FOR APPROVAL  
DRAWING - S 19 OF S 43  
PROJECT - I-65-252168  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE - I-65-68-4699-4699 J



DESIGNED: J.A.C. & N.B. C.W.D. T.E.P.  
DRAWN: N.B. C.W.D. J.A.C.  
CHECKED: C.W.D.





**SCHEDULE OF BENT BARS**

MARK	TYPE	O	H	LENGTH
1101 m	2	40'-10"		44'-0"
1102 m	2	42'-11"		46'-1"
1103 m	2	43'-5"		46'-7"
1104 m	2	43'-8"		46'-10"
1105 m	1	1'-6"	10'-5"	11'-11"
1102 m	1	6'-1"	3'-0"	9'-1"
801 m	1	2'-9"	2'-9"	5'-6"
701 m	2	1'-6"		13'-2"
601 m	2	2'-6"		9'-10"
501 m	5	1'-4 1/2"	6'-3"	13'-10 1/2"
502 m	4		6'-3"	6'-10"
401 m	6	1'-11"	3'-9"	10'-6 1/2"
402 m	5	3'-3"	0'-6"	2'-3"
403 m	7	2'-7"	3'-8"	10'-11"
404 m	5	2'-7"	0'-6"	3'-7"
405 m	3	1'-6"	3'-2"	8'-0"

**BILL OF MATERIALS - BENT NO. 2 SOUTHBOUND STRUCT.**

**REINFORCING STEEL**

SIZE OR MARK	No. OF BARS	LENGTH	WEIGHT
1101 m	2	44'-0"	185.0 #
1102 m	2	46'-1"	187.0 #
1103 m	2	46'-7"	188.0 #
1104 m	1	46'-10"	94.0 #
1105 m	24	11'-11"	273.6 #
#11	2	43'-6"	16.0 #
#11	2	43'-10"	16.0 #
#11	4	21'-10"	80.0 #
#11	20	28'-2"	135.7 #
#11	7	15'-10"	117.0 #
#10	7	21'-10"	135.7 #
Total #11			185.0 #
Total #10			185.0 #
301 m	6	9'-1"	51.6 #
Total #9			185.0 #
801 m	8	5'-6"	117.0 #
701 m	36	13'-2"	135.7 #
#7	12	15'-10"	135.7 #
Total #7			135.7 #
601 m	36	9'-10"	532.0 #
Total #6			532.0 #
501 m	10	13'-10 1/2"	135.7 #
502 m	28	6'-10"	135.7 #
#5	4	28'-0"	45.4 #
#5	4	3'-3"	45.4 #
Total #5			45.4 #
401 m	112	10'-6 1/2"	135.7 #
402 m	70	4'-3"	135.7 #
403 m	25	10'-11"	135.7 #
404 m	25	3'-7"	135.7 #
405 m	8	8'-0"	135.7 #
24-12BP53:HP Piles + 450 lbs. W80 114			45.4 #
Anchor Rods - AR1	32 pieces	#4	3

**BILL OF MATERIALS continued**

**REINFORCING STEEL**

SIZE OR MARK	No. OF BARS	LENGTH	WEIGHT
#4	4	20'-3"	135.7 #
#4	6	3'-9"	135.7 #
Total #4			145.4 #
1/2" Spiral	2	26'-9"	1413. #
Total Reinforce.			13868. #

**CONCRETE**

Class	Volume
Class "E" in Footings	32.0 Cu. Yds.
Class "D" in the Beam (B7) and in Columns (B7)	25.4 Cu. Yds.
Class "F" in Cap	25.3 Cu. Yds.

**MISCELLANEOUS**

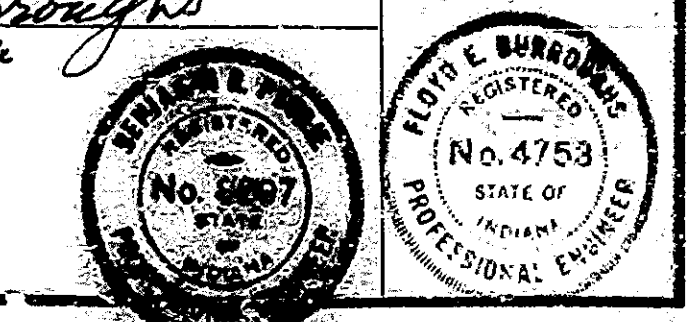
Item	Quantity
24-12BP53:HP Piles + 450 lbs. W80 114	112
402 m	70
403 m	25
404 m	25
405 m	8
Anchor Rods - AR1	32 pieces

**NOTES:** For Reinforce. Bar Notes, see Brg. Std. C1  
Dimensions shown for locating anchor bolts are for checking field clearance between reinforce. steel and anchor bolts. Reinforcing steel shall be adjusted to maintain 1/2 inch clearance.  
Spirals shall have one and one-half extra turns provided at the ends, and one and one-half turns at adjoining sections. Cost of spacer bars to be included in cost of spiral. Spirals to be 1/2" cold-drawn wire.  
For Expansion and Anchor Bolts see Brg. Std. S30  
Col. Bars to be hard grade steel.  
Anchor Bolt Holes to be drilled.

**BENT NO. 2 SOUTHBOUND**  
**STATE HIGHWAY DEPARTMENT OF INDIANA**  
SEPT. 11, 1961

SCALE: AS NOTED  
SUBMITTED FOR APPROVAL: *J. E. Burroughs*  
B. R. Patton

DRAWING: S-20 OF S-43  
PROJECT: 1-65-2(62)68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: 1-65-68-4688-4699J



DESIGNED BY: C.K.D. T.E.P.  
DRAWN BY: C.K.D. T.E.P.  
TRACED BY: C.K.D.

BRIDGES OVER 20' SPAN					
PUB. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2(52)68	1962	23	89

**BILL OF MATERIALS**

**BENT N° 8 S.B. STRUCTURE**

**REINFORCING STEEL**

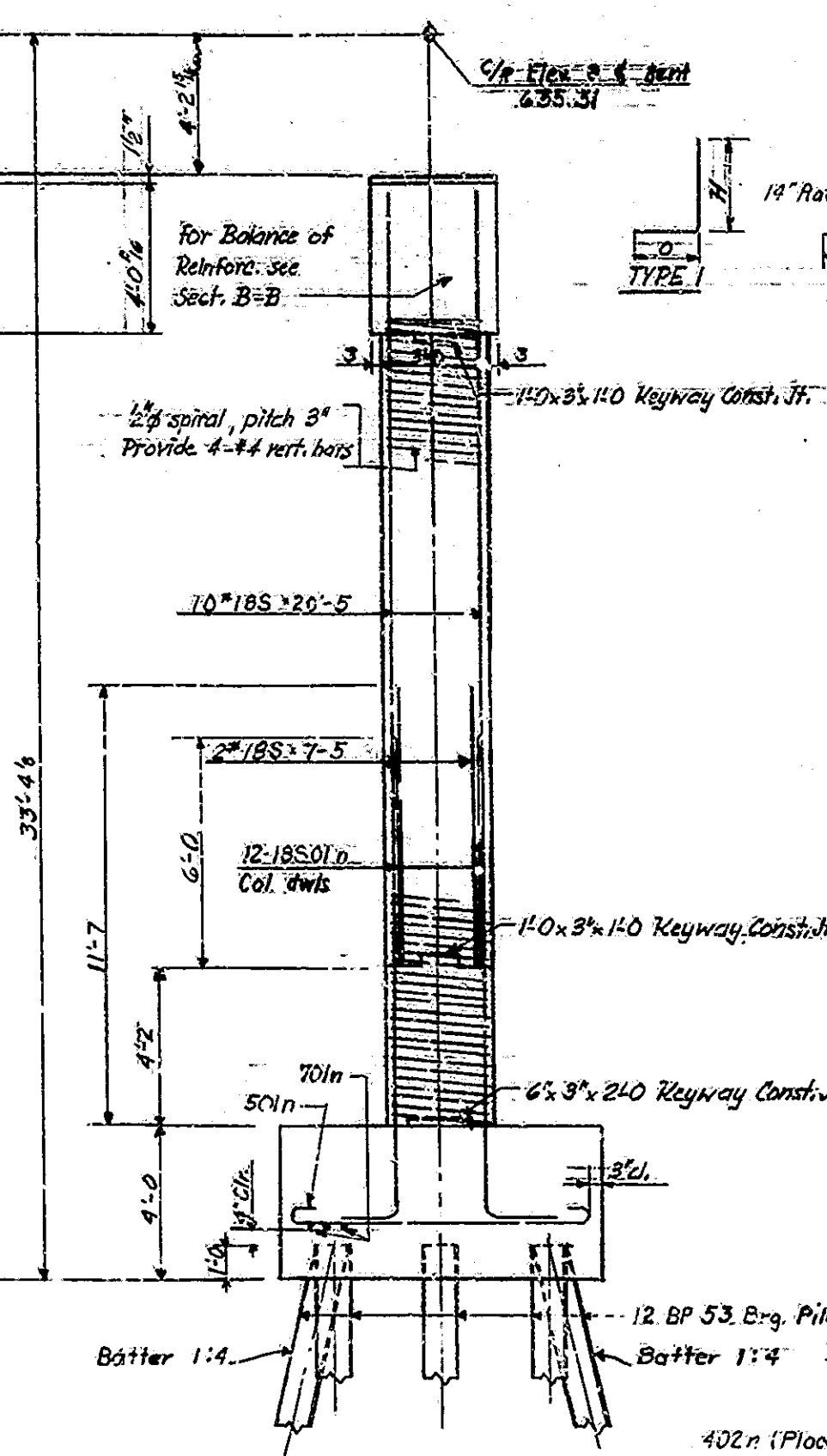
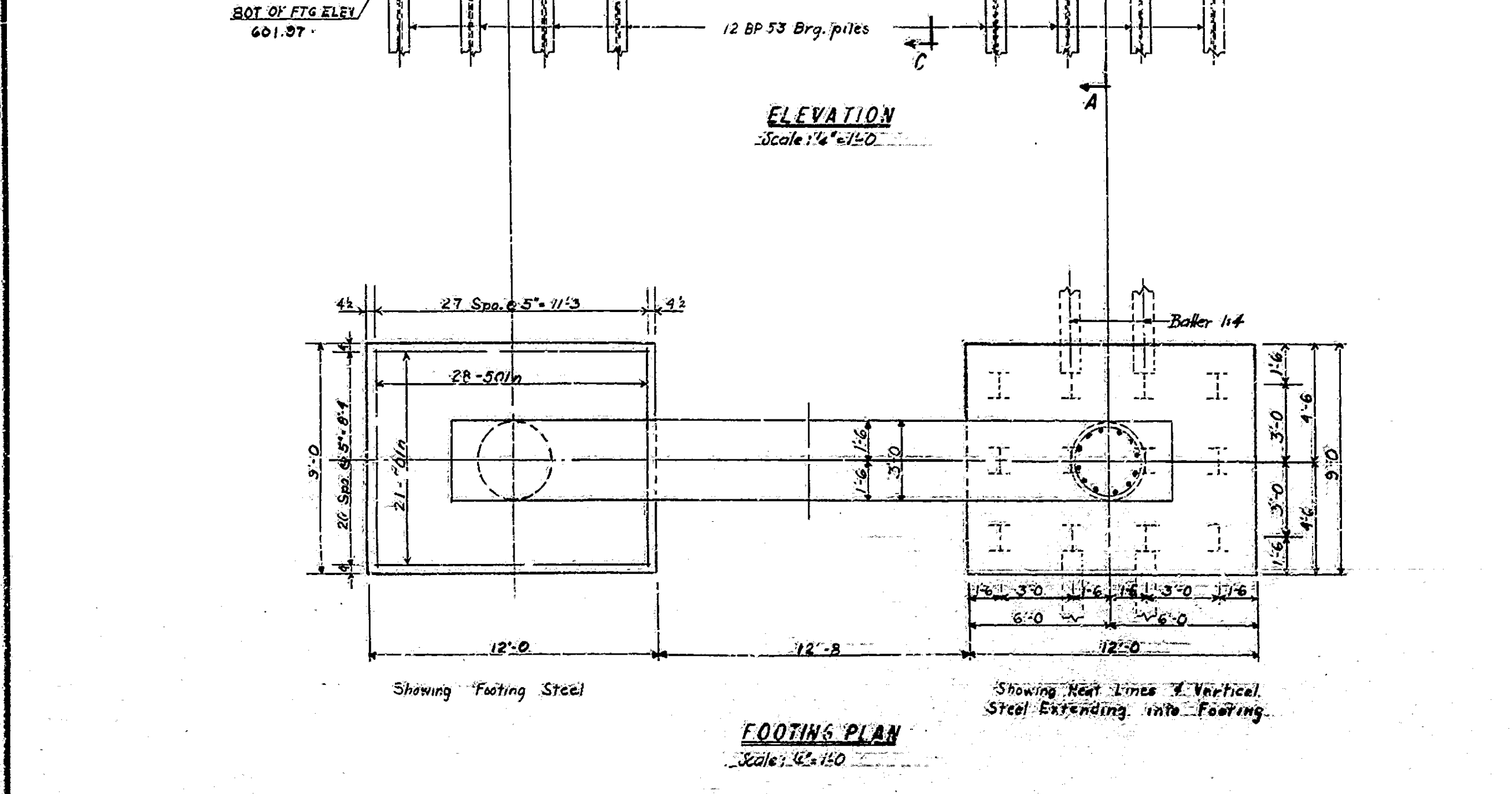
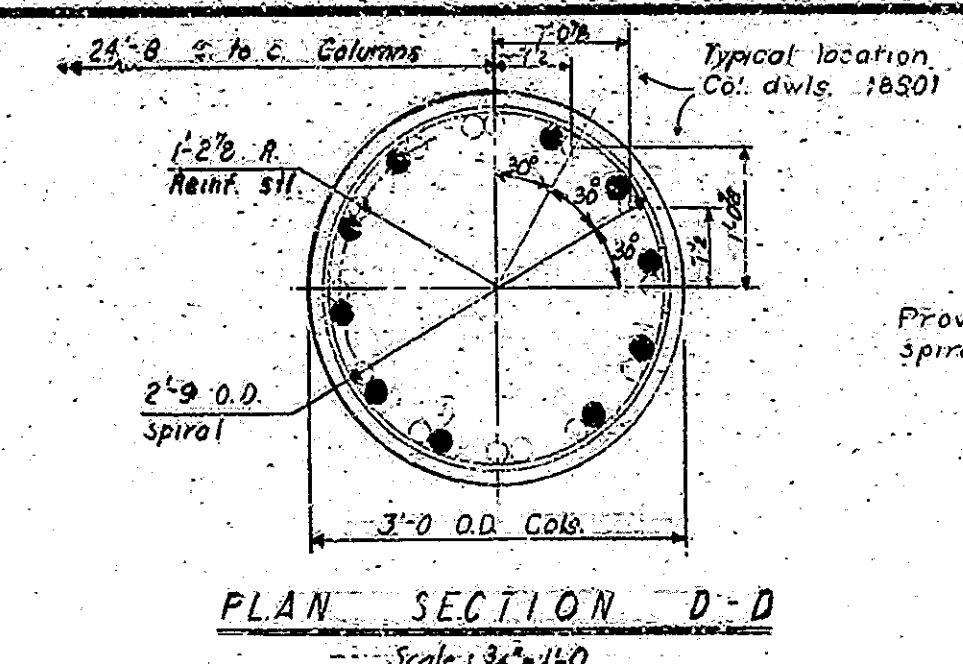
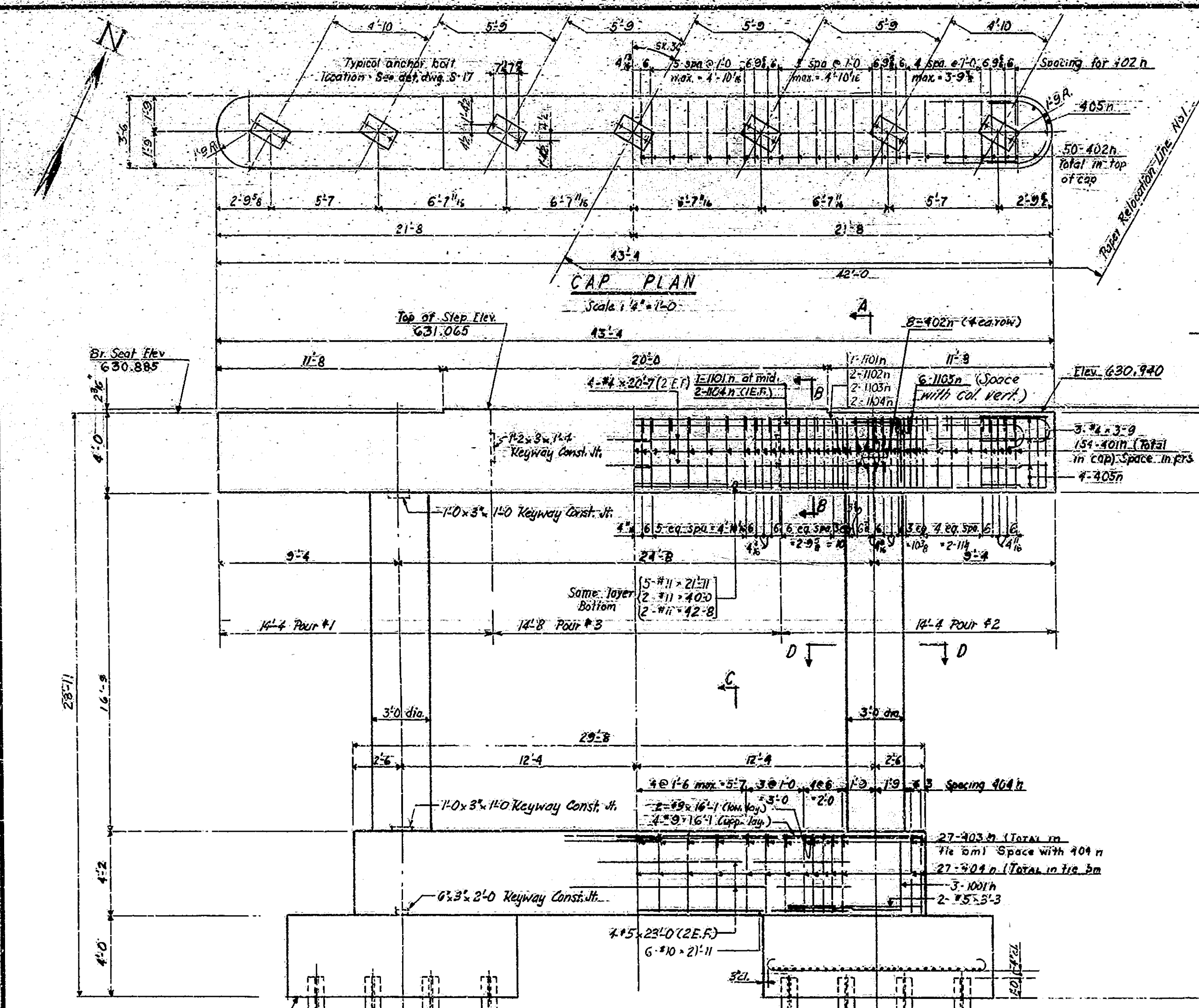
SIZE OR MARK	Nº OF BARS	LENGTH	WEIGHT
1850n	24	15'-7"	
#18S	20	20'-5"	
#18S	4	1'-5"	
Total Weight #18S Bars			1104.3
110n	2	46'-2"	
1102n	2	45'-10"	
1103n	2	45'-2"	
1104n	4	43'-2"	
1105n	12	15'-6"	
#11	2	42'-8"	
#11	2	40'-0"	
#11	5	21'-11"	
Total Weight #11 Bars			431.3
100n	6	9'-9"	
#10	6	21'-11"	
Total Weight #10 Bars			81.6
#8	12	16'-7"	
Total Weight #8 Bars			65.6
70n	42	13'-2"	
Total Weight #7 Bars			1130.1
50n	58	9'-8"	
#5	4	23'-0"	
#5	4	3'-2"	
Total Weight #5 Bars			67.4
40n	154	11'-0"	
402n	66	8'-3"	
403n	27	3'-5"	
404n	27	10'-8"	
405n	8	8'-0"	
#4	8	20'-7"	
#4	6	3'-9"	
Total Weight #4 Bars			746.6
2" x 3/16" Spiral	2	11'-4"	
Total Weight Spirals			11.4
<b>TOTAL REINFORCING STEEL</b>			<b>2708.3</b>

**CONCRETE**

Class F in cap	27.7 cu	
Class D Above Footings (12'x12'x10')	22.2 cu	
12.7 cyl. Columns (2'x4'x60')	22.2 cu	
Class E in Footings (12'x16'0')	32.0 cu	
<b>TOTAL CONCRETE</b>		<b>104.1 cu</b>

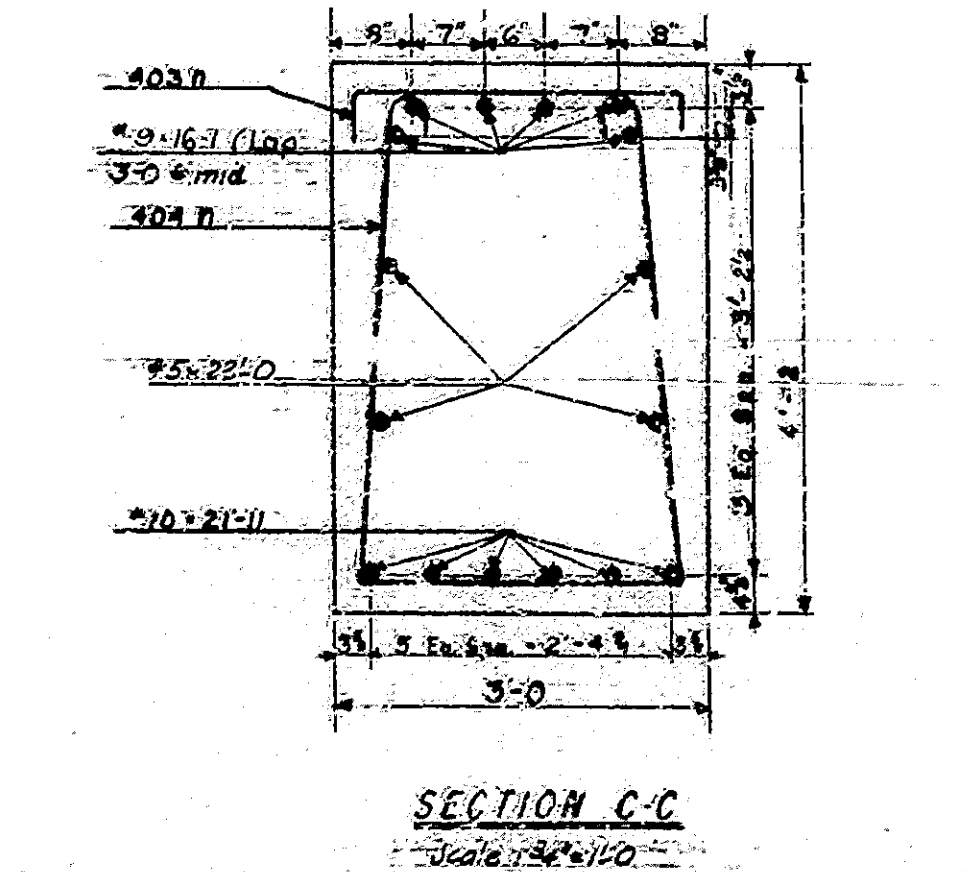
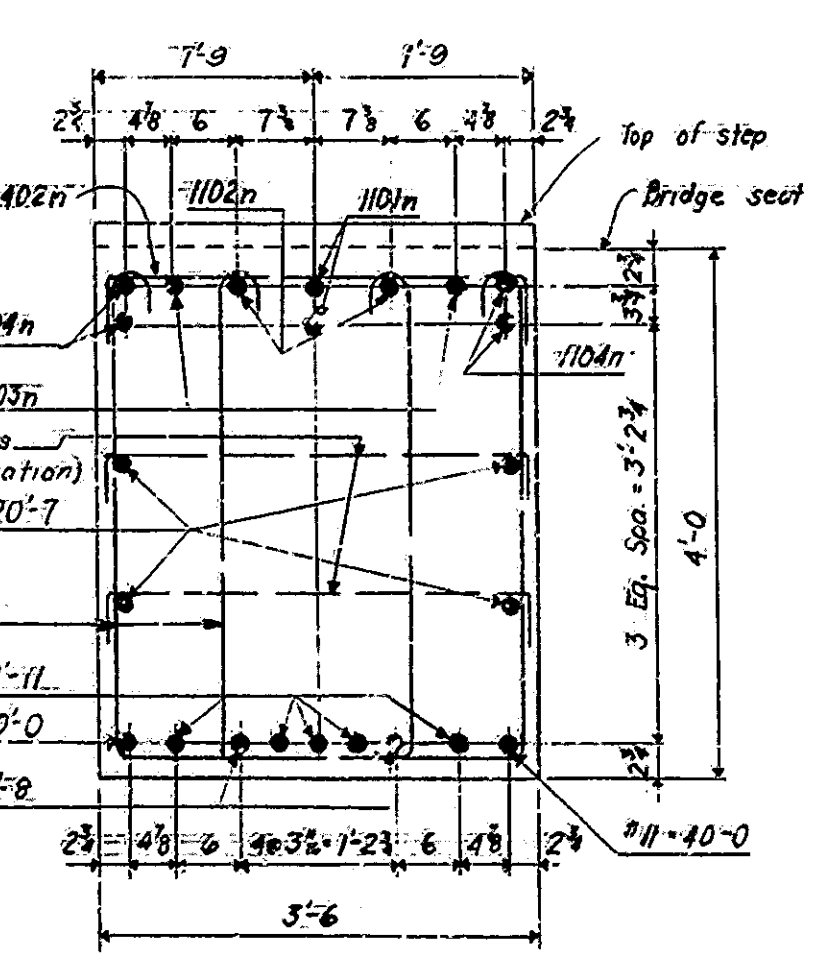
**MISCELLANEOUS**

Bent N° 8 S.B.	1248.1 lbs
24 - 12 BP 53 - 11 Piles (52'-0")	1248.1 lbs



**SCHEDULE OF BENT BARS**

MARK	TYPE	A	G	Ø	H	LENGTH
1850n	1A			2'-3"	11'-6"	15'-7"
110n	2	Std.	Std.	4'-0"		45'-2"
1102n	2			4'-8"		45'-10"
1103n	2			4'-8"		45'-2"
1104n	2			4'-0"		43'-2"
1105n	1			3'-9"	3'-9"	15'-6"
100n	1			16'-2"	3'-7"	9'-9"
70n	2	Std.	Std.	11'-8"		13'-2"
50n	2			8'-6"		9'-8"
40n	5			2'-6"	3'-9"	11'-0"
402n	4			3'-3"	0'-6"	4'-3"
403n	4			2'-7"	0'-6"	3'-7"
404n	6	Std.	Std.	2'-7"	3'-8"	10'-11"
405n	3			1'-6"	3'-2"	8'-0"



**NOTES:**  
 See Bridge Standard C-1 for reinforcing bar notes.  
 Holes for anchor bolts to be drilled.  
 Dimensions shown for locating anchor bolts are for checking field clearance between reinforcing steel & anchor bolts.  
 Reinforcing steel shall be adjusted to maintain 1/2" inch clearance.  
 For Fixed Shoes and Anchor Bolts see: *Drng. 330*.  
 Spirals shall have one and one-half (1 1/2) extra turns provided at the ends and one and one-half (1 1/2) turns at top of adjoining sections. Cost of spacer bars to be included in cost of spiral.  
 Spiral to be 1/4" cold drawn wire.  
 Col. bats to be hard grade steel.  
 Holes for Anchor Bolts to be drilled.

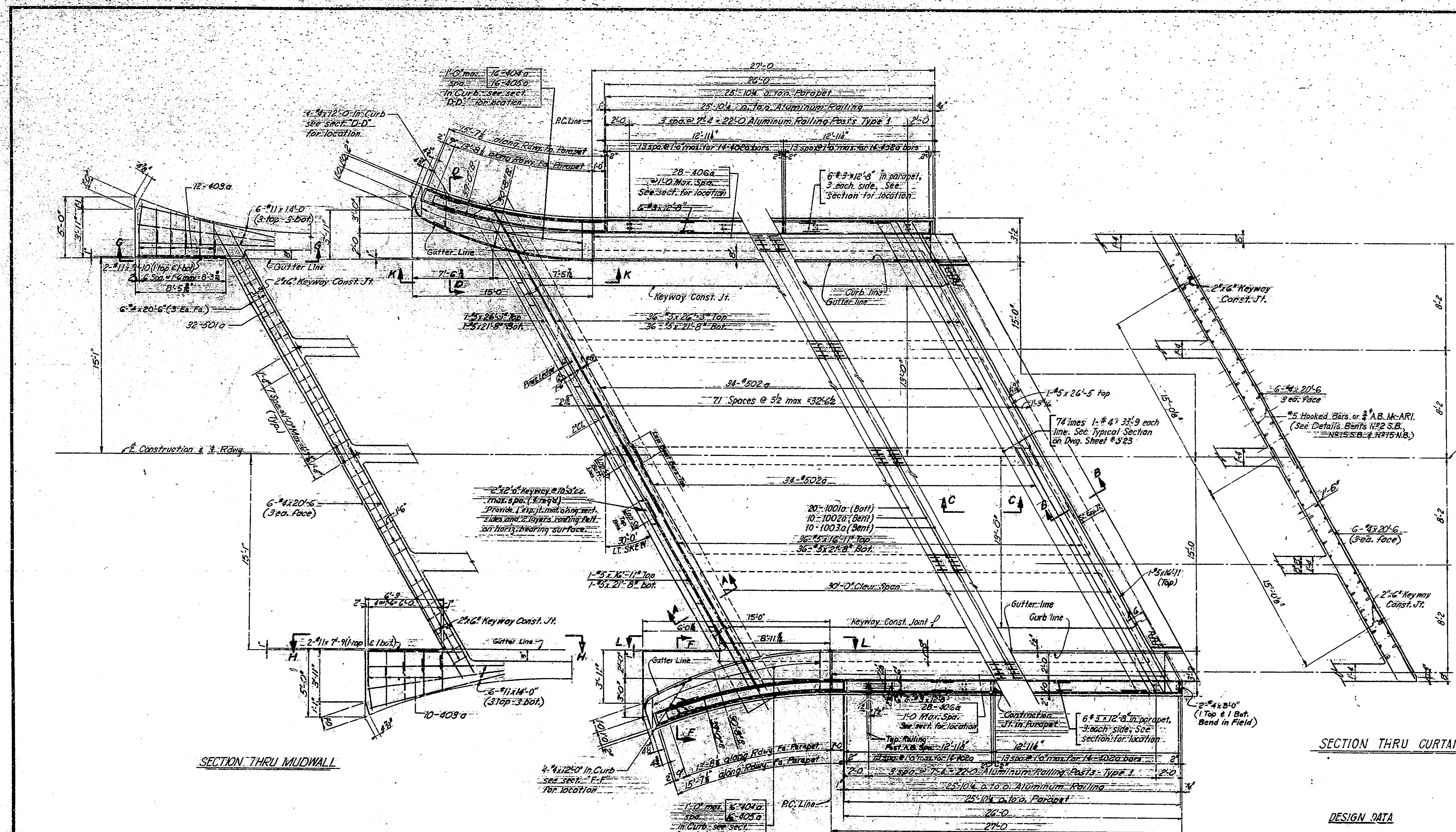
**BENT NO. 8 SOUTHBOUND**  
**STATE HIGHWAY DEPARTMENT OF INDIANA**

SCALE: AS NOTED  
 SUBMITTED FOR APPROVAL: *H. P. ...*  
 DRAWING: S-21 OF S-43  
 PROJECT: 1-65-2(52)68  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: 1-65-68-4699-4699J

SEPT. 11, 1961

DESIGNED: D.E.G. CKD: T.R.P.  
 DRAWN: D.G. CKD: J.A.C.  
 TRACED: C.V.D.

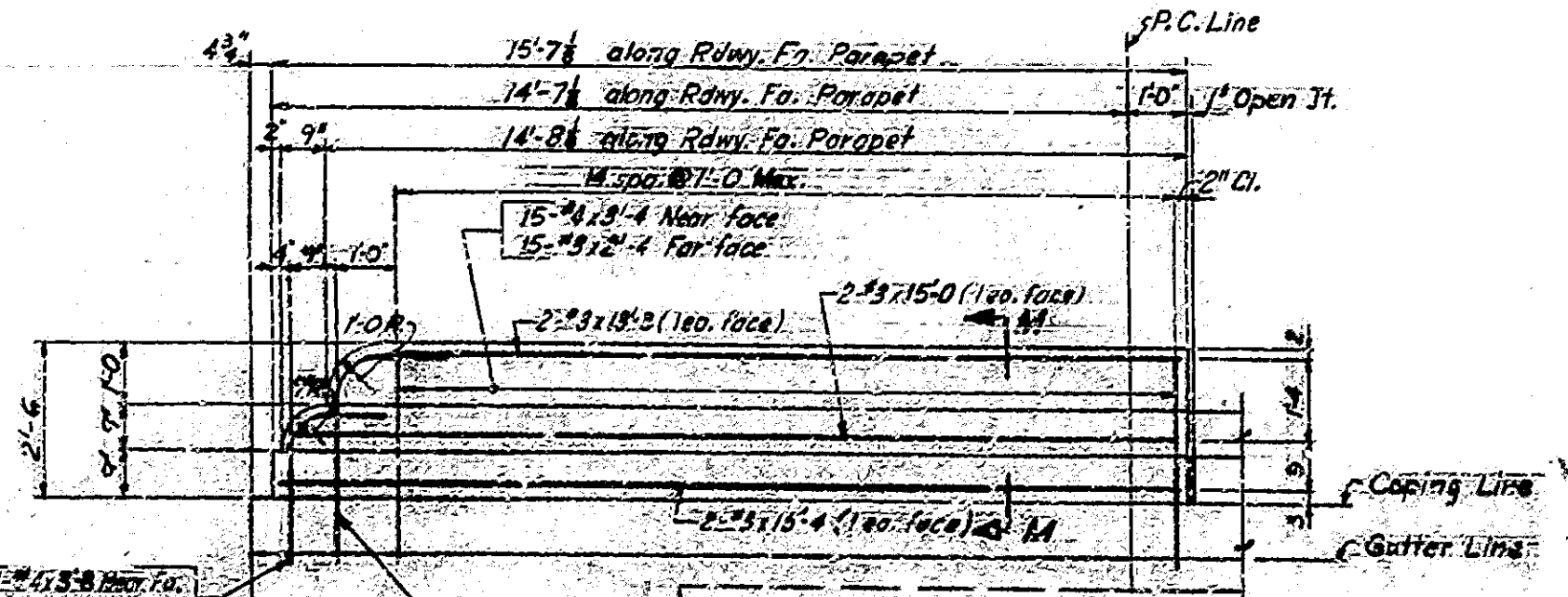
BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (52)68	1962	29	89



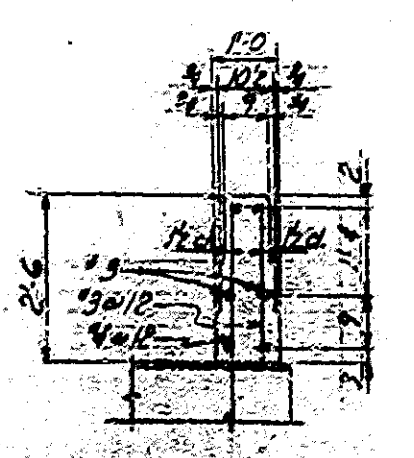
SECTION THRU MUDWALL

SECTION THRU CURTAINWALL

PLAN - SPAN 1" SOUTHBOUND STRUCTURE  
Span 15' Southbound Structure and Span 16' Northbound Structure identical by 180° Rotation



RAILING ELEVATION K-K  
ELEVATION - E.E. OPPOSITE HAND



SECTION M-M

DESIGN DATA

Unit Stresses :  $f_s = 20,000$  psi.  
 $f_c = 1,200$  p.s.i.  
 Loading : Designed for H-20-S16-44 Live load with impact and distribution of loads in accordance with 1957 A.A.S.H.O. specifications except Floor Slab designed for 16,000 lb. wheel load. Checked for 2-24,000 lb. axle loads spaced 4'0" apart.  
 Dead load increased 35% of roadway for future wearing surface.  
 Slab designed with 1/4" wearing surface.  
 Maximum D.L. deflection = 3/8"

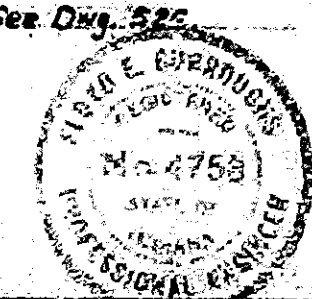
PLAN - SPANS 16'15" S.B. SPAN 15'4" N.B.  
**STATE HIGHWAY DEPARTMENT OF INDIANA**

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

SEPT. 11, 1961

SUBMITTED FOR APPROVAL: *B. B. Peterson*  
*F. E. Burroughs*

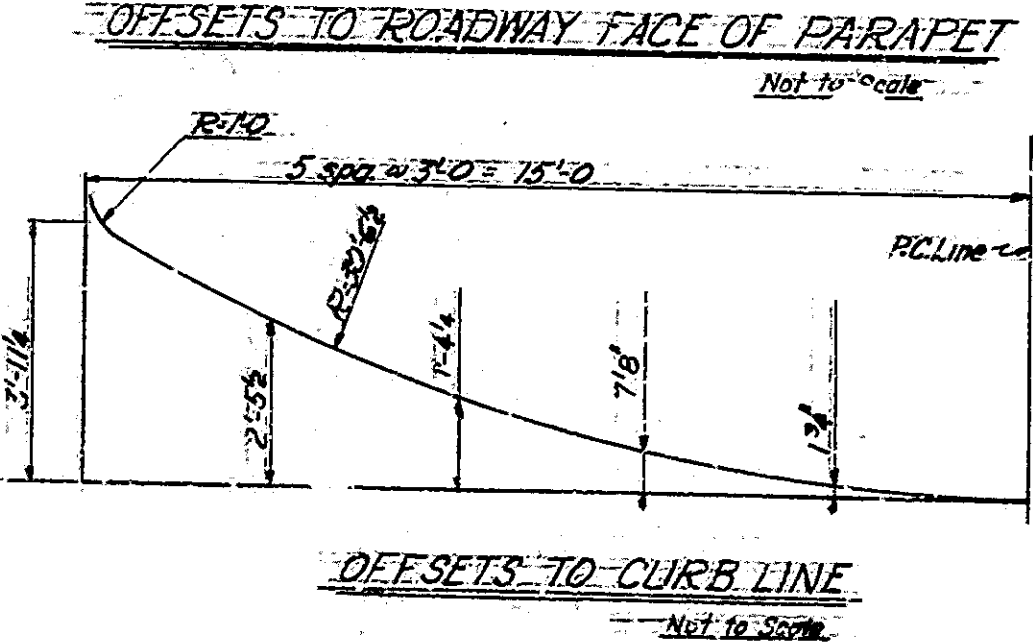
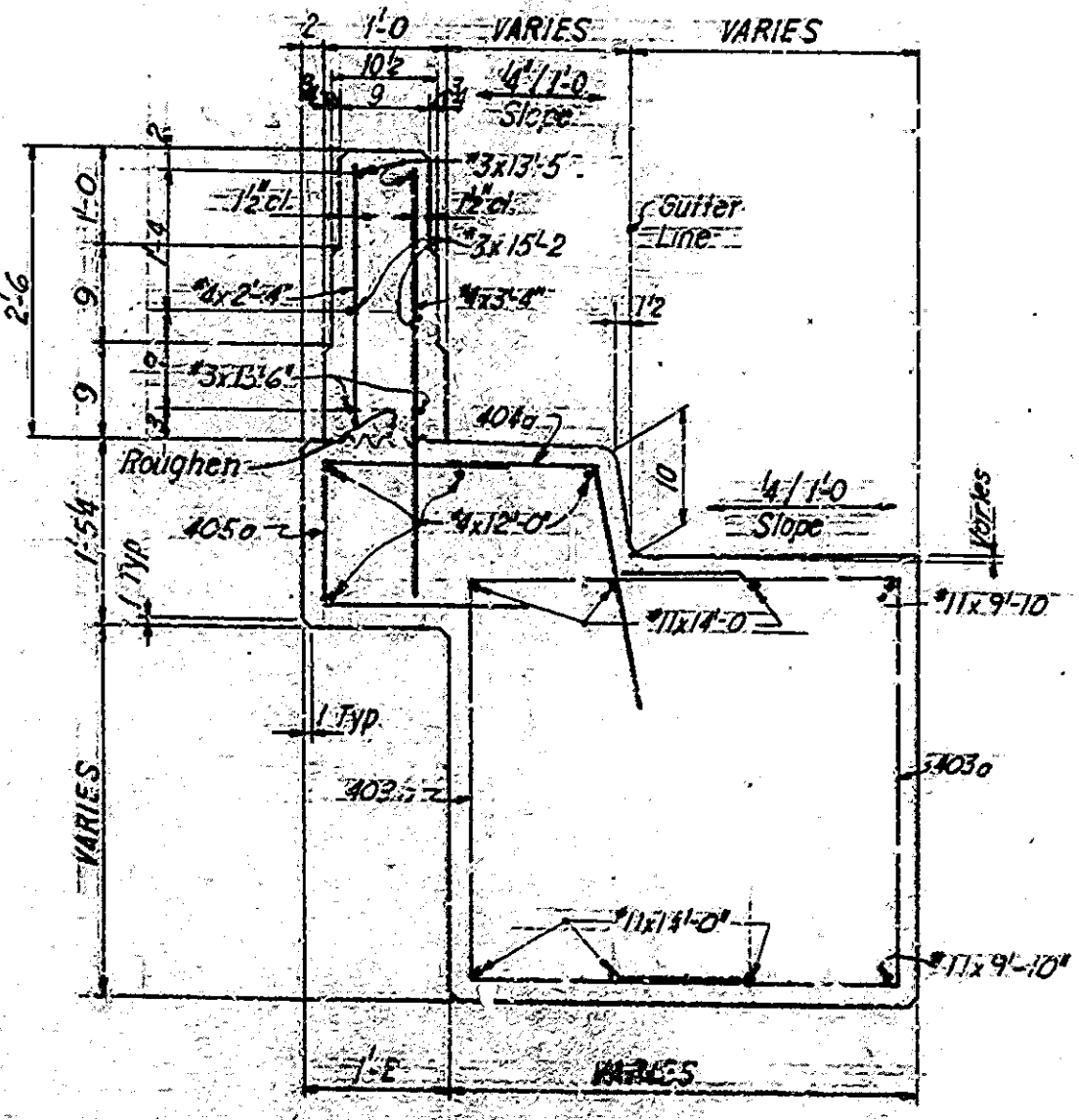
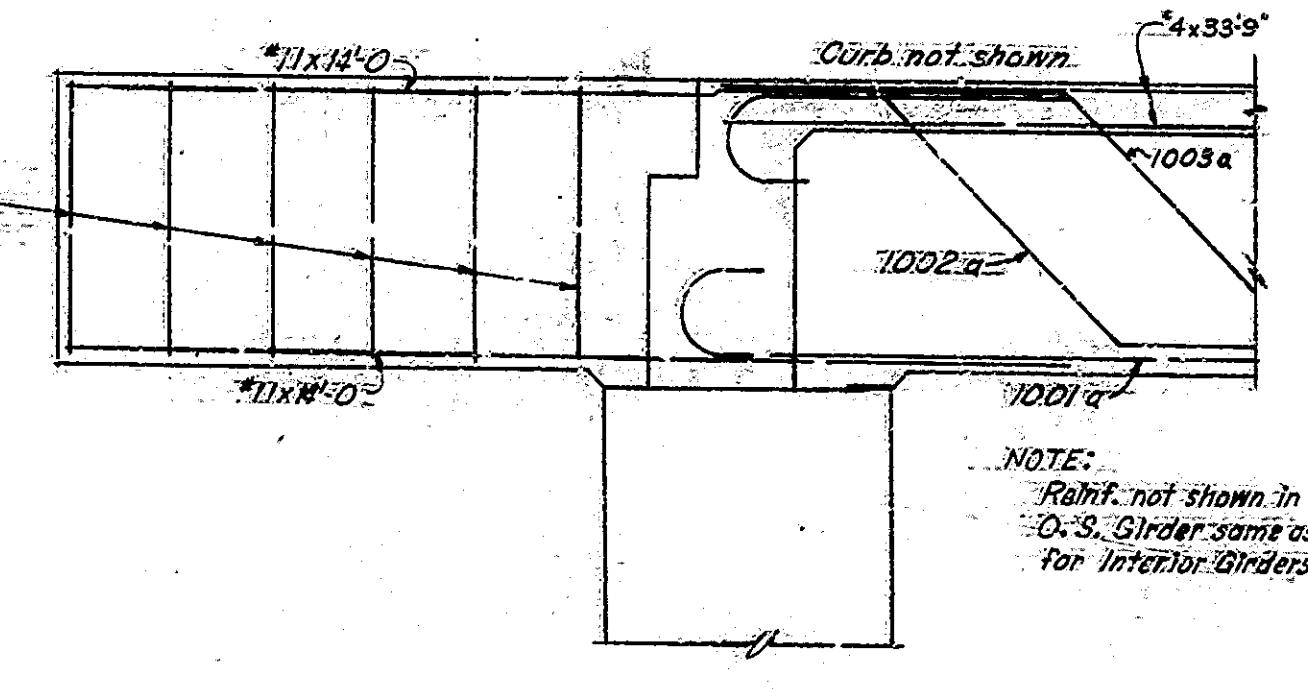
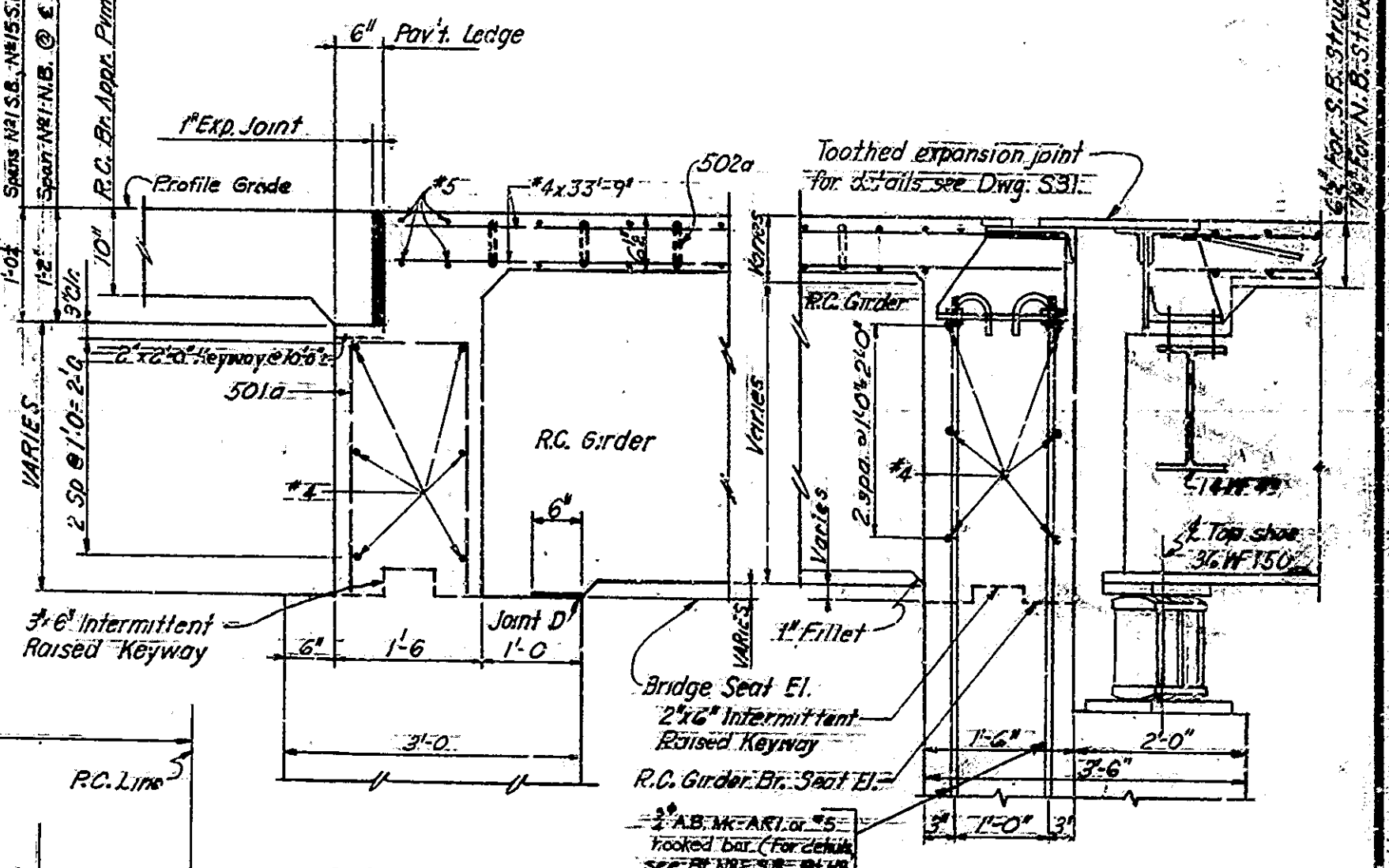
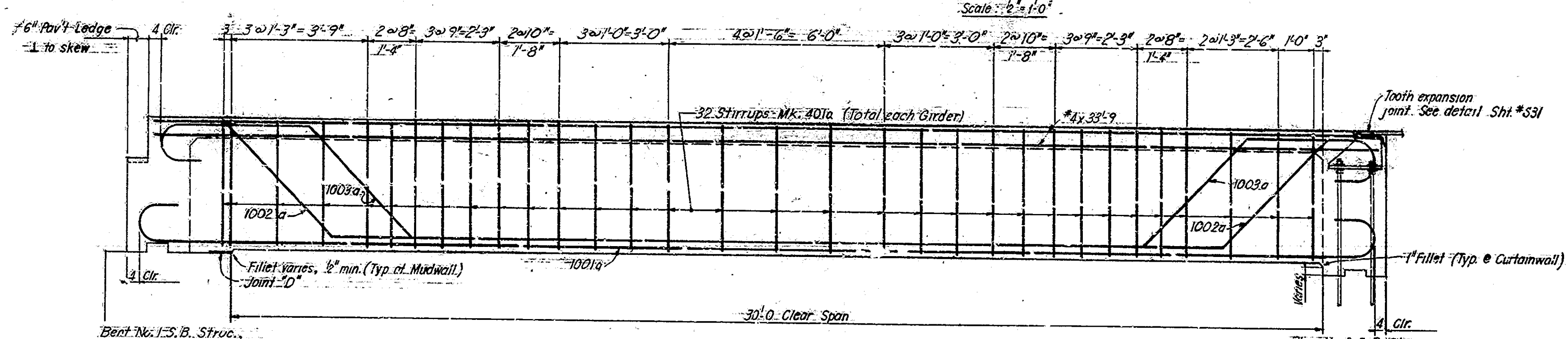
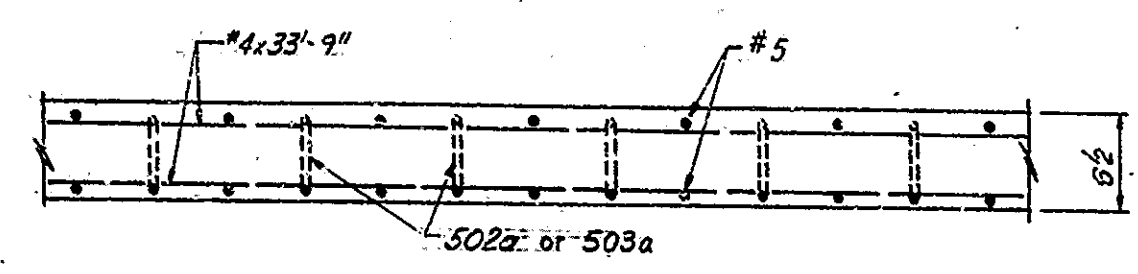
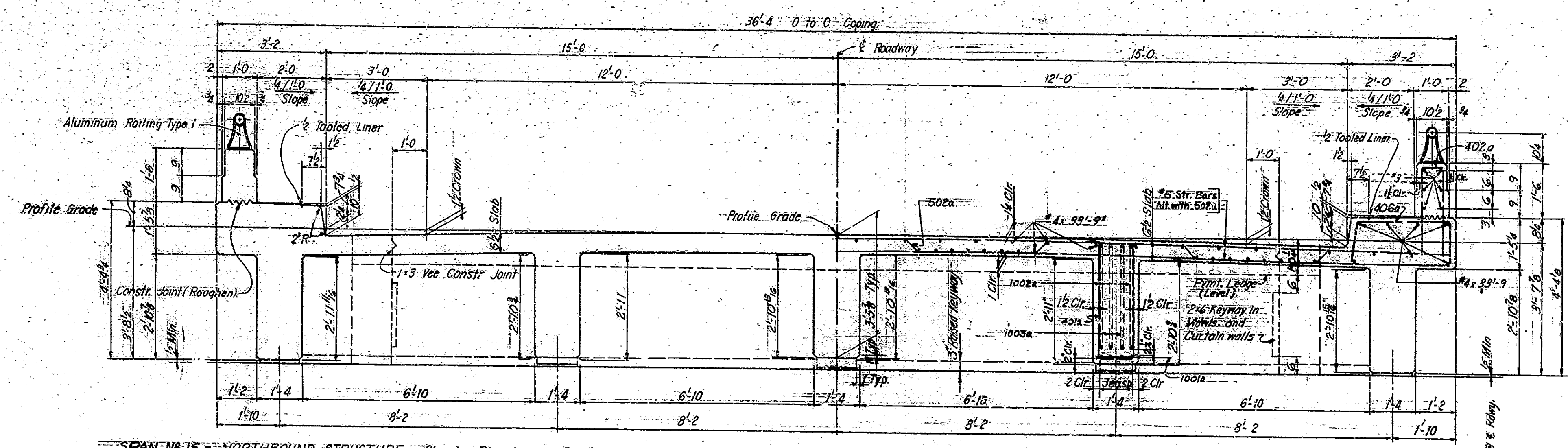
DRAWING: S 22 OF S 43  
 PROJECT: I-65-2(52)68  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: I-65-58-4699,4699J



DESIGNED: J.E.P. C.W.D. DEB  
 DRAWN: J.E.P. C.W.D. DEB  
 CHECKED: J.E.P. C.W.D. DEB  
 TRACED: C.W.D.

Notes  
 For reinforcing bar notes, see Br-Std. '01.  
 For additional details and sections, see Dwg. S23 & S26.  
 For Aluminum Posts and Post Brackets, see Br-Std. '01 Type 1.  
 Anchor Bolts for railing shall be spaced in the concrete.  
 Where Structural Steel has been stressed, concrete forms shall not be blocked against the tension end of the steel in making any joint adjacent to the steel spans.  
 For location of posts, see Dwg. S26.  
 For Details of Roadway Drains & Drainage Outlets, see Dwg. S26.

BRIDGES OVER 20' SPAN						
PUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
4	IND.	1-65-2(52)168	1962	30	69	



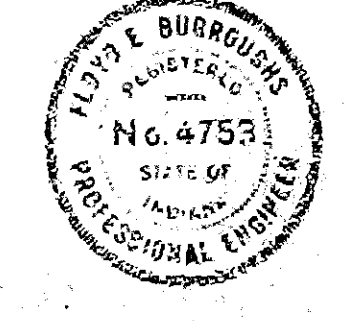
NOTES:  
For reinforcing bar notes, see Br. Std. C.  
For location of Sections, see Dwg. 322.  
For Bill of Materials, see Dwg. 326.  
For Emit. offsets, see Br. Std. M.

DETAILS - SPANS 1 & 15 S.B. & SPAN 15 N.B.  
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: AS NOTED  
SEPT. 11, 1961

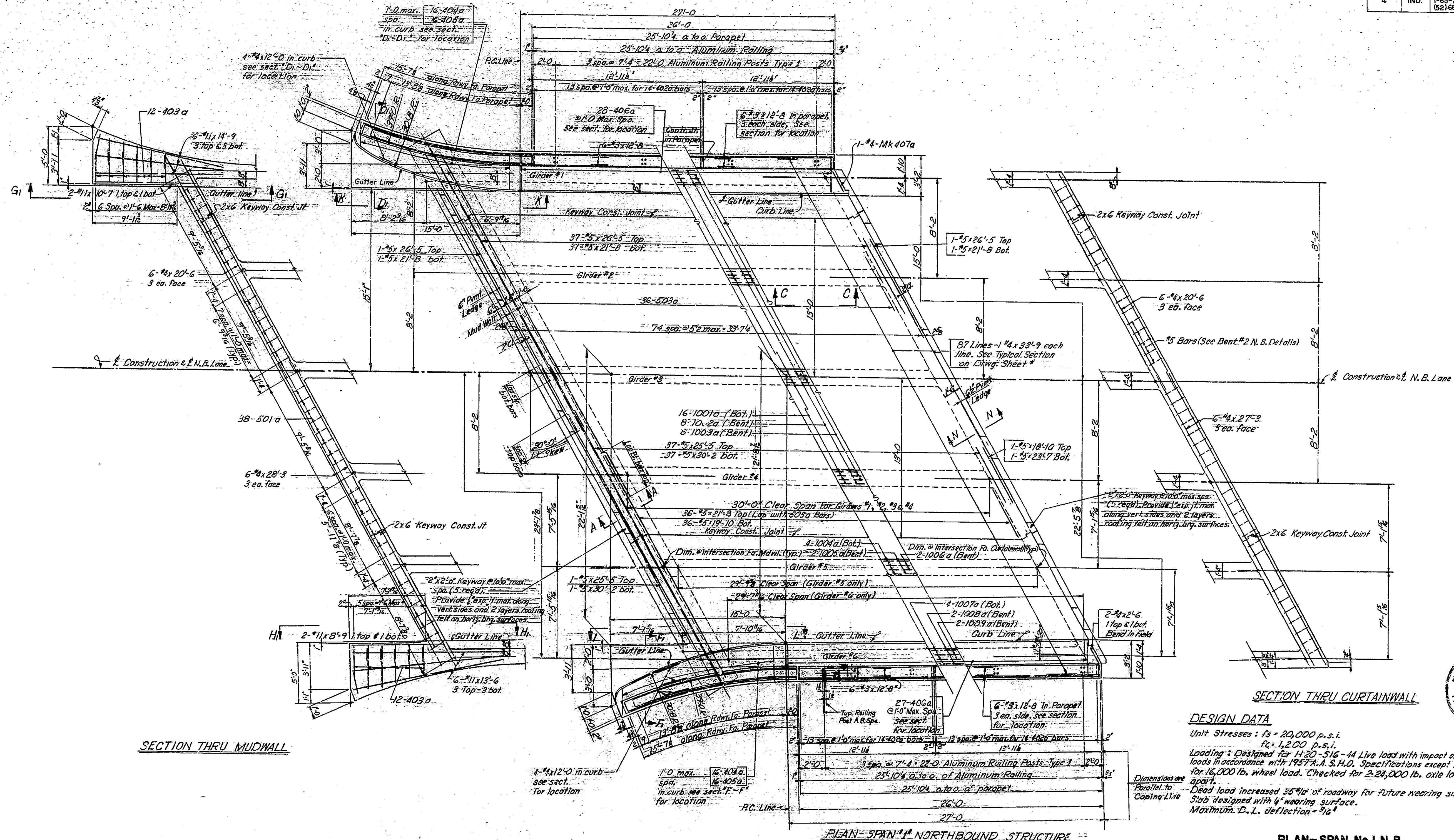
SUBMITTED FOR APPROVAL: *B. B. Pettit*  
*J. E. Cunningham*

DRAWING: S 23 OF S 43  
PROJECT: 1-65-2(52)168  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: 1-65-63-4699,4699J



DESIGNED: J.E.P. C.K.D. D.E.G.  
DRAWN: W.E.L.S.T.R.C. C.K.D. D.E.G.  
TRACED: C.K.D.

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2	1962	31	89

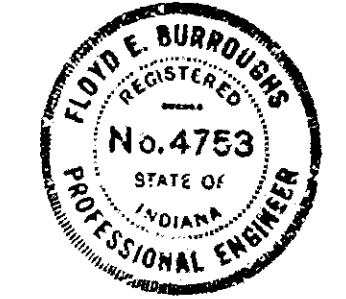


SECTION THRU MUDWALL

SECTION THRU CURTAINWALL

PLAN-SPAN #1 NORTHBOUND STRUCTURE

**DESIGN DATA**  
 Unit Stresses:  $f_s = 20,000$  p.s.i.  
 $f_c = 1,200$  p.s.i.  
 Loading: Designed for H-20-S16-44 Live load with impact and distribution of loads in accordance with 1957 A.A.S.H.O. Specifications except Floor Slab designed for 16,000 lb. wheel load. Checked for 224,000 lb. axle loads spaced 4'-0" apart.  
 Dead load increased 25% of roadway for future wearing surface.  
 Slab designed with 4" wearing surface.  
 Maximum D.L. deflection =  $1/16"$



PLAN-SPAN No. 1 N.B.  
**STATE HIGHWAY DEPARTMENT OF INDIANA**

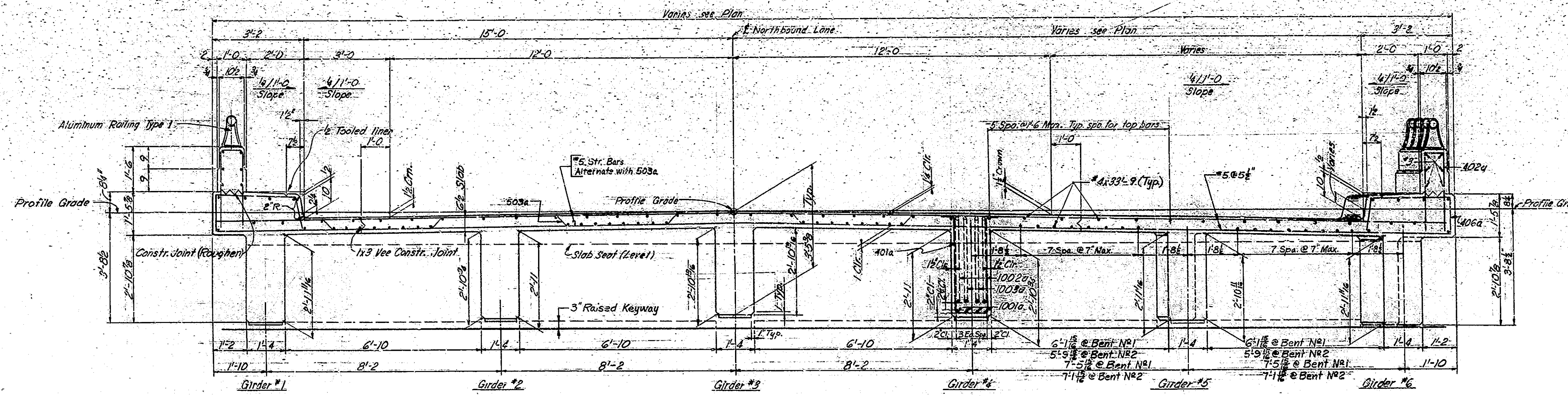
SCALE:  $1/4" = 1'-0"$   
 SEPTEMBER 11, 1961  
 SUBMITTED FOR APPROVAL: *R.P. Patton*  
*F.E. Burroughs*  
 DRAWING: 324 OF 343  
 PROJECT: 1-65-252166  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: 1-65-68-4699,4699J



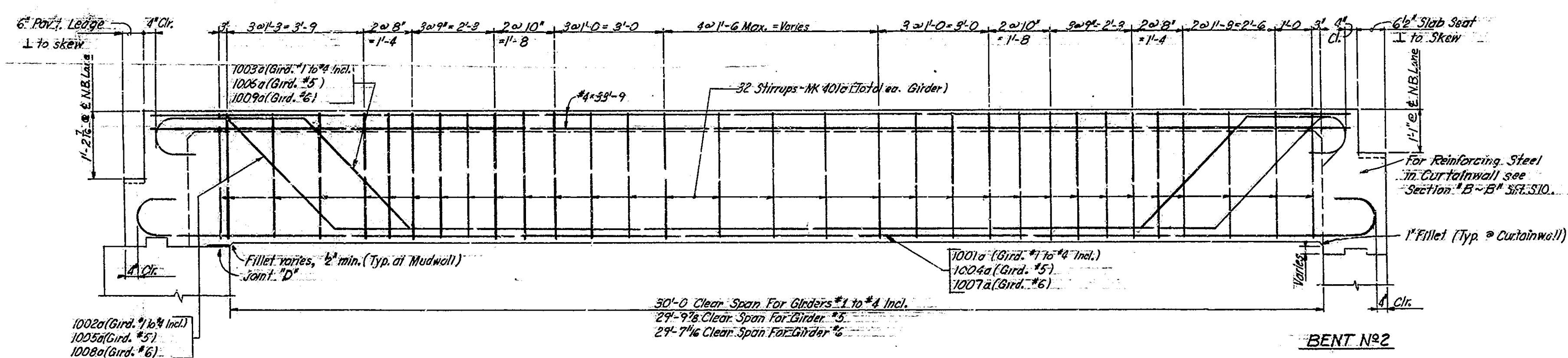
**NOTES:**  
 For reinforcing bar notes, see Br. Std. "C".  
 For additional details and sections, see Drawings 323, 325, & 326.  
 For Aluminum Posts, Railings, and Posts Anchor Bolt Details, see Br. Std. "R" (Type 1).  
 Anchor Bolts for Railings shall be present in the concrete.  
 After Structural Steel has been erected, concrete forms shall not be blocked against expansion and of the steel in making any pours adjacent to the steel spans.  
 For location of pours, see Dwg. 326.  
 For details of Drainage Outlets, see Dwg. 326.

DESIGNED: J.F.A.	CWD: D.E.B.
DRAWN: J.C.C.	CWD: D.E.B.
TRACED:	CWD:

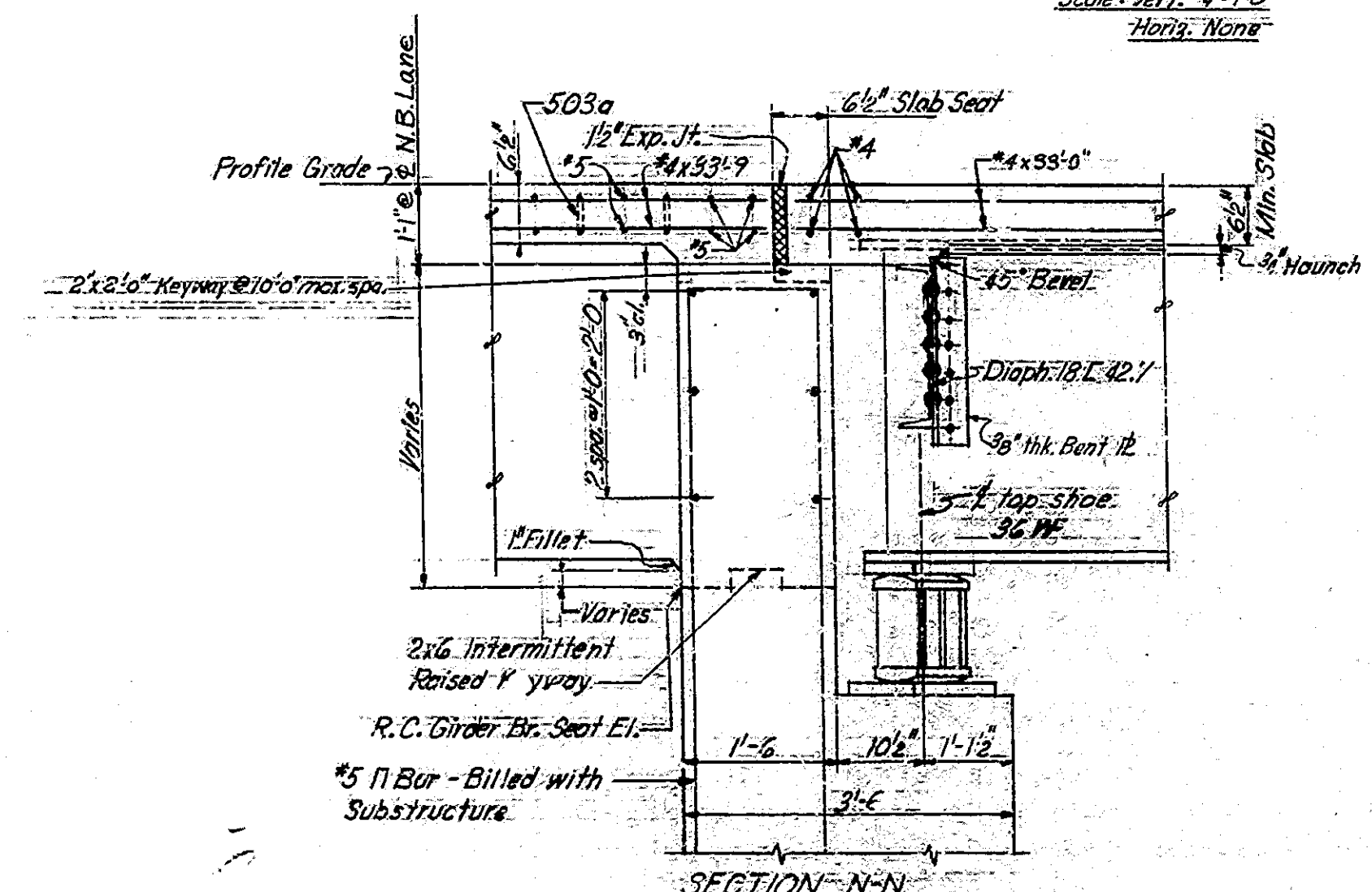
BRIDGES OVER 20' SPAN				
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	65-2152 58	1962	32 89



TYPICAL CROSS SECTION  $\perp$  TO ROADWAY - LOOKING NORTH  
Scale: 8" = 1'-0"



LONGITUDINAL SECTION THRU GIRDERS  
Scale: Vert. 4" = 1'-0" Horiz. None



SECTION N-N  
Scale: 4" = 1'-0"

NOTES:  
For reinf. bar notes, see Br. Std. C  
For Pmnt. offsets, see Br. Std. M  
For Bill of Materials, see Dwg. S26.  
For Location of sections, see Dwg. S24.

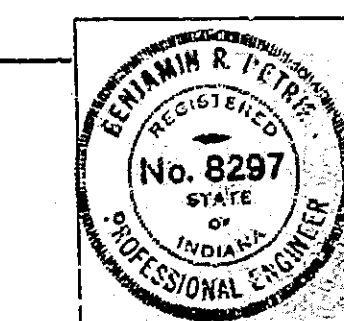
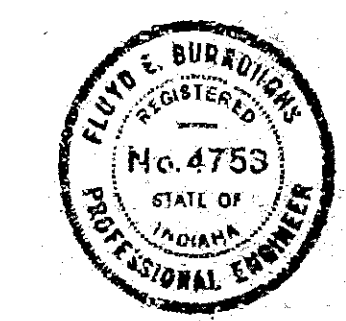
DETAILS - SPAN No. 1 N. B.  
STATE HIGHWAY DEPARTMENT OF INDIANA

SEPT. 11, 1961

SCALE: AS NOTED  
SUBMITTED FOR APPROVAL:

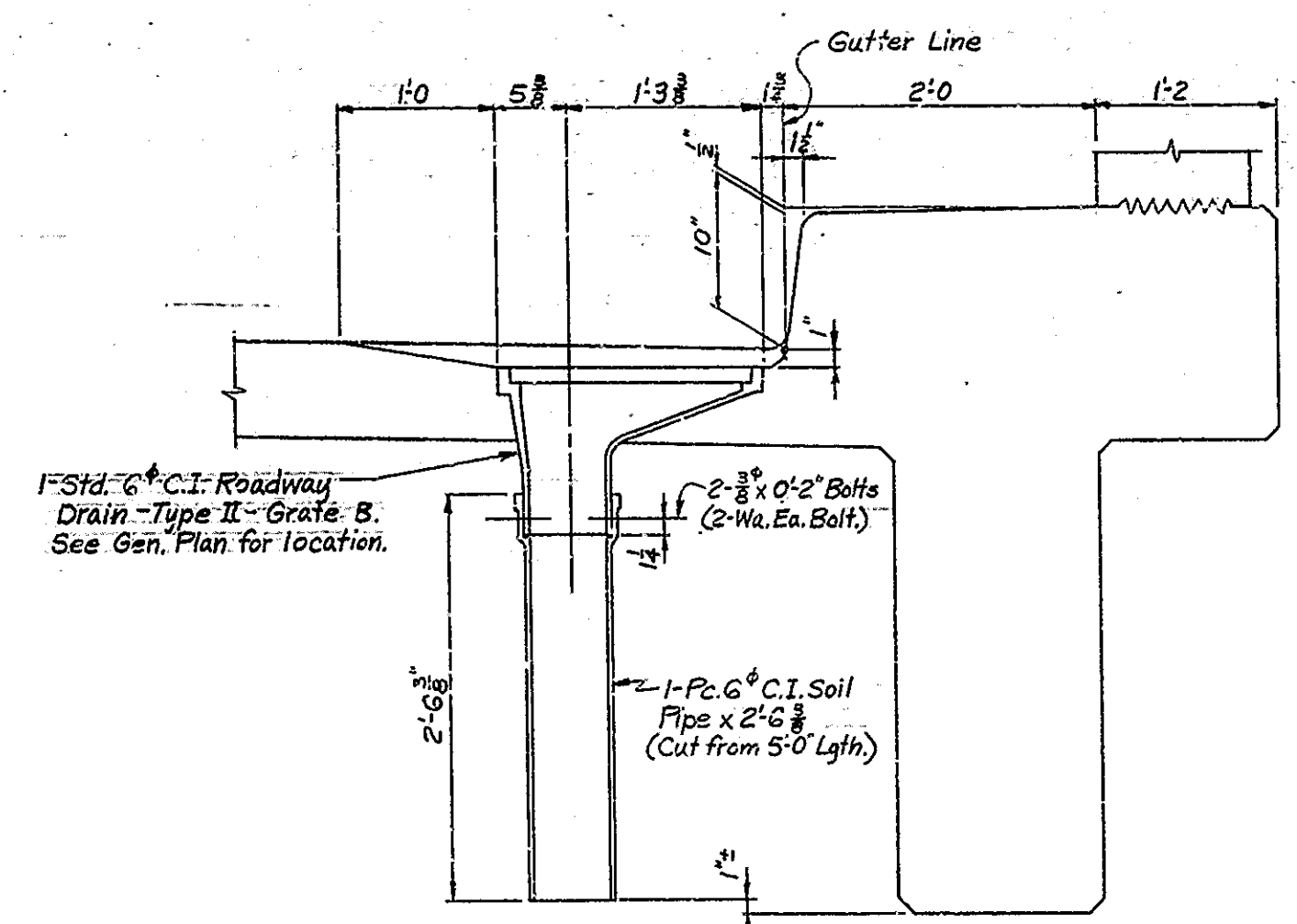
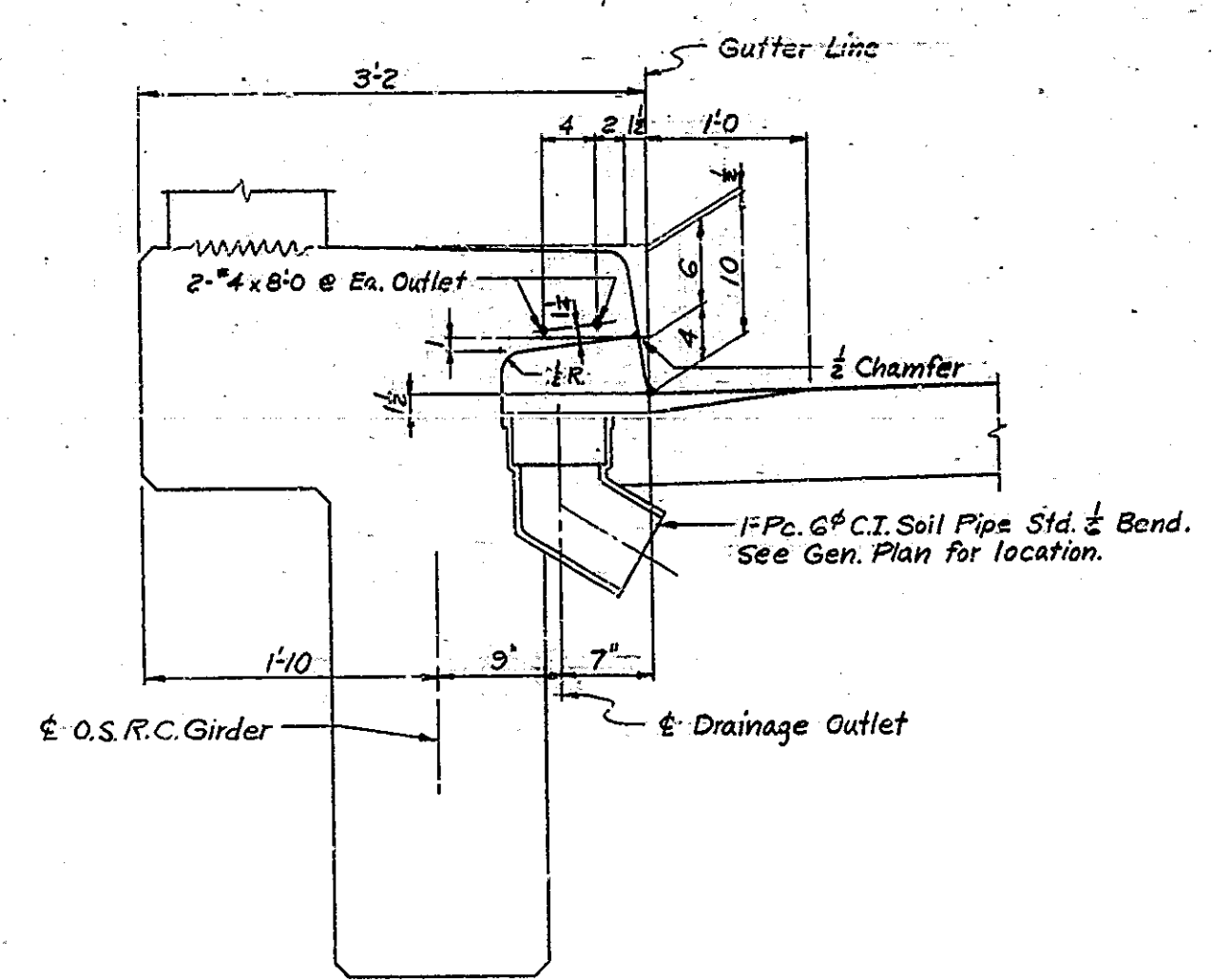
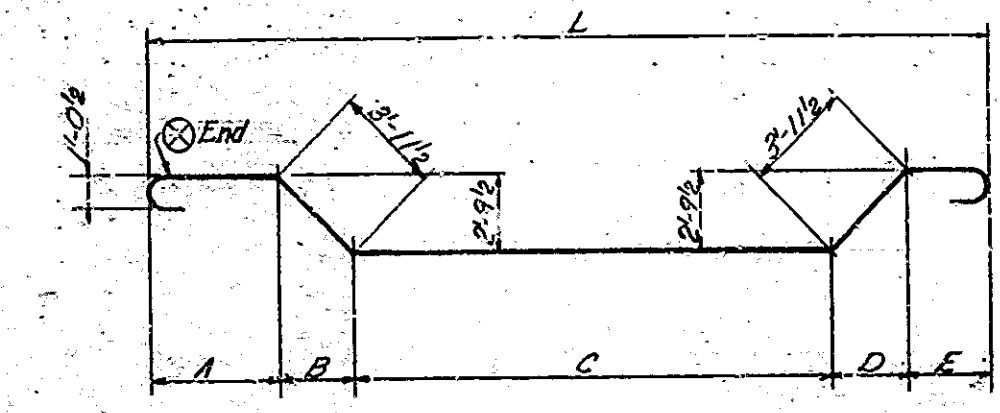
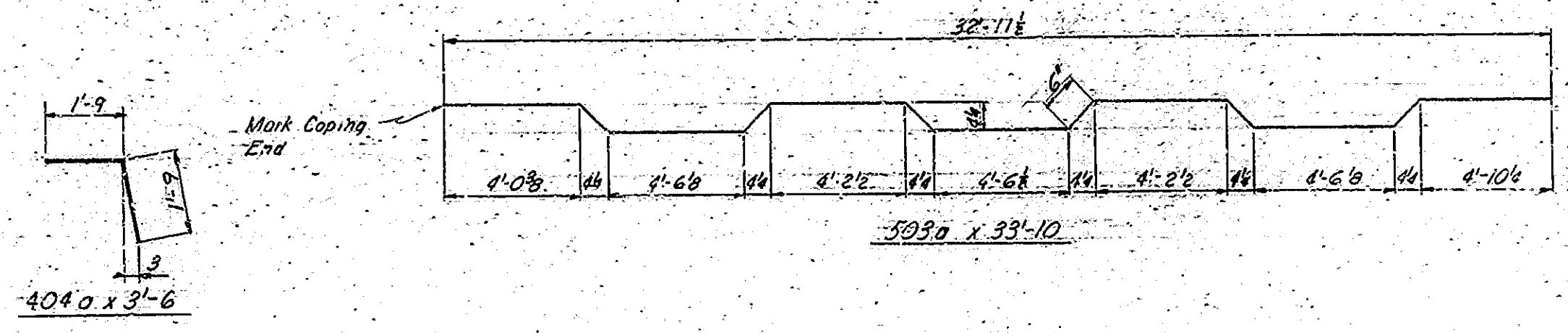
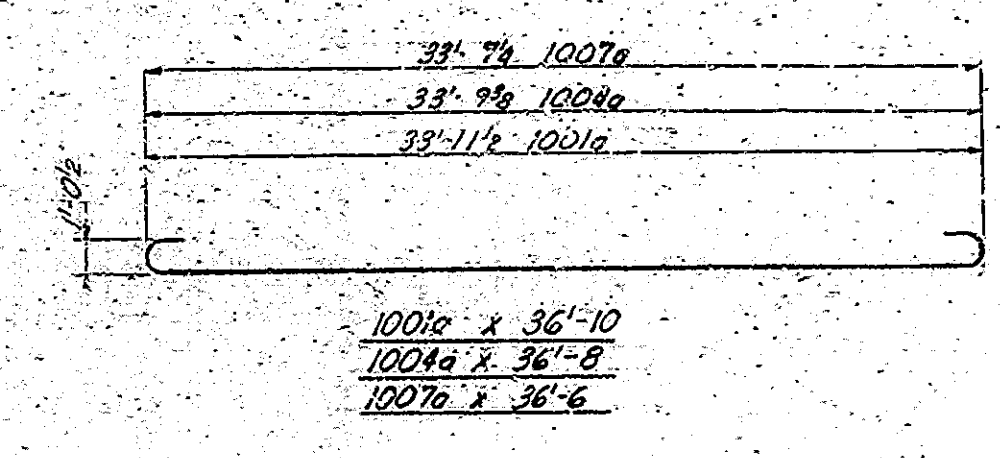
*R.R. Pettit*  
*E.C. Burroughs*

DRAWING: - \$25 OF \$ 43  
PROJECT: - I-65-2152168  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: - I-65-58-4699, 4699J



DESIGNED	T.E.P.	C.K.D.	DEG
DRAWN	E.C.	C.K.D.	DEG
TRACED		C.K.D.	

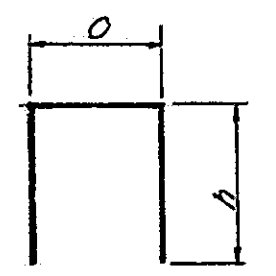
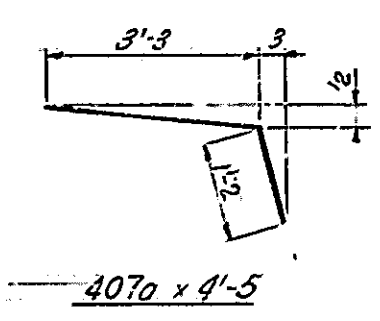
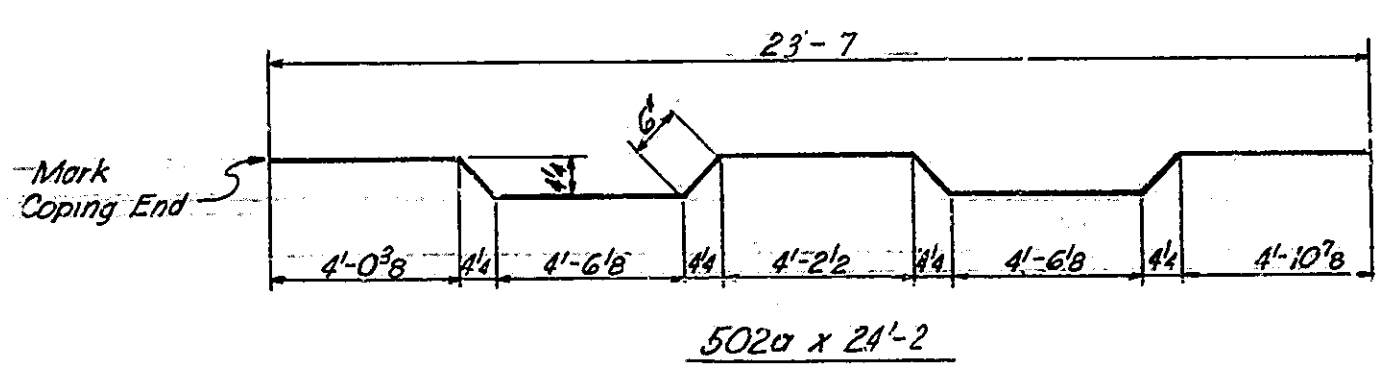
BRIDGES OVER 20' SPAN					
PUB. ROAD DES. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (52168)	1962	33	89



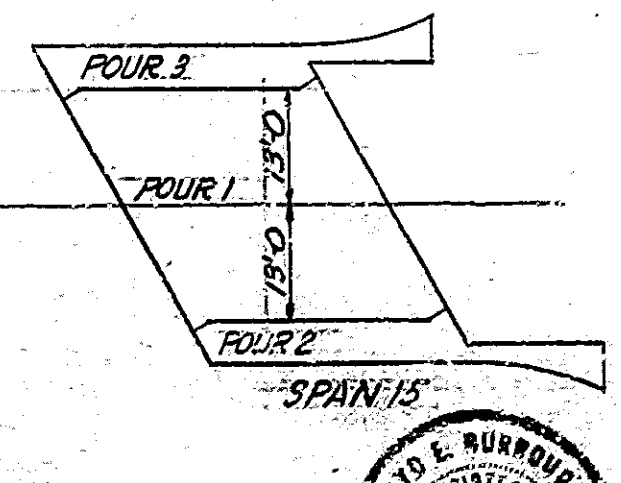
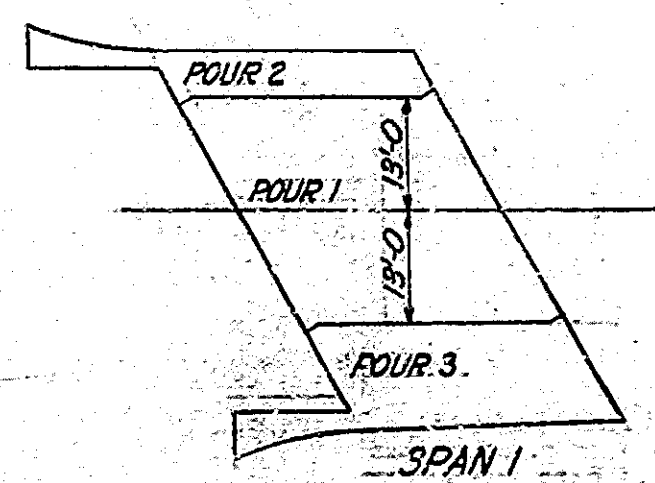
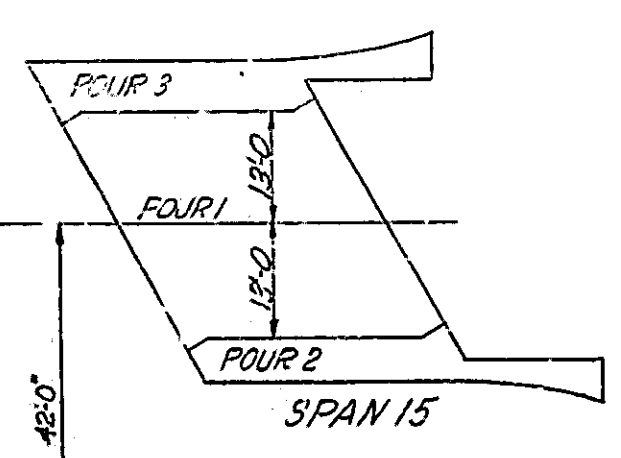
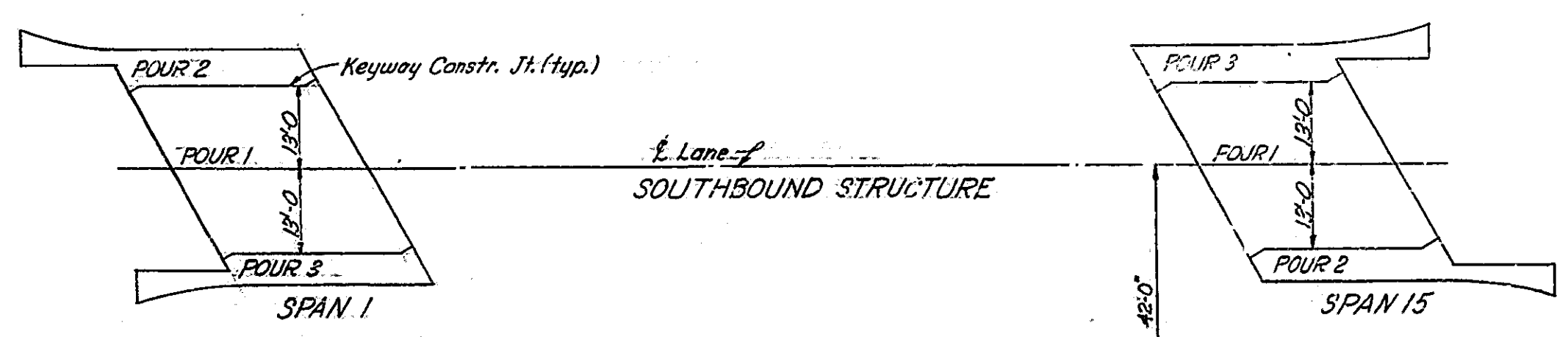
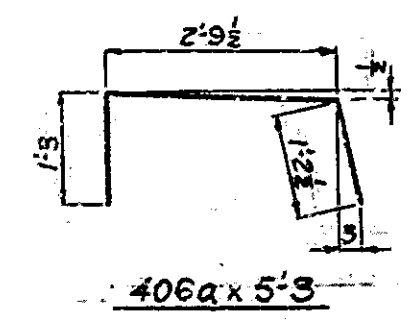
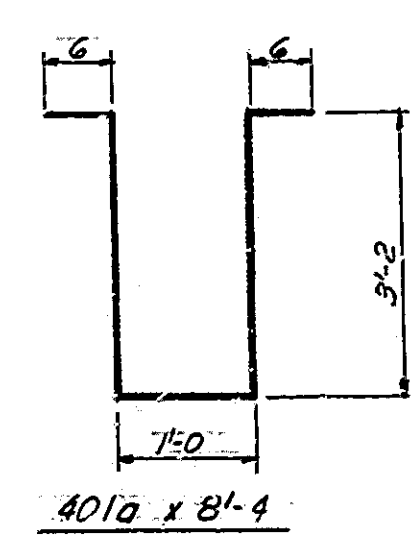
Mark	A	B	C	D	E	L	Length
1002a	1'-11 1/4	2'-9 1/2	24'-5	2'-9 1/2	1'-4 1/2	33'-4 1/2	38'-7
1003a	4'-2 1/4	2'-9 1/2	19'-11	2'-9 1/2	3'-7 1/2	33'-4 1/2	38'-7
1005a	1'-11 1/4	2'-9 1/2	24'-2 1/2	2'-9 1/2	1'-4 1/2	33'-2 1/2	38'-5
1006a	4'-2 1/4	2'-9 1/2	19'-8 1/2	2'-9 1/2	3'-7 1/2	33'-2 1/2	38'-5
1008a	1'-11 1/4	2'-9 1/2	24'-0 1/2	2'-9 1/2	1'-4 1/2	33'-0 1/2	38'-3
1007a	4'-2 1/4	2'-9 1/2	19'-6 1/2	2'-9 1/2	3'-7 1/2	33'-0 1/2	38'-3

**DRAINAGE OUTLET DETAILS**  
For Additional Details, See Br. Std. C.  
Scale: 1"=1'-0"

**ROADWAY DRAIN DETAILS**  
For Additional Details, See Br. Std. D.  
Scale: 1"=1'-0"



Mark	O	h	Length
501a	1'-2	2'-2	5'-6
402a	0'-7 1/2	2'-4	5'-4
403a	3'-2	3'-7	10'-4
405a	7'-2 1/2	2'-0	5'-2



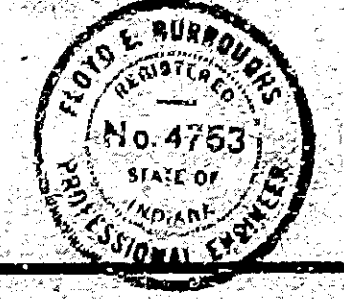
**POUR LOCATION DIAGRAM**  
(These pours do not include parapet concrete)

BILL OF MATERIALS					
SPAN NO. 1 S.B.			SPAN NO. 1 N.B.		
REINFORCING STEEL	REINFORCING STEEL		REINFORCING STEEL		
Size & Mark	No. of Bars	Length	Weight	Size & Mark	No. of Bars
#11	12	14'-0		#11	6
#11	2	9'-10		#11	2
#11	2	7'-9		#11	2
	Total #11	1080'		Total #11	1106'
1001a	20	36'-10		1001a	16
1002a	10	38'-7		1002a	8
1003a	10	38'-7		1003a	8
	Total #10	6490'		1004a	4
501a	32	5'-6		1005a	2
502a	68	24'-2		1006a	2
5	38	26'-5		1007a	4
5	74	21'-8		1008a	2
5	38	16'-11		1009a	2
	Total #5	5288'		Total #10	7771'
401a	160	8'-4		501a	38
402a	36	5'-4		503a	36
403a	72	10'-4		5	38
404a	32	3'-6		5	37
405a	32	5'-2		5	39
406a	56	5'-3		5	1
4	74	33'-9		5	75
2	20'-6			5	36
6	12'-0			5	1
4	8'-0			Total #5	7250'
2	4'-10			401a	192
2	3'-8			402a	36
30	3'-4			403a	34
2	3'-0			404a	32
	Total #4	3770'		405a	32
				406a	55
				407a	1
#3	24	12'-8		#4	87
4	15'-4			6	28'-9
4	15'-0			6	27'-5
4	12'-3			12	23'-6
2	4'-7			8	12'-0
2	2'-2			2	2'-0
2	2'-4			2	4'-10
	Total #3	214'		2	3'-8
Total Reinforcing		16,842'		30	3'-4
CONCRETE				2	2'-6
Class F - Pour #1	41.1 Cu. Yds.			Total #4	4313'
Pour #2	19.7 Cu. Yds.				
Pour #3	18.3 Cu. Yds.				
Total Class F (Except Roll. conc.)	79.1 Cu. Yds.				
Class F - Parapet	2.7 Cu. Yds.			#3	24
Handrail	2.2 Cu. Yds.			4	15'-4
Total Class F Roll-in Concrete	4.9 Cu. Yds.			4	15'-0
				4	13'-5
				2	1'-4
				2	3'-2
				30	2'-4
				Total #3	214'
MISCELLANEOUS				Total Reinforcing	20,653'
Aluminum Railing (Type I)	517 Lbs. Ft.			CONCRETE	
MISC. (Span N#15 S.B. Only)				Class F - Pour #1	41.1 Cu. Yds.
2-Pcs. 6" C.I. Soil Pipe Std. & Bends @ 95' Ea.	66 Lbs.			Pour #2	19.7 Cu. Yds.
MISC. (Spans N#15 S.B. & N#15 N.B. Only)				Pour #3	18.3 Cu. Yds.
2-Std. C.I. Rdwy. Drains - Type II	288 Lbs.			Grate B @ 144" Ea.	288 Lbs.
2-Pcs. 6" C.I. Soil Pipe @ 78' Ea.	9 Lbs.			2-Pcs. 6" C.I. Soil Pipe @ 78' Ea.	9 Lbs.
Total Cast Iron	9 Lbs.			Total Class F (Except Roll. conc.)	79.1 Cu. Yds.
				Class F - Parapet	2.7 Cu. Yds.
				Handrail	2.2 Cu. Yds.
				Total Class F Roll-in Concrete	4.9 Cu. Yds.
				MISCELLANEOUS	
				Aluminum Railing - Type I	517 Lbs. Ft.
				2-Pcs. 6" C.I. Soil Pipe Std. & Bend	66 Lbs.

**BILL OF MATERIALS - SPANS No. 1 & 15 S.B., No. 1 & 15 N.B.**  
**STATE HIGHWAY DEPARTMENT OF INDIANA**

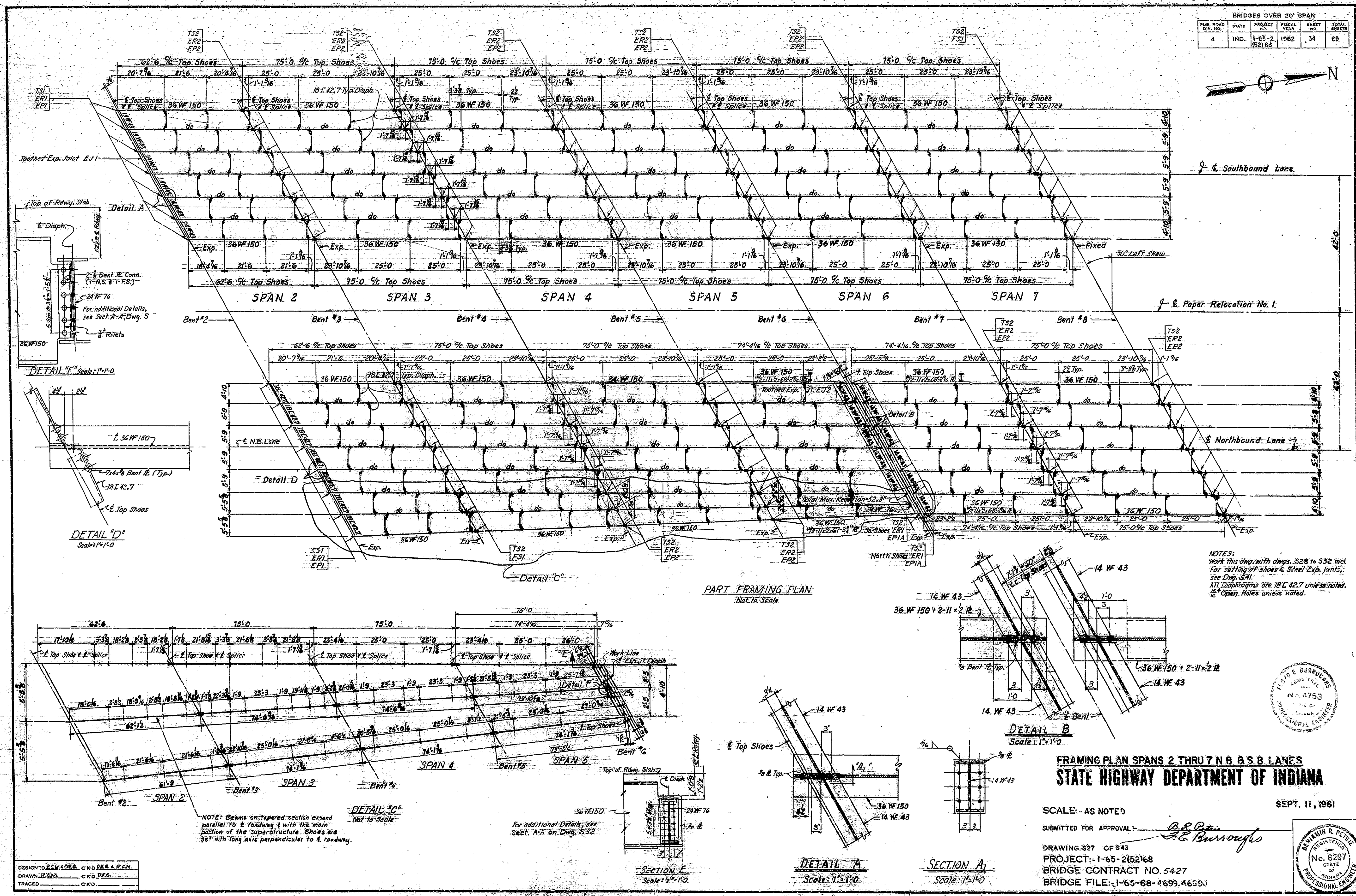
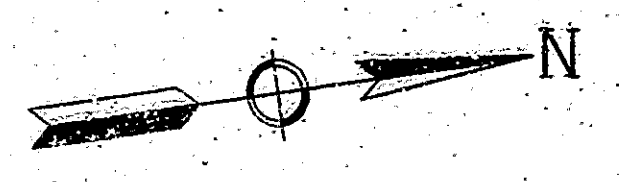
SCALE - NONE  
SUBMITTED FOR APPROVAL: *B. B. Patten*  
*A. C. Burnham*  
DRAWING - 526 OF 543  
PROJECT - 1-65-2(52168)  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE - 1-65-68-4699,4699J

SEPT. 11, 1961



DESIGNED: L.F.P. CKV, D.E.G.  
DRAWN: T.E.C. CKV, D.E.G.  
TRACED: CKV

BRIDGES OVER 20' SPAN				
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	TOTAL SHEETS
4	IND.	1-65-2 (52)68	1962	34
				69



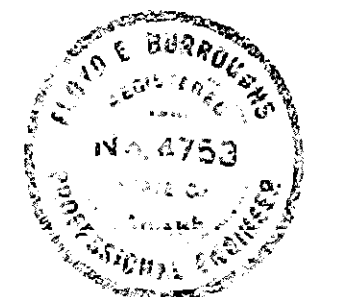
PART FRAMING PLAN  
Not to Scale

NOTES:  
Work this drawing with drawings S28 to S32 incl.  
for setting of shoes & steel exp. joints.  
See Dwg. S41.  
All Diaphragms are 18" x 42.7" unless noted.  
Open Holes unless noted.

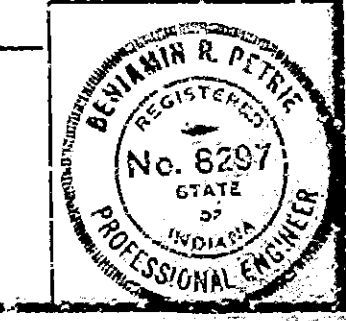
DESIGNED BY: R. A. DEE, C.R.D., R.E. & R.C.M.  
DRAWN BY: R. E. SMITH, C.R.D., P.E.  
TRACED BY: C.K.D.

FRAMING PLAN SPANS 2 THRU 7 N.B. & S.B. LANES  
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: - AS NOTED  
SUBMITTED FOR APPROVAL: *B. B. Burr*  
DRAWING: S27 OF S43  
PROJECT: 1-65-2(52)68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: 1-65-68-4699.4699.1

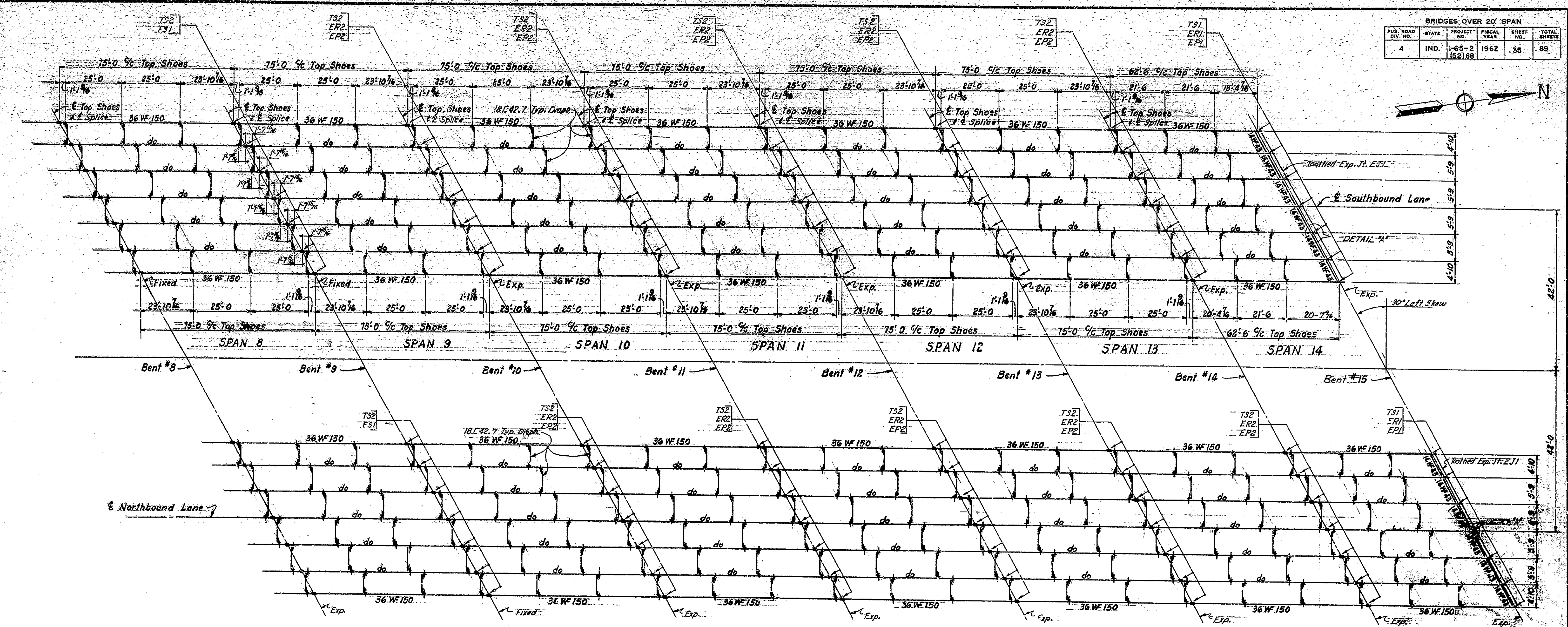


SEPT. 11, 1961





BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-2 (S2)68	1962	35	89



**PART FRAMING PLAN**  
Not to Scale

NOTE:  
Dimensions for Northbound Structure same as Southbound Structure unless noted.

**DATA USED FOR DESIGN & DETAILS**

**LIVE LOAD:** H20-S16-44 loading with impact & distribution of loads in accordance with 1957 AASHTO Specifications.  
**DEAD LOAD:** Actual weight plus 35 pounds per sq. ft. of roadway to provide for future wearing surface.  
**SLAB:** Designed for 16,000 lb. wheel plus impact, and with 2" monolithic wearing surface.

**UNIT STRESSES**

Structural Steel Bending (tension)	13,000 <sup>psi</sup>
Shear on Rivets	13,500 <sup>psi</sup>
Structural Steel Bearing (including rivets)	27,000 <sup>psi</sup>
Bearing, Steel on Concrete (including overturning and eccentric loading)	1,000 <sup>psi</sup>
Reinforcing Steel (tension)	20,000 <sup>psi</sup>
Concrete (compression)	1,200 <sup>psi</sup>

**GENERAL NOTES**

All paint shall be in accordance with current State Highway Department of Indiana Specifications.  
**SHOP PAINT:** One coat of red lead Type I or II except as noted.  
**FIELD PAINT:** Two coats of aluminum.  
 Rivets - 5/8"  
 Open holes 1/8" unless noted.  
 Beams must be cambered to a smooth curve. Camber must be checked while beams are supported in such a way as to have no bending moment in direction of camber.  
 Holes for beam splices shall be sub-punched or sub-drilled and reamed to size while assembled. See Article E1103.18(d) of the Specifications.  
 The shop details 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 size of beams of 1 consecutive beam spans shall be shop assembled with webs vertical (except for 1/2" flange) for one complete type of beams.  
 The shop details shall show a plan of matching for all reamed pieces.  
 All splice plates to be reamed, cleaned & painted after reaming. Splice plates shall not extend beyond the end of beam after bolting for shipment.  
 Flange splice bars shall have flange or web edges and holes in bars shall be sub-drilled & reamed or drilled full size while assembled.

Ribbed bolts may be substituted for field rivets in diaphragm connections, see Specifications.  
 Gage lines on beam webs to be straight.  
 All structural steel shall be erected & 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 & construct all parts of the work in conformity with the Engineer's drawings & specifications and shall submit five (5) copies of these to the Engineer. See Article E1103.2 of the Specifications.  
 Diameter of holes in all materials connecting top shoes to beam flanges shall be 1/8".  
 Bolts connecting beam flange to top shoe shall extend into top shoe a minimum of 1 inch.  
 Shims between beams & top shoes may be built up.  
 No shims shall be less than 1/2" in thickness.  
**ESTIMATED WEIGHT OF STRUCTURAL STEEL**  
 209,900 ± 3.0% (Struct. Incl. 2-Exp. Jts. E-11)  
 1798,900 ± 3.0% (Struct. Incl. 1-E-11 & 1-E-12 Exp. Jts.)  
 Total = 2,008,800



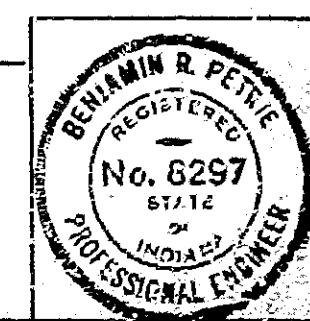
**FRAMING PLAN SPANS 8 THRU 14 N.B. & S.B. LANES**  
**STATE HIGHWAY DEPARTMENT OF INDIANA**

SCALE: - AS NOTED

SEPT. 11, 1961

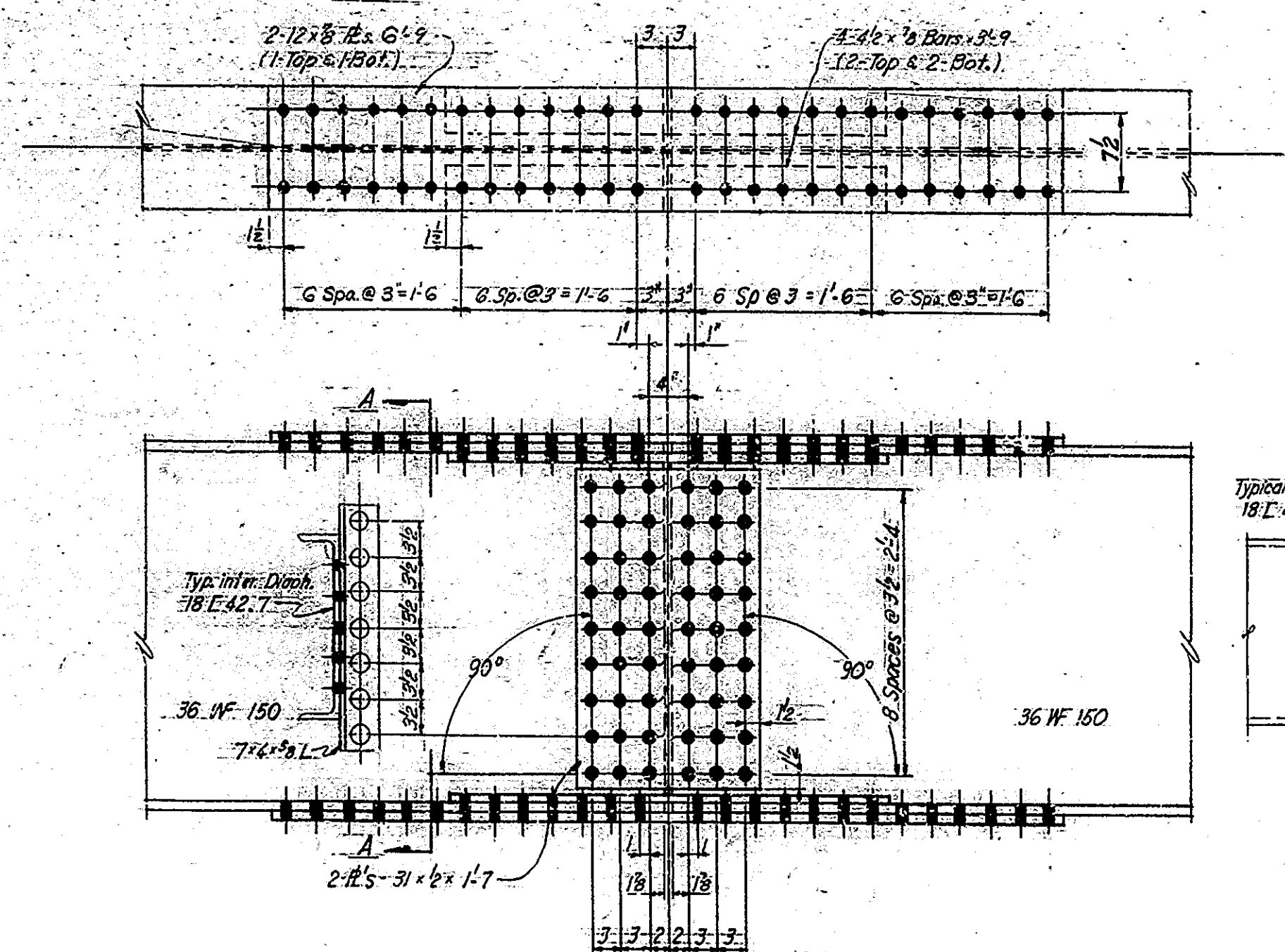
SUBMITTED FOR APPROVAL: *F. E. Suraburg*

DRAWING: S-28 OF S-43  
 PROJECT: I-65-2(52)68  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: I-65-68-4699,4699J



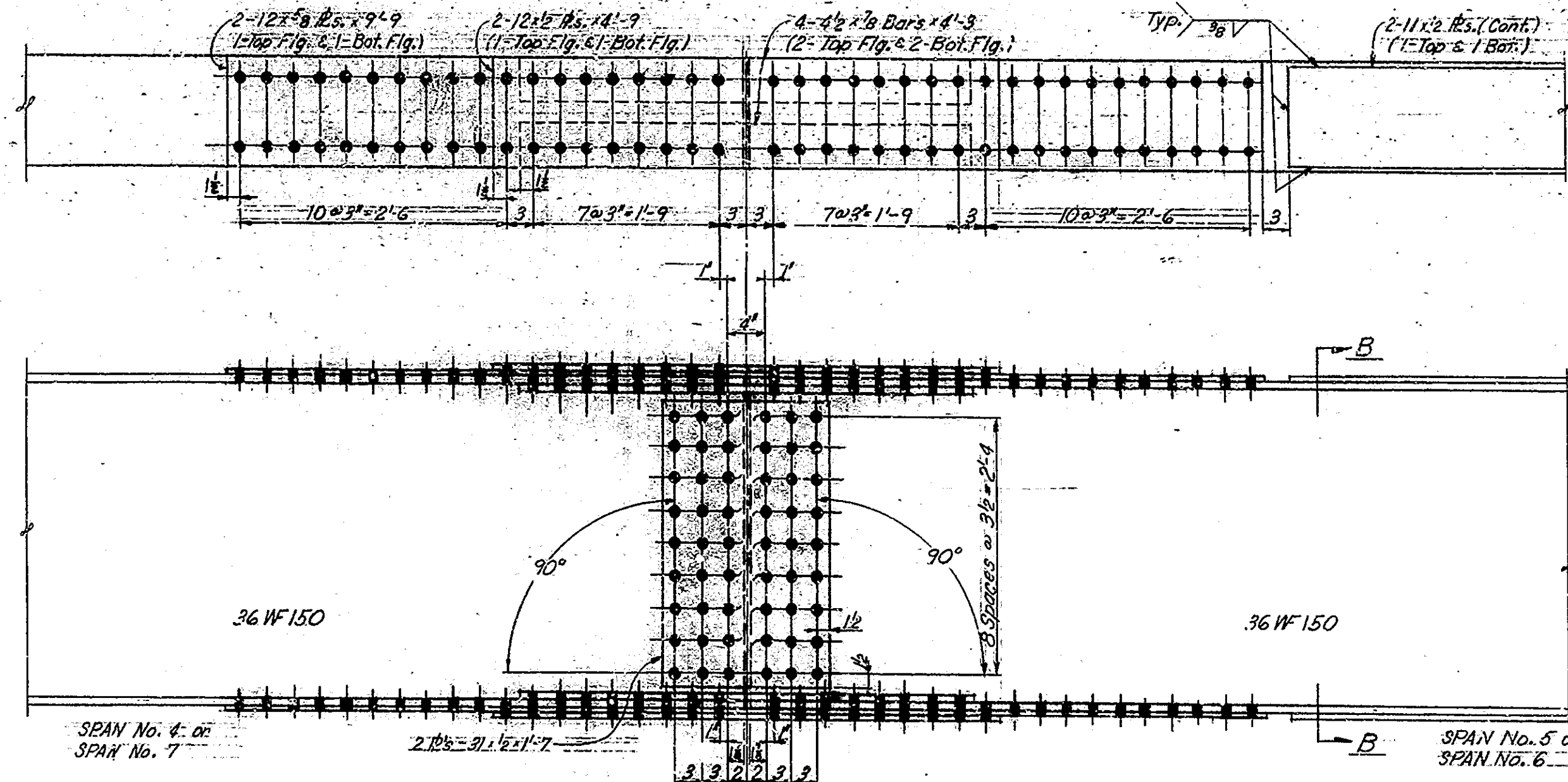
DESIGNED: R. C. M. DECKHOFF & ASSOCIATES  
 DRAWN: R. C. M. DECKHOFF  
 TRACED: C. K. D.

BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-25268	1962	36	89



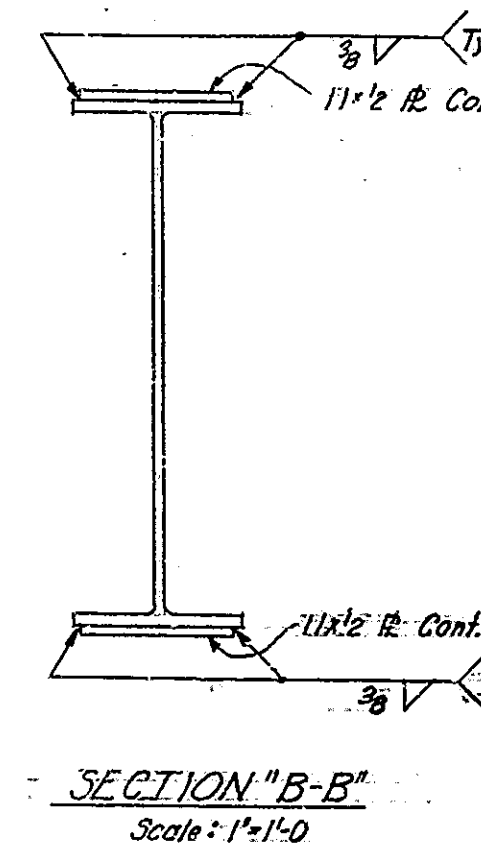
TYPICAL SPLICE FOR INTERIOR & O.S. BEAMS

Scale: 1"=1'-0"



SPLICE FOR INT. & O.S. BEAMS @ BENT #5 N.B.  
SPLICE FOR BENT #7 N.B. OPPOSITE HAND

Scale: 1"=1'-0"



SECTION "B-B"

Scale: 1"=1'-0"

SOUTHBOUND STRUCTURE - 13 Span Continuous

	Pos. Mom. @ 4 Pt. Span #2 In Ft. Lbs.		Pos. Mom. @ 5 Pt. Span #3 In Ft. Lbs.		Pos. Mom. @ 6 Pt. Span #4 In Ft. Lbs.		Neg. Mom. @ Bent #14 In Ft. Lbs.	
	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.
Dead Load	275,400	317,500	279,600	312,500	283,800	317,700	-34,000	-421,500
Live Load	353,500	299,000	351,300	295,100	351,300	295,100	-297,500	-250,000
Impact	94,800	79,800	87,800	73,800	87,800	73,800	-76,800	-64,500
Total	723,700	696,300	718,700	681,400	722,900	686,600	-718,300	-736,000

SOUTHBOUND STRUCTURE (13 Span Cont.)

	Neg. Mom. @ Bent #4 to #13 In Ft. Lbs.		Reaction @ Pier #26 #15 In Lbs.		Reaction @ Bent #36 #14 In Lbs.		Reaction @ Bent #4 to #19 Incl. In Lbs.	
	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.
Dead Load	-335,500	-10,100	22,010	25,630	66,230	78,120	65,950	77,480
Live Load	-318,000	-267,000	35,130	20,200	44,850	30,140	45,320	30,540
Impact	-79,500	-66,800	9,380	5,390	11,570	7,540	11,310	7,640
Total	-733,000	-743,900	66,520	31,220	122,650	115,800	122,580	115,660

NORTHBOUND STRUCTURE - 4 Span Continuous (Spans 2 to 5 Incl.)

	Pos. Mom. @ 4 Pt. Span #2 In Ft. Lbs.		Pos. Mom. @ 5 Pt. Span #3 In Ft. Lbs.		Pos. Mom. @ 6 Pt. Span #4 In Ft. Lbs.		Pos. Mom. @ 7 Pt. Span #5 In Ft. Lbs.	
	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.
Dead Load	284,900	332,000	292,000	328,500	262,000	291,000	459,000	531,000
Live Load	361,000	309,000	352,000	295,000	397,000	292,000	459,000	385,000
Impact	96,400	81,000	88,000	73,500	84,000	73,000	114,800	96,400
Total	742,300	722,000	732,000	697,000	743,000	656,000	1,032,800	1,012,400

NORTHBOUND STRUCTURE (Continued)

	Neg. Mom. @ Bent #6 In Ft. Lbs.		Neg. Mom. @ Bent #7 In Ft. Lbs.		Neg. Mom. @ Bents #8, #9 In Ft. Lbs.		Neg. Mom. @ Bent #14 In Ft. Lbs.	
	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.
Dead Load	275,400	317,500	-421,700	-526,000	-335,500	-410,100	-344,000	-421,500
Live Load	353,500	299,000	-346,700	-291,200	-318,000	-267,000	-297,500	-250,000
Impact	94,800	79,800	-86,700	-72,800	-79,500	-66,800	-76,800	-64,500
Total	723,700	696,300	-855,100	-890,000	-733,000	-743,900	-718,300	-736,000

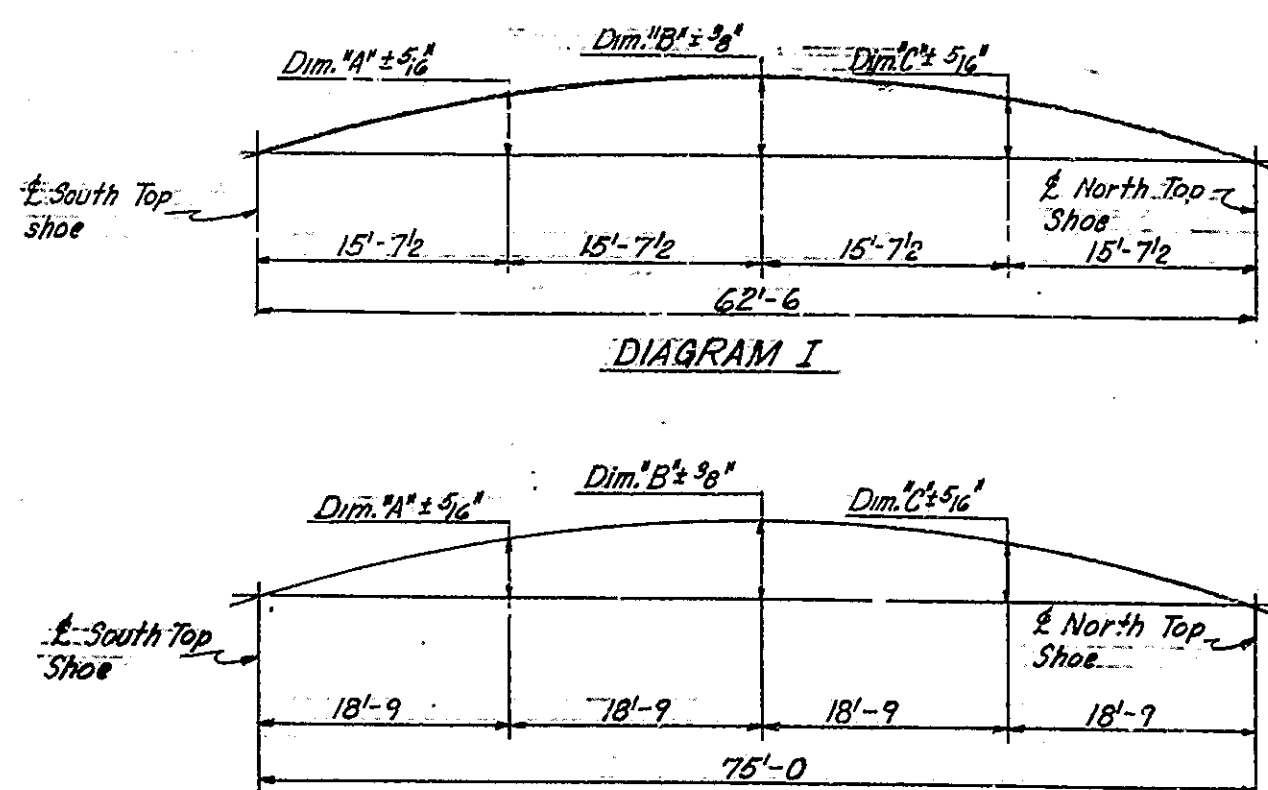


DIAGRAM I

DIAGRAM II

CAMBER DIAGRAMS

CAMBER DIMENSIONS

SPAN NO.	Diagram No.	Dim. A'	Dim. B'	Dim. C'
#2-S.B.	I	5/8	7/8	1/8
#3-S.B.	II	5/8	5/8	1/8
#4, 5 & 6 S.B.	II	7/8	5/8	1/8
#7 to 13 Incl. S.B.	II	5/8	5/8	1/8
#14 S.B.	I	5/8	1/2	3/8
#2-N.B.	I	5/8	7/8	1/8
#3-N.B.	II	5/8	5/8	1/8
#4-N.B.	II	5/8	1/2	3/8
#5-N.B.	II	5/8	1/4	1/2
#6-N.B.	II	5/8	1/8	1/2
#7-N.B.	II	5/8	1/8	1/2
#8 to 13 Incl. N.B.	II	5/8	3/8	1/2
#14-N.B.	I	5/8	1/2	7/8

	Neg. Mom. @ Bent #3 In Ft. Lbs.		Neg. Mom. @ Bent #4 In Ft. Lbs.		Neg. Mom. @ Bent #5 In Ft. Lbs.		Reaction @ Pier #2 In Lbs.	
	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.
Dead Load	-354,000	-441,000	-312,000	-389,000	-416,000	-518,000	22,060	26,870
Live Load	-302,000	-254,000	-317,000	-266,000	-344,000	-289,000	34,920	21,700
Impact	-78,000	-66,000	-75,000	-66,500	-86,000	-72,300	9,320	5,800
Total	-734,000	-761,000	-704,000	-721,500	-846,000	-879,300	66,302	54,370

	Reaction @ Bent #6 In Lbs.		Reaction @ Bent #7 In Lbs.		Reaction @ Bents #8, #9 In Lbs.		Reaction @ Bent #14 In Lbs.	
	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.
Dead Load	29,200	34,130	74,550	88,640	65,950	76,770	66,230	78,120
Live Load	36,270	21,210	47,560	32,380	45,320	31,320	44,850	30,140
Impact	9,070	5,310	11,900	8,100	11,310	7,890	11,570	7,540
Total	74,540	60,650	134,010	129,120	122,580	115,920	122,650	115,800

	Reaction @ Bent #3 In Lbs.		Reaction @ Bent #4 In Lbs.		Reaction @ Bent #5 In Lbs.		Reaction @ Bent #6 In Lbs.	
	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.
Dead Load	67,550	80,530	65,000	77,280	74,550	88,280	29,200	34,130
Live Load	45,410	30,660	45,770	30,910	47,560	32,410	36,270	21,210
Impact	11,710	9,920	11,440	9,280	11,900	9,110	9,070	5,310
Total	124,670	119,110	122,210	117,470	134,010	129,800	74,540	60,650

	Reaction @ Bent #8 In Lbs.		Reaction @ Bent #9 In Lbs.		Reaction @ Bent #14 In Lbs.	
	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.
Dead Load	22,010	25,630	66,230	78,120	65,950	77,480
Live Load	35,130	20,200	44,850	30,140	45,320	30,540
Impact	9,380	5,390	11,570	7,540	11,310	7,640
Total	66,520	31,220	122,650	115,800	122,650	115,800

NORTHBOUND STRUCTURE - 9 Span Continuous (Span 6 to 15 Incl.)

	Pos. Mom. @ 4 Pt. Span #6 In Ft. Lbs.		Pos. Mom. @ 5 Pt. Span #7 In Ft. Lbs.		Pos. Mom. @ 6 Pt. Span #8 In Ft. Lbs.		Pos. Mom. @ 7 Pt. Span #9 In Ft. Lbs.	
	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.	Int. Bm.	O.S. Bm.
Dead Load	459,000	531,000	249,800	291,000	302,600	348,300	279,600	312,500
Live Load	459,000	385,000	388,600	292,000	333,500	298,600	351,300	295,100
Impact	114,800	96,400	89,700	75,000	88,900	74,700	87,800	73,800
Total	1,032,800	1,012,400	698,100	658,000	725,000	715,600	718,200	681,400

SPLICE DETAILS, CAMBER DIAGRAMS, TABLES OF MOM. & REACTIONS

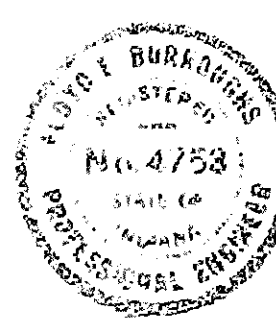
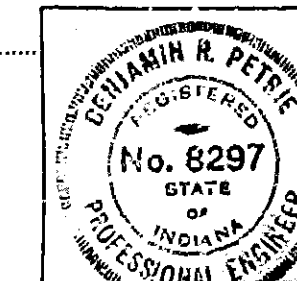
STATE HIGHWAY DEPARTMENT OF INDIANA

SEPT. 11, 1961

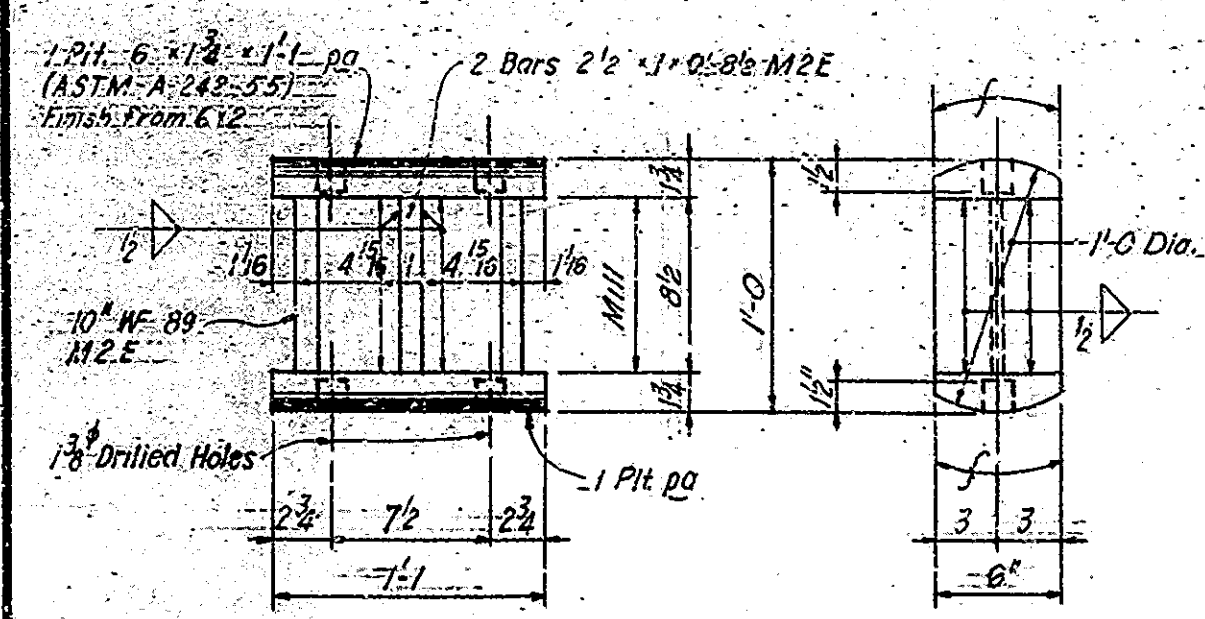
SCALE: AS NOTED

SUBMITTED FOR APPROVAL: *F. C. Burroughs*

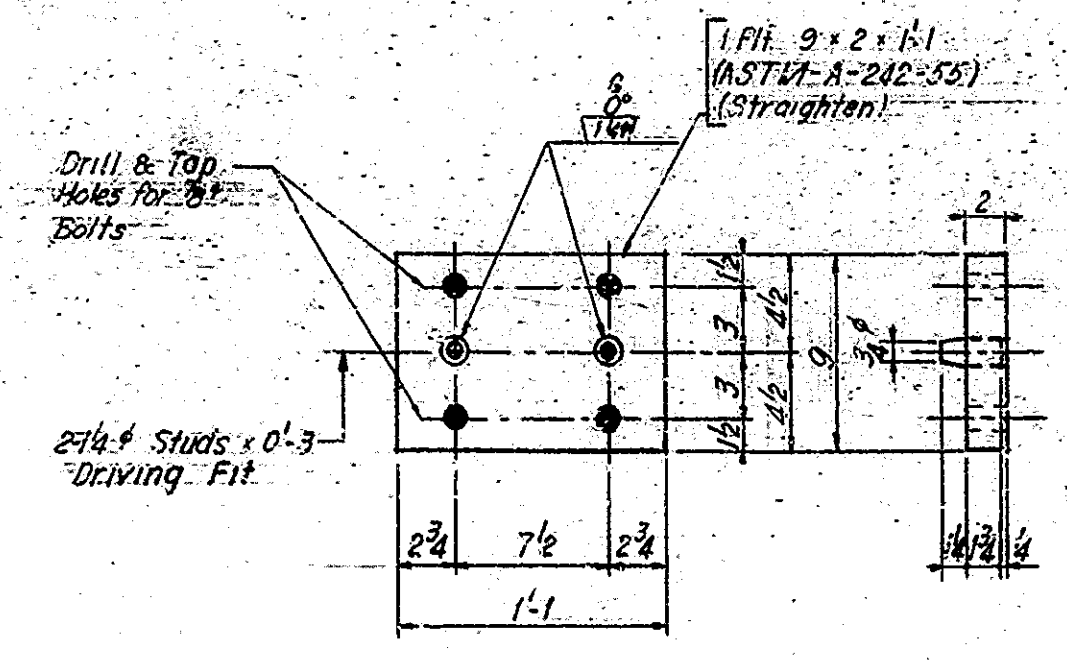
DESIGNED: R.M. & D.B. C.R. & D.E. C.M.  
DRAWN: M.E. & T.E.C. C.W.D. D.E.G.  
TRACED: C.W.D.



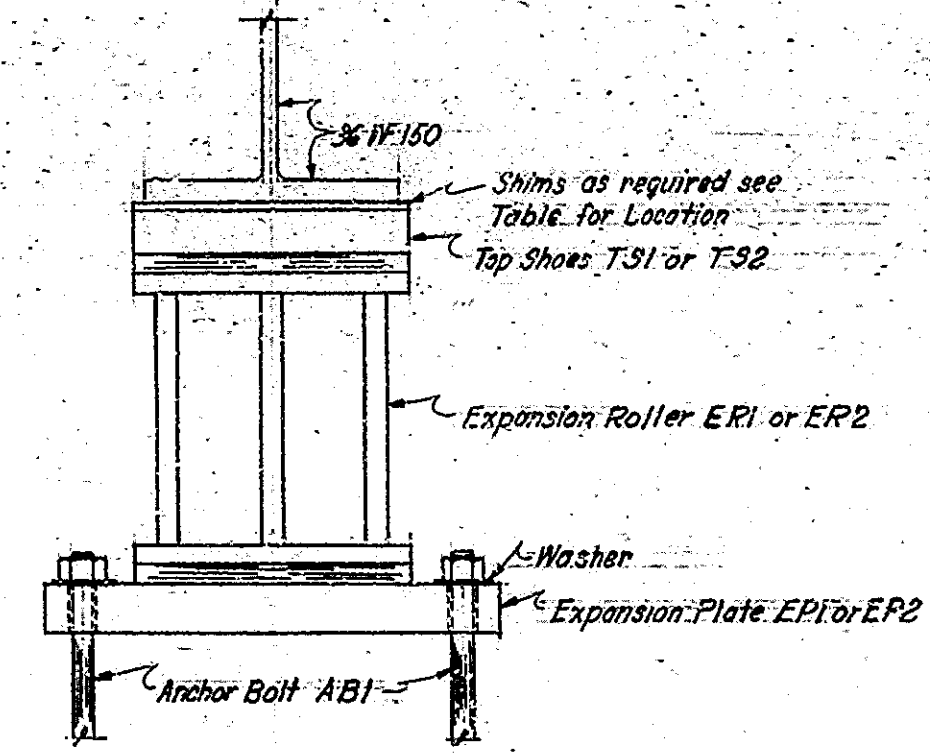
BRIDGES OVER 20' SPAN						
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
4	IND.	I-65-2(52) 58	1962	57	89	



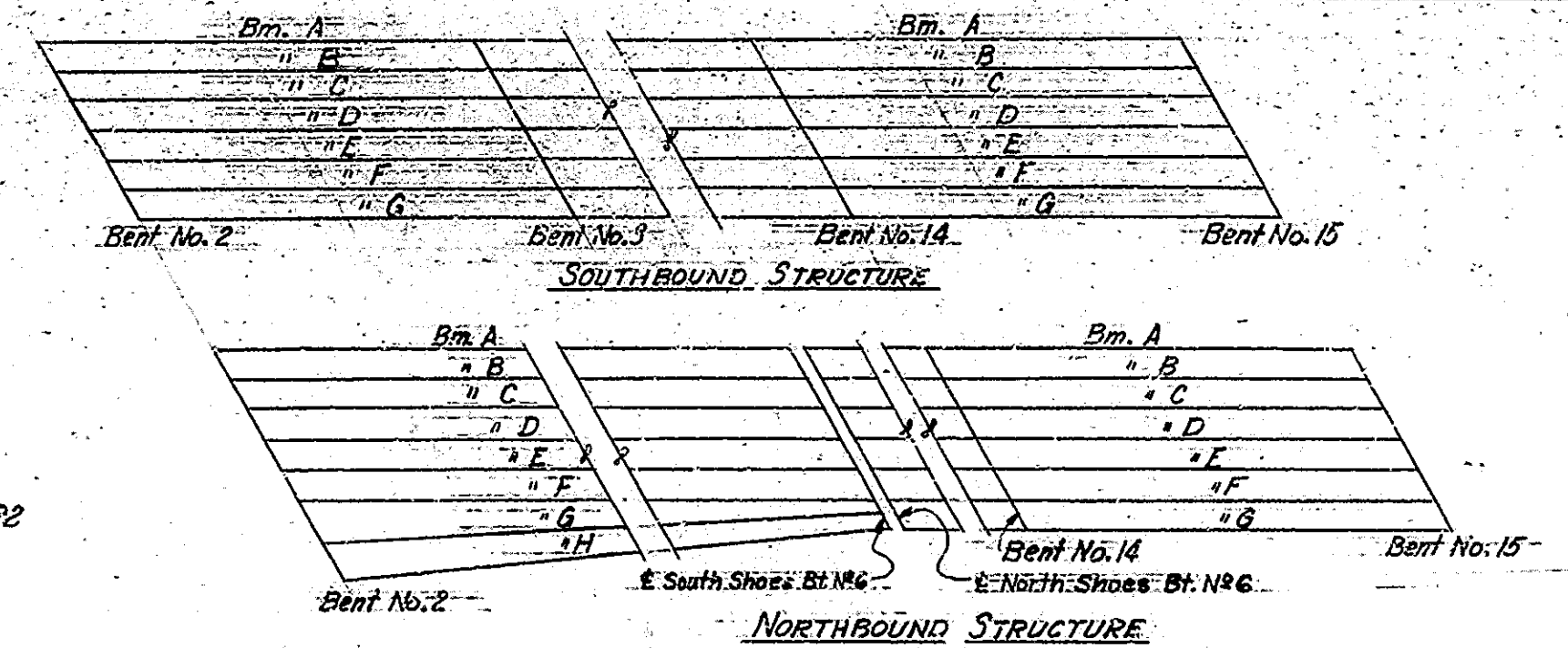
EXPANSION ROLLER ERI



TOP SHOE TS2



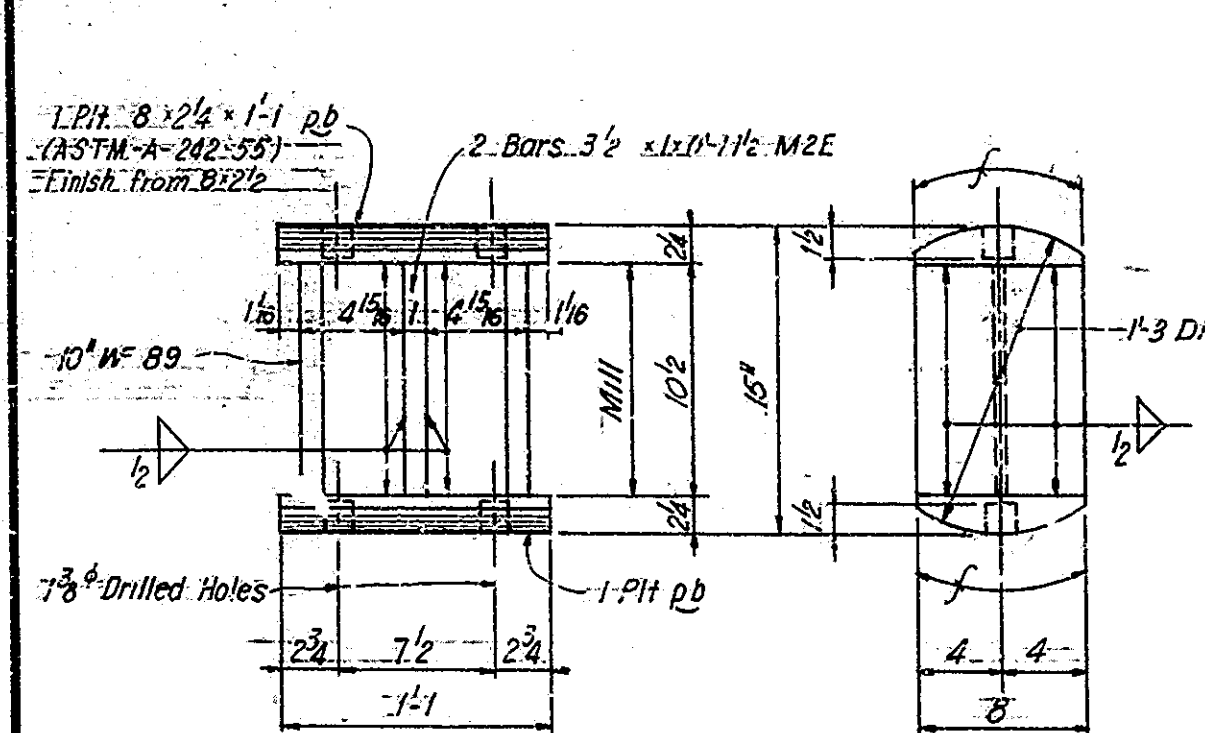
EXPANSION SHOE ASSEMBLY



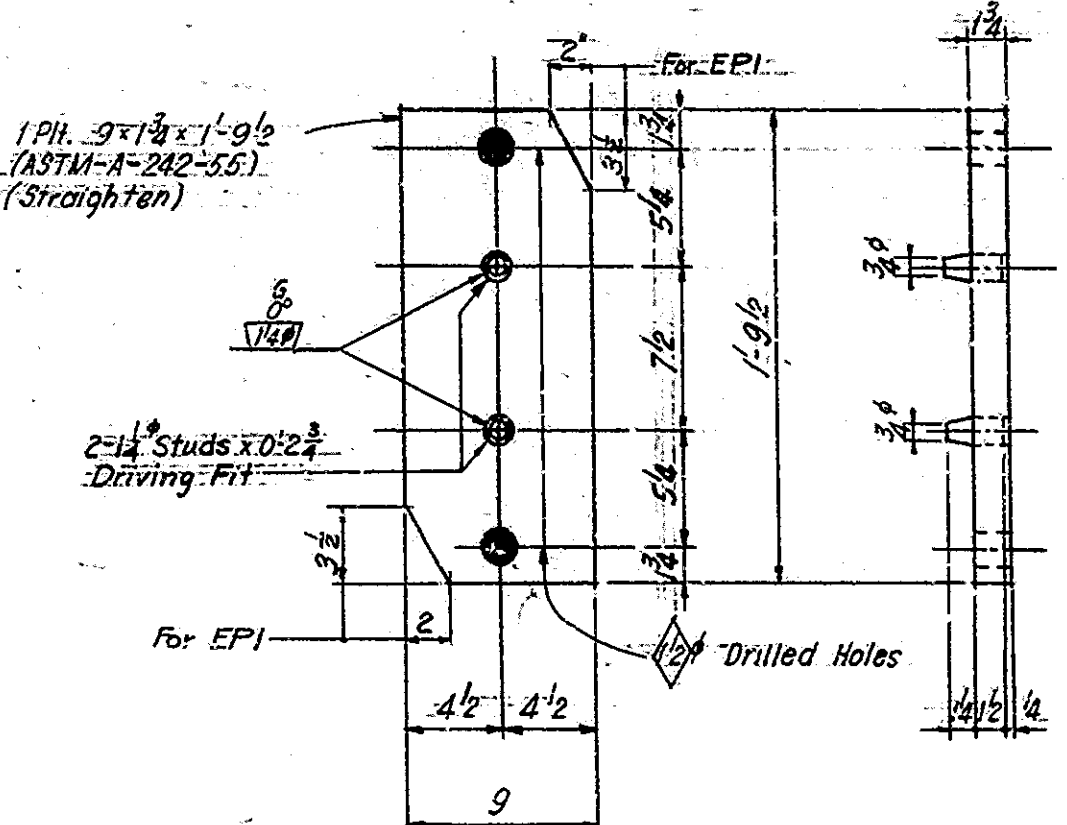
SKETCH FOR LOCATION OF SHIMS

TABLE OF SHIMS

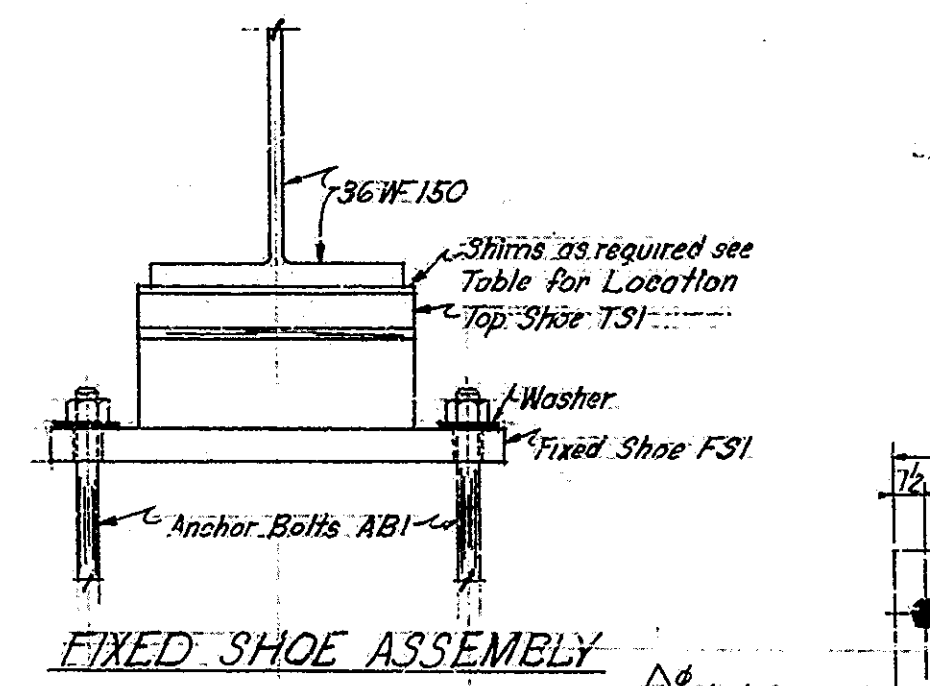
Beam	SOUTHBOUND STRUCTURE						NORTHBOUND STRUCTURE								
	A	B	C	D	E	F	G	A	B	C	D	E	F	G	H
Bent No. 2	0	1	3/8	3/8	1/4	0	0	1/8	0	1/2	0	1/2	1	0	
Bent No. 3	8	1 1/2	8	8	8	1 1/4	0	0	8	8	1/2	8	8	1 1/4	4
Bent No. 14	0	1 1/2	8	8	8	1 1/4	0	0	8	8	1/2	8	8	1 1/4	4
Bent No. 15	8	1 1/2	8	8	8	1 1/4	0	0	8	8	1/2	8	8	1 1/4	4
Bent No. 6	0	1 1/2	8	8	8	1 1/4	0	0	8	8	1/2	8	8	1 1/4	4
Bent No. 6 Sp. Shoes								0	1/8	0	8	4	8	5/8	8
Bent No. 7	0	1 1/2	8	8	8	1 1/4	0	0	8	8	1/2	8	8	1 1/4	4
Bent No. 8	0	1 1/2	8	8	8	1 1/4	0	0	8	8	1/2	8	8	1 1/4	4
Bent No. 9	0	1 1/2	8	8	8	1 1/4	0	0	8	8	1/2	8	8	1 1/4	4
Bent No. 10	8	1 1/2	8	8	8	1 1/4	0	0	8	8	1/2	8	8	1 1/4	4
Bent No. 11	0	1 1/2	8	8	8	1 1/4	0	0	8	8	1/2	8	8	1 1/4	4
Bent No. 12	8	1 1/2	8	8	8	1 1/4	0	0	8	8	1/2	8	8	1 1/4	4
Bent No. 13	0	1 1/2	8	8	8	1 1/4	0	0	8	8	1/2	8	8	1 1/4	4
Bent No. 14	8	1 1/2	8	8	8	1 1/4	0	0	8	8	1/2	8	8	1 1/4	4
Bent No. 15	0	1 1/2	8	8	8	1 1/4	0	0	8	8	1/2	8	8	1 1/4	4



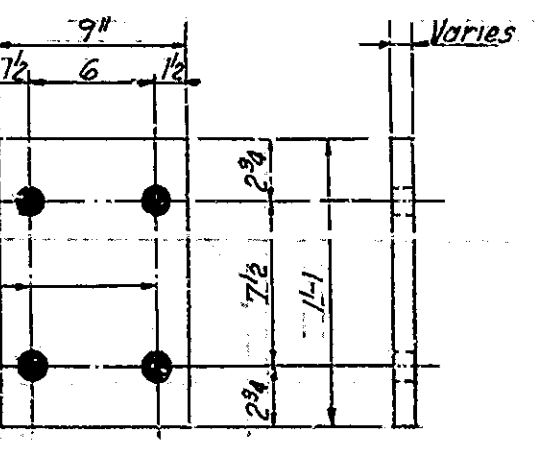
EXPANSION ROLLER ER2



EXPANSION PLATES EPI & EPIA

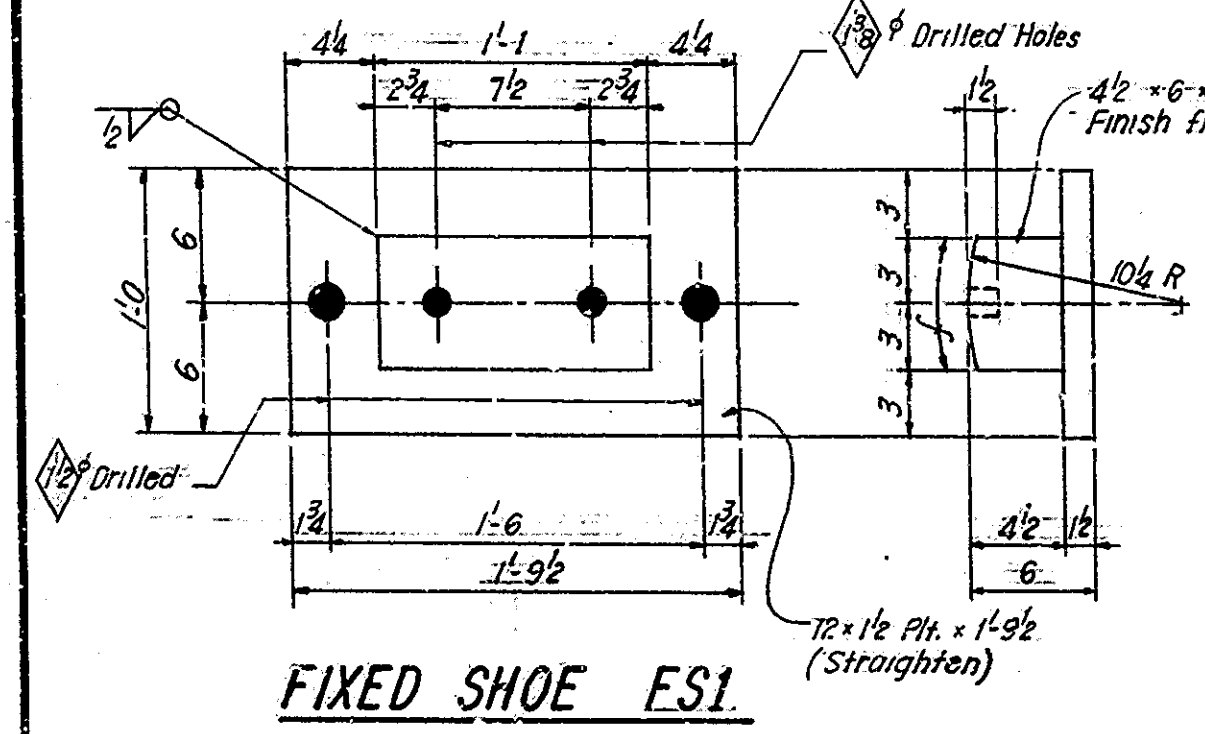


FIXED SHOE ASSEMBLY

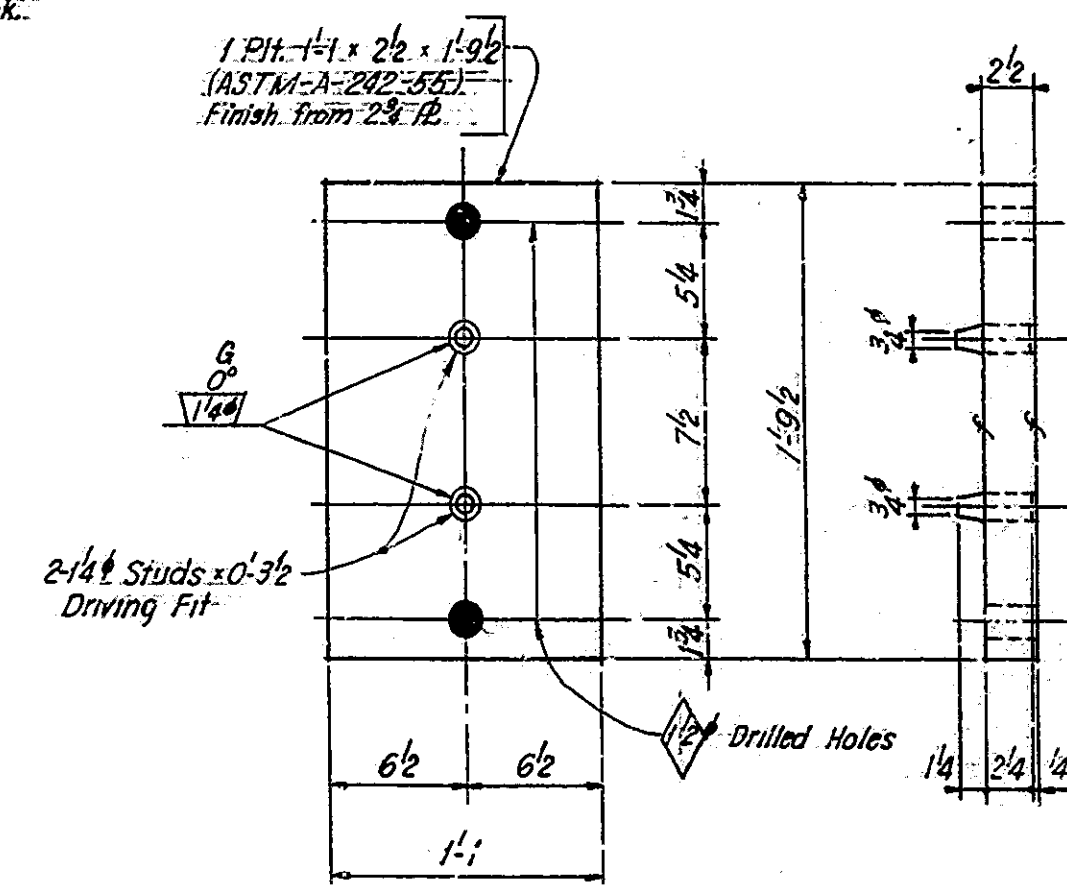


TYPICAL SHIM

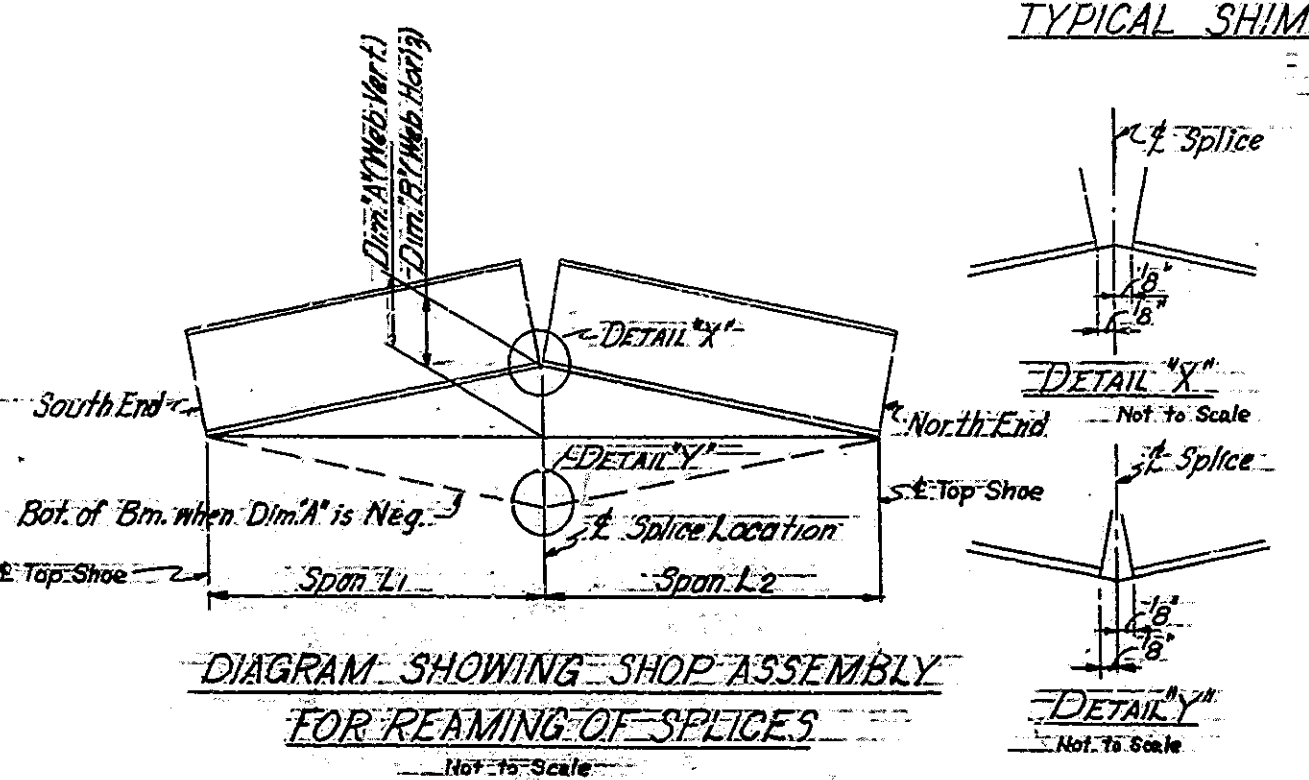
NOTES:-  
For General Notes, see Dwg. S26.  
Work this Dwg. with Dwg. S27, S28 & S29.



FIXED SHOE ESI

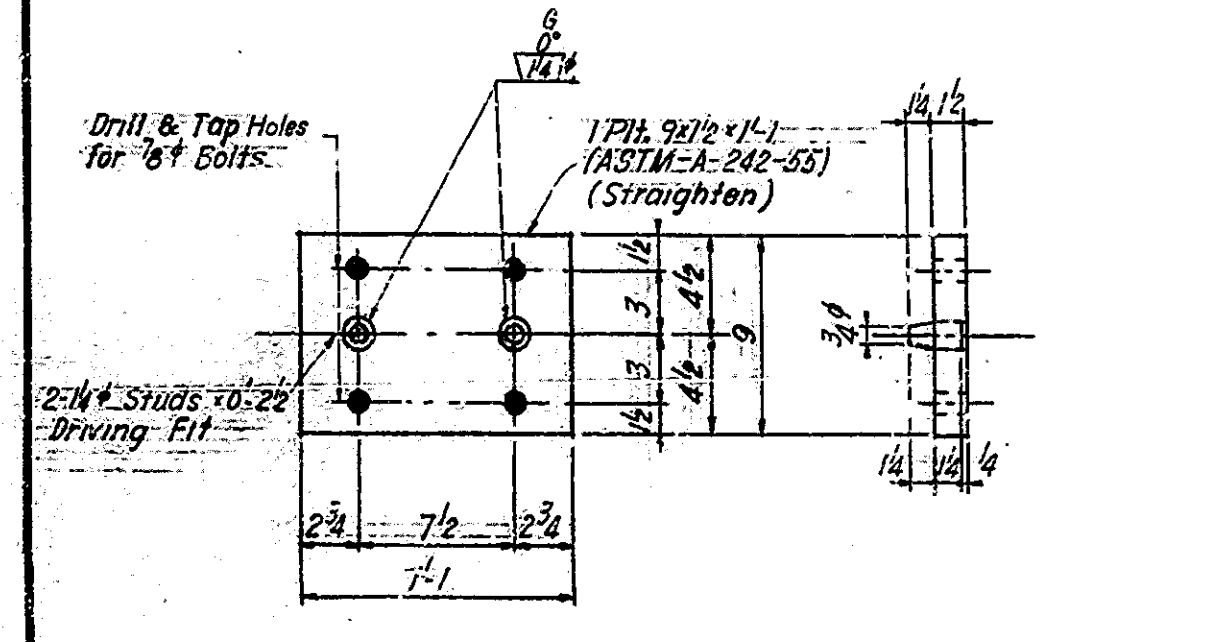


EXPANSION PLATE ER2

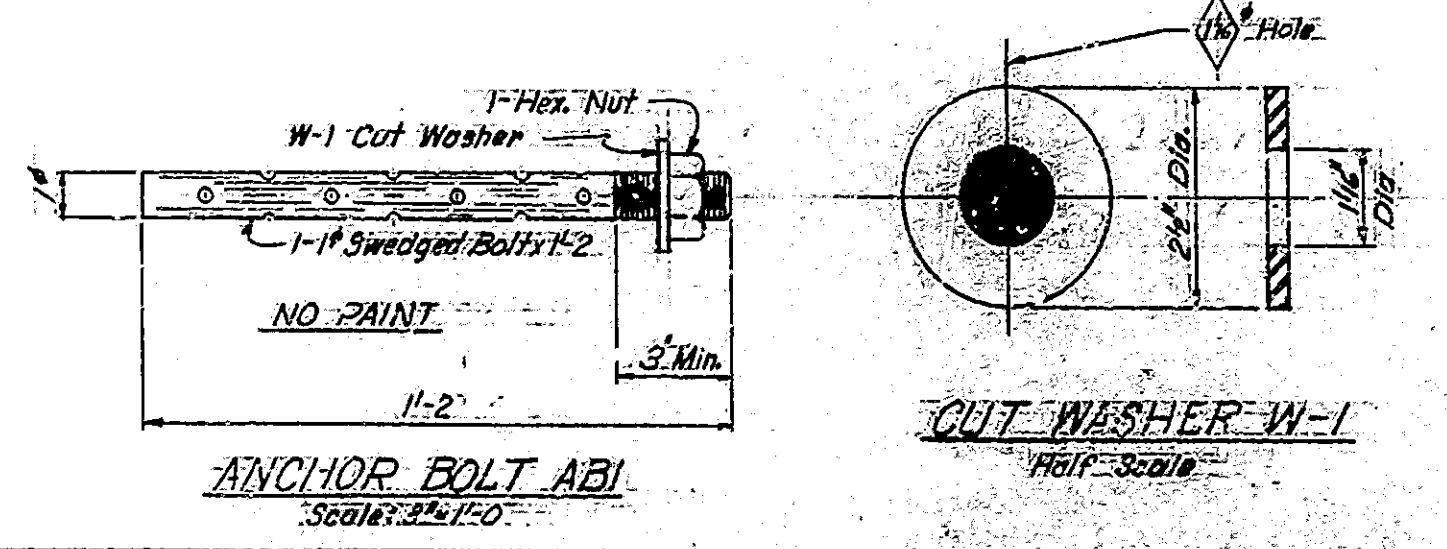


SPLICE LOCATION	Span L1	Span L2	Dim. A Web Vert.	Dim. B Web Horiz.
Bt. # 9 S.B.	62'-6"	75'-0"	-3/8"	+9/16"
Bt. # 8 S.B.	75'-0"	75'-0"	-1/4"	+15/16"
Bt. # 7 S.B.	75'-0"	75'-0"	0	+1/8"
Bt. # 14 S.B.	75'-0"	62'-6"	0	+1"
Bt. # 3 N.B.	62'-6"	75'-0"	-3/8"	+3/16"
Bt. # 4 N.B.	75'-0"	75'-0"	-1/4"	+5/16"
Bt. # 5 N.B.	75'-0"	74'-4 1/4"	-1/4"	+3/8"
Bt. # 7 N.B.	74'-4 1/4"	75'-0"	0	+1/4"
Bt. # 8 N.B.	75'-0"	75'-0"	0	+1/8"
Bt. # 14 N.B.	75'-0"	62'-6"	0	+1"

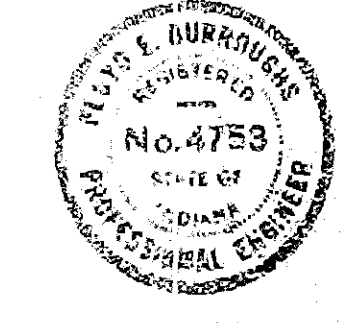
NOTE: See General Notes on S27 for assembly & inspection when holes are reamed with webs horizontal.



TOP SHOE TS1



DESIGNED: B.C.M. - C.K.D. D.E.G.  
DRAWN: L.L.E.L.C. C.K.D. D.E.G.  
TRACED: C.K.D.



SHOE DETAILS, SHIM DETAILS & SHOP REAMING DETAILS  
STATE HIGHWAY DEPARTMENT OF INDIANA

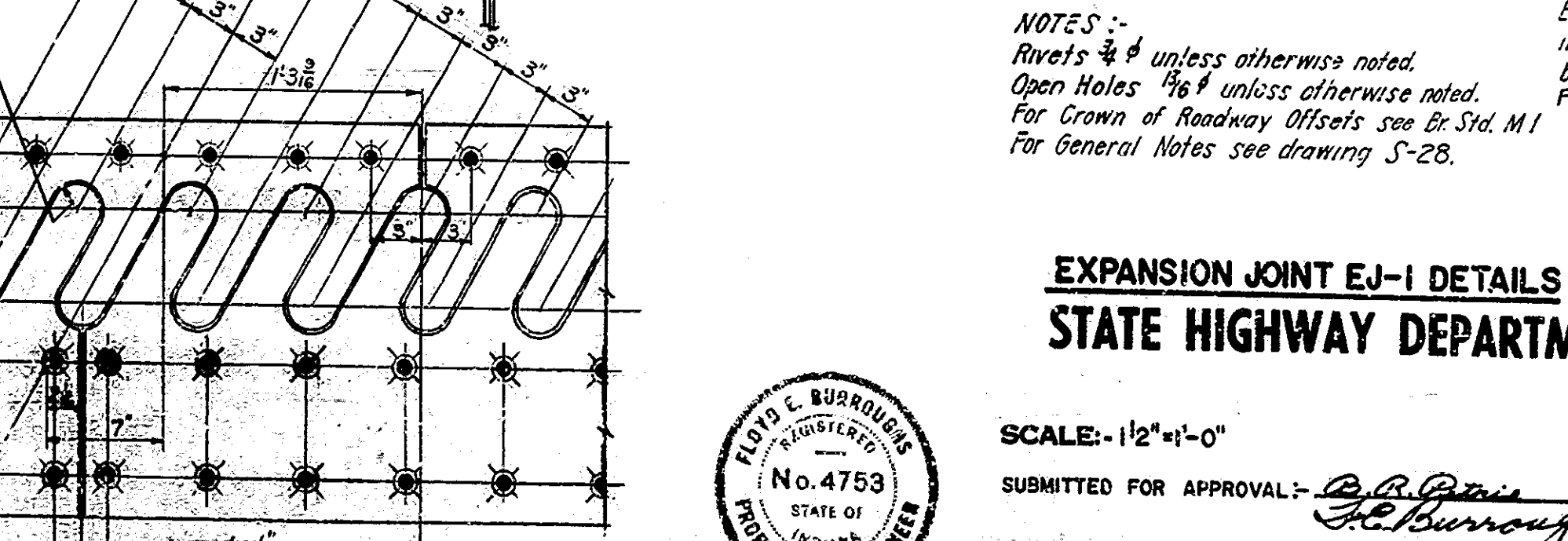
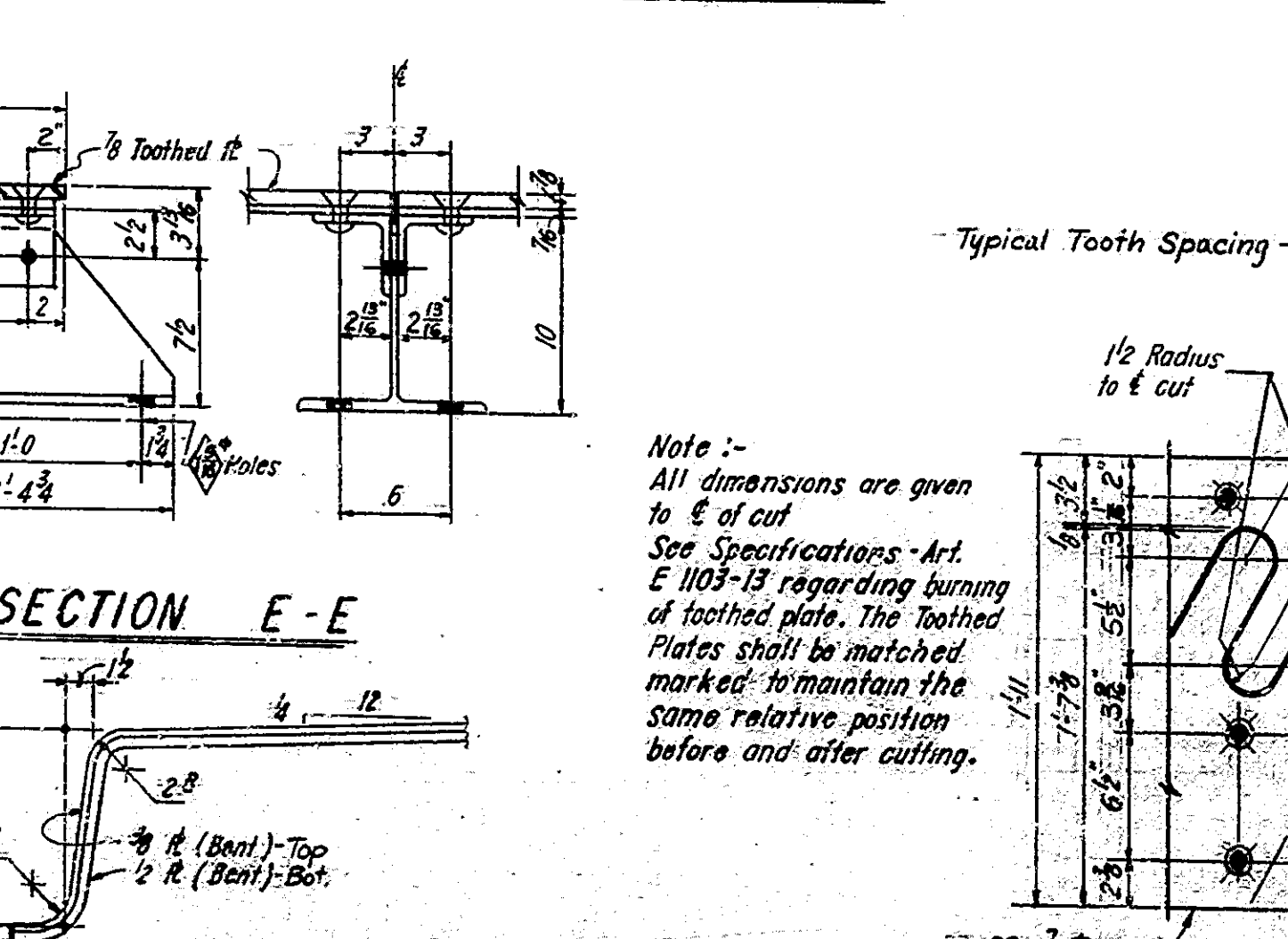
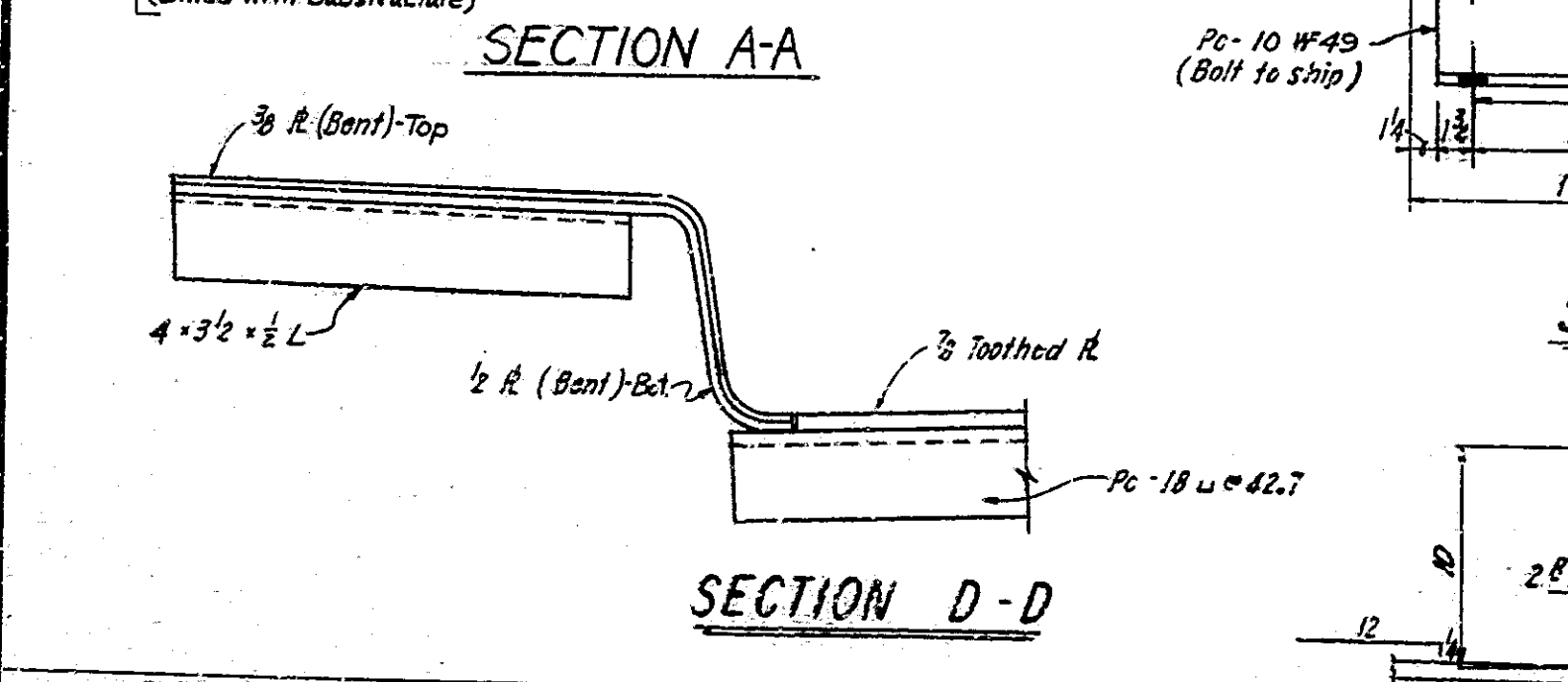
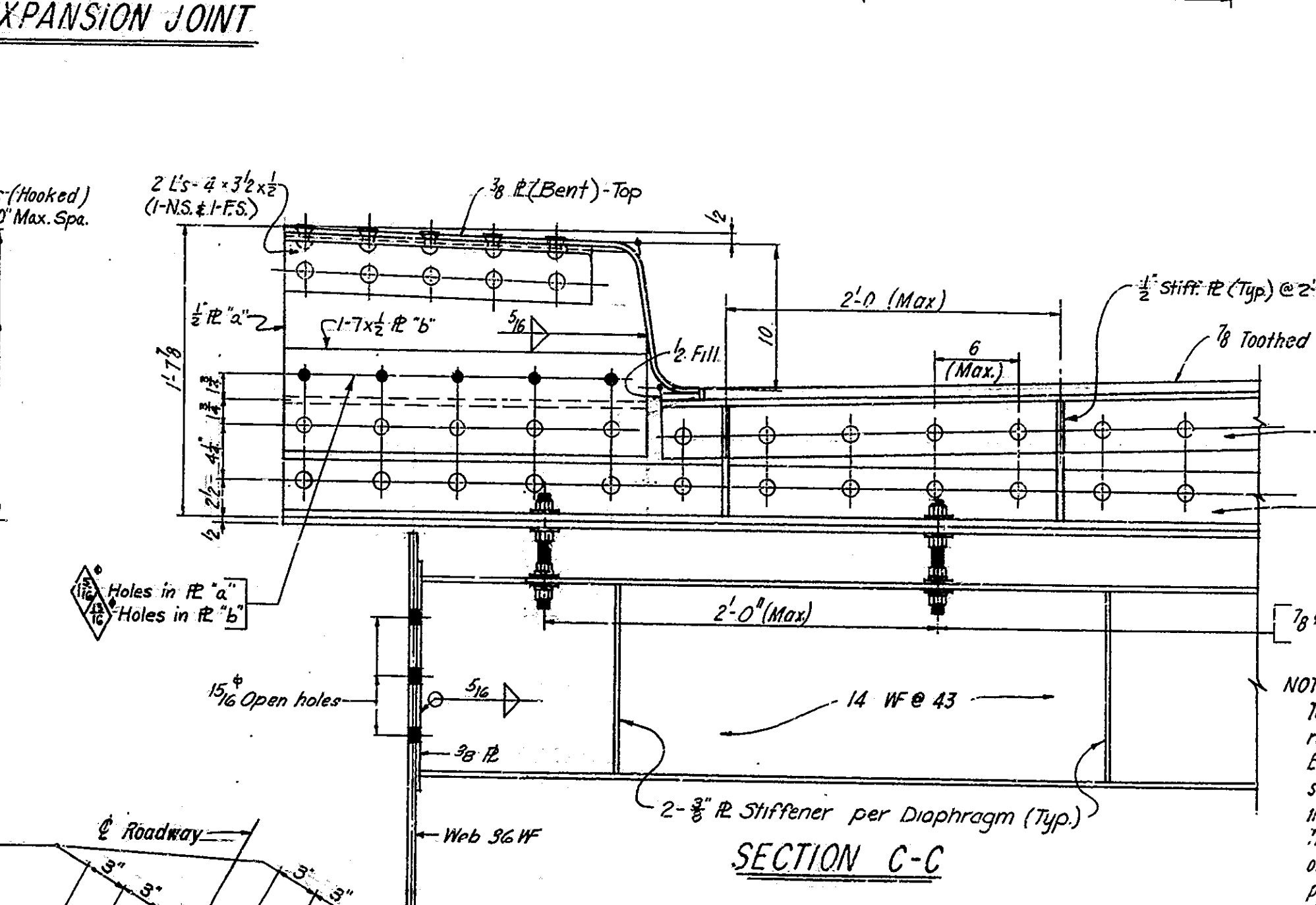
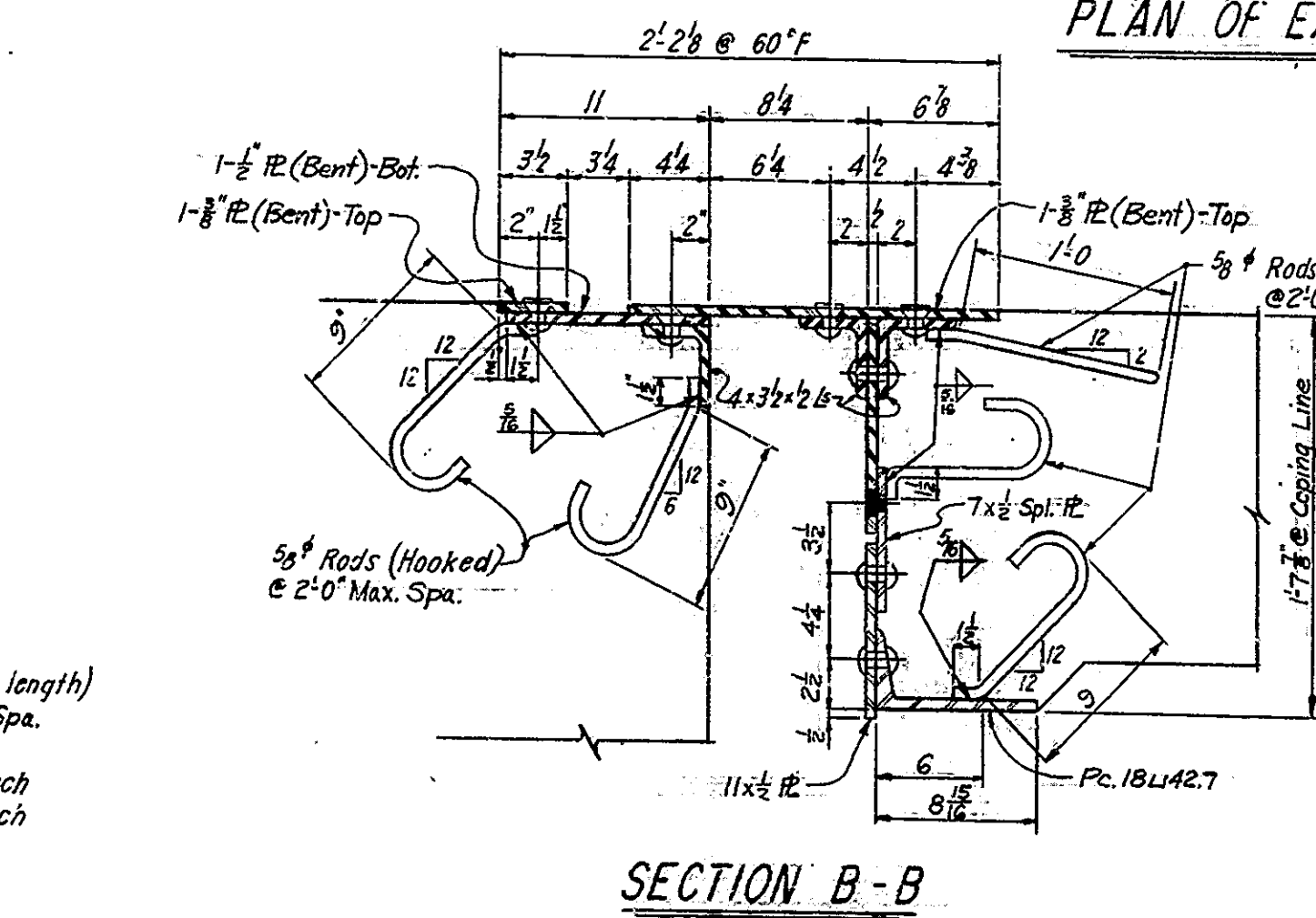
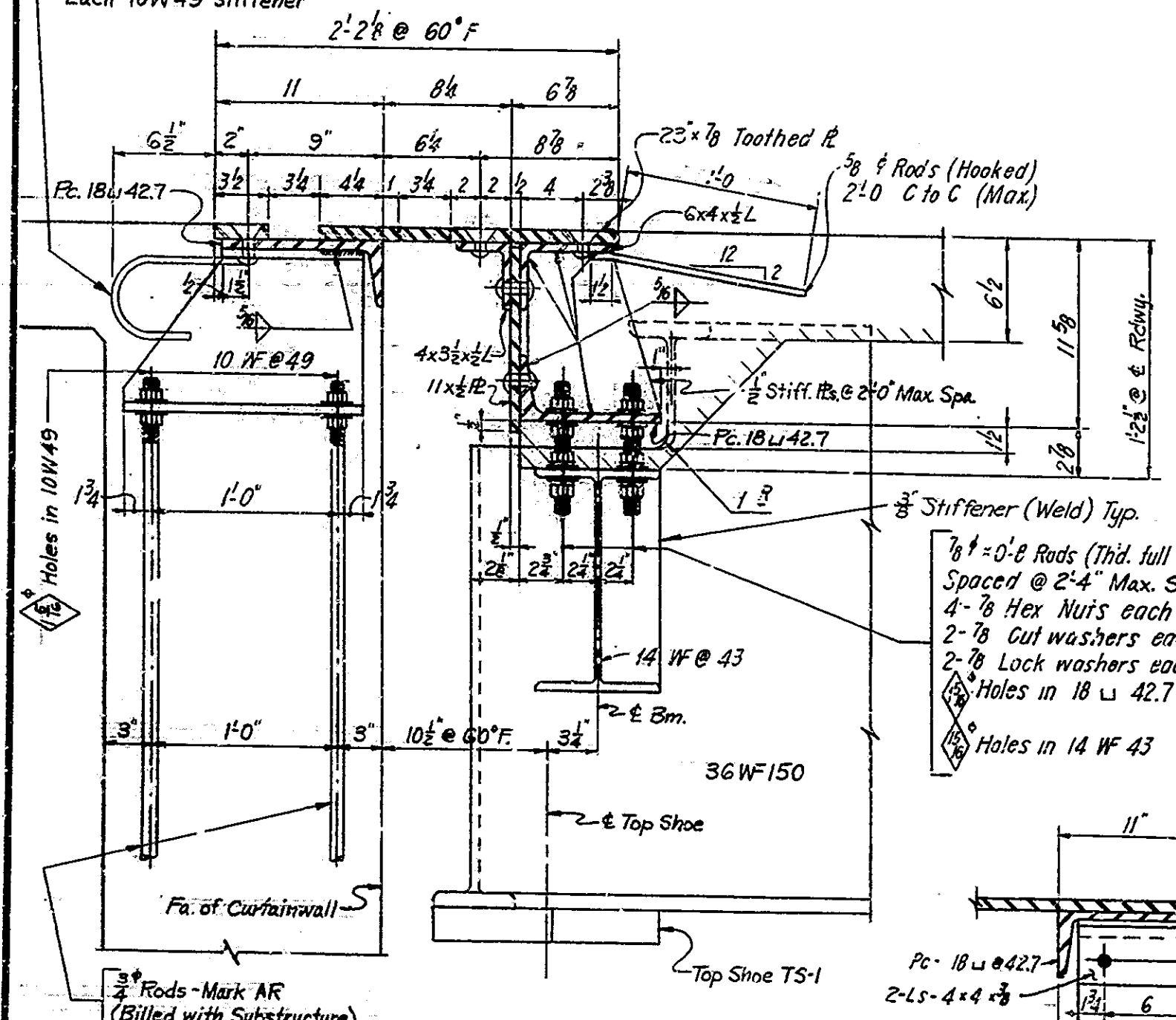
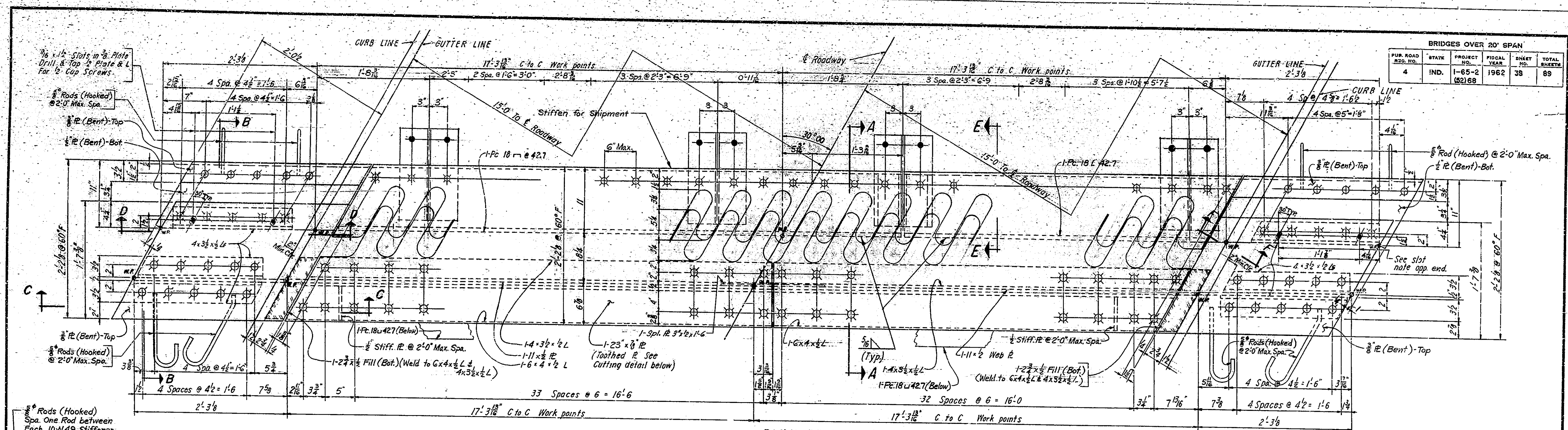
SCALE: - 1/2" = 1'-0" UNLESS NOTED

SEPT. 11, 1961

SUBMITTED FOR APPROVAL: *L. C. Burroughs*  
DRAWING: S30 OF S43  
PROJECT: I-65-2(52) 68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: I-65-68-4699,4699J



BRIDGES OVER 20' SPAN					
PUR. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (52)68	1962	38	89



Note :-  
All dimensions are given to  $\frac{1}{8}$ " of cut  
See Specifications - Art. E 1103-13 regarding burning of toothed plate. The Toothed Plates shall be marked to maintain the same relative position before and after cutting.

NOTES:-  
Top of Expansion Joint to conform to roadway crown curvature.  
Expansion joints are to be cast, embedded in the shop in their relative erection positions and inspected for fit.  
The  $\frac{1}{2}$ " cap screws in sidewalk sections of the expansion joints are for erection purposes. After concrete adjacent to Expansion Joints is poured and has taken its initial set, the cap screws shall be removed.  
For Typical Diaphragm details, See Dwg. S-27.

NOTES:-  
Rivets  $\frac{3}{8}$ " unless otherwise noted.  
Open Holes  $\frac{1}{16}$ " unless otherwise noted.  
For Crown of Roadway Offsets see Br. Std. M1  
For General Notes see drawing S-28.

**EXPANSION JOINT EJ-1 DETAILS**  
**STATE HIGHWAY DEPARTMENT OF INDIANA**

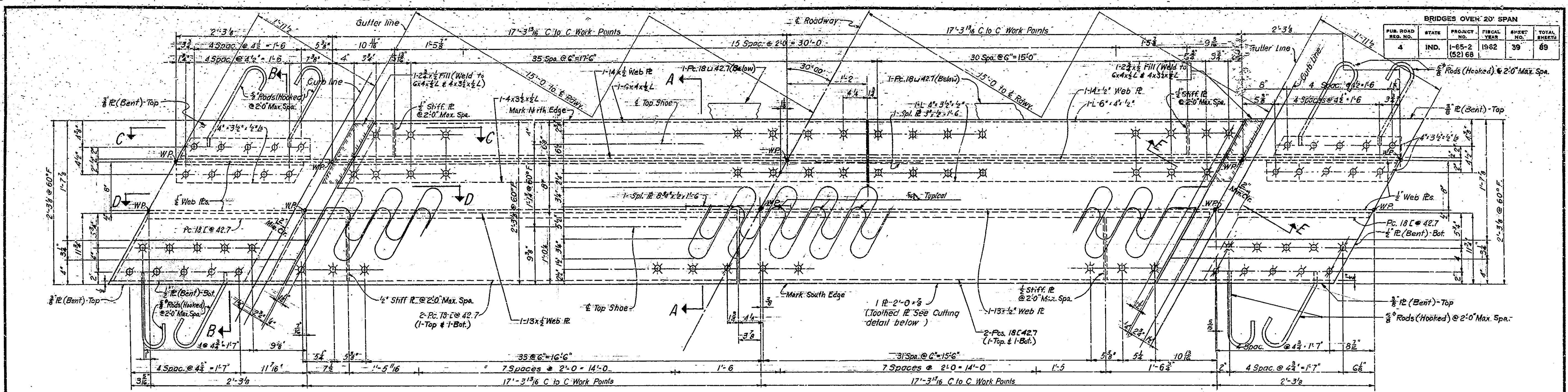
SEPT. 11, 1961

SCALE: 1/2"=1'-0"  
SUBMITTED FOR APPROVAL: *B. B. Burroughs*  
DRAWING: S51 OF S43  
PROJECT: 1-65-2(52)68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: 1-65-68-4699,4699J

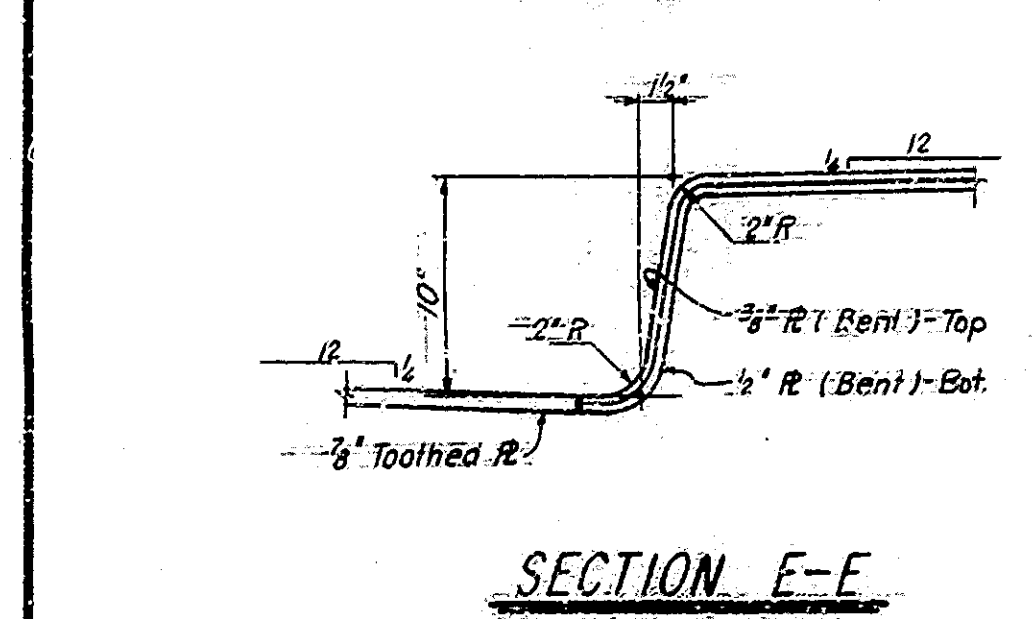
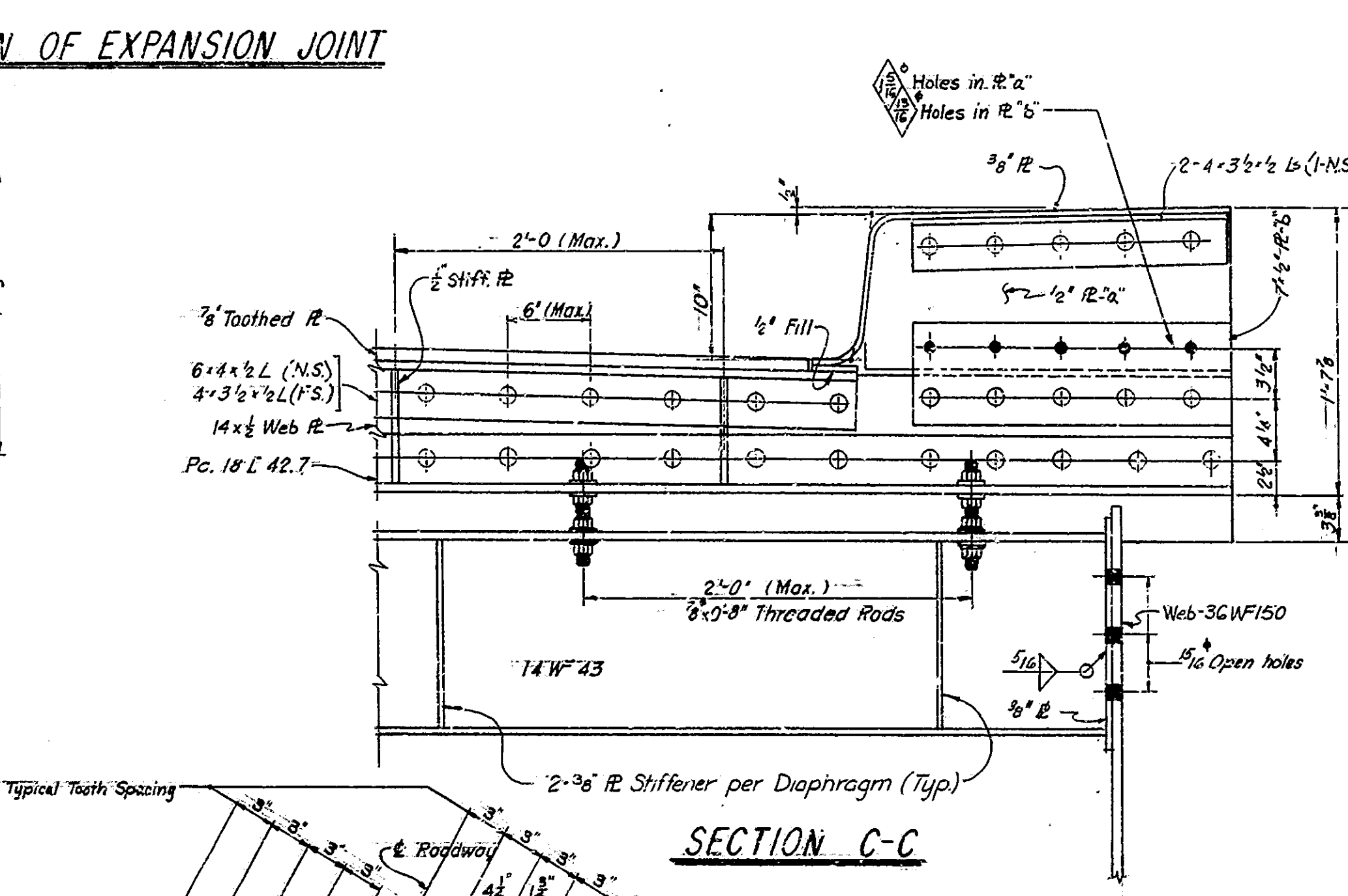
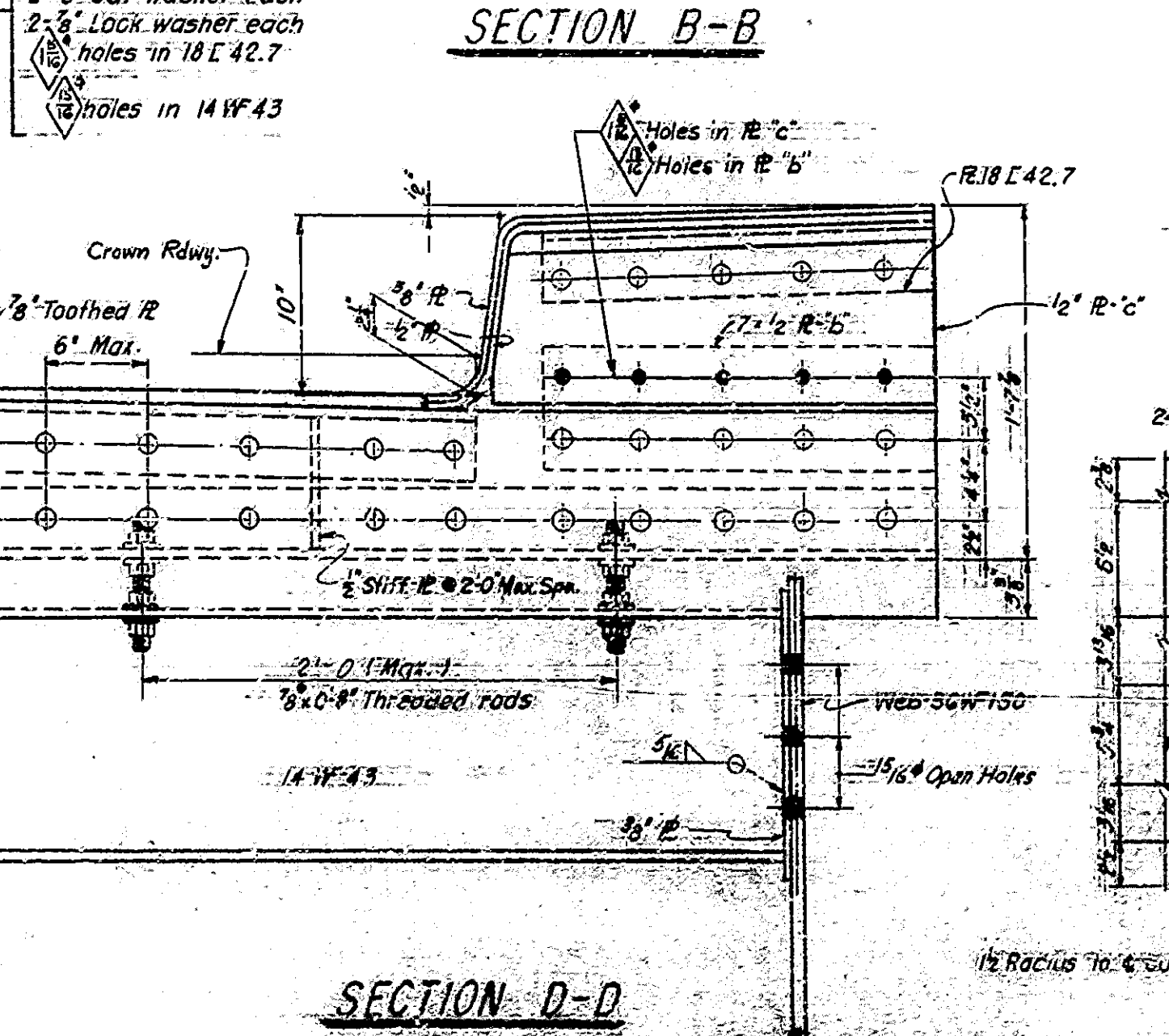
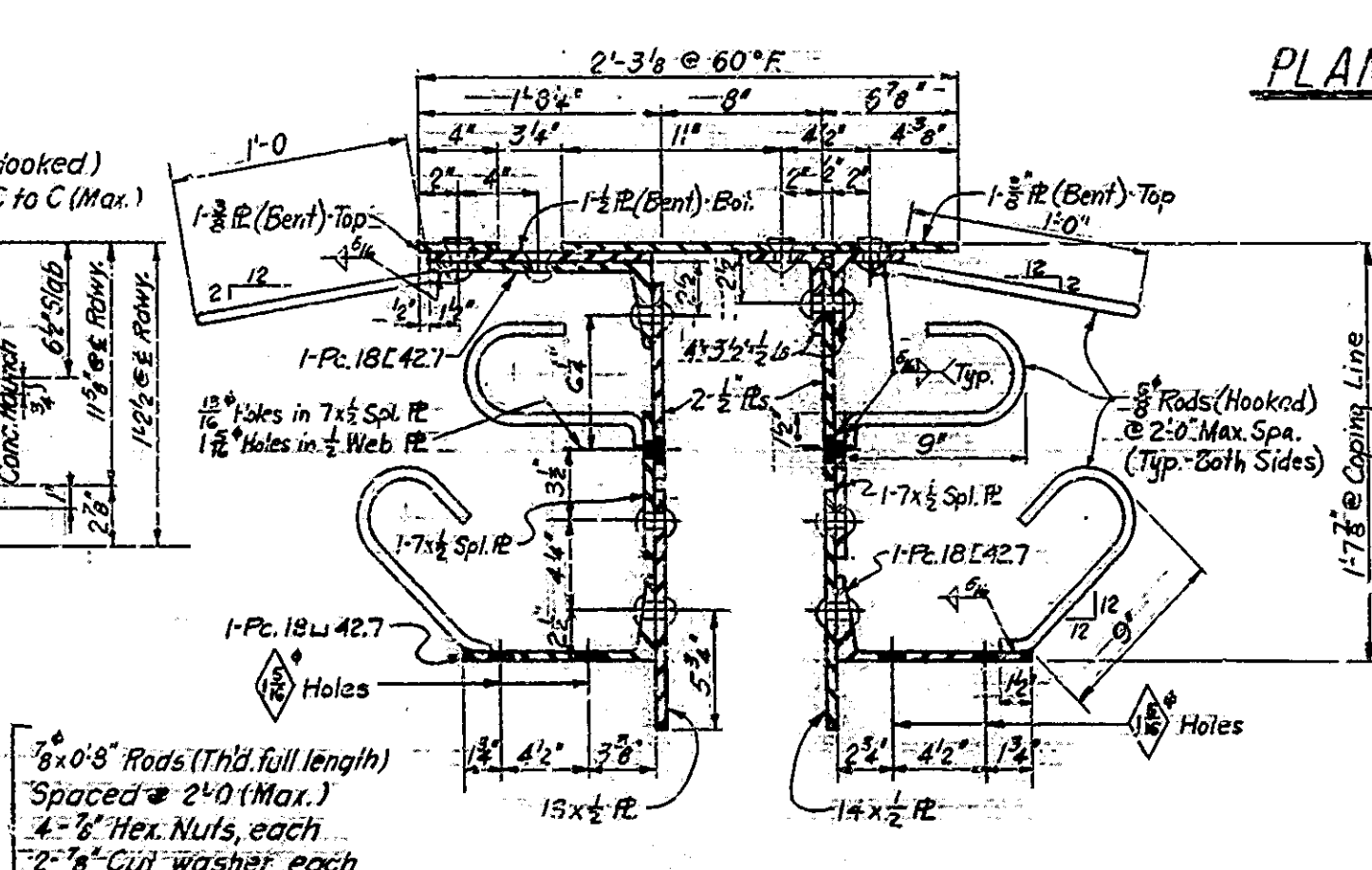
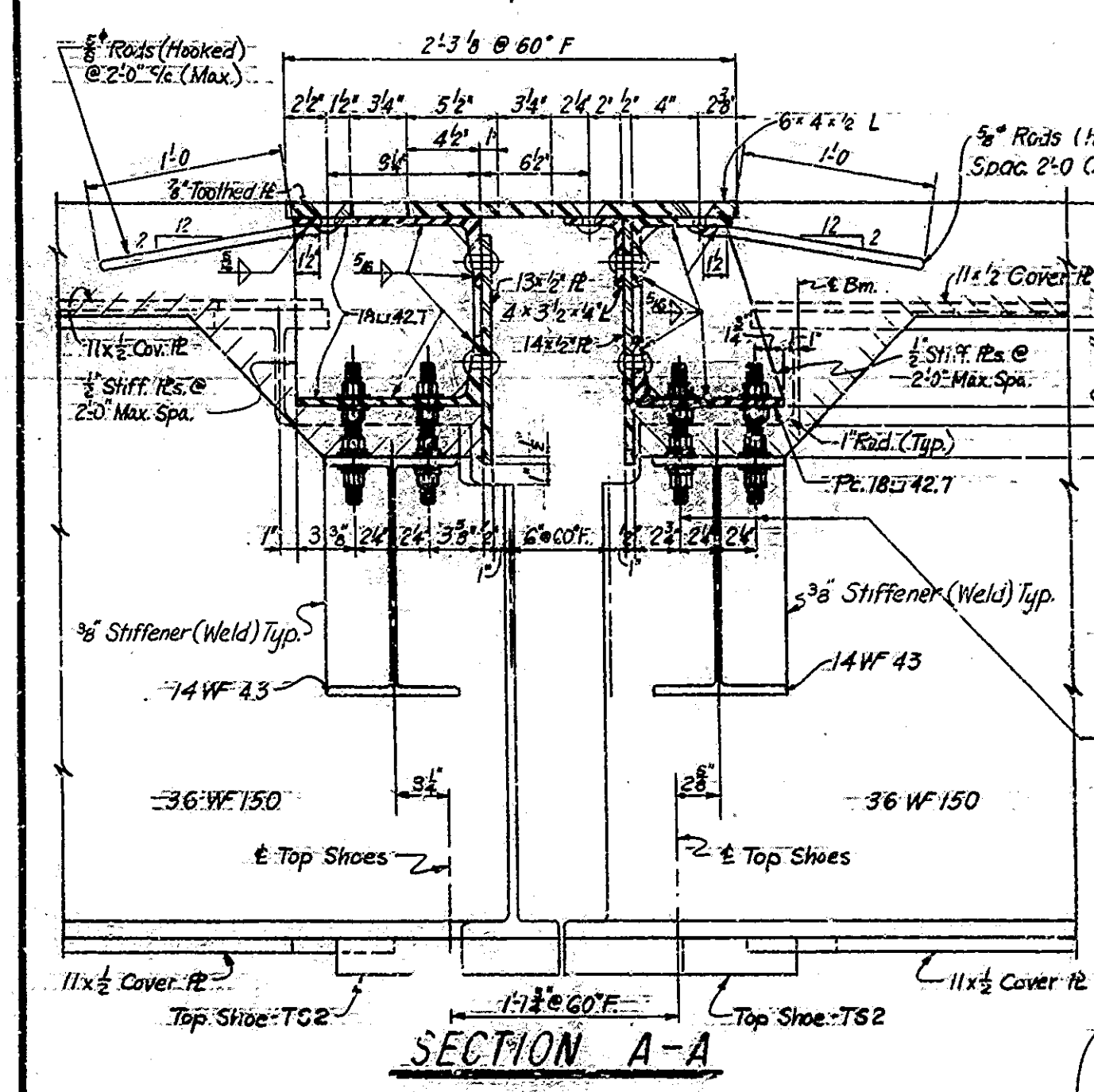


DESIGNED: D.E.G. CKD  
DRAWN: L.M. CKD, DEG  
TRACED: CKD

BRIDGES OVER 20' SPAN				
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
4	IND.	1-65-2 (S2) 68	1962	39
				TOTAL SHEETS
				69



**PLAN OF EXPANSION JOINT**



**NOTES:**  
 Top of Expansion Joint to conform to roadway crown curvature.  
 Expansion joints are to be assembled in the shop in their relative erection positions and inspected for fit.  
 Rivets 3/4" unless otherwise noted.  
 Open holes 1 1/8" unless otherwise noted.  
 For Crown of Roadway offsets see Br. Sld. M.  
 For General Notes see Drwg. S-28.  
 For Typical Diaphragm Conn. Details, See Drwg. S-27.

**NOTE:**  
 All dimensions are given to  $\pm$  of cut  
 See Specifications Art. E 1103-13 regarding burning of toothed plate.  
 The toothed plates shall be marked to maintain the same relative position before and after cutting.

**EXPANSION JOINT EJ-2 DETAILS  
 STATE HIGHWAY DEPARTMENT OF INDIANA**

SEPT. 11, 1961

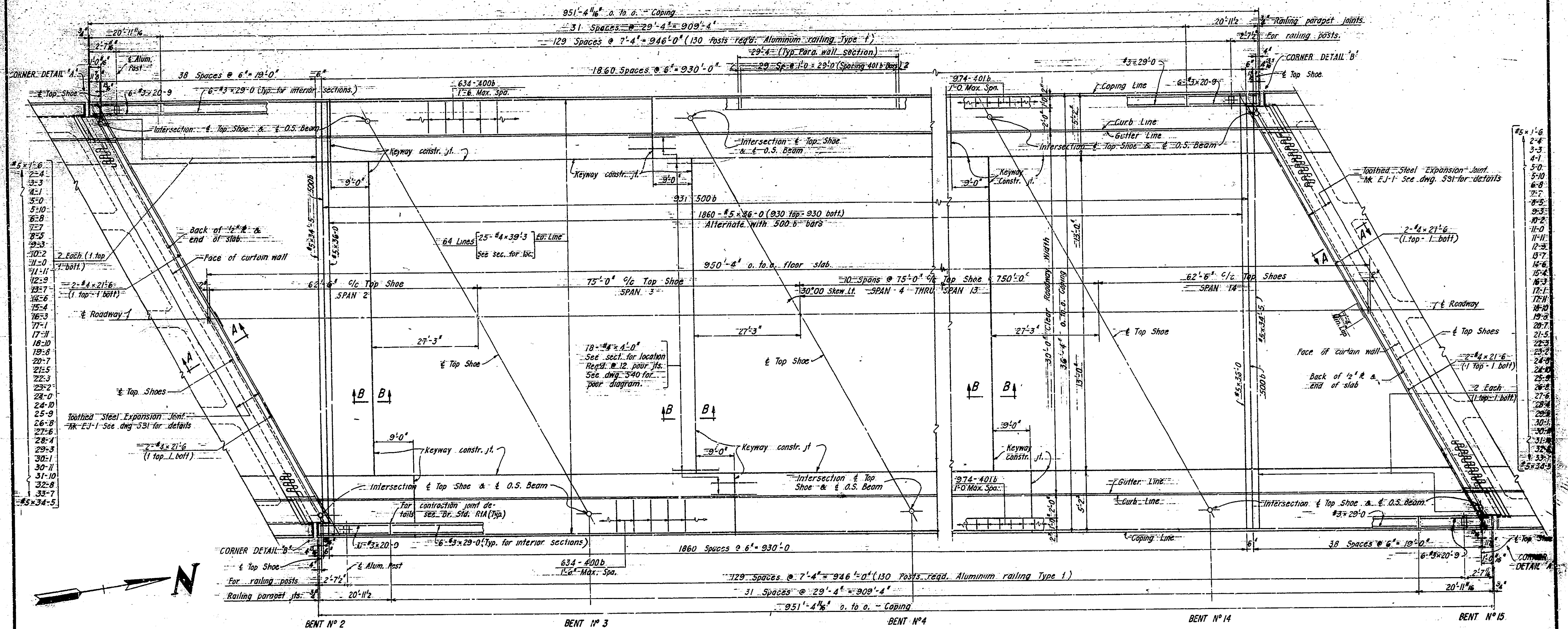
SCALE: 1/2" = 1'-0"  
 SUBMITTED FOR APPROVAL: *R.B. Burroughs*  
 DRAWING: 532 OF 543  
 PROJECT: 1-65-2(S2) 68  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: 1-65-68-4699,4699J



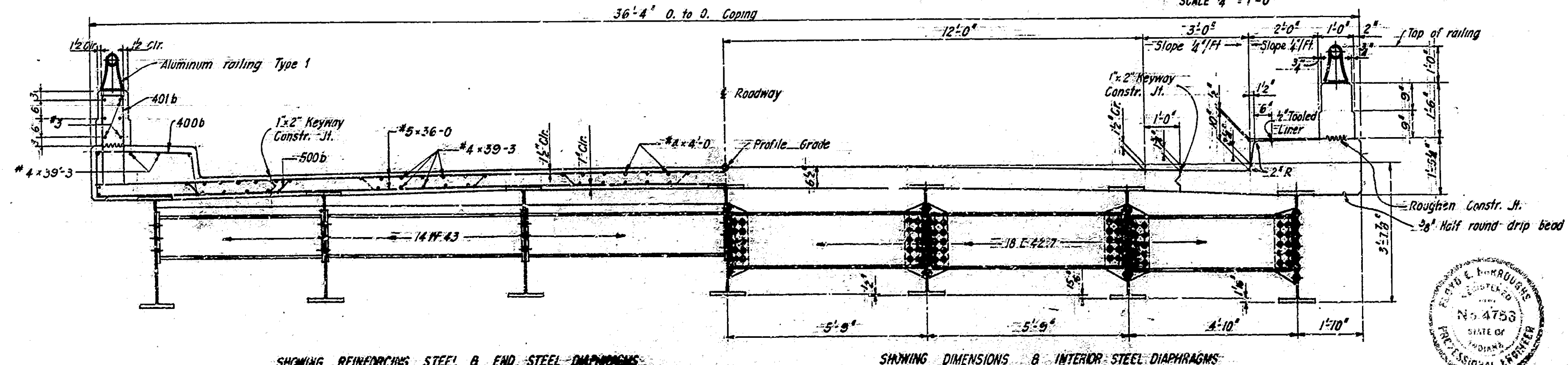
DESIGNED: D.E.R. CKD  
 DRAWN: M.E.L. CKD  
 TRACED: CKD

**PART PLAN FOR CUTTING TOOTHED PLATE**

BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (62) 68	1962	40	89



PLAN-SPANS 2 THRU 14 - SOUTHBOUND LANE



**NOTES:-**  
 See Bridge Standard C1 for reinforcing bar notes.  
 Refer to dwg. 534 for Sections A-A & B-B, corner details, Bill of Materials & additional details.  
 See Bridge Standard R1A for aluminum railing posts & anchor bolts.  
 After structural steel has been erected concrete forms shall not be blocked against the expansion end of the steel in making any pours adjacent to steel spans.  
 Sequence of pours to be made in order of pour numbers. See Pour Diagram on dwg. 540. Transverse construction joints are optional & pours may be continuous provided the pour terminates at a construction joint indicated on the plan.  
 For details of Roadway Drains & Drainage Outlets, See Dwg. 534.

FLOOR PLAN & DETAILS SPANS 2 THRU 14 SB. LANE

**STATE HIGHWAY DEPARTMENT OF INDIANA**

SCALE: - AS NOTED  
 SUBMITTED FOR APPROVAL: *L.C. Burroughs*

DESIGNED: RCM  
 DRAWN: SCP  
 TRACED: CKD

DESIGNED: CKD  
 DRAWN: JAC  
 TRACED: CKD

BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: 1-65-68-4699,4699J

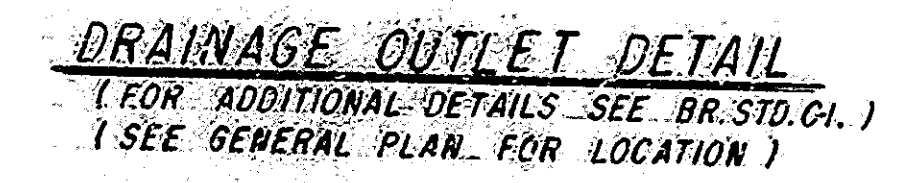
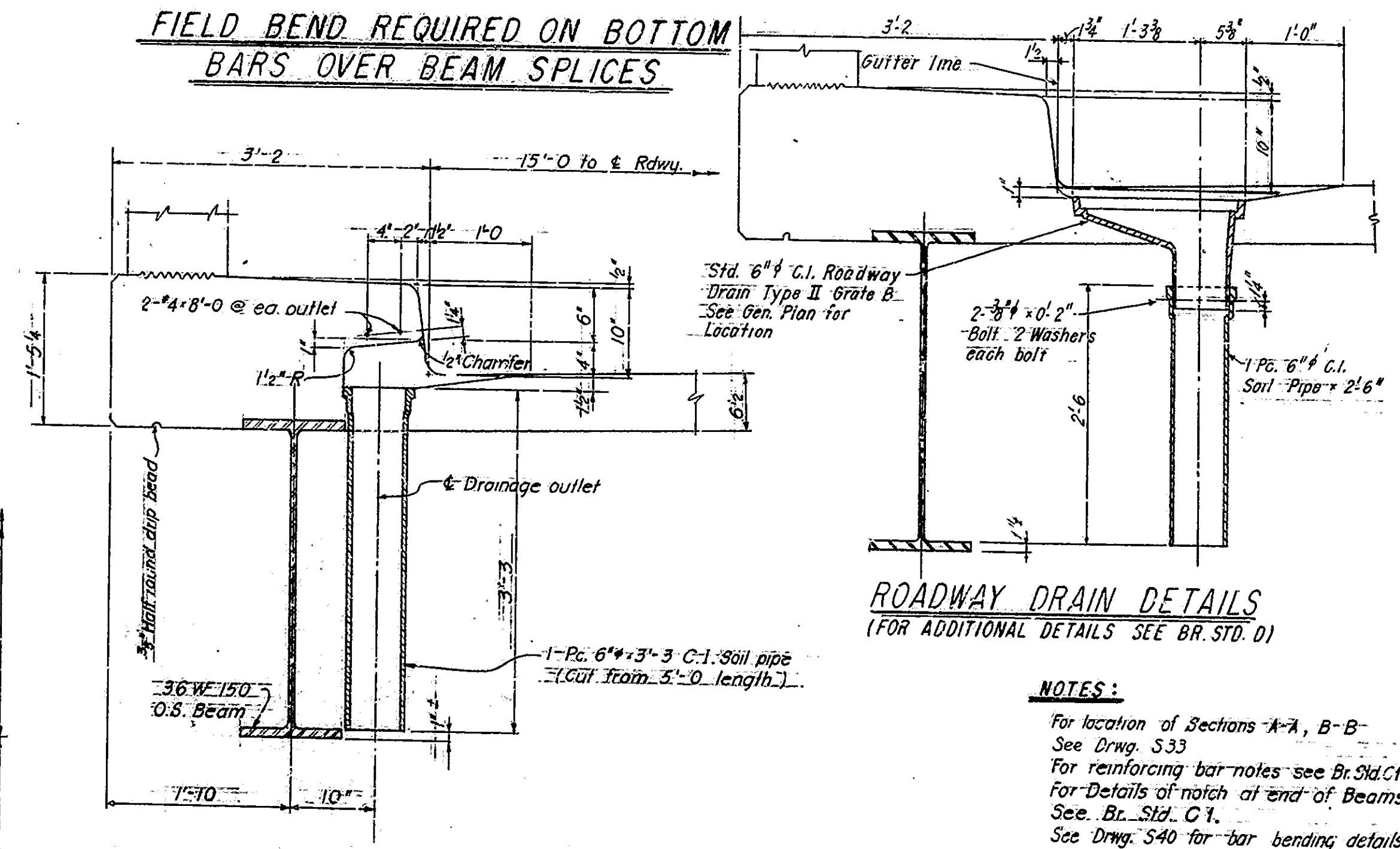
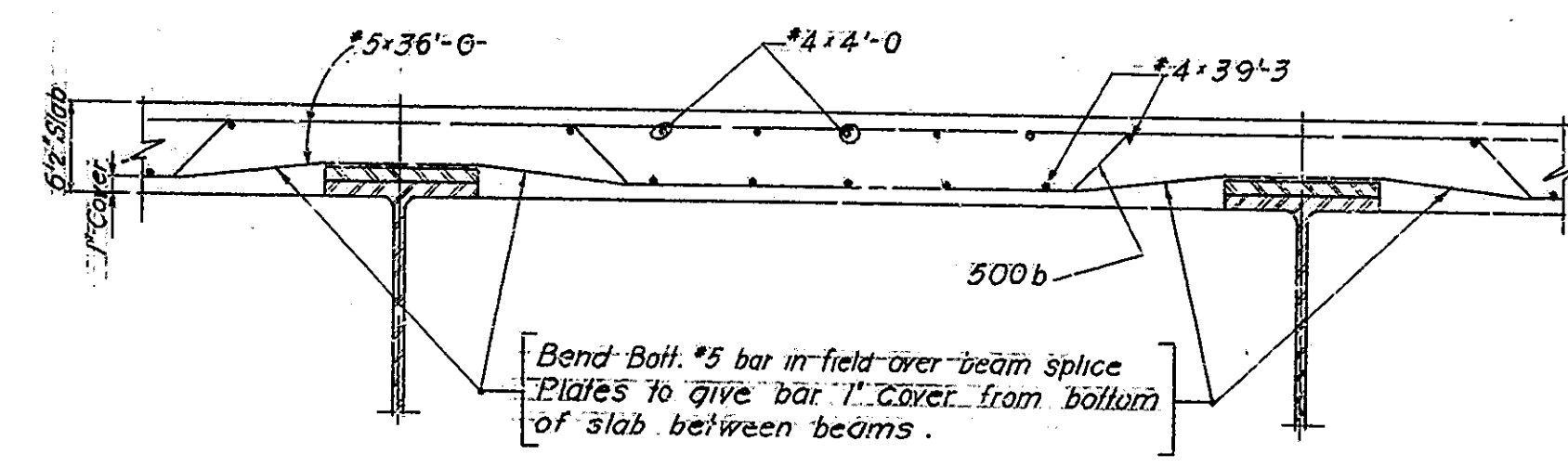
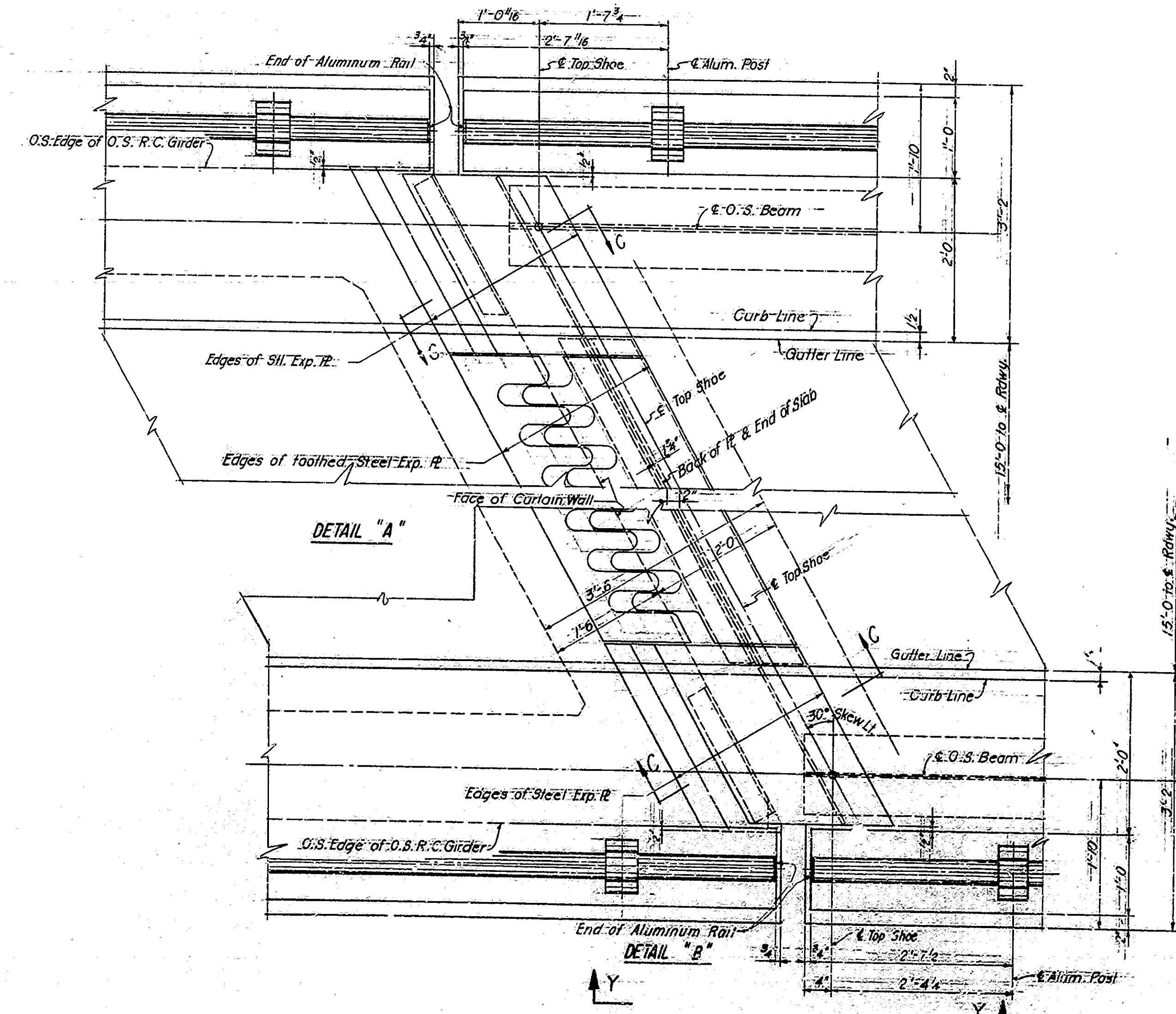
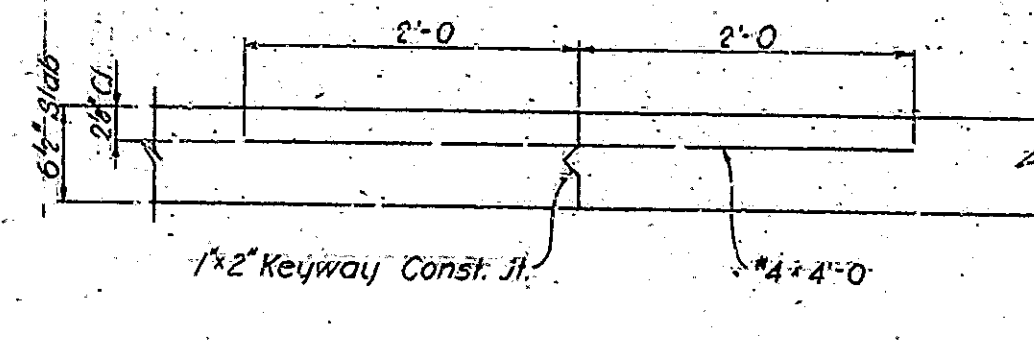
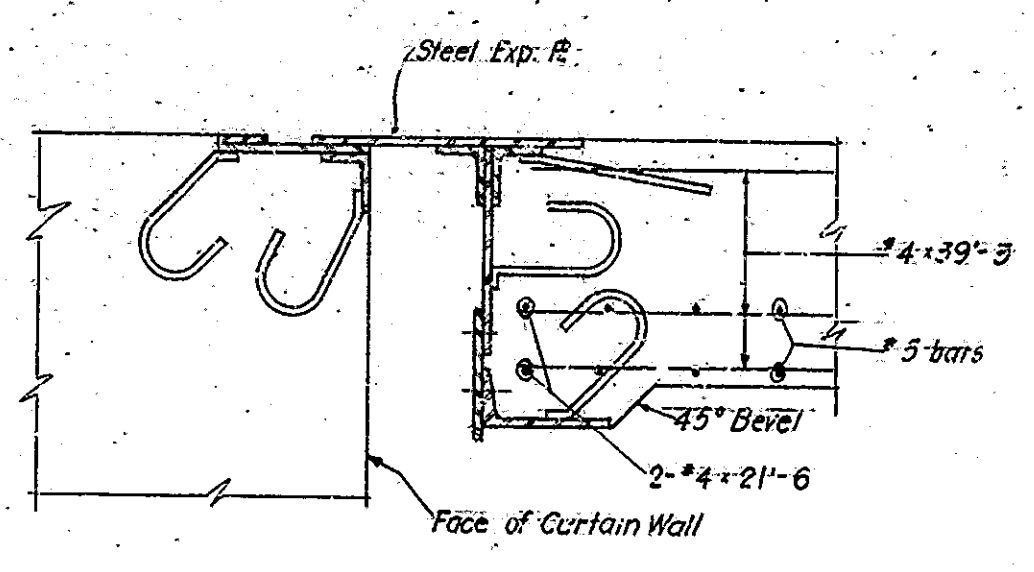
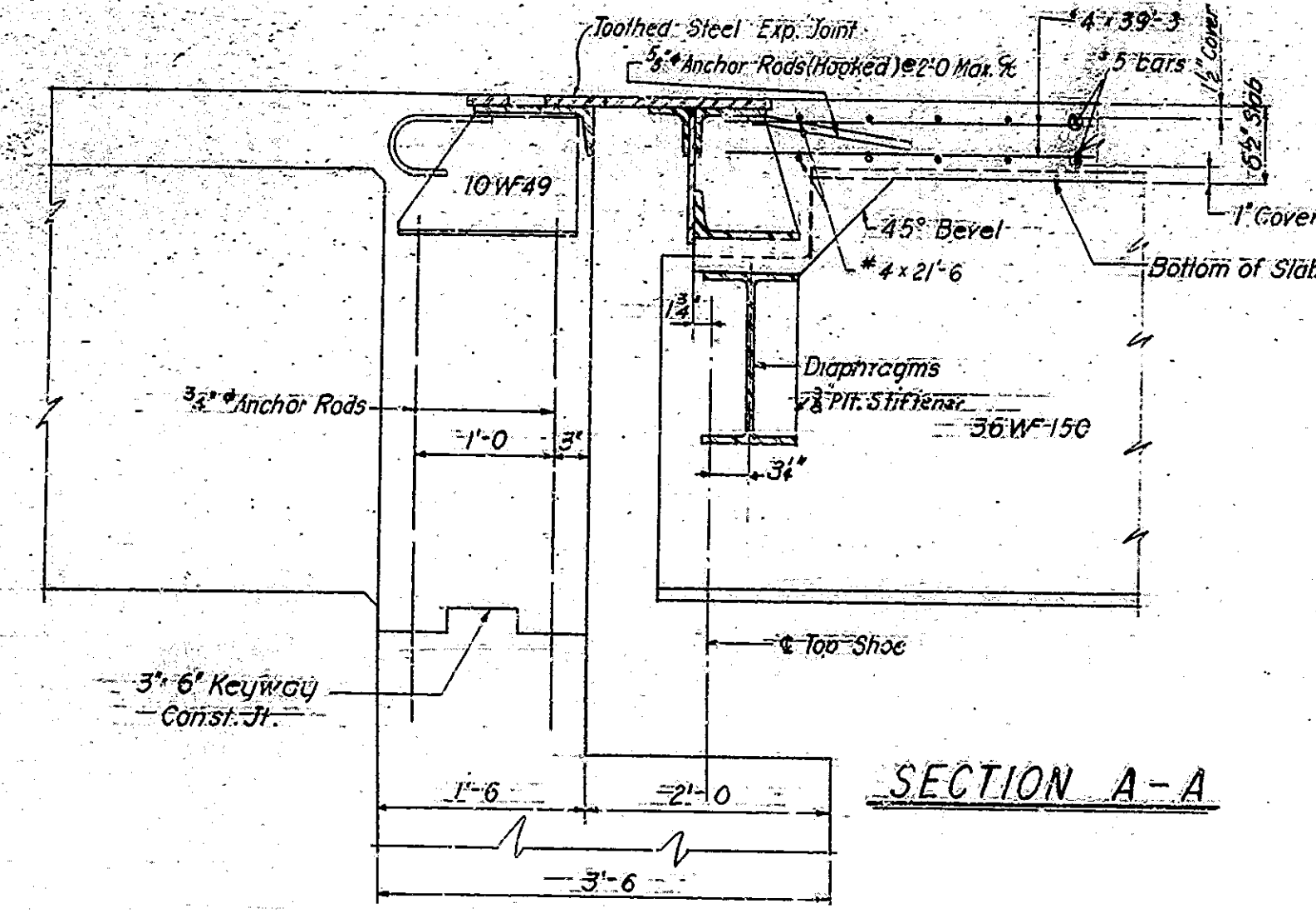


DESIGNED: RCM  
 DRAWN: SCP  
 TRACED: CKD

SHOWING REINFORCING STEEL & END STEEL DIAPHRAGMS  
 SHOWING DIMENSIONS & INTERIOR STEEL DIAPHRAGMS

SECTION I TO ROADWAY  
 SCALE: 1/4" = 1'-0"

BRIDGES OVER 20' SPAN					
PUB. ROAD REC. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (52) 66	1962	41	89



**BILL OF MATERIALS (CONT'D)**  
SPANS 2 THRU 14 S.B. LANE

CONCRETE	
CLASS "F" SUPERSTRUCTURE	
Pour N° 1	18.3
Pour N° 2 thru N° 12 (110-38.0)	418.0
Pour N° 13	45.9
Pour N° 1 Rt. & Lt. 2 @ 7.1	14.2
Pour N° 2 thru 12 Lt. & Rt.	332.2
Pour N° 13 Lt. & Rt. (2 @ 18.1)	36.2
<b>TOTAL CONCRETE</b>	<b>864.8 cys.</b>
Railing Concrete (Parapet)	99.1 cys.

REINFORCING STEEL	
Size & Mark.	Weight
500b	371.9
#5	36.0
#4	34.5
#4	33.7
#4	32.8
#4	31.10
#4	30.11
#4	30.1
#4	29.3
#4	28.4
#4	27.6
#4	26.8
#4	25.9
#4	24.10
#4	24.0
#4	23.2
#4	22.3
#4	21.5
#4	20.7
#4	19.8
#4	18.10
#4	17.11
#4	17.1
#4	16.3
#4	15.4
#4	14.6
#4	13.7
#4	12.9
#4	11.11
#4	11.0
#4	10.2
#4	9.3
#4	8.5
#4	7.7
#4	6.8
#4	5.10
#4	5.0
#4	4.1
#4	3.3
#4	2.4
#4	1.6
<b>Total #5 Weight</b>	<b>105.417</b>

MISCELLANEOUS	
4 Std. Roadway Drains - Type II - Grate B @ 144" Ea.	576 Lbs.
45 Pcs. 6" C.I. Soil Pipe @ 95" Ea.	4275 Lbs.
4 Pcs. 6" C.I. Soil Pipe @ 77" Ea.	308 Lbs.
<b>Total Cast Iron</b>	<b>5159 Lbs.</b>
Aluminum Railing (Type I)	1903 Lb. Ft.

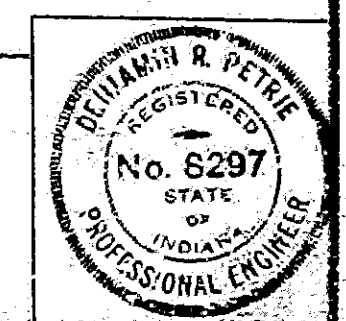
**BILL OF MATERIALS**  
SPANS 2 THRU 14 - S.B. LANE

Size & Mark.	Number of Bars	Length	Weight
500b	931	371.9	
#5	1860	36.0	
#4	4	34.5	
#4	4	33.7	
#4	4	32.8	
#4	4	31.10	
#4	4	30.11	
#4	4	30.1	
#4	4	29.3	
#4	4	28.4	
#4	4	27.6	
#4	4	26.8	
#4	4	25.9	
#4	4	24.10	
#4	4	24.0	
#4	4	23.2	
#4	4	22.3	
#4	4	21.5	
#4	4	20.7	
#4	4	19.8	
#4	4	18.10	
#4	4	17.11	
#4	4	17.1	
#4	4	16.3	
#4	4	15.4	
#4	4	14.6	
#4	4	13.7	
#4	4	12.9	
#4	4	11.11	
#4	4	11.0	
#4	4	10.2	
#4	4	9.3	
#4	4	8.5	
#4	4	7.7	
#4	4	6.8	
#4	4	5.10	
#4	4	5.0	
#4	4	4.1	
#4	4	3.3	
#4	4	2.4	
#4	4	1.6	
<b>Total #5 Weight</b>	<b>105.417</b>		
400b	1268	51.2	
401b	1948	51.4	
#4	1600	39.3	
#4	8	21.6	
#4	90	8.0	
#4	216	4.0	
<b>Total #4</b>	<b>372</b>	<b>239.0</b>	<b>54.410</b>
#3	24	20.9	
<b>Total #3</b>	<b>24</b>	<b>20.9</b>	<b>2.44</b>
<b>Total Reinf. Steel</b>			<b>188.101</b>

**NOTES:**  
For location of Sections A-A, B-B - See Drwg. S33  
For reinforcing bar notes see Br. Std. C1  
For details of match at end of Beams see Br. Std. C1  
See Drwg. S40 for bar bending details

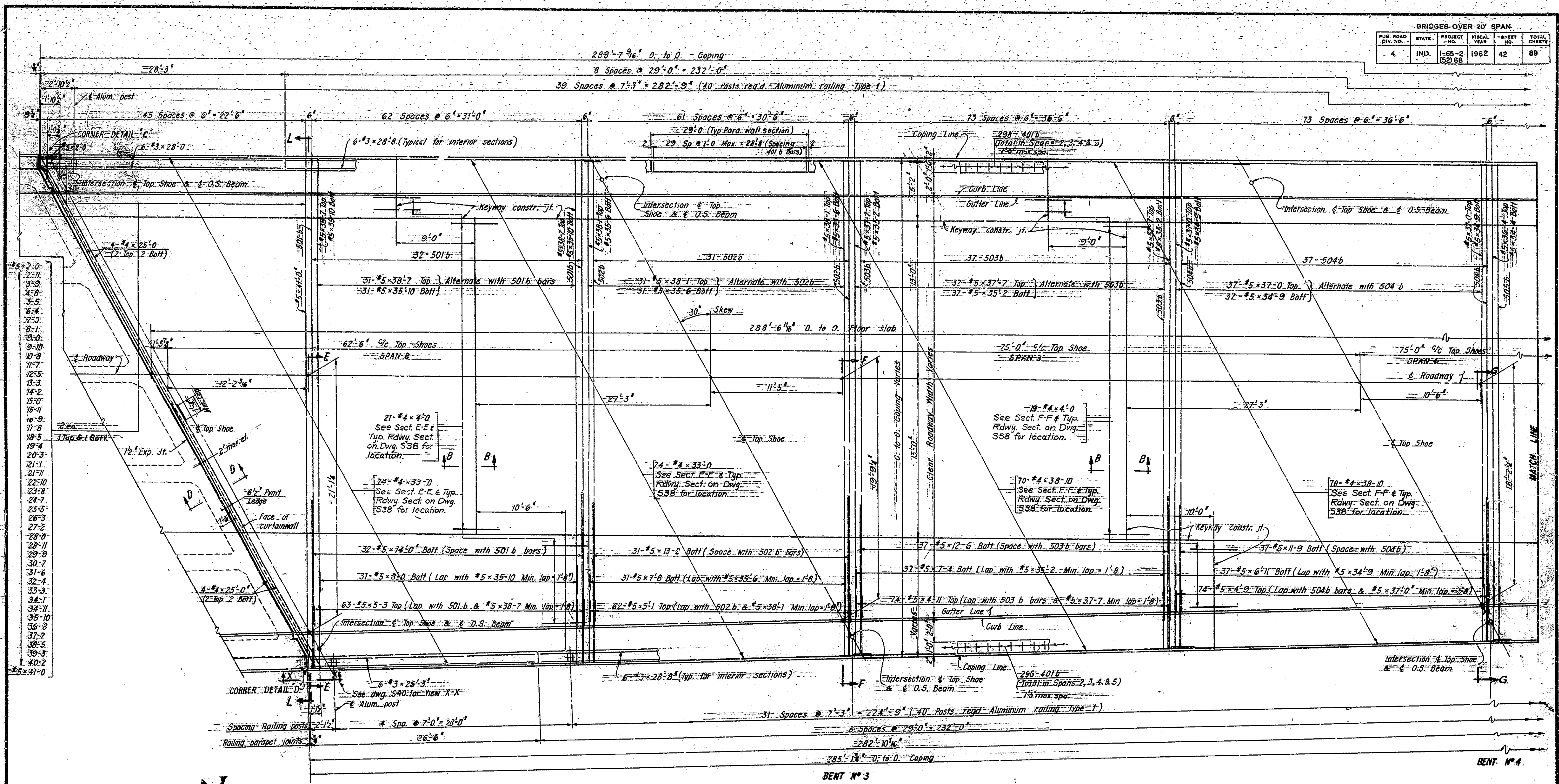
**FLOOR DETAILS & BILL OF MATERIALS**  
SPAN 2 THRU 14 - SOUTHBOUND LANE  
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: 1" = 1'-0"  
SUBMITTED FOR APPROVAL: *B.R. Pettit*  
*J.E. Burroughs*  
DRAWING: 634 OF 643  
PROJECT: 1-65-2(52)68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: 1-65-68-4699,4599J



DESIGNED: E.C.M. CK'D: D.E.G.  
DRAWN: E.M. CK'D: J.A.C.  
TRACED: CK'D:

BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NOS.	TOTAL SHEETS
4	IND.	1-65-2 (62168)	1962	42	89



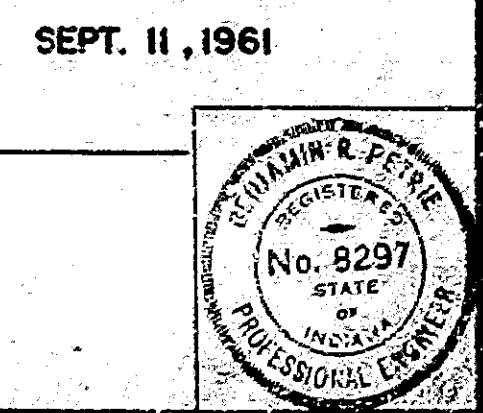
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 37+0  
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 39+0  
 40+0  
 41+0

PLAN - SPANS 2 & 3 - NORTHBOUND LANE

**NOTES**  
 WORK THIS DRAWING WITH DRAWING S36.  
 See Bridge Standard C1 for reinforcing bar notes.  
 Refer to dwg. S34 for Section B-B. See dwgs. S37, S38 & S40 for other sections referred to in this dwg., corner details, bill of materials, & additional details.  
 See Bridge Standard R1E for aluminum railing post & anchor bolts.  
 After structural steel has been erected concrete forms shall not be blocked against the expansion end of the steel in making any pours adjacent to steel spans.  
 Sequence of pours to be made in order of pour numbers. See Pour Diagram on dwg. S40. Transverse construction joints are optional & pours may be continuous provided the pours terminate at a construction joint indicated on the plan.  
 For details of Roadway Drain & Drainage Gullies, see Dwg. S34.

FLOOR PLAN SPANS 2 & 3 - NORTHBOUND LANE  
 STATE HIGHWAY DEPARTMENT OF INDIANA

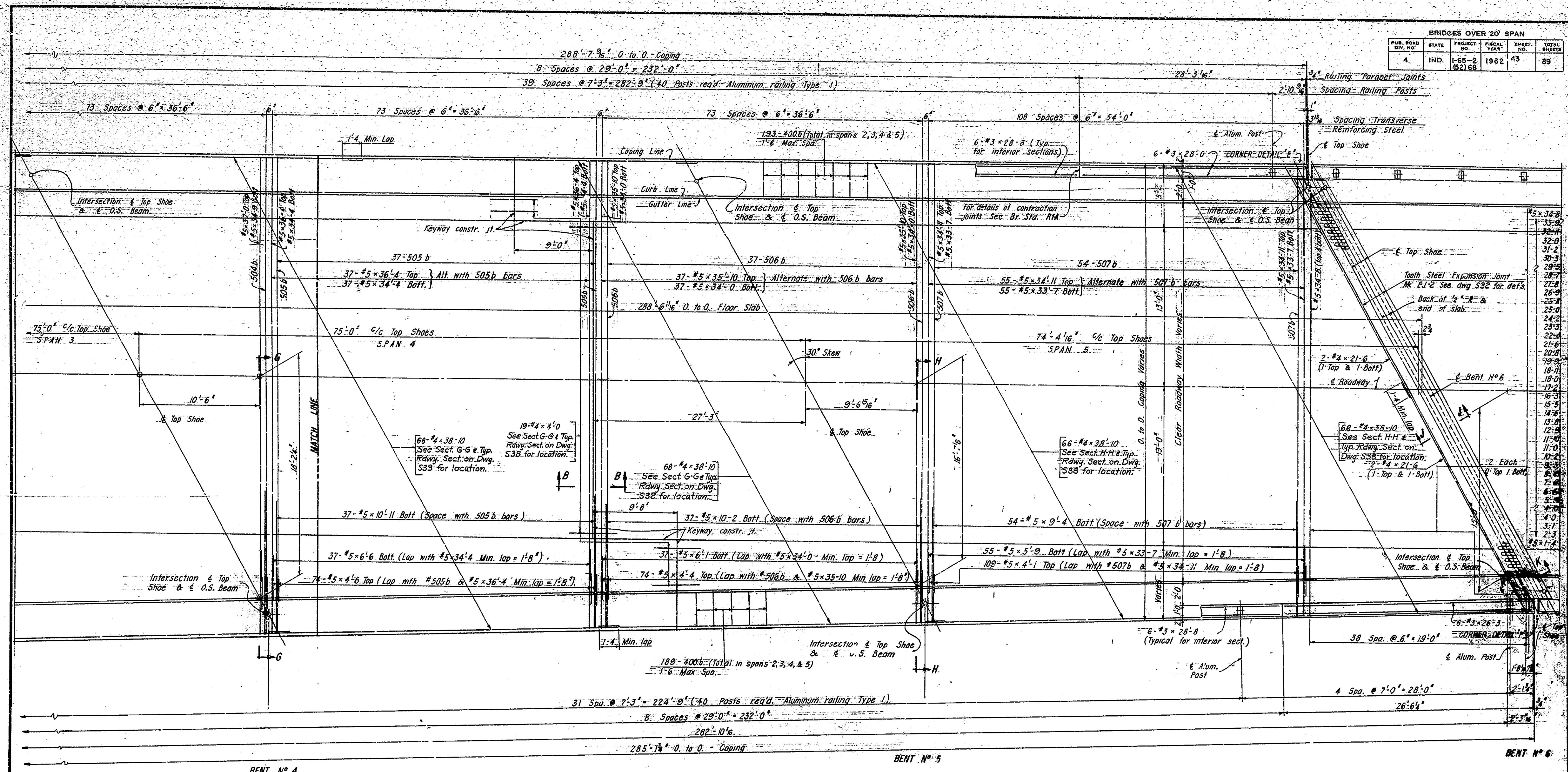
SCALE: 1" = 1'-0"  
 SUBMITTED FOR APPROVAL: *B. B. ...*  
 DRAWING: S 35 OF S 43  
 PROJECT: 1-65-2 (62168)  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: 65-58-4699-4699J



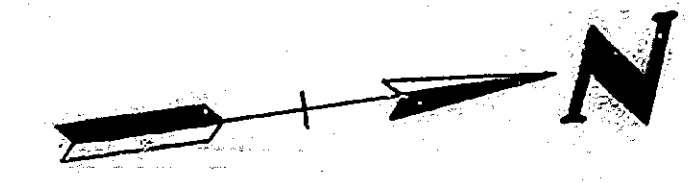
DESIGNED: DFE CKD: BOM  
 DRAWN: JCP CKD: JAC  
 TRACED: CKD



BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2(52)68	1962	43	89



PLAN - SPANS 4 & 5 - NORTHBOUND LANE



**NOTES:**  
 WORK THIS DRAWING WITH DRAWING S35.  
 See Bridge Standard C1 for reinforcing bar notes.  
 Refer to dwg. S34 for Section B-B. See dwgs. S37 & S39 for other sections referred to on this dwg., corner details, bill of materials & additional details.  
 See Bridge Standard R-1A for aluminum railing post & anchor bolts. After structural steel has been erected concrete forms shall not be blocked against the expansion end of the steel in making any pours adjacent to steel side.  
 Sequence of pours to be made in order of pour number. See POUR DIAGRAM on dwg. S40. Transverse construction joints are optional & pours may be continuous provided the pours terminate at a construction joint indicated on the plan.  
 For details of Drainage Outlets, see Dwg. S34.

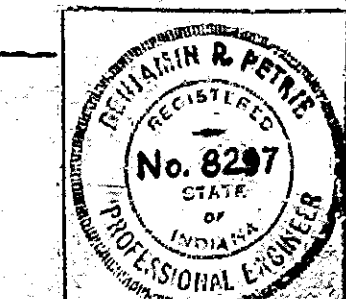
FLOOR PLAN SPAN 4 & 5 NORTHBOUND LANE  
 STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: 1/4" = 1'-0"  
 SEPT. 11, 1961

SUBMITTED FOR APPROVAL: *G. B. Burroughs*

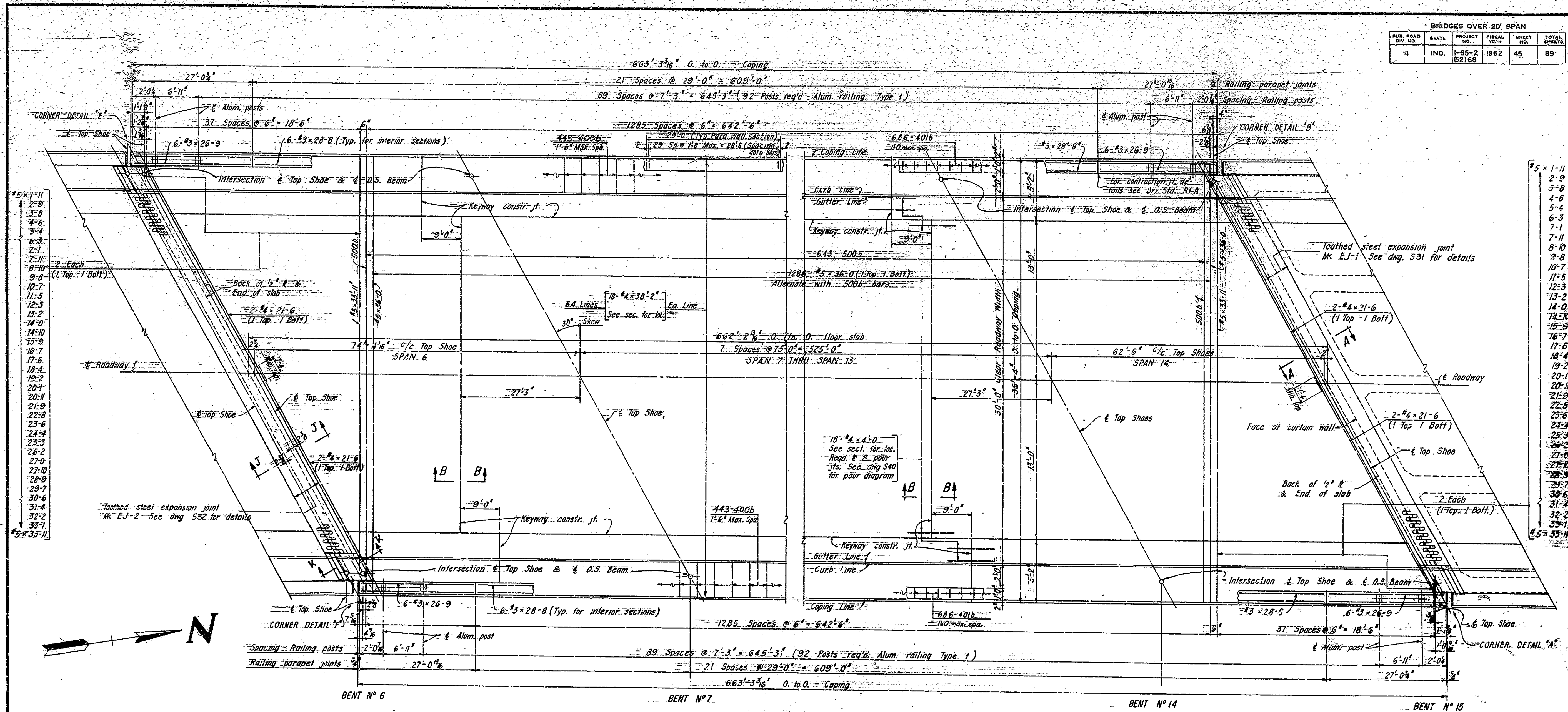
DRAWING: S36 OF S43  
 PROJECT: 1-65-2(52)68  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: 1-65-68-4699,4699J

DESIGNED: D.E.G. CKD: R.C.M.  
 DRAWN: S32 CKD: J.A.C.  
 TRACED: CKD

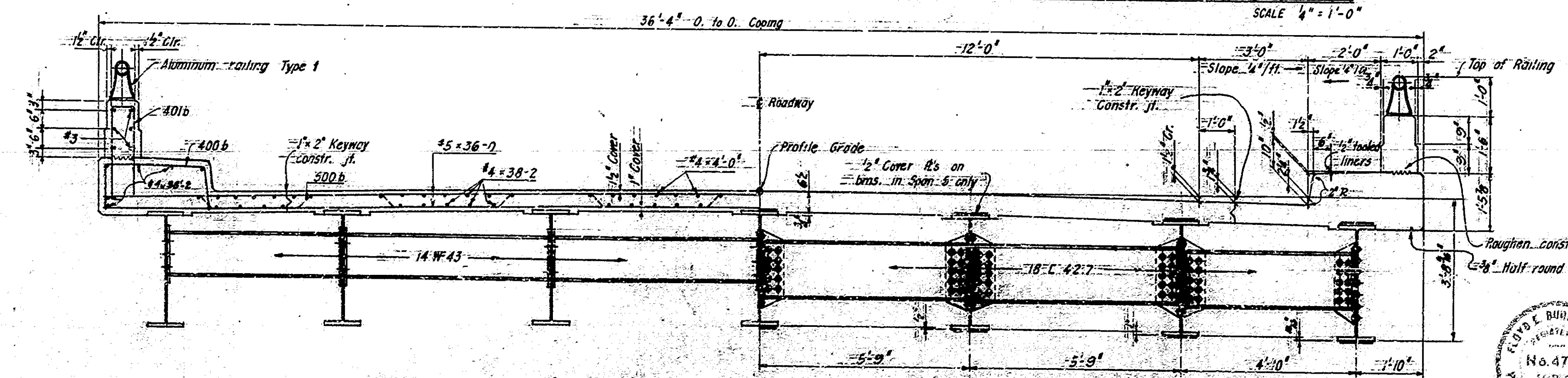




BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2(52)68	1962	45	89



PLAN - SPANS 6 THRU 14 - NORTHBOUND LANE  
SCALE 1/4" = 1'-0"



SHOWING REINFORCING STEEL & END STEEL DIAPHRAGMS  
SHOWING DIMENSIONS & INTERIOR STEEL DIAPHRAGMS

SECTION 1 TO E. ROADWAY  
SCALE 1/2" = 1'-0"

NOTES:-  
SEE DWGS. S35, S36 & S37 FOR FLOOR DETAILS - SPANS 2 THRU 5 NORTHBOUND LANE  
Notes shown on dwgs. S33 & S36 will also apply to this drawing.  
See DWG. S34 for Sect. A-A & B-B and Corner Detail A & B  
See Bridge Standard C1 for reinforcing bar notes.  
See DWG. S30 for Sect. J-J

FLOOR PLAN SPANS 6 THRU 14 NORTHBOUND LANE  
STATE HIGHWAY DEPARTMENT OF INDIANA

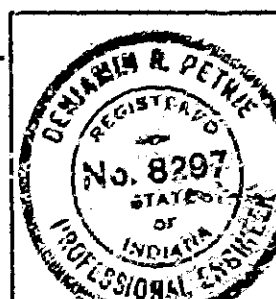
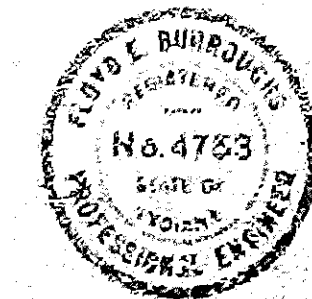
SEPT. 11, 1961

SCALE: AS NOTED

SUBMITTED FOR APPROVAL:

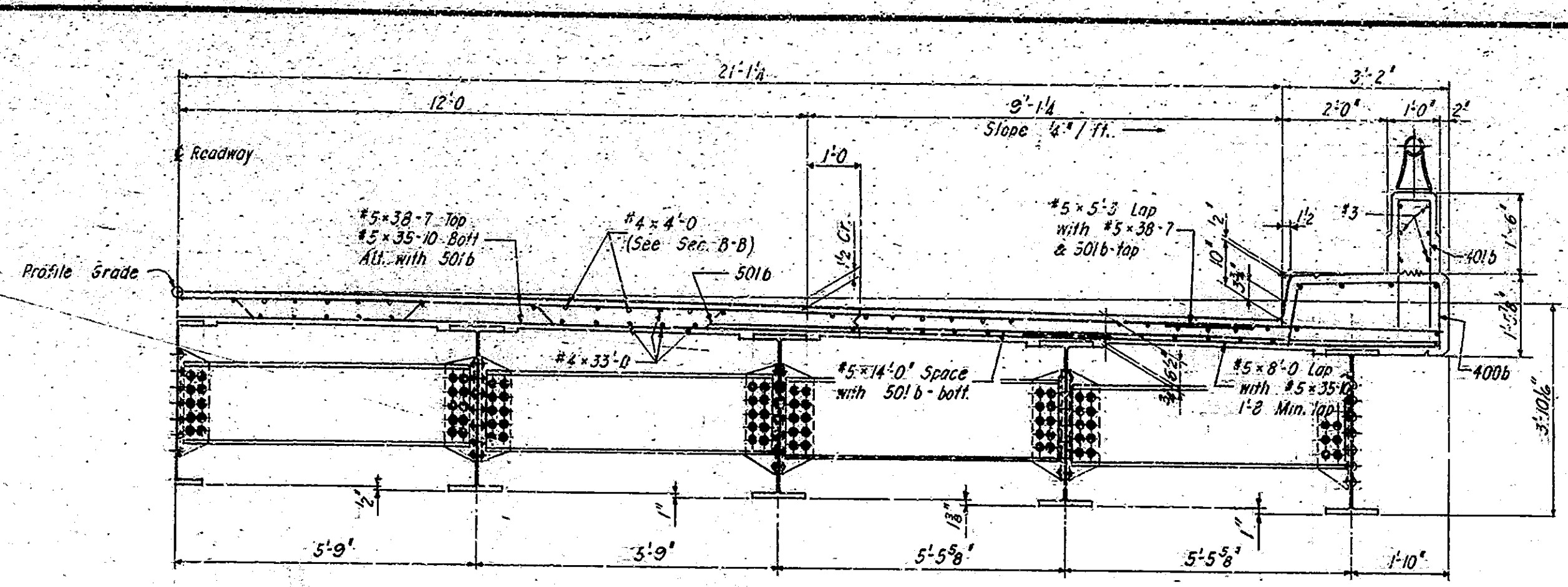
*B.P. Patten*  
*R.C. Burroughs*

DRAWING: S36 OF S43  
PROJECT: 1-65-2(52)68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: 1-65-68-4699, 4699J

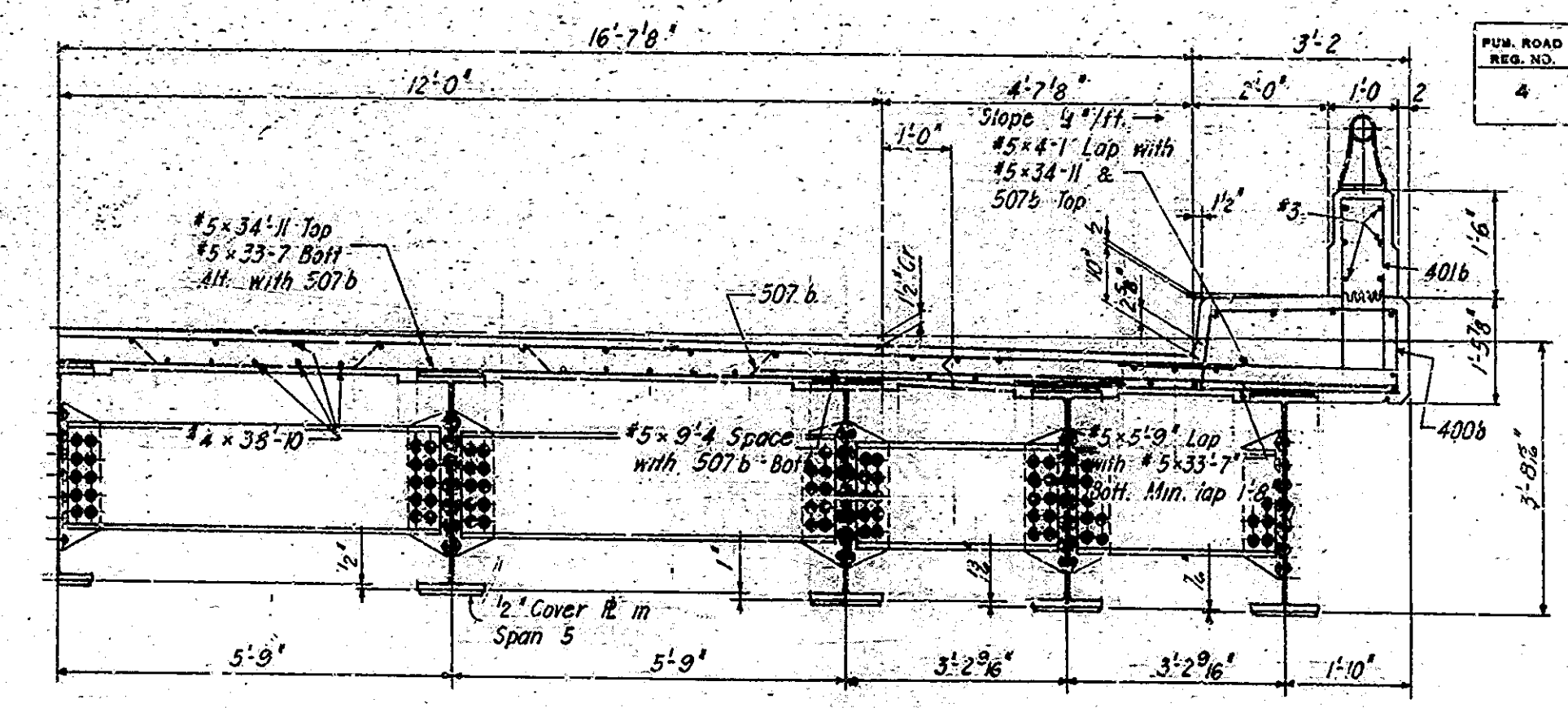


DESIGNED: <i>BER</i>	CHKD: <i>RCM</i>
DRAWN: <i>SCP</i>	CHKD: <i>J.A.C.</i>
TRACED: <i>CKD</i>	

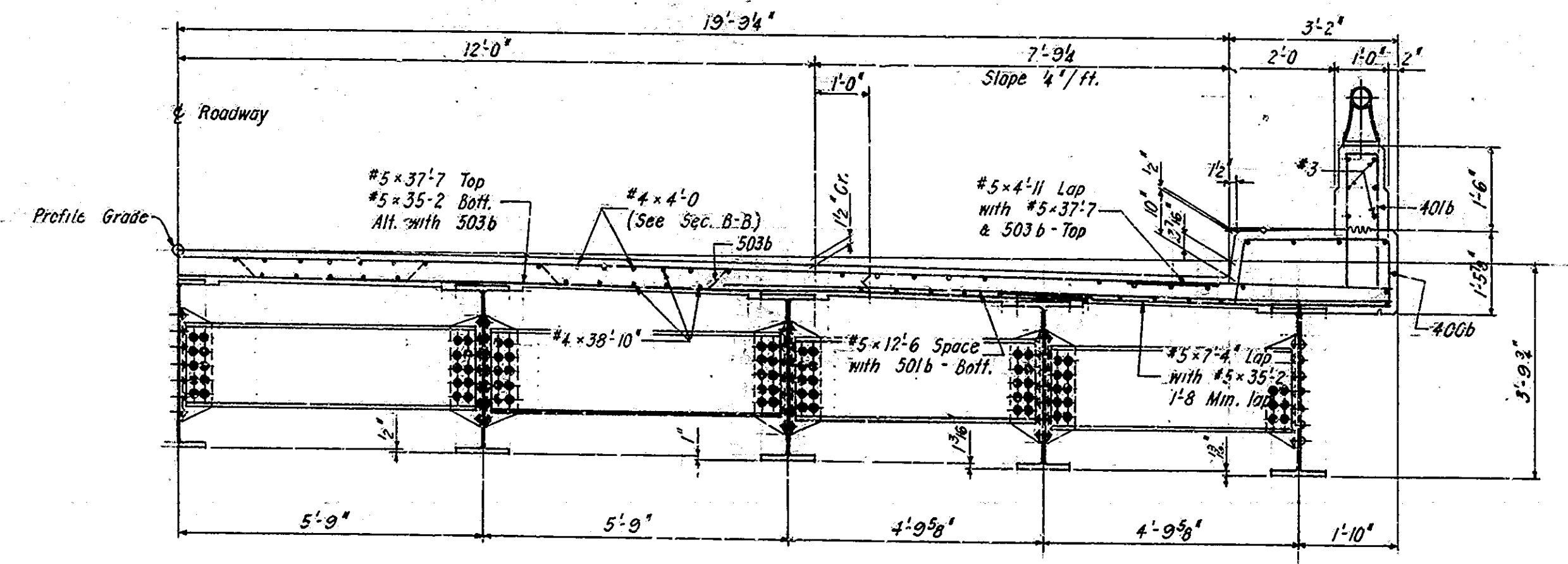
BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (52)68	1962	46	89



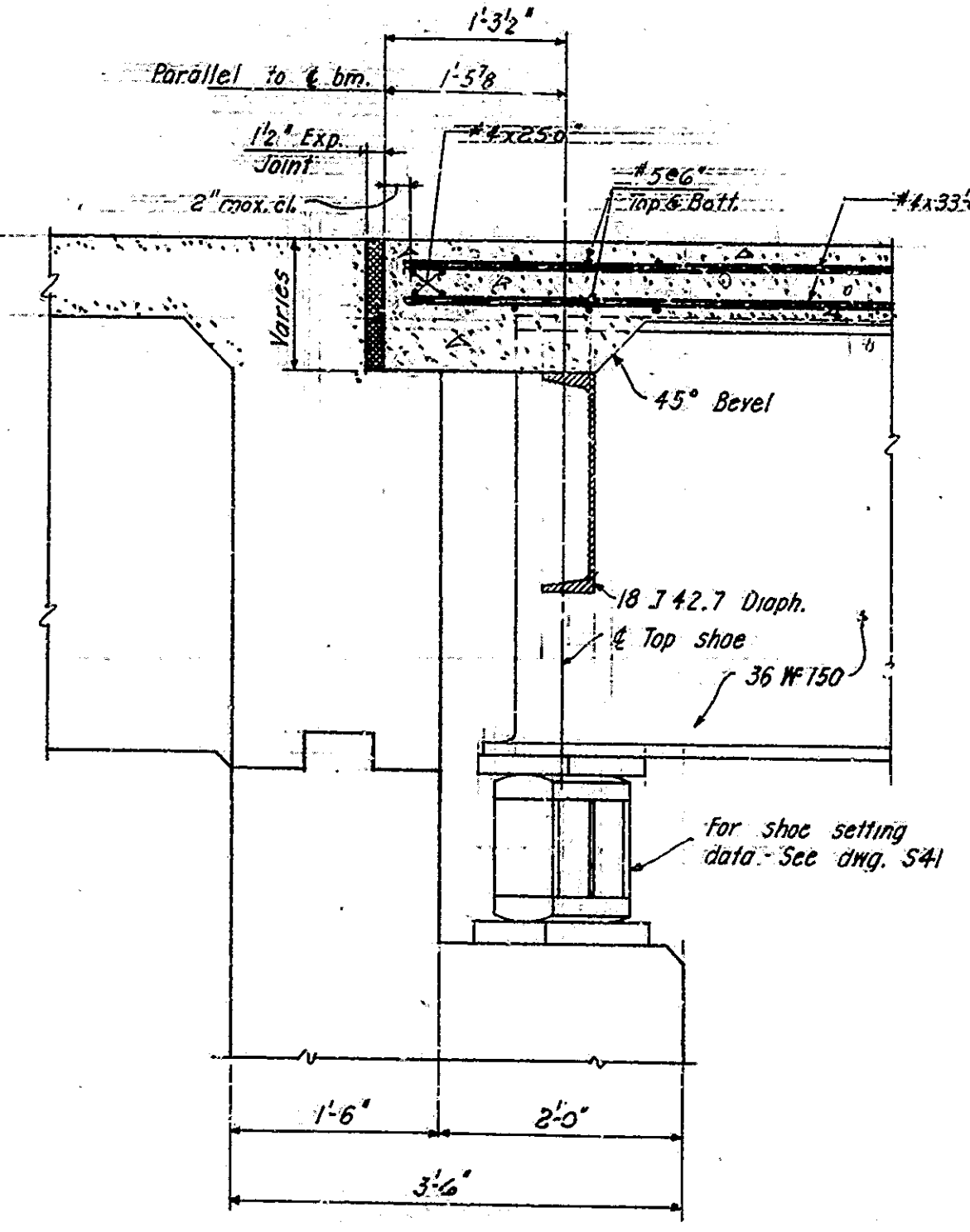
SECTION E-E  
Scale: 1/4"=1'-0"



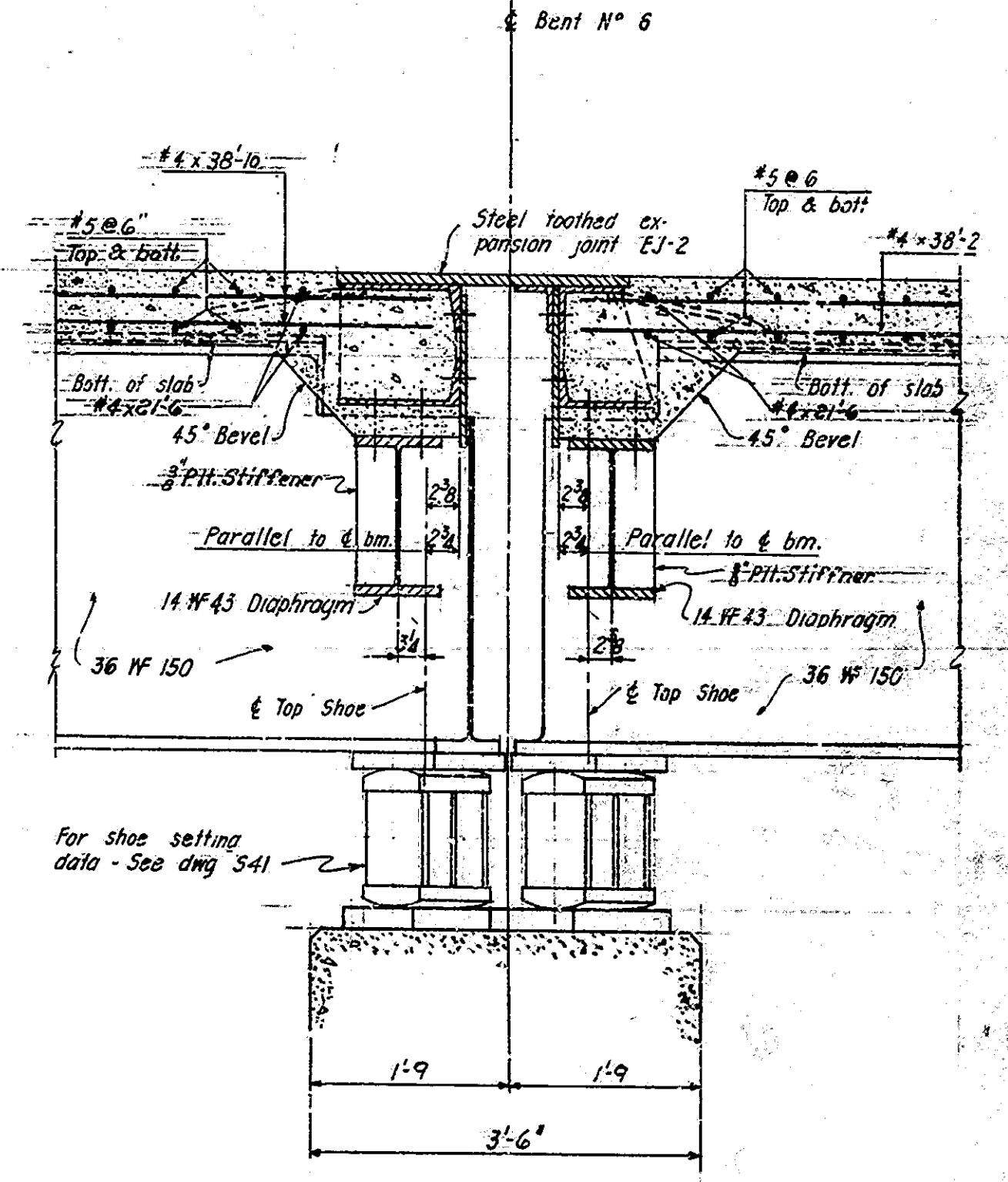
SECTION H-H  
Scale: 1/4"=1'-0"



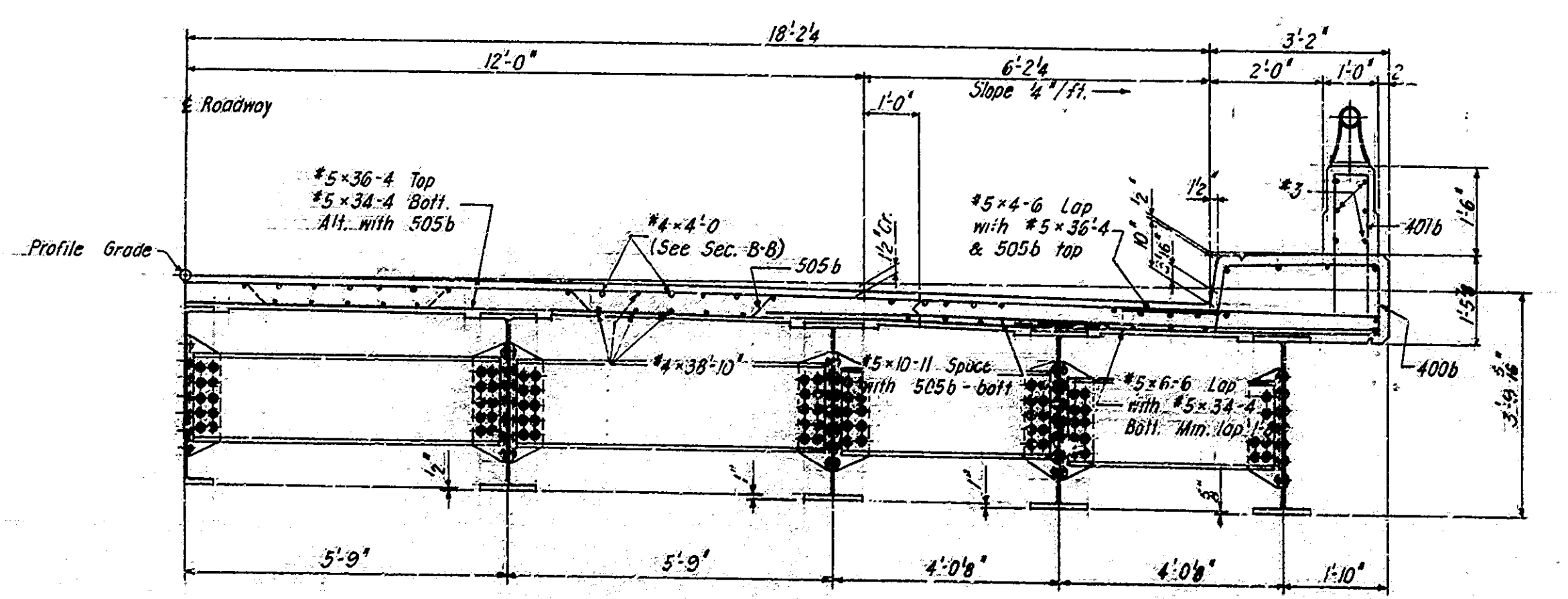
SECTION F-F  
Scale: 1/4"=1'-0"



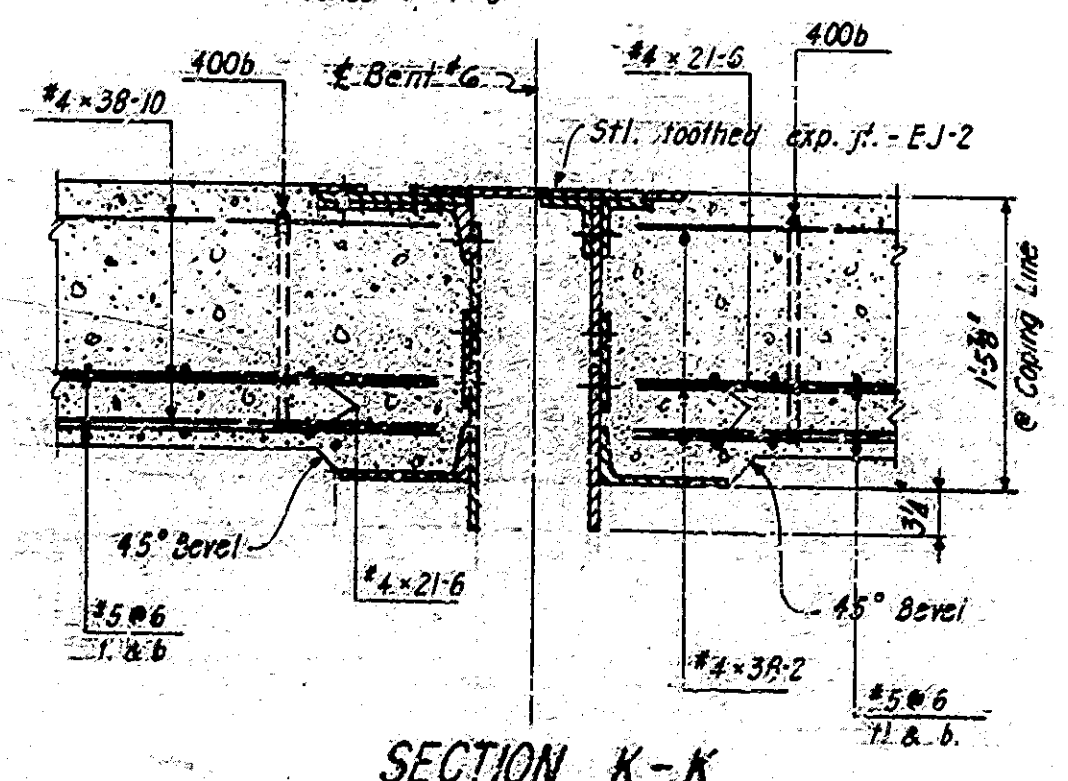
SECTION D-D  
Scale: 1"=1'-0"



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



SECTION G-G  
Scale: 1/4"=1'-0"



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

Note:  
See Bridge Standard C1 for reinforcing bar notes.  
See Dwg. 334 for Section B-B.

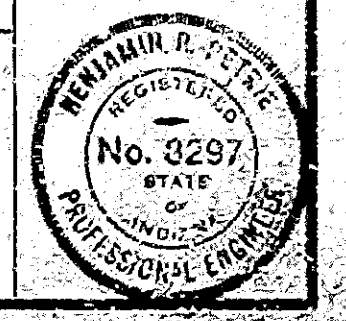
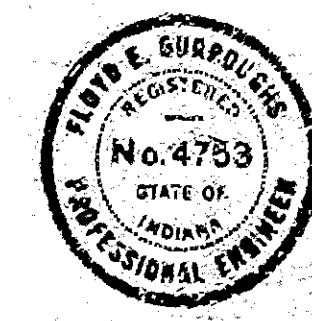
FLOOR DETAILS SPANS 2 THRU 14 NORTHBOUND LANE  
STATE HIGHWAY DEPARTMENT OF INDIANA

SEPT. 11, 1961

SCALE: AS NOTED

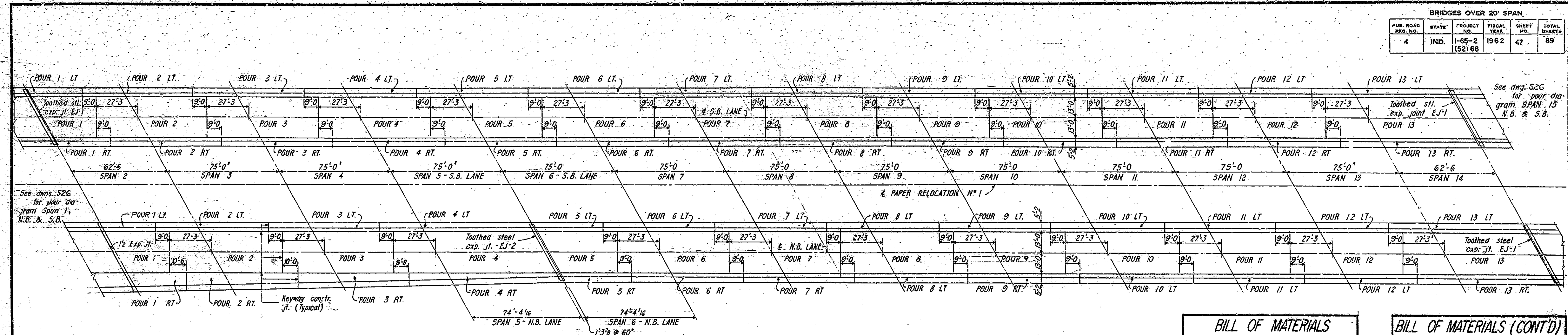
SUBMITTED FOR APPROVAL: *B. B. Peters*  
*H. E. Burroughs*

DRAWING: S-39 OF S-43  
PROJECT: 1-65-2(52)68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: 1-65-68-4639,4696J

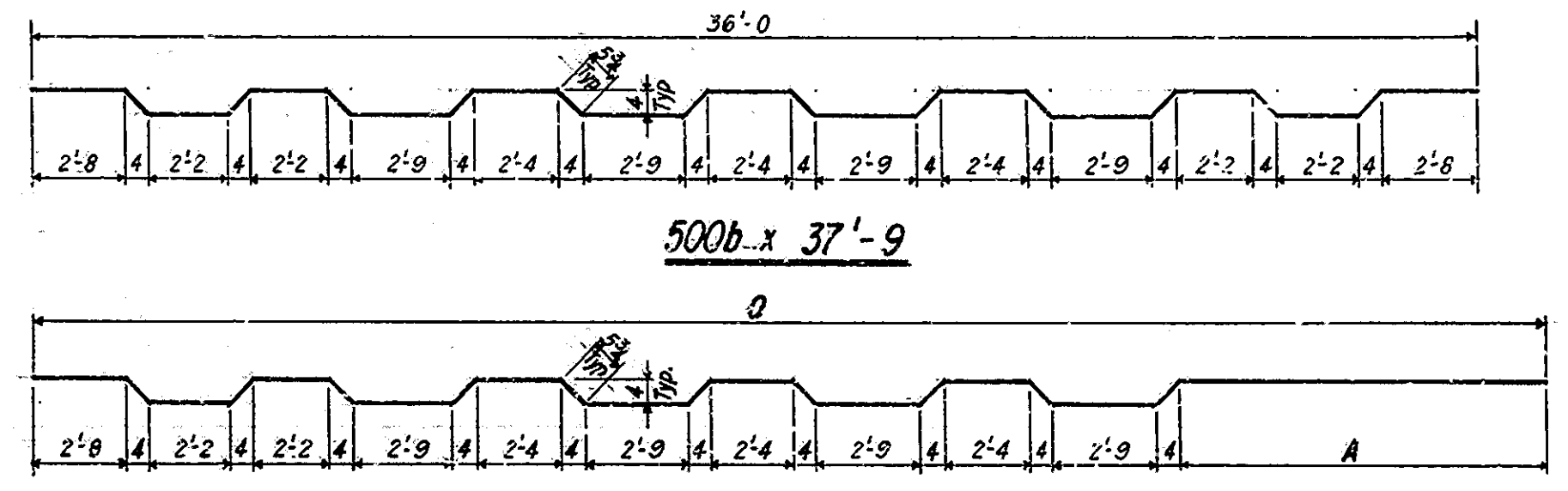


DESIGNED: D.E.G. C.K.D. R.C.M.  
DRAWN: S.O.P. C.K.D. J.A.C.  
TRACED: C.K.D.

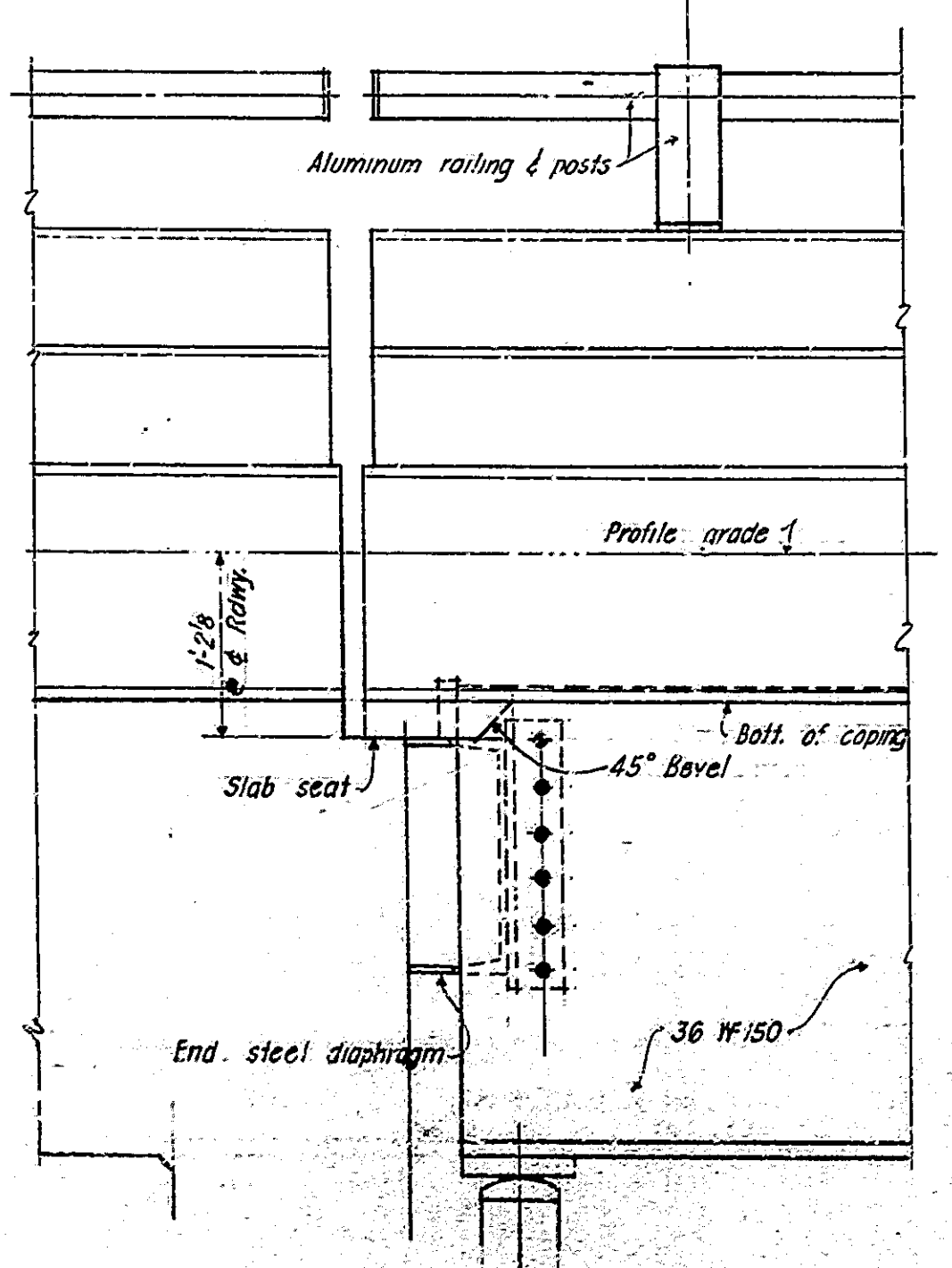
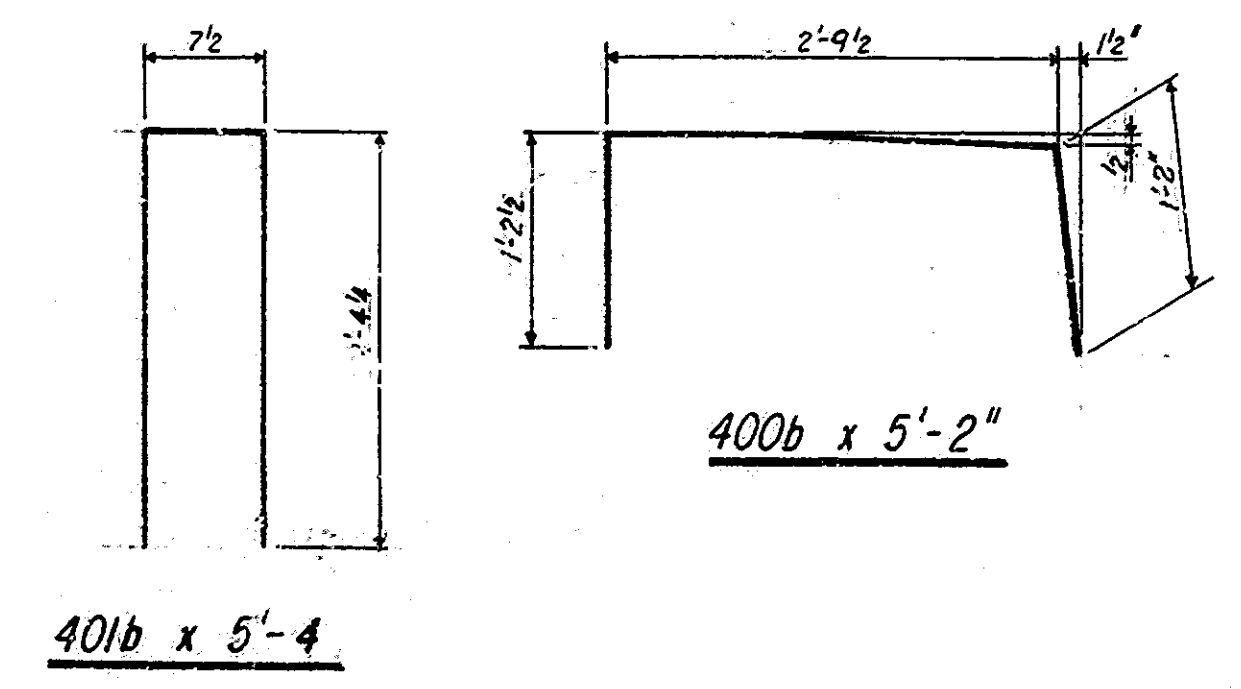
BRIDGES OVER 20' SPAN					
PUR. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (52)68	1962	47	88



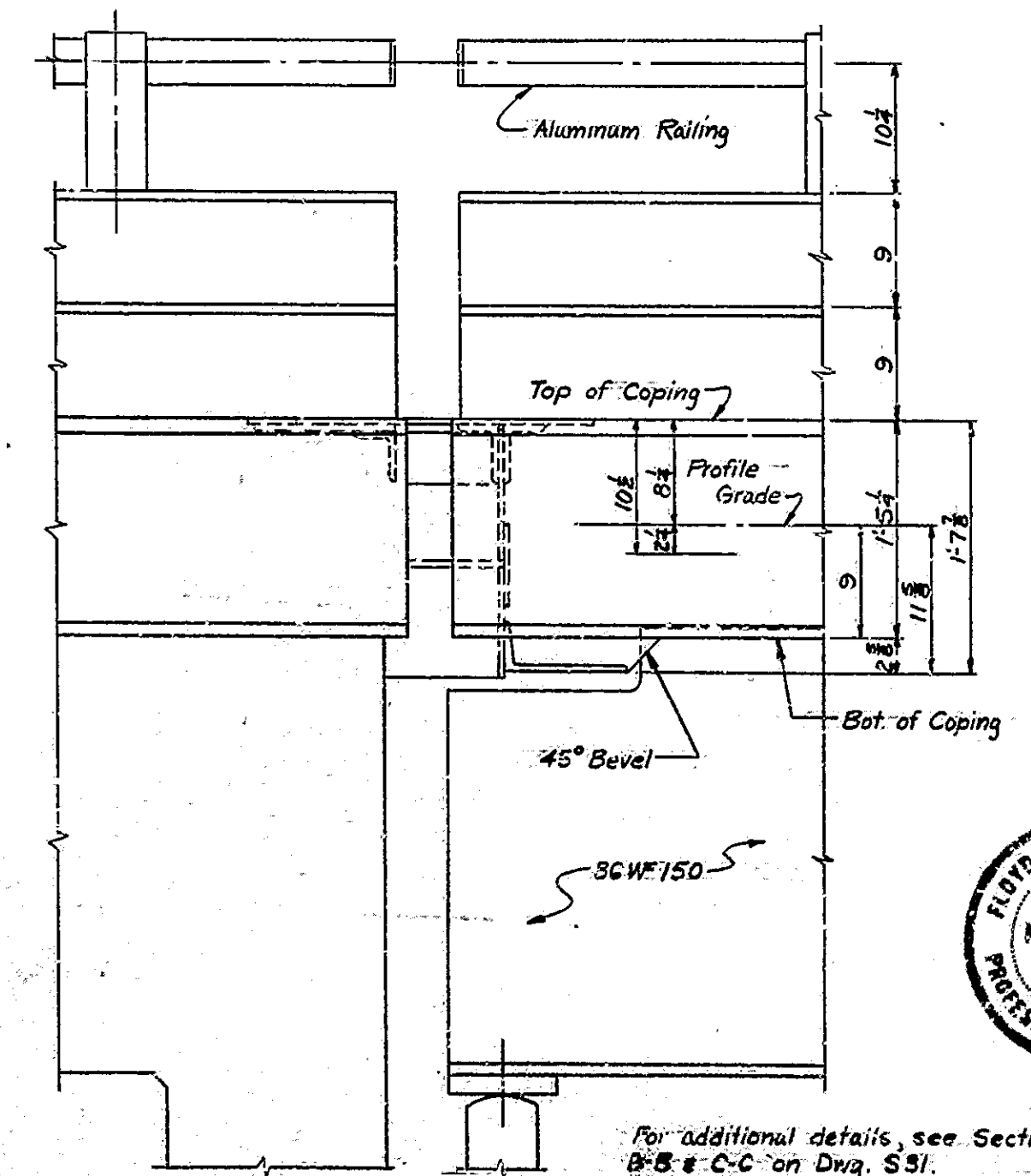
POUR DIAGRAM - SPANS 2 THRU 14  
NORTHBOUND & SOUTHBOUND LANE  
Not to Scale



BENDING SCHEDULE			
MARK	A	O	LENGTH
501b	10'-2 1/2	38'-6 1/2	40'-0
502b	9'-8 1/2	38'-0 1/2	39'-6
503b	9'-2 1/2	37'-6 1/2	39'-0
504b	8'-7 1/2	36'-1 1/2	38'-5
505b	7'-1 1/2	36'-3 1/2	37'-9
506b	7'-4 1/2	35'-8 1/2	37'-2
507b	6'-9 1/2	35'-1 1/2	36'-7



VIEW X-X  
(REFER TO CORNER DETAIL D)  
Scale: 1/4" = 1'-0"



VIEW Y-Y  
(Refer to Corner Detail B)  
Scale: 1/4" = 1'-0"

BILL OF MATERIALS SPANS 6 THRU 14 - N.B. LANE			
REINFORCING STEEL			
SIZE OR MARK	Nº OF BARS	LENGTH	WEIGHT
500b	643	37-9	
#5	1286	36-0	
	4	33-11	
	4	33-1	
	4	32-2	
	4	31-4	
	4	30-6	
	4	29-7	
	4	28-9	
	4	27-10	
	4	27-0	
	4	26-2	
	4	25-3	
	4	24-4	
	4	23-6	
	4	22-8	
	4	21-9	
	4	20-11	
	4	20-1	
	4	19-2	
	4	18-4	
	4	17-6	
	4	16-7	
	4	15-9	
	4	14-10	
	4	14-0	
	4	13-2	
	4	12-3	
	4	11-5	
	4	10-7	
	4	9-8	
	4	8-10	
	4	7-11	
#5	4	6-3	

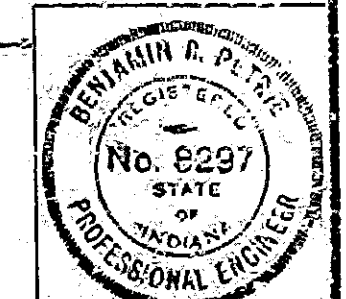
BILL OF MATERIALS (CONT'D) SPANS 6 THRU 14 - N.B. LANE			
REINFORCING STEEL			
SIZE OR MARK	Nº OF BARS	LENGTH	WEIGHT
#5	4	5-4	
	4	4-6	
	4	3-8	
	4	2-9	
#5	4	1-11	
TOTAL Nº 5 = 76441 Lbs			
#00b	886	5-2	
#01b	1372	5-4	
#4	1152	38-2	
#4	8	21-6	
#4	68	8-0	
#4	144	4-0	
TOTAL Nº 4 = 58270 Lbs			
#3	252	26-0	
#3	24	26-9	
TOTAL Nº 3 = 2908 Lbs			
TOTAL REINFORCING STEEL = 117571 Lbs			
CONCRETE			
Class. F. Superstructure			
Pour # 5			25811
Pour # 6 thru # 12 (7 x 39.3)			275.1
Pour # 13			47.5
Pour # 5 Lt. & Rt. (2 x 9.8)			19.6
Pour # 6 thru # 12 Lt. & Rt. (2 x 15.9)			217.0
Pour # 13 Lt. & Rt. (2 x 18.6)			37.2
Total Class. F. (except Rail Paving) = 21576 Lbs			
Railing Concrete (Parapet) = 6900 Lbs			
MISCELLANEOUS			
2" Sid. Rwy. Drains: Type II Gate 8 @ 14' = 286 Lbs			
34 Pcs. C.I. Soil Pipe @ 95' ea. = 3230 Lbs			
2 Pcs. C.I. Soil Pipe @ 77' ea. = 154 Lbs			
Total: Cast Iron = 3672 Lbs			
Aluminum Railing (Type T) = 1327 Lbs			

NOTE:  
See Bridge Standard C1 for reinforcing bar notes.

FLOOR DETAILS-SPANS 2 THRU 14 N.B. & S.B. LANES  
STATE HIGHWAY DEPARTMENT OF INDIANA

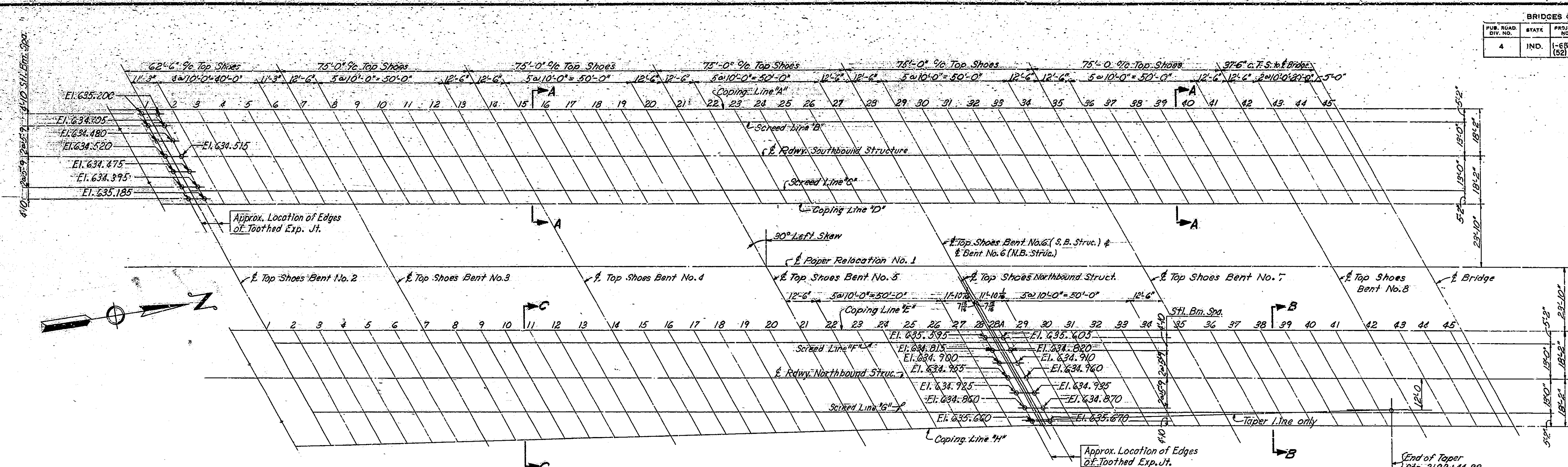
SCALE: NONE  
SUBMITTED FOR APPROVAL: *B. B. Burroughs*  
DRAWING: S40 OF 143  
PROJECT: 1-65-2(52)68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: 1-65-69-4699, 4699J

SEPT. 11, 1961

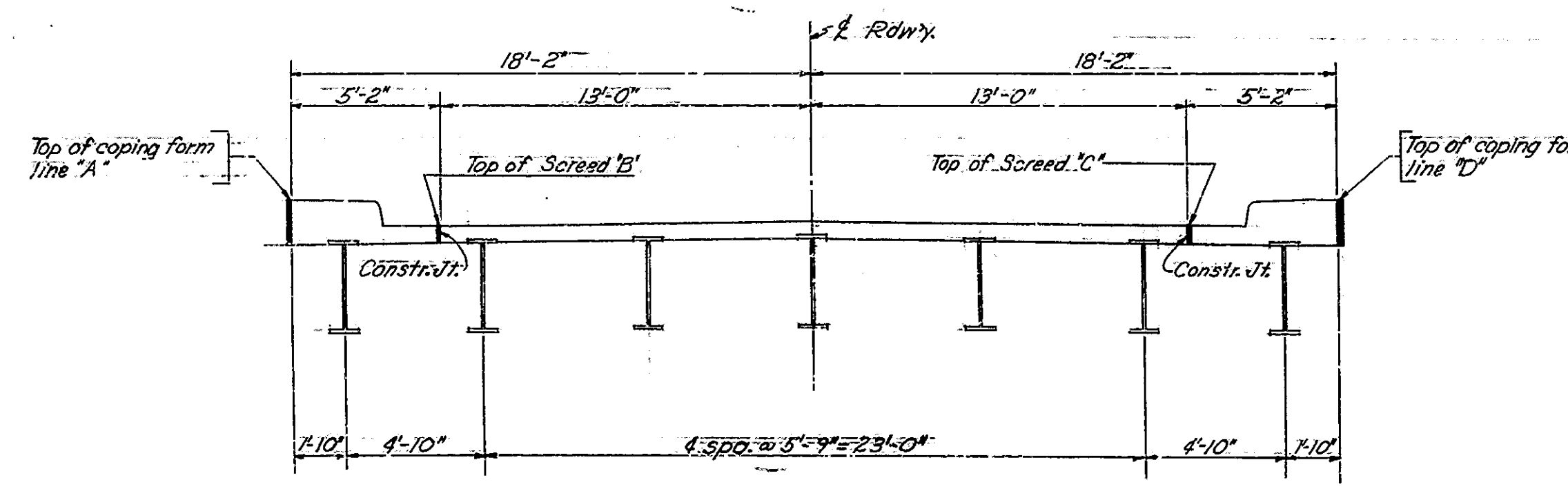


DESIGNED BY: ECH, CVD, RMA, DEG  
DRAWN BY: SJP, JAC  
TRACED: CVD

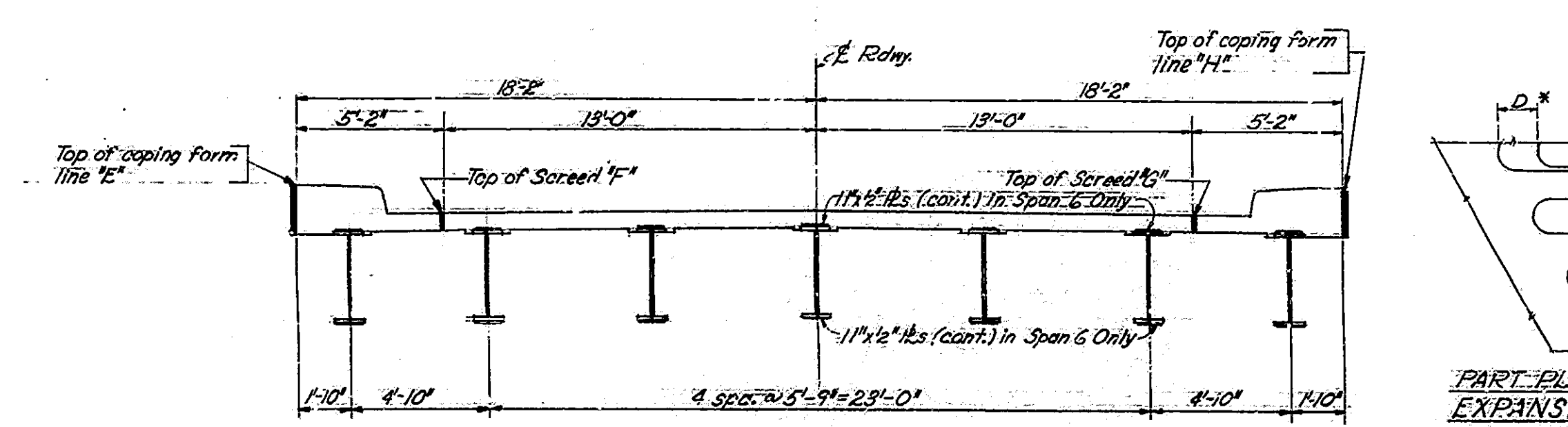
BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (52) 68	1962	48	89



PART PLAN OF SCREEDS  
Scale: 1"=20'-0"



SECTION "A-A"  
Scale: 1/4"=1'-0"  
For Southbound Spans 2 to 14 Incl.



SECTION "B-B"  
Scale: 1/4"=1'-0"  
For Northbound Spans 6 to 14 Incl.

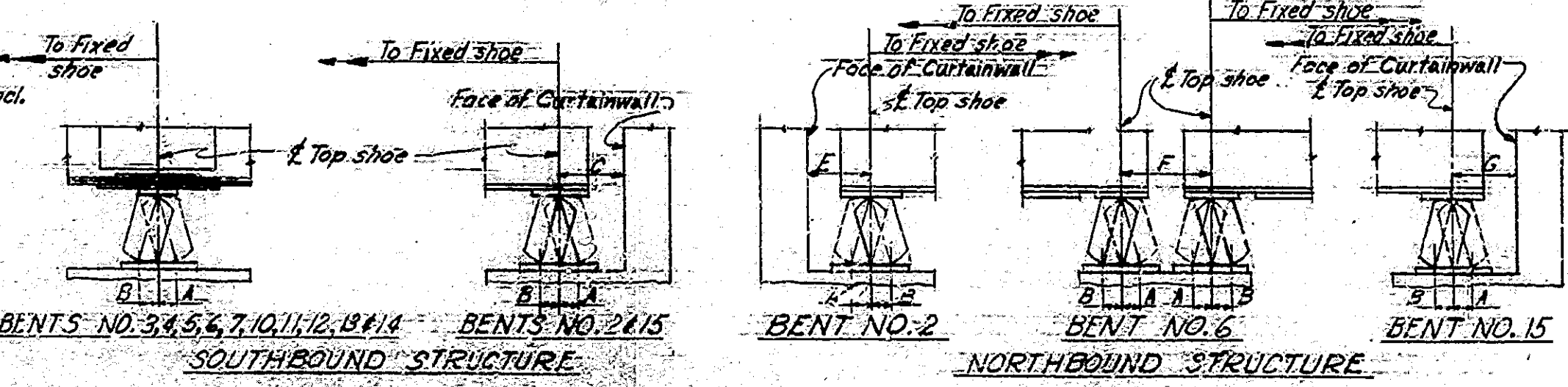
TABLE NO. I

Temperature	Dimension "A"								Dimension "B"		
	0°	20°	40°	60°	80°	100°	120°	80°	100°	120°	
Top Shoe to Exp. Pl. Bents No. 2 S.B., No. 15 S.B.	2 1/2	1 1/2	3/4	0	0	0	0	3/4	1 1/2	2 1/2	
No. 3 S.B., No. 14 S.B.	1 1/2	1/2	0	0	0	0	0	1/2	1 1/2	1 1/2	
No. 4 S.B., No. 13 S.B.	1 1/2	1/2	0	0	0	0	0	1/2	1 1/2	1 1/2	
No. 5 S.B., No. 12 S.B.	1 1/2	1/2	0	0	0	0	0	1/2	1 1/2	1 1/2	
No. 6 S.B., No. 11 S.B.	1 1/2	1/2	0	0	0	0	0	1/2	1 1/2	1 1/2	
No. 7 S.B., No. 10 S.B.	1 1/2	1/2	0	0	0	0	0	1/2	1 1/2	1 1/2	
No. 8 N.B., No. 9 N.B.	1 1/2	1/2	0	0	0	0	0	1/2	1 1/2	1 1/2	
No. 9 N.B., No. 8 N.B.	1 1/2	1/2	0	0	0	0	0	1/2	1 1/2	1 1/2	
No. 10 N.B., No. 7 N.B.	1 1/2	1/2	0	0	0	0	0	1/2	1 1/2	1 1/2	
No. 11 N.B., No. 6 N.B.	1 1/2	1/2	0	0	0	0	0	1/2	1 1/2	1 1/2	
No. 12 N.B., No. 5 N.B.	1 1/2	1/2	0	0	0	0	0	1/2	1 1/2	1 1/2	
No. 13 N.B., No. 4 N.B.	1 1/2	1/2	0	0	0	0	0	1/2	1 1/2	1 1/2	
No. 14 N.B., No. 3 N.B.	1 1/2	1/2	0	0	0	0	0	1/2	1 1/2	1 1/2	
No. 15 N.B., No. 2 N.B.	1 1/2	1/2	0	0	0	0	0	1/2	1 1/2	1 1/2	

TABLE NO. II

Temperature	Dimension "A"								Dimension "B"		
	0°	20°	40°	60°	80°	100°	120°	80°	100°	120°	
Dimension "C" Bents: No. 2 S.B., No. 15 S.B.	1'-2 1/2	1'-1 1/2	1'-0 1/2	1'-0 1/2	0'-11 1/2	0'-10 1/2	0'-9 1/2	0'-11 1/2	0'-10 1/2	0'-9 1/2	
"D" Piers: No. 2 S.B., No. 15 S.B.	0'-6	0'-5 1/2	0'-4 1/2	0'-4 1/2	0'-3 1/2	0'-2 1/2	0'-2 1/2	0'-3 1/2	0'-2 1/2	0'-2 1/2	
"D" Bent: No. 6 N.B.	0'-5 1/2	0'-4 1/2	0'-4 1/2	0'-4 1/2	0'-3 1/2	0'-2 1/2	0'-2 1/2	0'-3 1/2	0'-2 1/2	0'-2 1/2	
"D" Pier: No. 15 N.B.	0'-5 1/2	0'-4 1/2	0'-4 1/2	0'-4 1/2	0'-3 1/2	0'-2 1/2	0'-2 1/2	0'-3 1/2	0'-2 1/2	0'-2 1/2	
"E" Pier: No. 2 N.B.	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	
"F" Bent No. 6 N.B.	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	1'-0 1/2	
"G" Pier: No. 15 N.B.	1'-2 1/2	1'-1 1/2	1'-0 1/2	1'-0 1/2	0'-11 1/2	0'-10 1/2	0'-9 1/2	0'-11 1/2	0'-10 1/2	0'-9 1/2	

NOTE: \*Dim. "D" has a Field Adjustment of 1/2"



NOTES:-  
PURPOSE  
"PLAN OF SCREEDS" shows location of screeds.  
"TABLE OF ELEVATIONS" shows data for setting top of screeds and coping forms so that the surface of the slab and coping will be at the final grade elevations after all concrete has been poured.  
"TABLE I" shows data for setting Expansion Plates.  
"TABLE II" shows (a.) Data for locating superstructure and (b.) Data for setting toothed expansion joint.

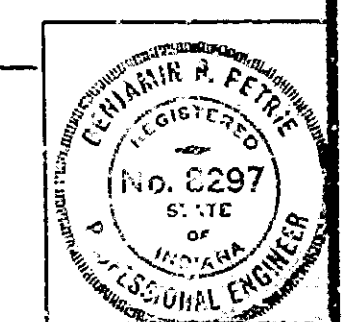
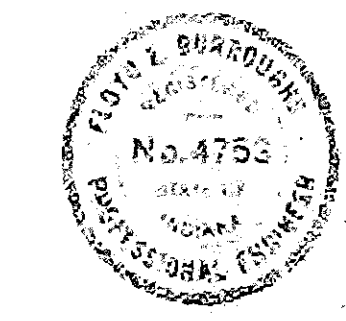
GENERAL PROCEDURE  
(1) SOUTHBOUND STRUCTURE ONLY--After all field rivets have been driven, adjust the superstructure longitudinally so that the dimension "C" as shown in the sketch is equal at Pier No. 2 and Pier No. 15.  
(1A) NORTHBOUND STRUCTURE ONLY--After all field rivets have been driven, adjust the superstructure longitudinally so that the dimensions "C" and "B" as shown in the sketch are equal.  
(2) SOUTHBOUND STRUCTURE ONLY--With the superstructure in the adjusted position as called for in Step (1), set the anchor bolts for the fixed shoes at Bents No. 8 & No. 9.  
(2A) NORTHBOUND STRUCTURE ONLY--With the superstructure in the adjusted position as called for in Step (1A), set the anchor bolts for the fixed shoes at Bent No. 5 & No. 6.  
(3) Adjust the Expansion Plates under each Expansion Shoe in accordance with dimensions "A" or "B" in Table I for the prevailing temperature. NOTE: That dimension "A" is always the distance from a vertical line through the centerline of the Top Shoe in a direction away from the Fixed Shoe. Set the anchor bolts.  
(4) Set steel expansion joints & adjust them to the elevations as shown on "PLAN OF SCREEDS" by the use of the double nuts on the anchor bolts.  
(5) Adjust the steel expansion joints transversely so that the openings "D" between the tees are equal & longitudinally so that the openings "D" correspond to the values shown in Table II for the prevailing temperature.  
(6) After the shoes are set, take elevations of all screed points on top of beam adjacent to screed points. These elevations in "TABLE OF ELEVATIONS" subtract these elevations from the tabulated elevations & use the resulting dimension as the height for setting the screed or coping from above that point. This dimension remains constant regardless of how much or in what order the concrete is poured. Do not set screeds or coping forms by leveling.  
(7) No concrete in the floor is to be poured until the above operations are complete.

NOTE: Work this drawing with Dwg. S42 #543.  
All dimensions given in TABLE I & TABLE II are parallel to & Roadway.

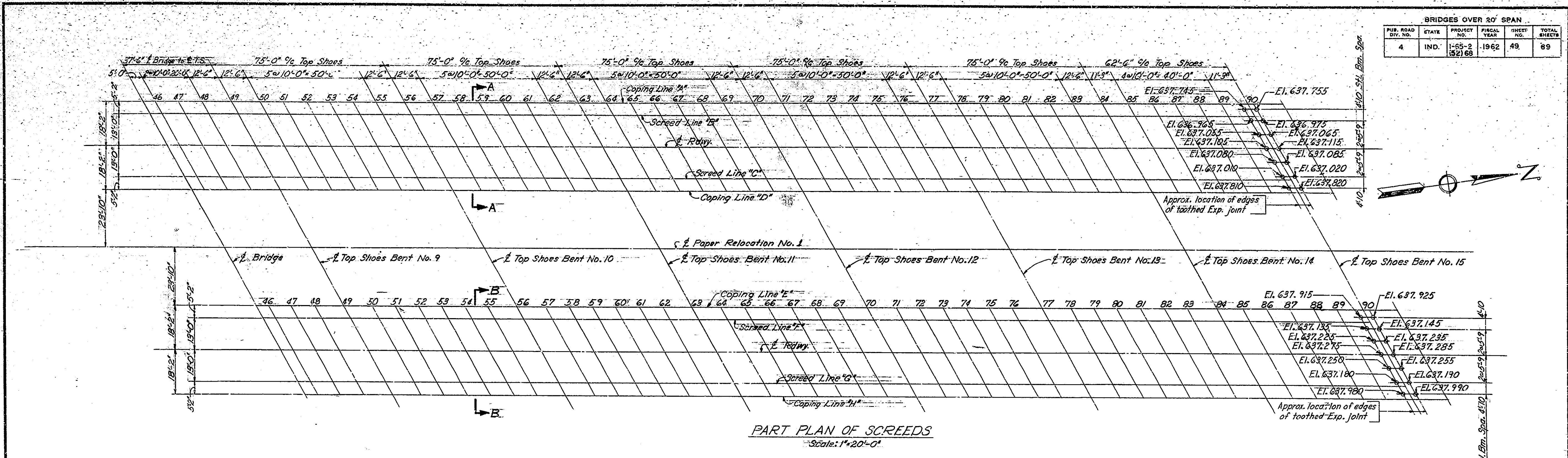
PART PLAN DETAILS & TABLES OF SCREEDS  
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: AS NOTED  
SEPT. 11, 1961  
SUBMITTED FOR APPROVAL: *J.C. Burroughs*  
DRAWING: S41 OF S43  
PROJECT: 1-65-2(52) 68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: 1-65-68-4639,4699J

DESIGNED: D.E.G. & J.W.C. TO M.C. 10-4-56  
DRAWN: L.W. 10-21-56 C.K.D. D.E.G.  
TRACED: C.K.D.

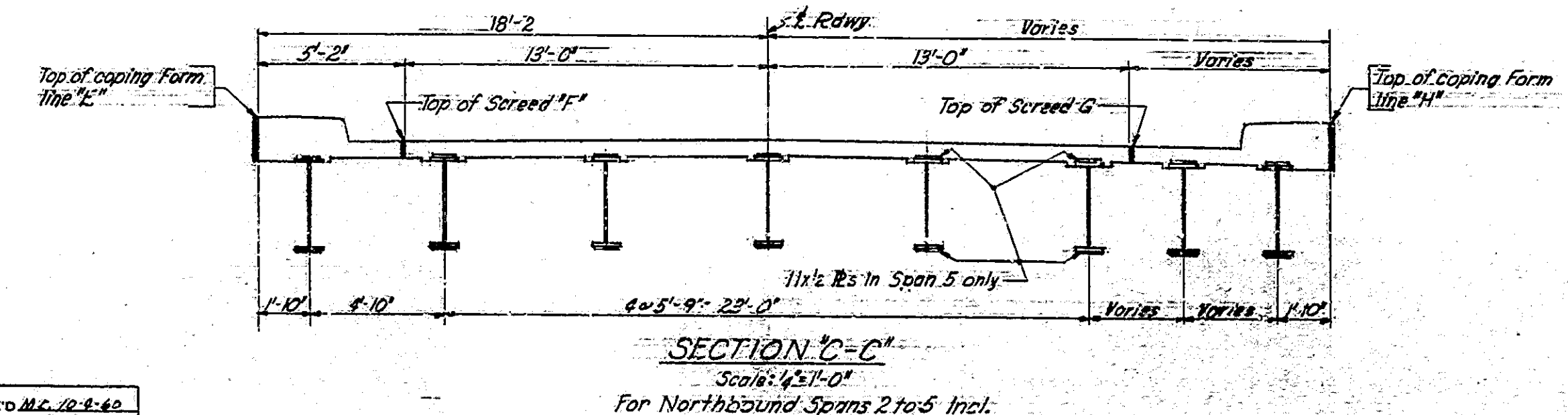


BRIDGES OVER 30' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-2(52)68	1962	49	89



PART TABLE OF ELEVATIONS

POINT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	28A	29	30			
A	Elev. Top of Coping Form	635.215	635.220	635.220	635.215	635.215	635.190	635.180	635.185	635.195	635.205	635.210	635.205	635.200	635.220	635.240	635.275	635.280	635.285	635.285	635.300	635.300	635.385	635.410	635.425	635.440	635.465		635.505	635.545				
B	Elev. Top of Outside Beam																																	
C	Dist. Top of Beam to Top of Coping Form																																	
D	Elev. Top of Screed	634.400	634.405	634.405	634.400	634.390	634.375	634.365	634.370	634.385	634.390	634.395	634.395	634.390	634.370	634.410	634.435	634.450	634.465	634.470	634.475	634.475	634.490	634.520	634.550	634.580	634.605	634.620	634.635	634.660	634.705	634.745		
E	Elev. Top of Adjacent Beam																																	
F	Dist. Top of Beam to Top of Screed																																	
G	Elev. Top of Coping Form	635.195	635.205	635.210	635.205	635.195	635.185	635.180	635.185	635.200	635.210	635.220	635.215	635.220	635.245	635.265	635.290	635.305	635.315	635.320	635.330	635.370	635.405	635.435	635.460	635.480	635.515	635.530	635.575	635.590	635.610	635.610	635.675	635.725
H	Elev. Top of Outside Beam																																	
I	Dist. Top of Beam to Top of Coping Form																																	
J	Elev. Top of Screed	634.370	634.380	634.390	634.390	634.385	634.375	634.370	634.390	634.405	634.420	634.430	634.435	634.440	634.445	634.470	634.495	634.515	634.535	634.550	634.565	634.570	634.635	634.675	634.715	634.745	634.770	634.790	634.805	634.810	634.825	634.825		
K	Elev. Top of Adjacent Beam																																	
L	Dist. Top of Beam to Top of Screed																																	
M	Elev. Top of Coping Form	635.050	635.075	635.090	635.095	635.095	635.095	635.100	635.125	635.150	635.170	635.185	635.200	635.210	635.225	635.260	635.290	635.315	635.340	635.360	635.385	635.420	635.470	635.520	635.560	635.600	635.630	635.655	635.680	635.695	635.720	635.800		
N	Elev. Top of Outside Beam																																	
O	Dist. Top of Beam to Top of Coping Form																																	



NOTE: Work this drawing with Dwg. 541 & 543.

PART PLAN OF SCREEDS  
PART TABLE OF ELEVATIONS  
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: -AS NOTED  
SUBMITTED FOR APPROVAL: *R.B. Pettit*  
DRAWING: 542 OF 543  
PROJECT: -I-65-2(52)68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: -I-65-68-4699,4699J



DESIGNED: C.L.G. 7-17-62 C.K.D. M.C. 10-2-60  
DRAWN: L.F. 10-2-60 C.K.D. L.F. 5-1-62  
TRACED: C.K.D.

BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (52) 68	1962	50	83

PART TABLE OF ELEVATIONS

POINT	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
A	Elev. Top of Coping Form	635.585	635.615	635.645	635.665	635.700	635.755	635.800	635.890	635.875	635.905	635.980	635.965	636.015	636.060	636.105	636.180	636.165	636.190	636.225	636.280	636.325	636.365	636.400	636.430	636.455	636.490	636.525	636.630	636.665	
	Elev. Top of Outside Beam																														
	Dist. Top of Beam to Top of Coping Form																														
B	Elev. Top of Screed	634.780	634.815	634.840	634.865	634.900	634.930	635.000	635.040	635.075	635.105	635.125	635.160	635.215	635.260	635.300	635.325	635.365	635.390	635.425	635.475	635.525	635.565	635.600	635.630	635.650	635.680	635.740	635.785	635.825	635.860
	Elev. Top of Adjacent Beam																														
	Dist. Top of Beam to Top of Screed																														
C	Elev. Top of Screed	634.890	634.925	634.945	634.975	634.950	635.005	635.050	635.090	635.125	635.155	635.180	635.215	635.265	635.315	635.355	635.390	635.420	635.440	635.475	635.530	635.575	635.615	635.650	635.680	635.705	635.740	635.790	635.840	635.880	635.915
	Elev. Top of Adjacent Beam																														
	Dist. Top of Beam to Top of Screed																														
D	Elev. Top of Coping Form	635.645	635.670	635.715	635.740	635.775	635.825	635.875	635.915	635.950	635.980	636.000	636.040	636.090	636.185	636.180	636.215	636.240	636.265	636.300	636.350	636.400	636.440	636.475	636.505	636.525	636.565	636.615	636.660	636.710	636.740
	Elev. Top of Outside Beam																														
	Dist. Top of Beam to Top of Coping Form																														
E	Elev. Top of Coping Form	635.770	635.800	635.825	635.840	635.870	635.915	635.960	636.000	636.025	636.065	636.095	636.125	636.185	636.240	636.275	636.310	636.335	636.360	636.395	636.450	636.495	636.535	636.570	636.600	636.625	636.660	636.710	636.755	636.800	636.835
	Elev. Top of Outside Beam																														
	Dist. Top of Beam to Top of Coping Form																														
F	Elev. Top of Screed	634.965	634.995	635.020	635.040	635.070	635.115	635.155	635.195	635.235	635.265	635.290	635.330	635.385	635.430	635.470	635.505	635.535	635.560	635.595	635.645	635.690	635.735	635.770	635.795	635.830	635.875	635.910	635.955	636.030	
	Elev. Top of Adjacent Beam																														
	Dist. Top of Beam to Top of Screed																														
G	Elev. Top of Screed	635.020	635.050	635.075	635.095	635.120	635.165	635.210	635.250	635.285	635.315	635.345	635.375	635.435	635.480	635.525	635.560	635.585	635.610	635.645	635.700	635.745	635.785	635.820	635.850	635.875	635.910	635.960	636.005	636.050	636.085
	Elev. Top of Adjacent Beam																														
	Dist. Top of Beam to Top of Screed																														
H	Elev. Top of Coping Form	635.840	635.875	635.895	635.915	635.945	635.990	636.030	636.070	636.110	636.140	636.170	636.210	636.260	636.305	636.345	636.380	636.410	636.435	636.470	636.520	636.570	636.610	636.645	636.675	636.695	636.725	636.785	636.830	636.870	636.905
	Elev. Top of Outside Beam																														
	Dist. Top of Beam to Top of Coping Form																														

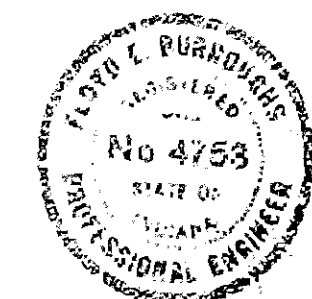
PART TABLE OF ELEVATIONS

POINT	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	
A	Elev. Top of Coping Form	636.670	636.715	636.750	636.805	636.850	636.890	636.925	636.955	636.980	637.015	637.065	637.110	637.155	637.190	637.215	637.240	637.275	637.330	637.375	637.415	637.450	637.480	637.505	637.540	637.585	637.630	637.675	637.710	637.735	637.760
	Elev. Top of Outside Beam																														
	Dist. Top of Beam to Top of Coping Form																														
B	Elev. Top of Screed	635.890	635.915	635.930	636.000	636.020	636.090	636.125	636.155	636.175	636.210	636.265	636.310	636.380	636.435	636.470	636.505	636.540	636.570	636.615	636.650	636.675	636.700	636.735	636.785	636.830	636.875	636.910	636.945	636.985	
	Elev. Top of Adjacent Beam																														
	Dist. Top of Beam to Top of Screed																														
C	Elev. Top of Screed	635.945	635.965	636.000	636.055	636.100	636.140	636.175	636.205	636.230	636.265	636.315	636.365	636.405	636.440	636.470	636.490	636.525	636.580	636.625	636.665	636.700	636.730	636.755	636.790	636.835	636.880	636.925	636.960	636.985	637.010
	Elev. Top of Adjacent Beam																														
	Dist. Top of Beam to Top of Screed																														
D	Elev. Top of Coping Form	636.765	636.790	636.825	636.875	636.925	636.965	637.000	637.030	637.080	637.090	637.140	637.185	637.225	637.265	637.290	637.315	637.350	637.400	637.445	637.490	637.525	637.550	637.575	637.615	637.660	637.705	637.750	637.785	637.810	637.830
	Elev. Top of Outside Beam																														
	Dist. Top of Beam to Top of Coping Form																														
E	Elev. Top of Coping Form	636.840	636.885	636.920	636.975	637.020	637.060	637.095	637.125	637.150	637.185	637.235	637.280	637.325	637.360	637.385	637.410	637.445	637.500	637.545	637.585	637.620	637.650	637.675	637.710	637.755	637.800	637.845	637.890	637.935	637.970
	Elev. Top of Outside Beam																														
	Dist. Top of Beam to Top of Coping Form																														
F	Elev. Top of Screed	636.040	636.085	636.120	636.170	636.215	636.260	636.295	636.320	636.345	636.380	636.430	636.470	636.520	636.565	636.605	636.640	636.675	636.710	636.745	636.780	636.820	636.845	636.870	636.905	636.955	637.000	637.045	637.075	637.105	637.125
	Elev. Top of Adjacent Beam																														
	Dist. Top of Beam to Top of Screed																														
G	Elev. Top of Screed	636.110	636.135	636.170	636.225	636.270	636.310	636.345	636.375	636.400	636.435	636.485	636.530	636.575	636.610	636.635	636.660	636.695	636.750	636.795	636.835	636.870	636.900	636.925	636.960	637.005	637.055	637.095	637.130	637.155	637.180
	Elev. Top of Adjacent Beam																														
	Dist. Top of Beam to Top of Screed																														
H	Elev. Top of Coping Form	636.795	636.840	636.885	637.045	637.095	637.135	637.170	637.200	637.220	637.260	637.310	637.355	637.395	637.430	637.460	637.485	637.520	637.570	637.615	637.660	637.695	637.720	637.745	637.785	637.830	637.875	637.920	637.965	637.980	638.000
	Elev. Top of Outside Beam																														
	Dist. Top of Beam to Top of Coping Form																														

NOTE: Rank this drawing with Drwg. 541 & 542.

DESIGNED P.E. J. D. K. MC. 10-4-60  
DRAWN T.C. 10-17-60 C.K.D. J.F. & D.E.G.  
TRACED C.K.D.

PART TABLE OF ELEVATIONS FOR SCREEDS  
STATE HIGHWAY DEPARTMENT OF INDIANA



SCALE: NONE  
SUBMITTED FOR APPROVAL: *B. E. Petre*  
DRAWING: S43 OF S43  
PROJECT: 1-65-2(52)68  
BRIDGE CONTRACT NO. 5427  
BRIDGE FILE: 1-65-68-4699-4699J

SEPT. 11, 1961





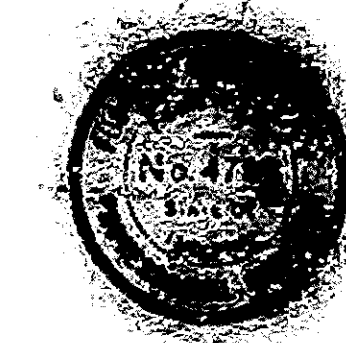
ITEM	STRUCTURE QUANTITIES																																								
	CONCRETE				RAILING CONCRETE	REINFORCING STEEL (1934 STD. WTS)											STRUCTURAL STEEL	CAST IRON	12 BP 53 H-PILES	ANCHOR RODS AR I EACH	ALUMINUM RAILING TYPE I LIN. FT.																				
	CLASS	CLASS	CLASS	CLASS	CLASS	#18 S	#14 S	#11(1/4")	#10(1/4")	#9(1")	#8(1")	#7(1")	#5(3/4")	#5(3/8")	#4(3/8")	#3(3/8")						SPRAL	TOTALS																		
	F	D	ABOVE FR	E	F	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.																					
SOUTHBOUND STRUCTURE (4699)																																									
SUBSTRUCTURE																																									
BENT No.	1	15.4																																							
	2	25.3	25.4	32.0																																					
	3	22.7	25.2	32.0																																					
	4	22.7	25.2	32.0																																					
	5	22.7	25.2	32.0																																					
	6	22.7	21.9	32.0																																					
	7	22.7	21.9	32.0																																					
	8	22.7	22.5	32.0																																					
	9	22.3	26.4	32.0																																					
	10	22.7	26.0	32.0																																					
	11	22.7	26.0	32.0																																					
	12	22.7	26.0	32.0																																					
	13	22.7	22.8	32.0																																					
	14	22.7	22.8	32.0																																					
	15	25.4	23.1	32.0																																					
	16	15.4																																							
SUPERSTRUCTURE																																									
SPAN No.	1	78.1																																							
	2 TO 14	864.8																																							
	15	78.1																																							
SUB-TOTAL		1374.5	340.4	448.0	108.9	24.963	1080	6490	18,346	3,812	17,562	1,064	12,221	86,832	4,672	18,266	417,060	1,209,300	5,665	350	17,548	64	2007.0																		
NORTHBOUND STRUCTURE (4699J)																																									
SUBSTRUCTURE																																									
BENT No.	1	18.9																																							
	2	29.4	27.0	42.7																																					
	3	25.8	27.6	42.7																																					
	4	25.1	26.4	32.0																																					
	5	23.5	25.8	32.0																																					
	6	22.8	22.1	32.0																																					
	7	22.7	21.9	32.0																																					
	8	22.7	21.9	32.0																																					
	9	22.3	26.4	32.0																																					
	10	22.7	26.0	32.0																																					
	11	22.7	26.0	32.0																																					
	12	22.7	26.0	32.0																																					
	13	22.7	22.8	32.0																																					
	14	22.7	22.8	32.0																																					
	15	25.4	23.1	32.0																																					
	16	15.4																																							
SUPERSTRUCTURE																																									
SPAN No.	1	90.5																																							
	2 TO 5	285.7																																							
	6 TO 14	621.4																																							
	15	78.1																																							
SUB-TOTAL		1446.2	346.6	469.4	108.7	26.183	1106	7771	22,439	4,383	19,650	1,714	18,212	89,437	4,666	18,251	431,078	1,298,900	5,826	366	18,416	32	2005.0																		

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	1-65-2 (52) 68	1962	51	89

DESIGNED: \_\_\_\_\_  
 DRAWN: \_\_\_\_\_  
 TRACED: \_\_\_\_\_

SUMMARY OF STRUCTURE QUANTITIES  
 STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: NONE  
 SUBMITTED FOR APPROVAL: *B. R. Petrie*  
*Boyle & Burroughs*  
 DRAWING: 51 OF 88  
 PROJECT: 1-65-2 (52) 68  
 BRIDGE CONTRACT NO. 5427  
 BRIDGE FILE: 1-65-68-4699-4699 J



### STRUCTURE QUANTITIES

ITEM	CONCRETE				REINFORCING STEEL (1934 STD. WTS)														TOTALS	STRUCTURAL STEEL	CAST IRON	PILES	ANCHOR RODS AR 1	ALUMINUM RAILING TYPE I			
	CLASS F	CLASS D	CLASS E ABOVE FTG.	CLASS F	#18'S	#14'S	#11'S	#10'S	#9'S	#8'S	#7'S	#6'S	#5'S	#4'S	#3'S	SPIRAL	LBS.	LBS.							NO. LIN. FT.	EACH	LIN. FT.
Southbound Structure 4699 Sub-Total (See SH-57) Reinf. SH from Approach Structure Reinf. SH for R.C. Bridge Approach Salice Bars	1374.5	340.4	448.0	108.9	24,963	92,594	18,928	18,346	3,812	17,562	1,064	128,221	86,632	4,672	18,266	417,060	1,269,300	5,669	350	17,348	64	2007.0					
Northbound Structure 4699J Sub-Total (See SH-51) Reinf. SH from Approach Structure Reinf. SH for R.C. Bridge Approach Salice Bars	1446.2	346.6	469.4	108.7	28,185	96,010	17,533	22,439	4,983	19,650	1,714	138,212	89,437	4,666	18,251	441,078	1,298,900	5,826	366	18,416	52	2005.0					
<b>TOTALS</b>	<b>2820.7</b>	<b>687.0</b>	<b>917.4</b>	<b>217.6</b>	<b>53,148</b>	<b>188,604</b>	<b>36,461</b>	<b>40,785</b>	<b>8,841</b>	<b>37,212</b>	<b>2,846</b>	<b>274,699</b>	<b>177,345</b>	<b>9,350</b>	<b>36,517</b>	<b>858,038</b>	<b>2,568,200</b>	<b>11,495</b>	<b>716</b>	<b>35,764</b>	<b>96</b>	<b>4012.0</b>					

### SUMMARY

ITEM	DESCRIPTION	UNIT	QUANTITY		
			4699 S.B.	4699J N.B.	TOTAL
1	Class F Concrete	Cu. Yds.	1374.5	1446.2	2820.7
2	Class D Concrete	Cu. Yds.	340.4	346.6	687.0
3	Class E Concrete above Footings	Cu. Yds.	448.0	469.4	917.4
4	Class F Concrete in Footings	Cu. Yds.	448.0	469.4	917.4
5	Reinforcing Steel	Lbs.	422,656	445,931	868,587
6	Cast Iron	Lbs.	5,669	5,826	11,495
7	Untreated Timber Piles furnished	Lin. Ft.			
8	Untreated Timber Piles Driven	Lin. Ft.			
9	Furnishing Equipment for Driving Piles	Lump Sum	1		1
10	Well Excavation	Cu. Yds.	2474	2669	5143
11	Waterway Excavation	Cu. Yds.	35,465	32,889	68,354
12	Common Excavation	Cu. Yds.	3725	3695	7420
13	Special Borrow	Cu. Yds.			
14	Grade B Special Borrow	Cu. Yds.	400	440	840
15	Gravel	Sq. Yds.	730	535	1265
16	Mulched Seeding	Sq. Yds.	26,900	4,960	31,860
17	Cement Concrete Pavement	Sq. Yds.			
18	Reinforced Cement Concrete Pavmt. (10")	Sq. Yds.	1045	1030	2075
19	Thickened Reinf. Cement Concrete Pavement	Sq. Yds.			
20	Aggregate for Compacted Aggregate Base	Tons			
21	Removal Present Structure	Lump Sum			
22	Temporary Bridge and Approaches	Lump Sum			
23	Warning Signs	Each	6		6
24	Std. Barricades (Type A)	Each			
25	Class D Concrete in Structures	Cu. Yds.	54.4	9.3	63.7
26	Q/W Markers	Each	4	3	7
27	Steel Pile Shells Furnished	Lin. Ft.			
28	Steel Pile Shells Driven	Lin. Ft.	17,348	18,416	35,764
29	Steel H Pile 12 BP 53 Furnished	Lin. Ft.	17,348	18,416	35,764
30	Sheet Piling (Min. Sec. Mod. 5.4^3/ft)	Sq. Ft.	5450		5450
31	Sheet Piling (Min. Sec. Mod. 0.840^3/ft)	Sq. Ft.		3410	3410
32	Railing-Concrete	Cu. Yds.	108.9	108.7	217.6
33	Aluminum Railing (Type L)	Lin. Ft.	2007.0	2005.0	4012.0
34	Straight Beam Guard Rail	Lin. Ft.	480	396	876
35	Double Face Straight Beam G.R.	Lin. Ft.	77	77	154
36	Slope Wall (5" Concrete)	Sq. Yds.	1790	1860	3650
37	Riprap-Revetment	Tons	2,313		2,313
38	Bituminous Shoulder	Tons	32	19	51
39	Bituminous Curb	Lin. Ft.	110	60	170
40	Standard Lip Gutter	Lin. Ft.	133		133
41	Paved Side Ditch (Type A)	Lin. Ft.		20	20
42	Paved Side Ditch (Type G)	Lin. Ft.	64		64
43	Fence (Farm Field Type)	Lin. Ft.	453	320	773
44	1" Preformed Expansion Joint	Lin. Ft.	98	106	204
45	1" Expan. Jt. with Load Transfer	Lin. Ft.	160	188	348
46	Contraction Joint (Type D-1)	Lin. Ft.	102	85	187
47	Camp. Ankr. Base for Bit. Shldr.	Tons	112	66	178
48	Subbase (Type I or II)	Cu. Yds.	260	225	485
49	Spec. Concrete Curb	Lin. Ft.	162	165	327
50	Inlet (Type D-6)	Each	1		1
51	Inlet (Type F-7)	Each		2	2
52	Inlet (Type K-11)	Each	2		2
53	Inlet (Type M-11)	Each		1	1
54	12" Pipe (Group A)	Lin. Ft.	286	252	538
55	24" Pipe (Group A)	Lin. Ft.	72		72
56	36" Pipe (Group A)	Lin. Ft.	52	40	92
57	66" Pipe (Group A)	Lin. Ft.	110		110

### BILL OF SPLICE BARS

REINFORCING STEEL			
Size	Number Pieces	Length	Weight
18'S	2	18'-0"	490
14'S	5	11'-0"	291
10'S	1	10'-6"	45
9'S	1	9'-6"	23
8'S	1	8'-0"	16
7'S	1	7'-6"	12
6'S	1	6'-0"	8
5'S	1	5'-0"	6
<b>Total</b>			<b>1028</b>

### BILL OF MATERIALS FOR R.C. BRIDGE APPROACH

REINFORCING STEEL			
Size	Number Pieces	Length	Weight
18'S	2	18'-0"	490
14'S	5	11'-0"	291
10'S	1	10'-6"	45
9'S	1	9'-6"	23
8'S	1	8'-0"	16
7'S	1	7'-6"	12
6'S	1	6'-0"	8
5'S	1	5'-0"	6
<b>Total</b>			<b>1061</b>

### BARRICADES, BARRIERS, TRAFFIC SIGNS, & LIGHTS

ITEM	UNIT	QUANTITY	ASSEMBLY	4699	4699J
WARNING SIGNS	Each	6	Signs XI X9 X7 X6	4	2
STD. BARRICADES (TYPE A)	Each		Barricades (Type A) Signs XII X15 X14	4	
STD. BRIDGE (SUITABLE) BARRIERS	Each	4	Lanterns Signs XII	2	2
STD. BARRICADES (TYPE A)	Each		Barricades (Type B) Signs XII Lanterns or Lanterns	4	4
CONSTR. JOINT SIGNS	Each	2	Signs XII X16 X17 X18	1	1

### APPROACH STRUCTURES

STRUCT. No.	LOCATION	DESCRIPTION	CL. D. CONC. IN STRUCT. CU. YDS.	REINF. STEEL LBS.	CAST IRON LBS.	REMARKS
201	Sta 9+74 (Line T-10-A)	12" PIPE (GROUP A)	50'-0"	1.3		2 Straight Pipe culvert hdwls. req'd.
202	Sta 9+74 (Line T-10-A)	24" PIPE (GROUP A)	50'-0"	3.8		2 Straight Pipe culvert hdwls. req'd.
203	Sta 15+50 (Line T-10-A)	24" PIPE (GROUP A)	42'-0"	3.8		2 Straight Pipe culvert hdwls. req'd.
204	Sta 15+50 (Line T-10-A)	12" PIPE (GROUP A)	42'-0"	1.3		2 Straight Pipe culvert hdwls. req'd.
205	Sta 18+90 (Line T-10-A)	12" PIPE (GROUP A)	26'-0"	1.3		2 Straight Pipe culvert hdwls. req'd.
206	Sta 18+50 (Line T-10-A)	36" PIPE (GROUP A)	110'-0"	33.5	1220	2 Straight Pipe culvert hdwls. req'd. Plus 1-12" Auto. Drain. Gate 2 Pipe Anchors Plus 1-12" Auto. Drain. Gate 2 Automatic Drainage Gates and Reset
207	Sta 19+00 (Line T-10-A)	12" PIPE (GROUP A)	48'-0"	1.3		2 Straight Pipe culvert hdwls. req'd. Plus 1-12" Auto. Drain. Gate
208	Sta 318+95 P.R. #1	INLET (TYPE K-11)				
211	Sta 319+102 P.R. #1	12" PIPE (GROUP A)	64'-0"			Connect to Str. # 209 (4699)
212	Sta 319+52.50 P.R. #1	36" PIPE (GROUP A)	52'-0"	8.1		2 Straight Pipe culvert hdwls. req'd. Plus 1-36" Auto. Drain. Gate
		12" PIPE (GROUP A)	76'-0"			Connect to Str. # 213 (4699)
		<b>Subtotal</b>	<b>54.4</b>	<b>1220</b>		
209	Sta 318+21 P.R. #1	STRUCTURE 4699J N.B. INLET (TYPE F-7)				
210	Sta 318+73 P.R. #1	12" PIPE (GROUP A)	82'-0"			Connect to Str. # 210
		INLET (TYPE D-6) SPEC				
213	Sta 319+00 P.R. #1	12" PIPE (GROUP A)	42'-0"	0.6		1 Straight Pipe culvert hdwl. req'd.
		INLET (TYPE F-7)				
214	Sta 319+26.25	12" PIPE (GROUP A)	66'-0"			Connect to Str. # 214
		INLET (TYPE M-11)				
215	Sta 319+00 P.R. #1	12" PIPE (GROUP A)	62'-0"	0.6		1 Straight Pipe culvert hdwl. req'd.
		36" PIPE (GROUP A)	40'-0"	8.1		2 Str. Pipe culvert hdwl. req'd. Plus 1-36" Auto. Drain. Gate
		<b>Subtotal</b>	<b>9.3</b>			
		<b>TOTALS</b>	<b>63.7</b>	<b>1220</b>		

### SUMMARY CONTINUED

ITEM	DESCRIPTION	UNIT	4699 S.B.	4699J N.B.	TOTAL
61	12" AUTOMATIC DRAINAGE GATE	EACH	2		2
62	36" AUTOMATIC DRAINAGE GATE	EACH	1	1	2
63	REMOVE & RESET 2-66 AUTO. DRAIN GATES	LUMP SUM	1		1
64	STRUCTURAL STEEL (4699)	LUMP SUM	1		1
65	STRUCTURAL STEEL (4699J)	LUMP SUM		1	1
66	ANCHOR RODS (MK. AR 1)	EACH	64	32	96

\*\* THE WEIGHT OF STRUCTURAL STEEL SHOWN IS APPROXIMATE ONLY AND IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE WEIGHT ON WHICH HE BASES HIS BID.

### SUMMARY STATE HIGHWAY DEPARTMENT OF INDIANA

SUBMITTED FOR APPROVAL: *B. B. Pettit*  
 PROJECT 1-65-2 (52)68 *Floyd E. Burroughs*  
 BRIDGE CONTRACT NO.  
 BRIDGE NO. 1-65-68-4699-4699 J