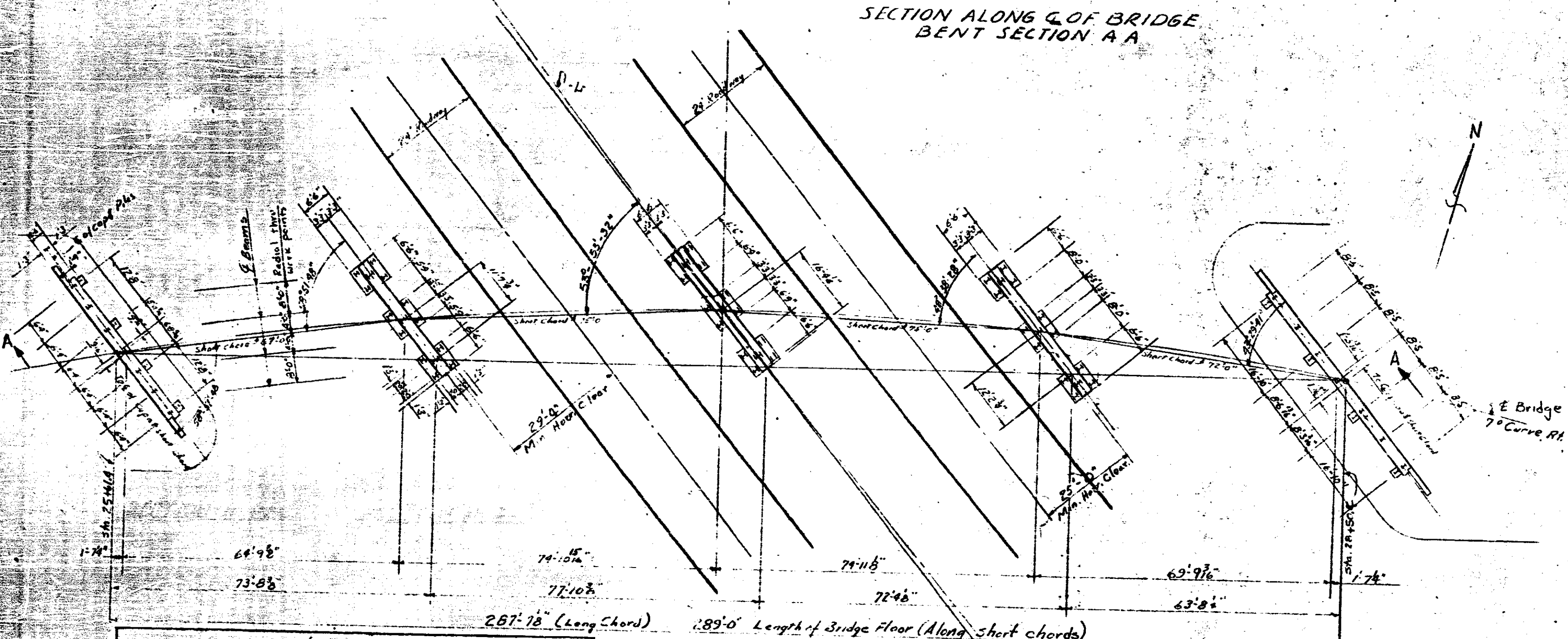
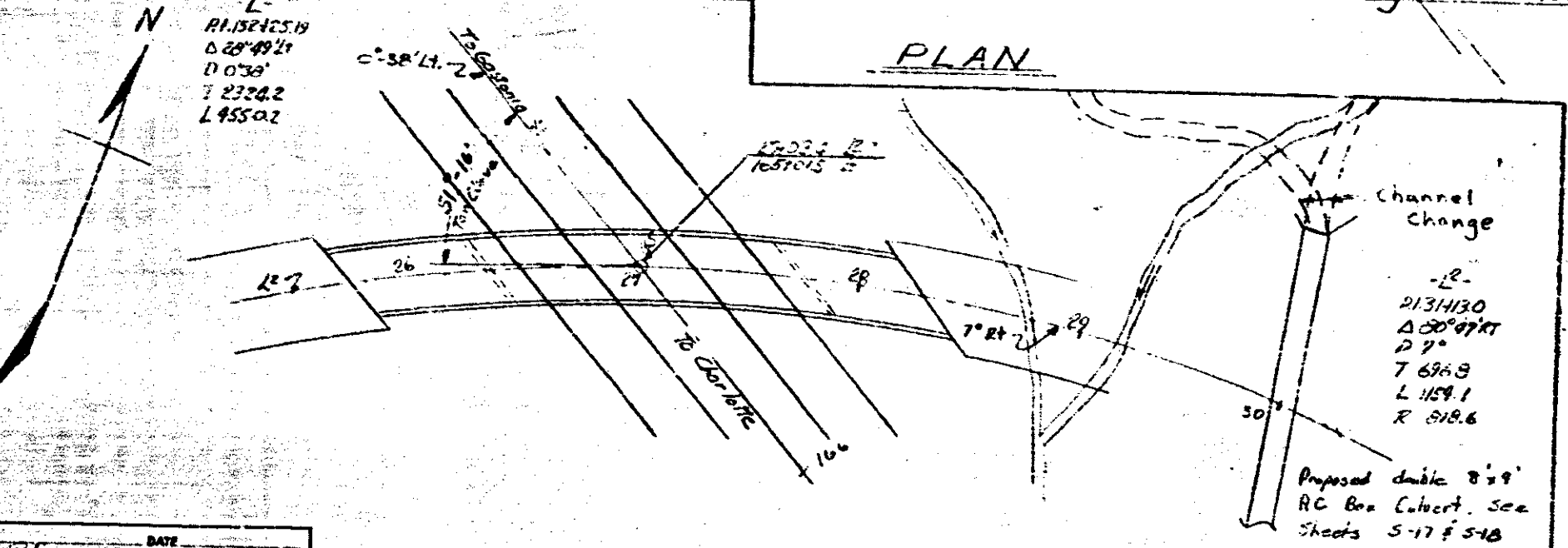


SECTION ALONG C.O.F. BRIDGE  
BENT SECTION A



PLAN



LOCATION SKETCH

NOTES

Assumed live load 1420 S16 or Alternate loading  
For other design data & general notes see Sheet 5-N  
Exposed concrete surfaces to be given a Class I surface finish in accordance with the specifications.  
Work is to not be started on Bents No. 1, 2 & 3 until all roadway fill for line L has been completed.  
Unclassified structure excavation for bents No. 1, 2 & 3 to be measured from the surface of proposed line L.  
Foundation piles for Bents No. 1, 2 & 3 to be driven to a minimum bearing capacity of 28 tons each. Order list to be based on piles 45' long for bent No. 1 & 20' long for Bent No. 2 - 33' long.  
End bent piles are to be driven through roadway fill. Piles for end bent No. 1 are to be driven to a minimum bearing capacity of 26 tons each, & end bent No. 2 to a minimum bearing capacity of 29 tons each. Order list to be based on piles 45' long for end bent No. 1 & 40' long for end bent No. 2.  
Bench mark #12 Nail in base of 12" twin popular 150' Lt. spruce 166+70-L Elev. 711.88

Revision No. 1.  
To raise top of footing elev. and place 5 piles under each footing. And to correct horz. clear dimensions.  
J.N.P. 6-9-59  
Revision No. 2.  
To raise top of 0'3"

Reel# 716  
Pos# 1

#133  
PROJECT NO. B.6.15  
GASTON COUNTY  
STATION: 165+1.1

TOTAL BILL OF MATERIAL

	Reinf. Steel	Class A Concrete	Struct. Steel	1 1/2" x 3/4" Scalpings	Uncl. concrete	200-52	1/2" x 3/4" S.P. 100
Superstructure	59,409	285,700	286,000				
End Bent No. 1	3,032	15,000		4,341		280-52	335
Bent No. 1	7,184	38,900		11	785	335	
Bent No. 2	5,866	36,100		15	55-501		
Bent No. 3	5,841	36,100		15	55-501		
End Bent No. 2	3,246	20,000		11	420	370	370
Approach curbs	16	3.2					
<b>Total</b>	<b>80,754</b>	<b>422,900</b>	<b>286,000</b>	<b>67</b>	<b>1,770-32</b>	<b>1,370</b>	<b>645</b>

STATE OF NORTH CAROLINA  
STATE HIGHWAY COMMISSION  
GENERAL PLANNING  
BRIDGE OVER L. O. R. R.  
ON CONNECTION BETWEEN  
#1 RAILROAD AND 29 & 75  
BETWEEN GASTON & HARRISBORO  
MAR, 1953

DESIGNED BY: [Signature]  
DRAWN BY: [Signature]  
CHECKED BY: [Signature]

DATE: 3 March 1953  
DATE: 24 March 1953

APPROVED BY: [Signature]  
CHIEF ENGINEER

DESIGNED BY: [Signature]  
DRAWN BY: [Signature]  
CHECKED BY: [Signature]

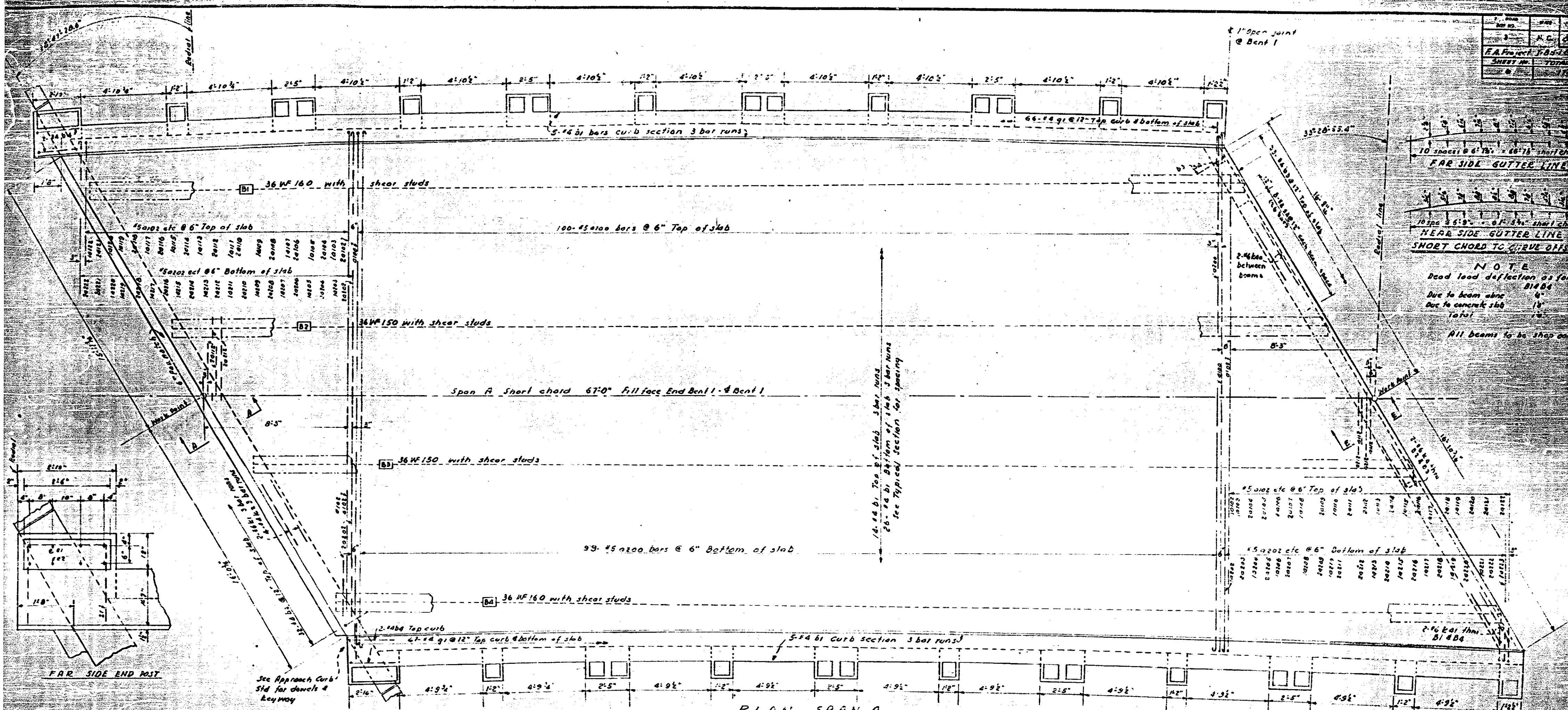
DATE: 3 March 1953  
DATE: 24 March 1953







DATE	BY	REVISION



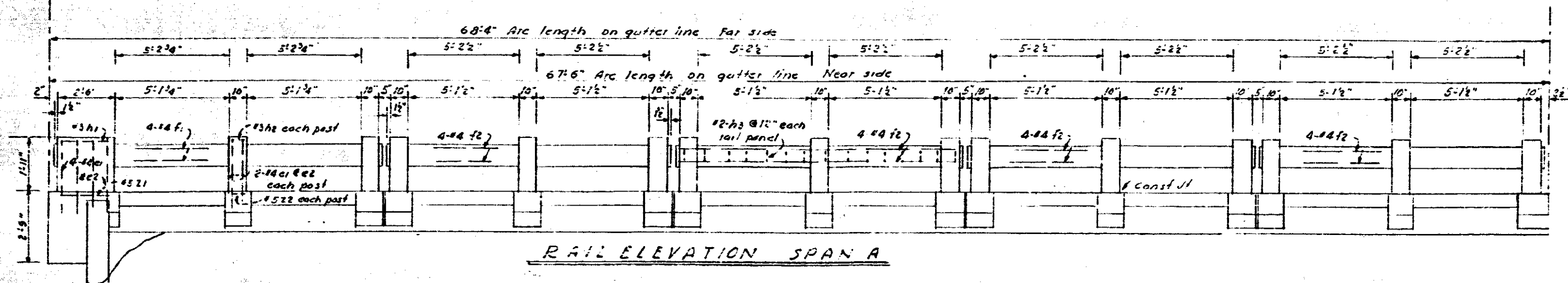
10 spaces @ 6'-0" = 60'-0" short chord  
**FAR SIDE GUTTER LINE**

10 spaces @ 6'-0" = 60'-0" short chord  
**NEAR SIDE GUTTER LINE**

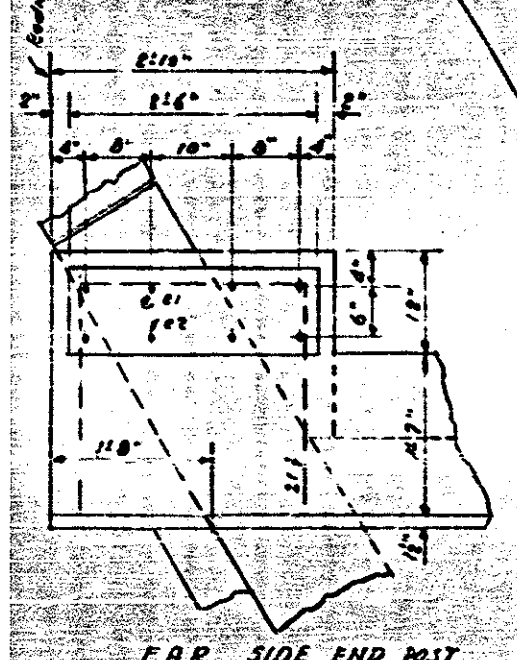
**SHORT CHORD TO CURVE OFFSETS**

**NOTE**  
 Dead load deflection as follows:  
 Due to beam above 81/84 in/ft  
 Due to concrete slab 6"  
 Total 15"  
 All beams to be shop ordered

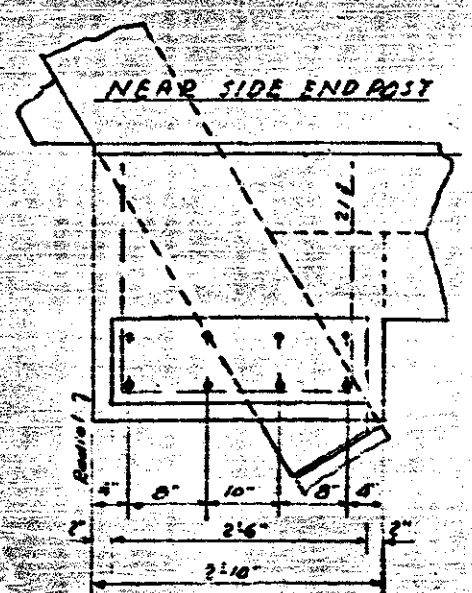
PLAN SPAN A



RAIL ELEVATION SPAN A



FAR SIDE END POST



NEAR SIDE END POST

**PROJECT NO. 8.16315**  
**GASTON COUNTY**  
**STATION: 165+01.52**

STATE OF NORTH CAROLINA  
**STATE HIGHWAY COMMISSION**  
 SUPERSTRUCTURE  
 CONCRETE PLAN  
 SPAN A

FEB. 1959

DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE

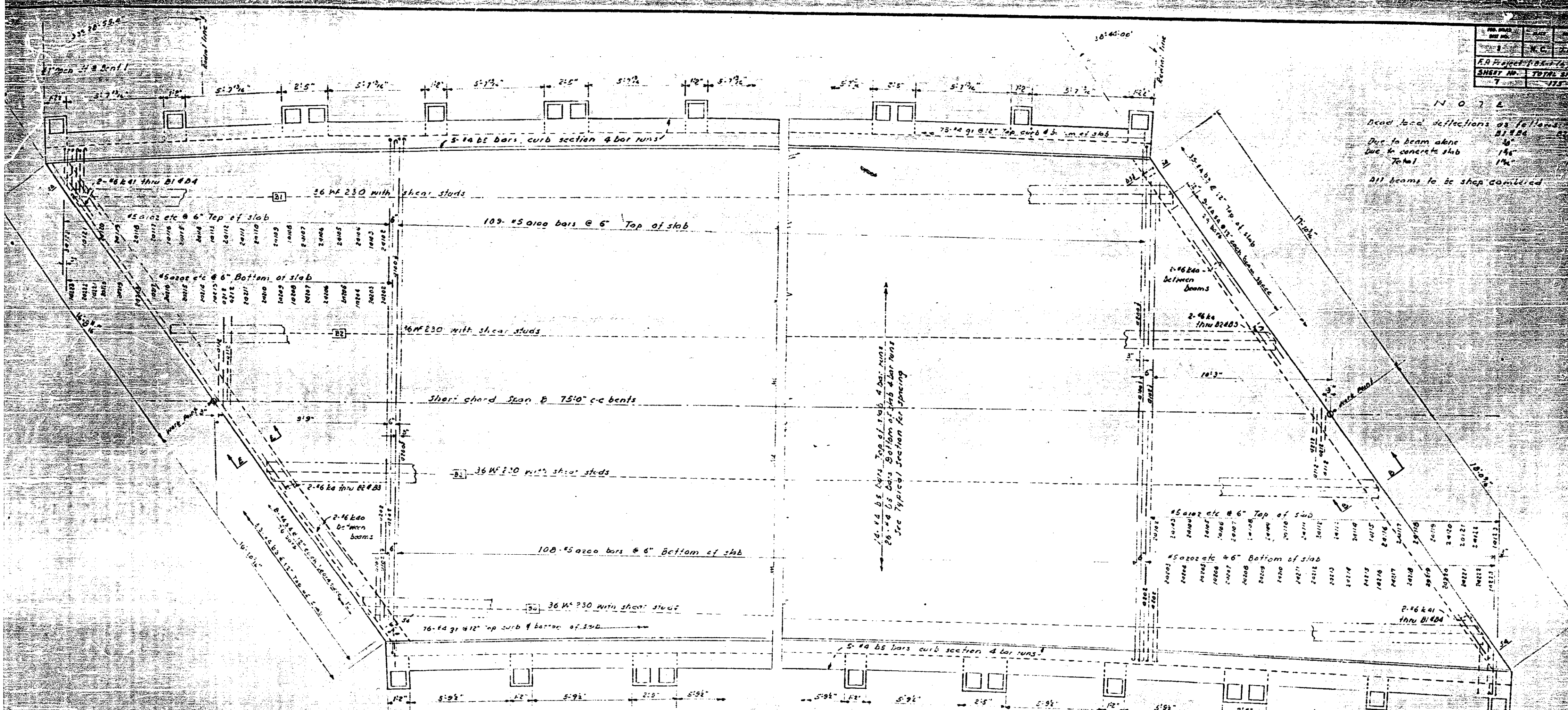
REVISION	DATE	BY

54

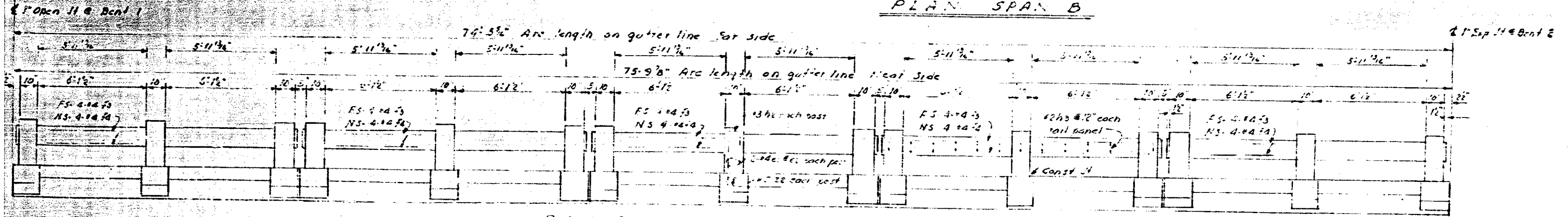


NO.	DATE	BY
1		
2		
3		
4		
5		
6		
7		

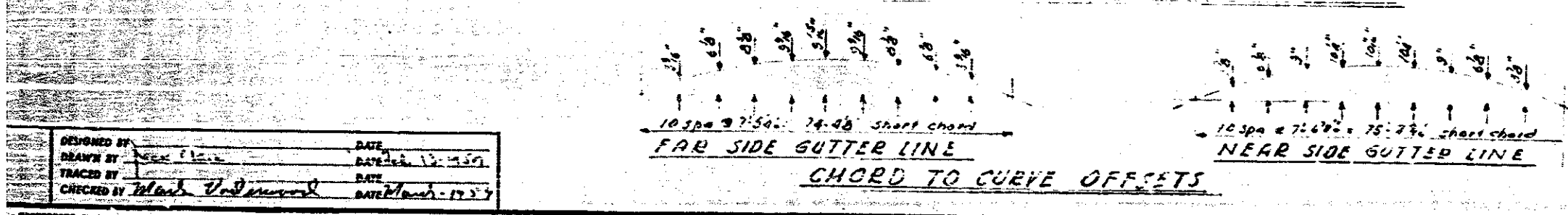
N O 7 E  
 Dead load deflections as follows  
 Due to beam alone 16"  
 Due to concrete slab 14"  
 Total 30"  
 All beams to be shop drilled



PLAN SPAN B



RAIL ELEVATION SPAN B



CHORD TO CURVE OFFSETS

PROJECT NO. 8.16315  
 GASTON COUNTY  
 STATION: 165+015.1

STATE OF NORTH CAROLINA  
 STATE HIGHWAY COMMISSION  
 RAILROAD  
 SUPERSTRUCTURE  
 CONCRETE PLAN  
 SPAN B

FEB 1955

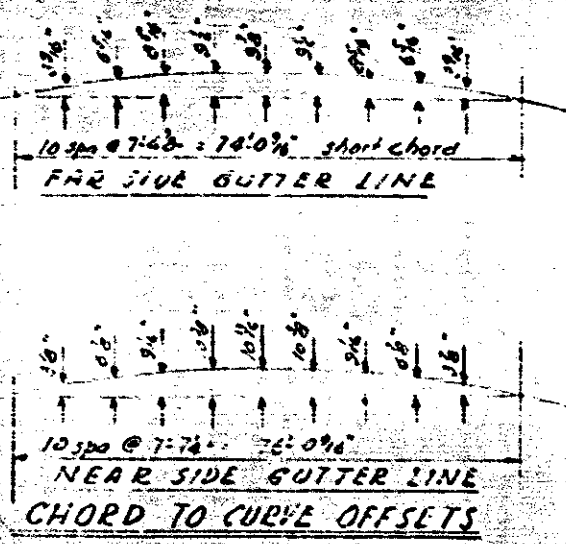
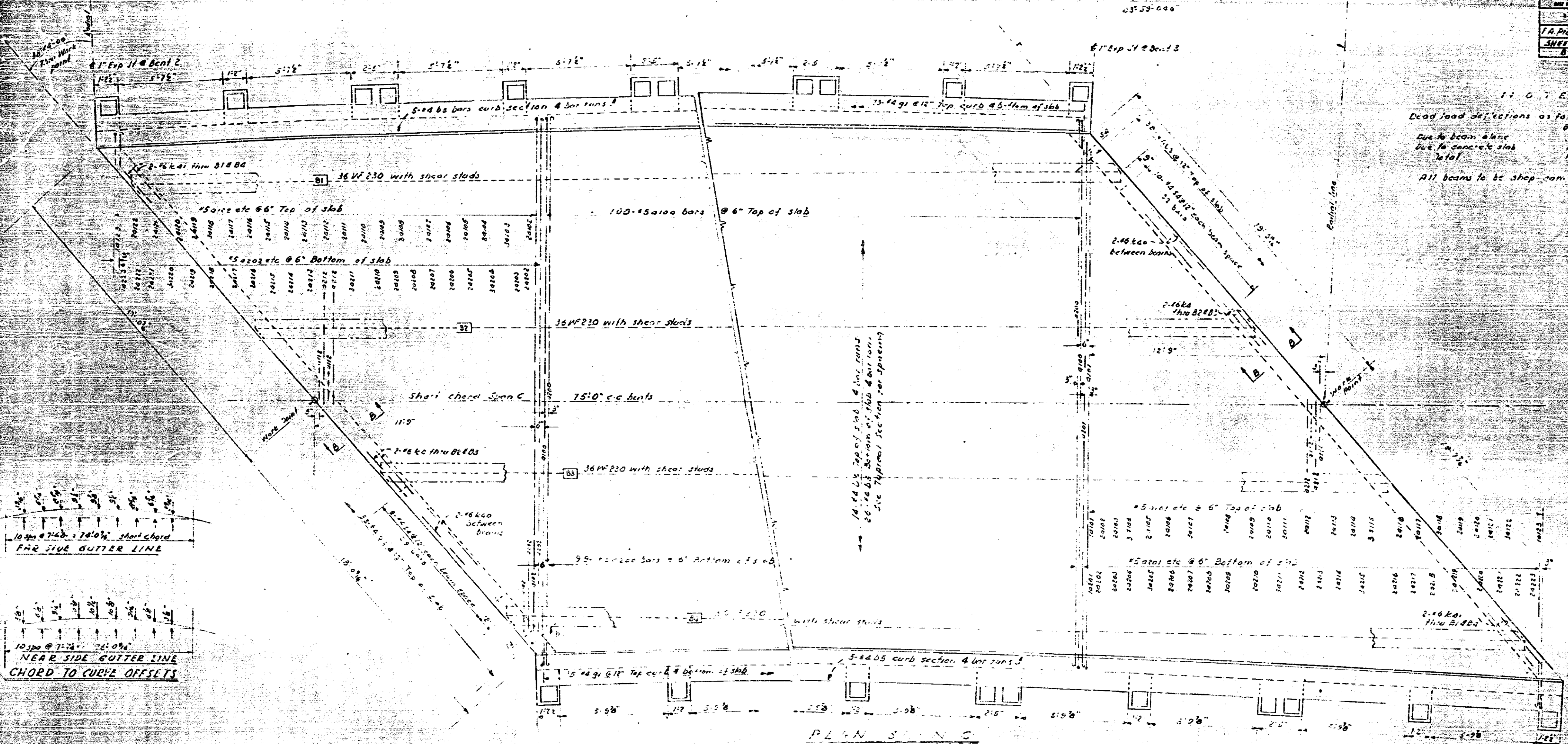
DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE

REV.	DATE	BY
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2		
3		
4		
5		

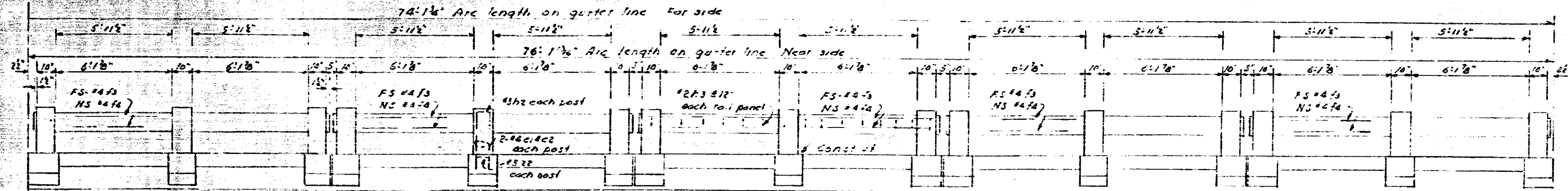


PROJECT NO.	816315
SHEET NO.	8
TOTAL SHEETS	12

1107E  
 Dead load deflections as follows  
 Due to beam alone 81/484  
 Due to concrete slab 1/4  
 Total 1/4  
 All beams to be shop cambered



PLAN SPAN C



RAIL ELEVATION SPAN C

PROJECT NO. 816315  
 GASTON COUNTY  
 STATION: 165+01.5 L

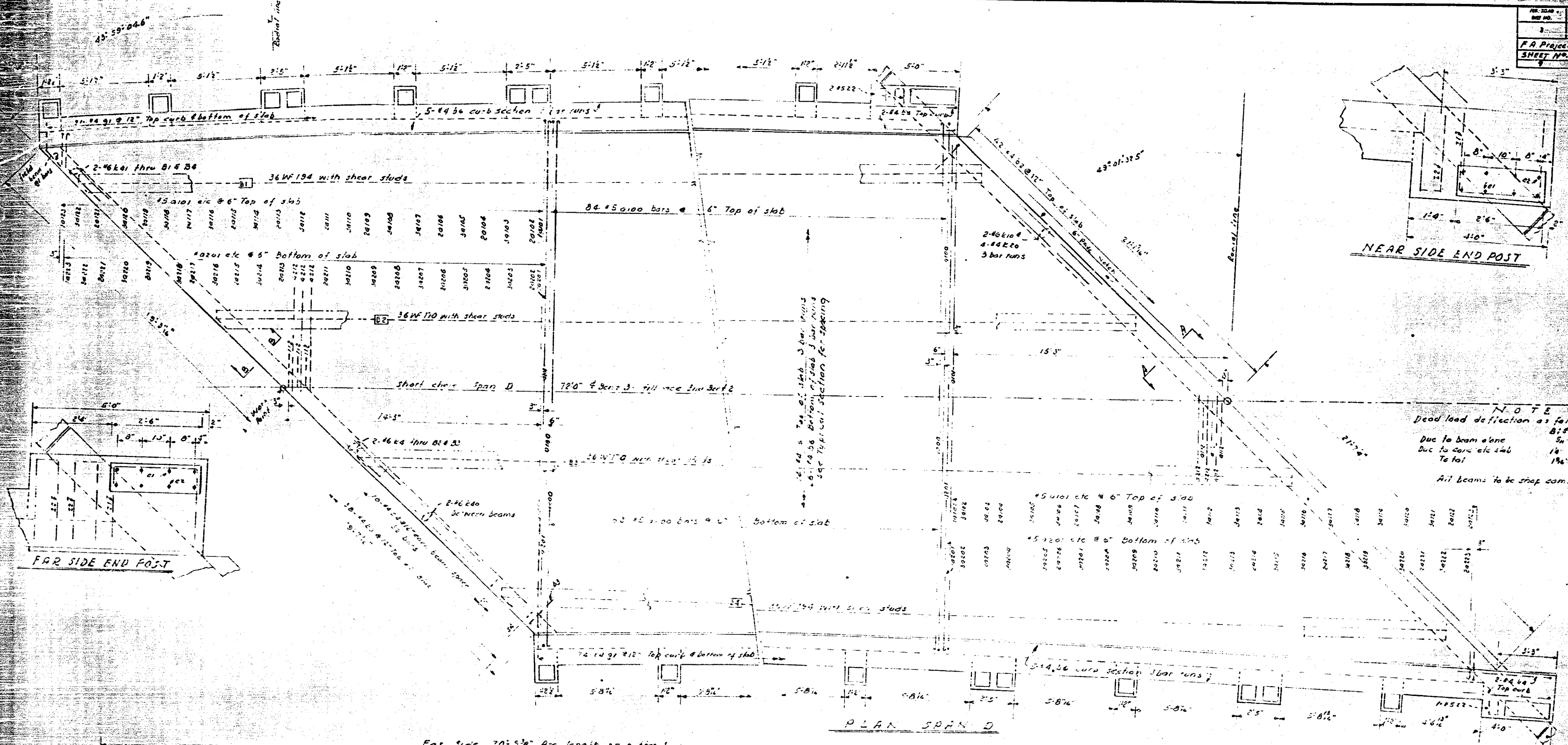
DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE

STATE OF NORTH CAROLINA  
 STATE HIGHWAY COMMISSION  
 SUPERSTRUCTURE  
 CONCRETE PLAN  
 SPAN C  
 FEB 1959

DESIGNED BY  
 DRAWN BY  
 CHECKED BY

DATE  
 DATE  
 DATE

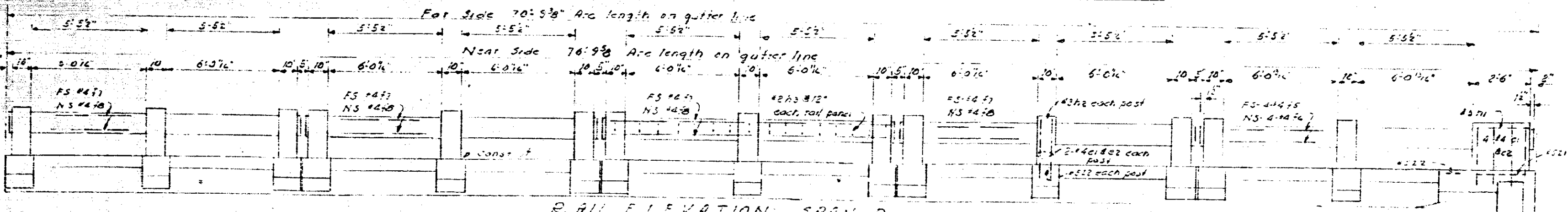




**NOTE**  
Dead load deflection as follows:

Due to beam alone	8:584	0.20"
Due to curb etc slab	5	0.14"
Total	13 9/16"	0.34"

All beams to be shop connected.



**PROJECT NO. 8.1637E**  
**GASTON COUNTY**  
**STATION: 165+01.51**

STATE OF NORTH CAROLINA  
**STATE HIGHWAY COMMISSION**  
SUPERSTRUCTURE  
CONCRETE PLAN  
SPAN D

FEB 1959

NO.	BY	DATE

DESIGNED BY: [Signature]  
DRAWN BY: [Signature]  
CHECKED BY: [Signature]

DATE: 2-24-59  
DATE: [blank]  
DATE: March-1959

CHORD TO CURVE OFFSETS

10'5 1/2" short chord FAR SIDE GUTTER LINE  
10'5 1/2" short chord NEAR SIDE GUTTER LINE



NO. 100	DATE	BY
100	11/15/59	M.C.
F.A. Project 1-657(6)		
SHEET NO. 100		
10		

Angles bent work line to beams

Span A

1	59°-21'-47.5" B1
2	59°-01'-54.7" B2
3	58°-51'-48.0" short chord
4	58°-41'-34.2" B3
5	58°-20'-44.7" B4

Angles bent work line to beams

Span B

6	54°-25'-44.4" B1
7	54°-05'-45.5" B2
8	53°-55'-32.5" short chord
9	53°-41'-10.1" B3
10	53°-15'-57.6" B4

Angles bent work line to beams

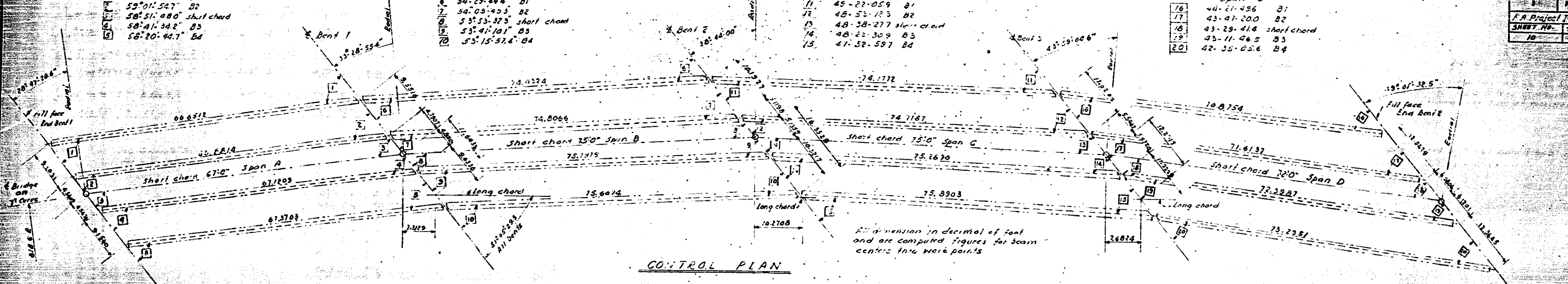
Span C

11	45°-22'-05.9" B1
12	45°-53'-12.3" B2
13	46°-58'-27.7" short chord
14	48°-22'-30.9" B3
15	41°-32'-59.7" B4

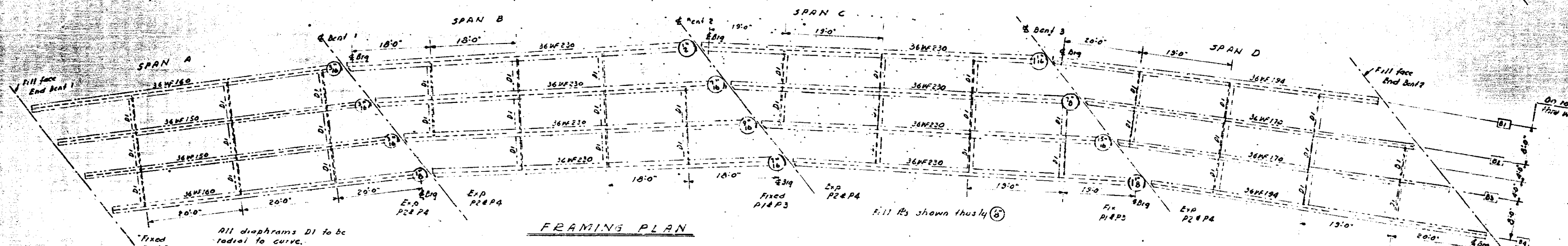
Angles bent work line to beams

Span D

16	44°-21'-42.6" B1
17	43°-41'-20.0" B2
18	43°-29'-41.4" short chord
19	43°-11'-46.5" B3
20	42°-35'-05.6" B4

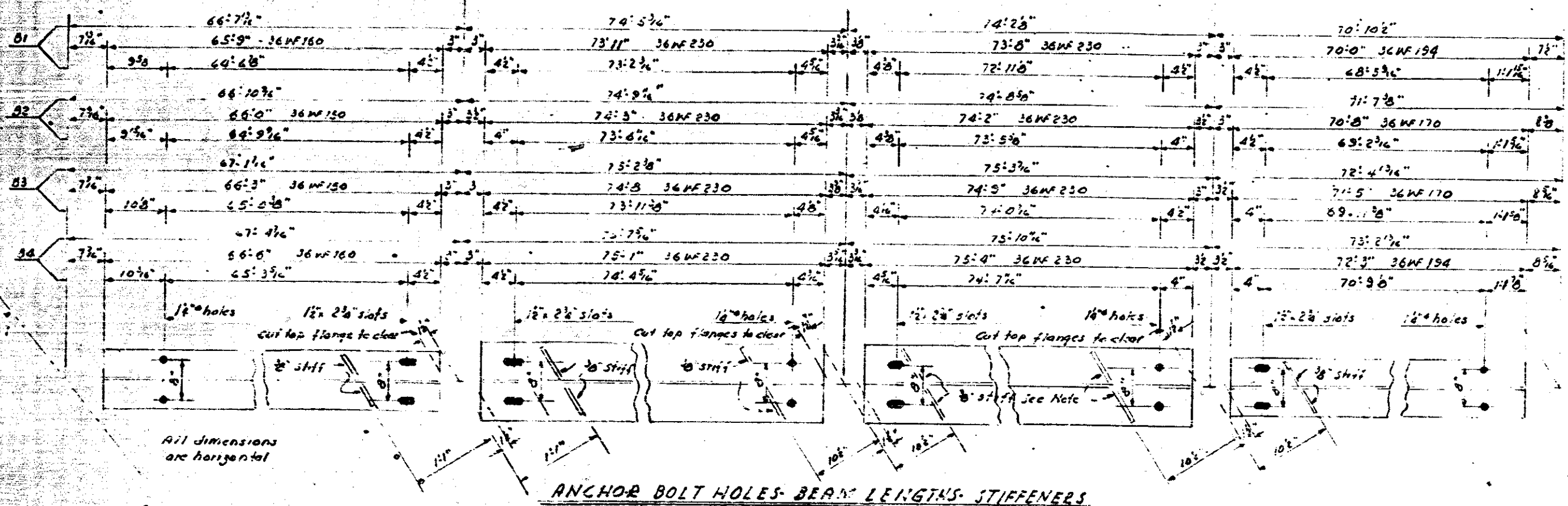


All dimension in decimal of foot and are computed figures for beam center thru work points



All diaphragms D1 to be radial to curve.

Fill R's shown thusly (B)



All dimensions are horizontal

ANCHOR BOLT HOLES - BEAM LENGTHS - STIFFENERS

NOTE

All beams to be shop cambered as follows:

Span A	1/4"
Span B & C	1/8"
Span D	1/2"

1/2" Stiffeners to be omitted at End Bents and on outside of Beam B1 & B4 at interior bents. Stiffeners to be parallel to the bent.

NOTE

Dimensions shown on this are horizontal at standard temperature - See SLOPE LENGTH OF BEAMS for actual construction length.

PROJECT NO. 81631Z  
GASTON COUNTY  
STATION: 165+01.51

REVISIONS	DATE	BY

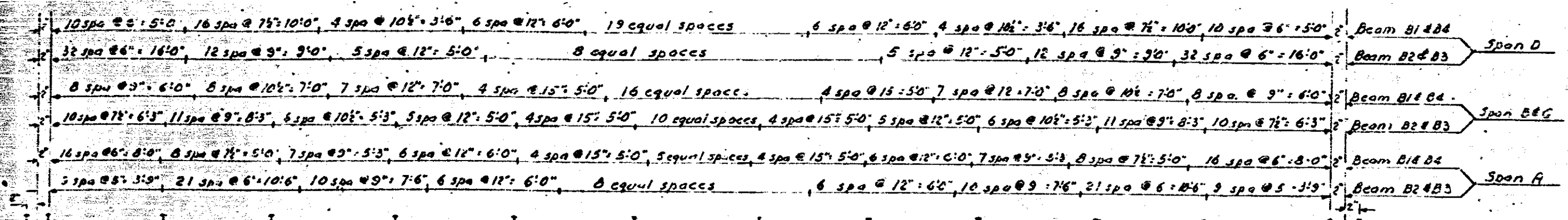
STATE OF NORTH CAROLINA  
STATE HIGHWAY COMMISSION  
SUPERSTRUCTURE  
STRUCTURAL STEEL

FEB 1959

DESIGNED BY	DATE
CLARA	3-4-59
DRAWN BY	DATE
CLARA	3-4-59
CHECKED BY	DATE
W.D.	3-4-59



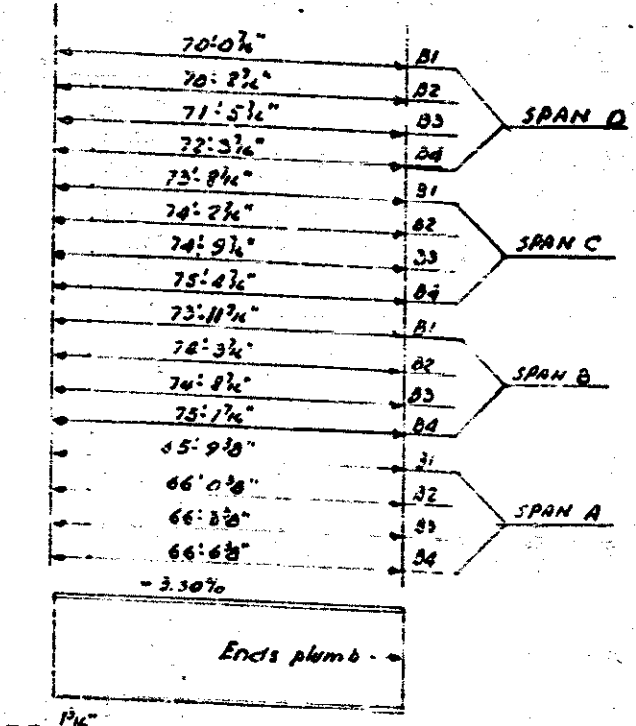
NO. 1000	DATE	REVISION
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4Bq See Concrete Sections for web holes in ends.

Center cover R on d between bearings

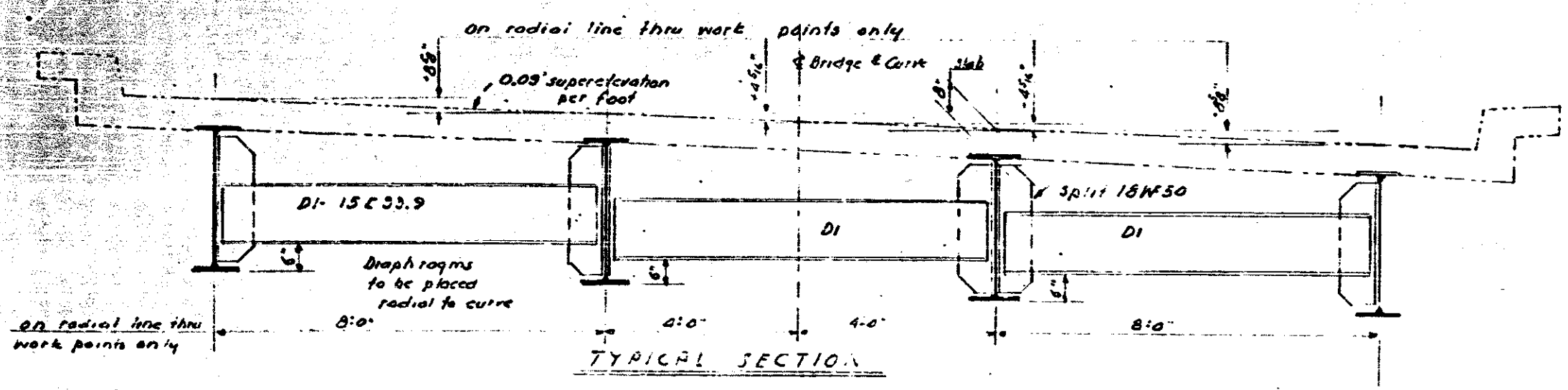
- 10 1/2" x 1 1/2" x 41'-0" Cover R B1 & B4 Span A
  - 10 1/2" x 1 1/2" x 43'-0" Cover R B2 & B3 Span A
  - 10" x 1 1/2" x 39'-0" Cover R B1 & B4 Span B & C
  - 10" x 1 1/2" x 37'-0" Cover R B2 & B3 Span B & C
  - 10 1/2" x 1 1/2" x 42'-0" Cover R B1 & B4 Span D
  - 10 1/2" x 1 1/2" x 45'-0" Cover R B2 & B3 Span D
- SHEAR STUD SPACING & COVER R<sub>s</sub>



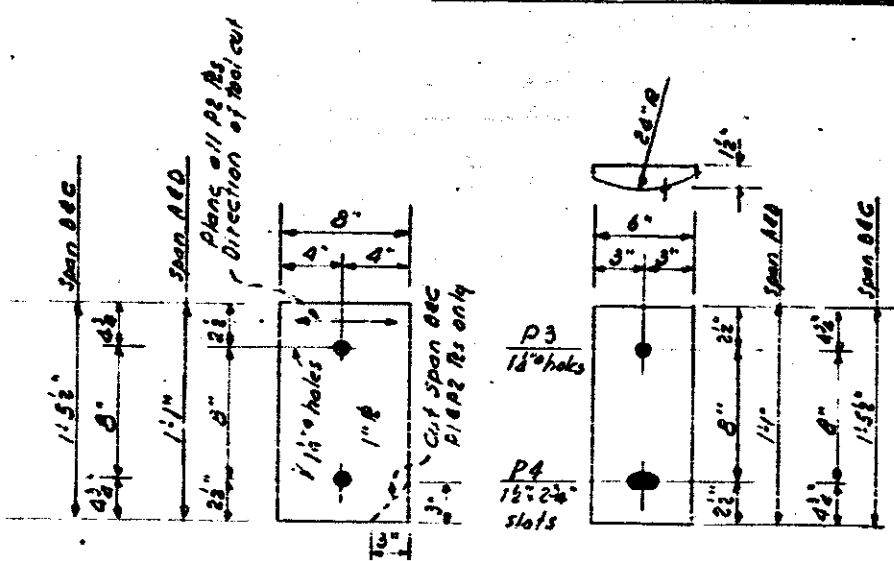
SLOPE LENGTH OF BEAMS

NOTE  
At the Contractors option he may substitute SCS shear connectors for studs shown. See Special Provisions.

See Sheet S-N for additional notes

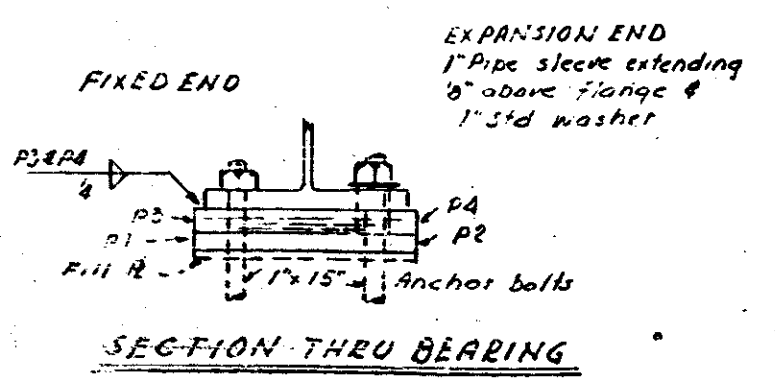
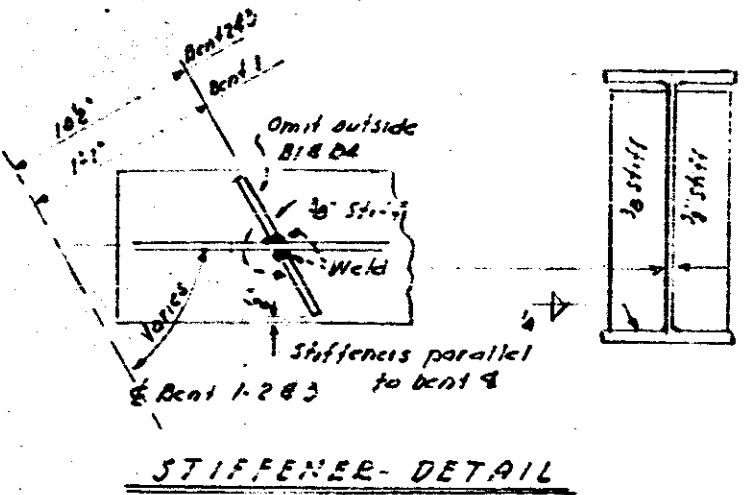
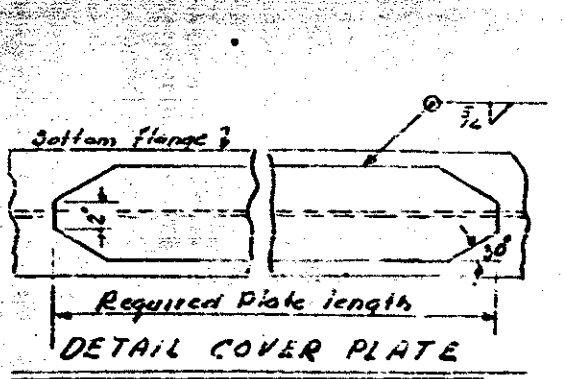
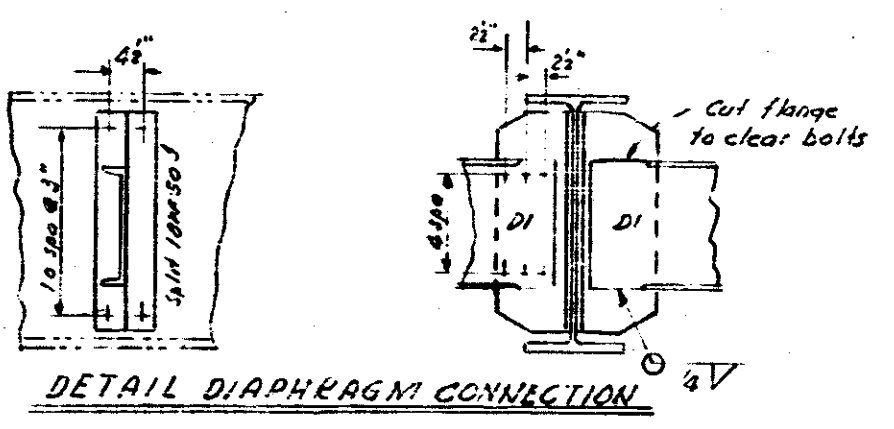
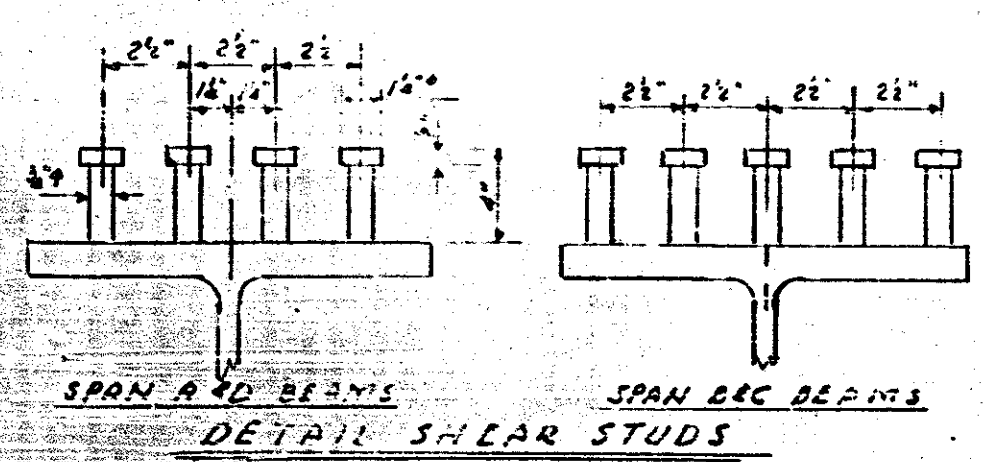


TYPICAL SECTION



MASONRY R<sub>s</sub> SOLE R<sub>s</sub>  
P1-P2 & FILLS P3 & P4  
DETAIL BEARING PLATES

- Required:
- 8 P1 8" x 1" x 1" Hot straighten or plane
  - 8 P1 8" x 1" x 5/8" do do cut corner
  - 8 P2 8" x 1" x 1" Plane finish 1"
  - 8 P2 8" x 1" x 5/8" do do cut opposite corner
  - 8 P3 6" x 1 1/2" x 1" as detailed
  - 8 P3 6" x 1 1/2" x 5/8" do
  - 8 P4 6" x 1 1/2" x 1" do
  - 8 P4 6" x 1 1/2" x 5/8" do
  - 64 1" x 15" Anchor bolts with hex nuts
- Fill R<sub>s</sub> as shown on Framing Plan.



SECTION THRU BEARING

PROJECT NO. 8.163E  
GASTON COUNTY  
STATION: 165+01.5 L

NO.	DATE	REVISION

STATE OF NORTH CAROLINA  
STATE HIGHWAY COMMISSION  
RALEIGH  
SUPERSTRUCTURE  
STRUCTURAL STEEL

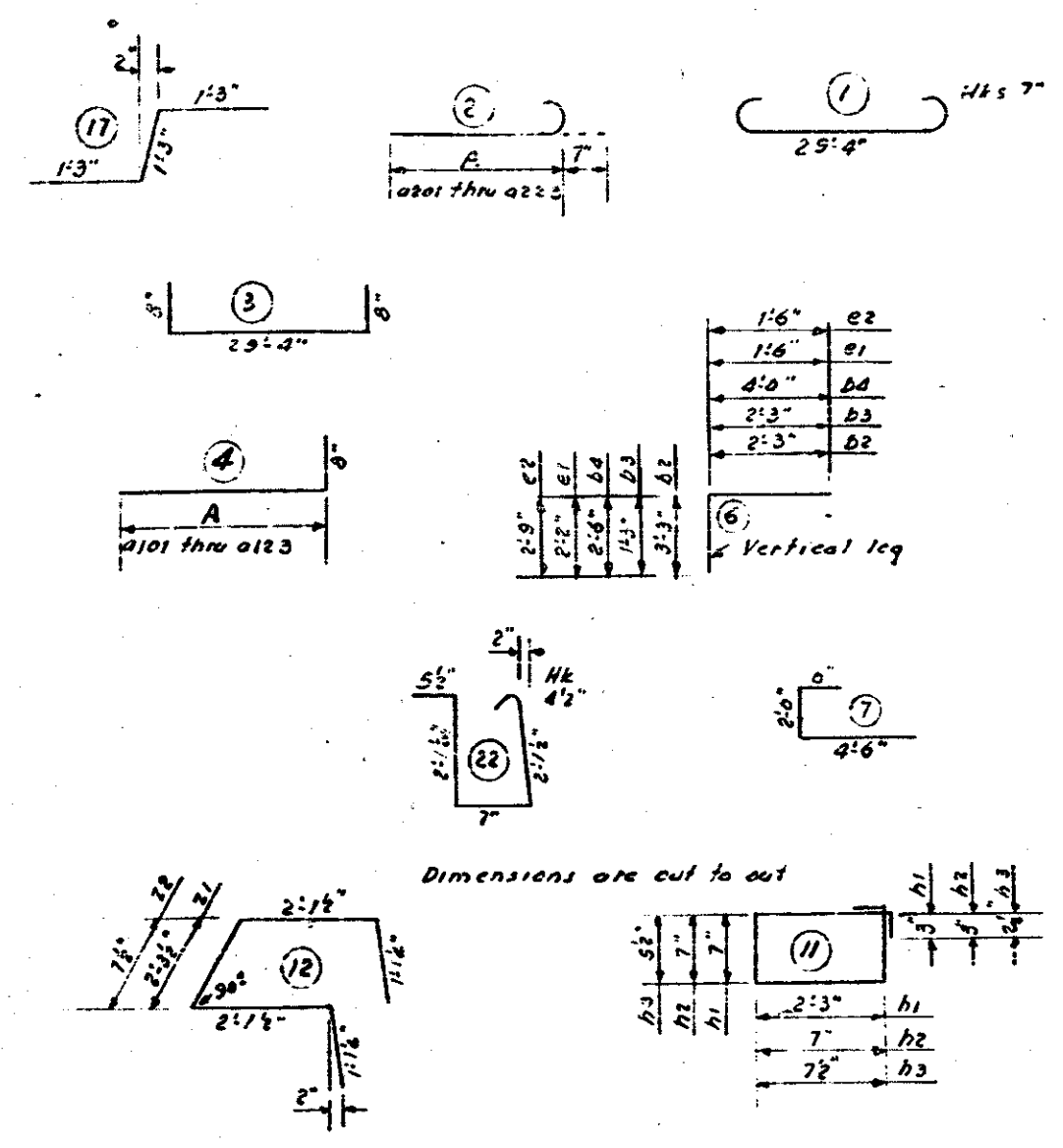
FEB. 1959

DESIGNED BY: [Signature]  
DATE: [Date]  
CHECKED BY: [Signature]  
DATE: [Date]



REINFORCING STEEL BAR SCHEDULE

Bar Mark	No. Re's	Size	Type	Length	Weight	Bars per span				Bar Mark	No. Re's	Size	Type	Dimension A	Length	Weight	Bars per span			
						A	B	C	D								A	B	C	D
b1	150	#4	Str	23'3"	2330	150				a100	393	#5	3	30'8"	12570	100	100	100	84	
b2	74	#4	6	5'6"	272	32			42	a101	3	#5	4	28'5"	294	91			1 2	
b3	212	#4	6	3'6"	496	33	68	73	38	a102	16	#5		27'2"	27'10"	464	3	4	4 5	
b4	8	#4	6	6'6"	35	4			4	a103	16	#5		25'11"	26'7"	448	2	3	5 6	
b5	400	#4	Str	20'0"	5344		200	200		a104	17	#5		24'8"	25'4"	449	4	4	5 4	
b6	150	#4	Str	25'3"	2530				150	a105	17	#5		23'5"	24'1"	427	3	4	4 6	
q1	577	#4	17	3'9"	1445	133	151	148	145	a106	15	#5		22'2"	22'10"	357	3	3	4 5	
k1	6	#6	Str	14'0"	126	6				a107	17	#5		20'11"	21'7"	383	3	4	5 5	
k10	6	#6	6	18'3"	164				6	a108	17	#5		19'8"	20'4"	361	3	3	5 6	
k2	12	#4		13'6"	108	12				a109	16	#5		18'5"	19'1"	318	3	4	4 5	
k20	12	#4		17'9"	142				12	a110	17	#5		17'2"	17'10"	316	3	4	4 6	
k4	24	#6		5'6"	198	4	8	8	4	a111	16	#5		15'11"	16'7"	277	3	4	5 4	
k40	36	#6	Str	8'6"	459	6	12	12	6	a112	18	#5		14'8"	15'4"	288	4	4	4 6	
k41	24	#6	7	7'0"	252	4	8	8	4	a113	14	#5		13'5"	14'1"	206	2	3	4 5	
s4	174	#4	22	5'8"	659	26	55	61	32	a114	17	#5		12'2"	12'10"	227	4	4	4 5	
c1	248	#4	6	3'8"	607	64	60	60	64	a115	15	#5		10'11"	11'7"	181	2	3	5 5	
c2	248	#4	6	4'3"	704	64	60	60	64	a116	17	#5		9'8"	10'4"	184	4	3	4 6	
h1	4	#3	11	6'2"	9	2			2	a117	15	#5		8'5"	9'1"	142	2	4	4 5	
h2	116	#3	11	2'10"	124	28	30	30	28	a118	19	#5		7'2"	7'10"	155	4	4	6 5	
h3	587	#2	11	2'7"	253	134	150	150	153	a119	15	#5		5'11"	6'7"	103	2	4	4 5	
z1	4	#5	12	8'9"	37	2			2	a120	17	#5		4'8"	5'4"	95	3	4	4 6	
z2	119	#5	12	7'1"	879	28	30	30	31	a121	16	#5		3'5"	4'1"	68	4	3	4 5	
f1	8	#4	Str	14'6"	77	8				a122	18	#5		2'2"	2'10"	53	3	5	5 5	
f2	32	#4		12'9"	273	32				a123	6	#5	4	1'9"	2'5"	15	1	2	3 3	
f3	40	#4		14'5"	385		20	20		a200	389	#5	1	30'6"	12374	99	108	99	83	
f4	40	#4		14'9"	394		20	20		a201	3	#5	2	28'3"	28'10"	90			1 2	
f5	4	#4		15'1"	40				4	a202	16	#5		27'8"	28'1"	469	3	4	4 5	
f6	4	#4		16'3"	43				4	a203	16	#5		26'3"	26'10"	448	3	4	4 5	
f7	16	#4		13'5"	143				16	a204	16	#5		25'0"	25'7"	427	3	3	5 5	
f8	16	#4	Str	14'7"	156				16	a205	18	#5		23'9"	24'4"	457	3	4	5 6	
										a206	14	#5		22'6"	23'1"	337	3	3	4 4	
										a207	17	#5		21'3"	21'10"	387	3	4	4 6	
										a208	15	#5		20'0"	20'7"	322	3	3	4 5	
										a209	18	#5		18'9"	19'4"	363	3	4	5 6	
										a210	16	#5		17'6"	18'1"	302	3	4	4 5	
										a211	18	#5		16'3"	16'10"	316	3	4	6 5	
										a212	18	#5		15'0"	15'7"	292	4	4	4 6	
										a213	14	#5		13'9"	14'4"	209	2	3	4 5	
										a214	17	#5		12'6"	13'1"	232	4	4	4 5	
										a215	16	#5		11'3"	11'10"	197	2	4	5 5	
										a216	17	#5		10'0"	10'7"	188	4	3	4 6	
										a217	13	#5		8'9"	9'4"	126	2	3	4 4	
										a218	18	#5		7'6"	8'1"	152	4	4	4 6	
										a219	16	#5		6'3"	6'10"	114	2	4	5 5	
										a220	18	#5		5'0"	5'7"	105	3	4	5 6	
										a221	14	#5		3'9"	4'4"	63	3	3	4 4	
										a222	18	#5		2'6"	3'1"	58	4	4	4 6	
										a223	9	#5	2	1'10"	2'5"	23	1	2	3 3	



BAR TYPES

SUPERSTRUCTURE QUANTITIES

Class A Concrete	284.4 cu yd
Reinforcing Steel	54909 lbs
Structural Steel Approx	280000 lbs

PROJECT NO. 8,163/5  
 GASTON COUNTY  
 STATION: 165+01.51

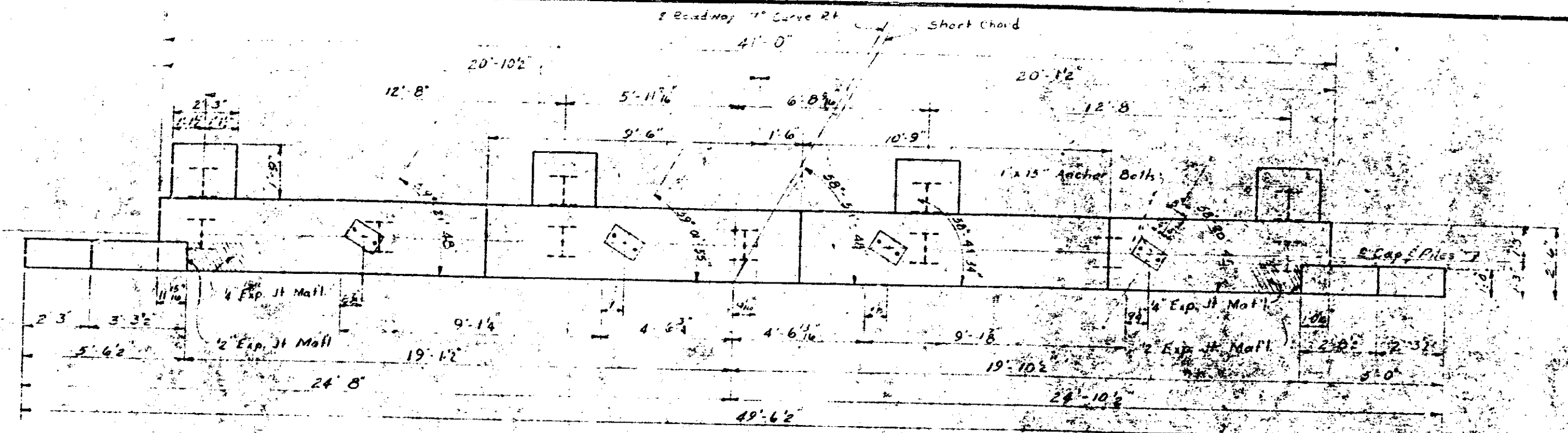
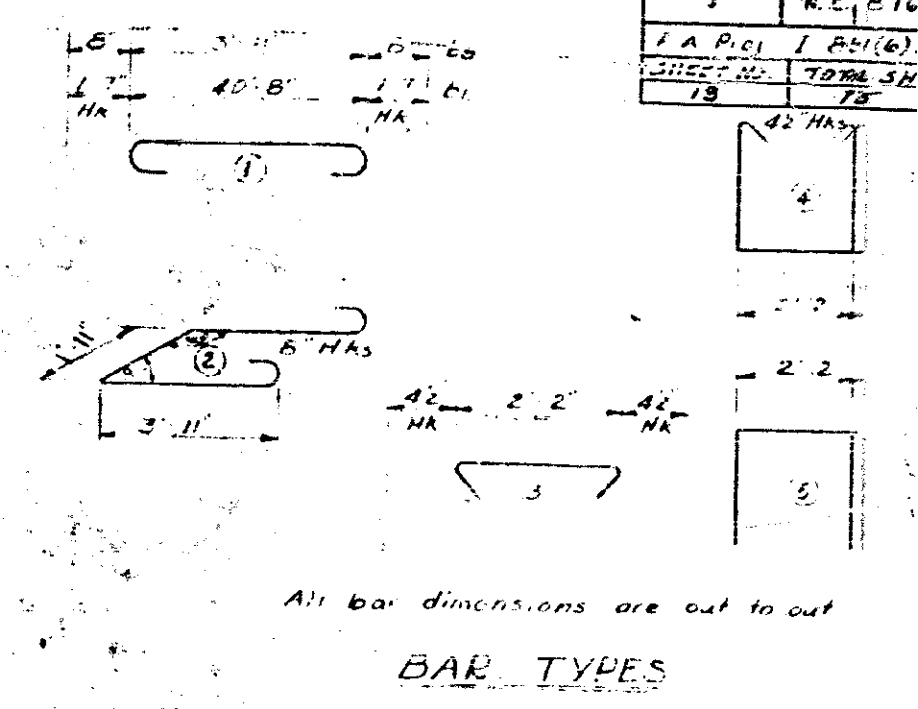
STATE OF NORTH CAROLINA  
 STATE HIGHWAY COMMISSION  
 BALDWIN  
 SUPERSTRUCTURE  
 BILL OF MATERIAL  
 FEB 1959

APPROVED BY: [Signature]  
 DATE: [Date]

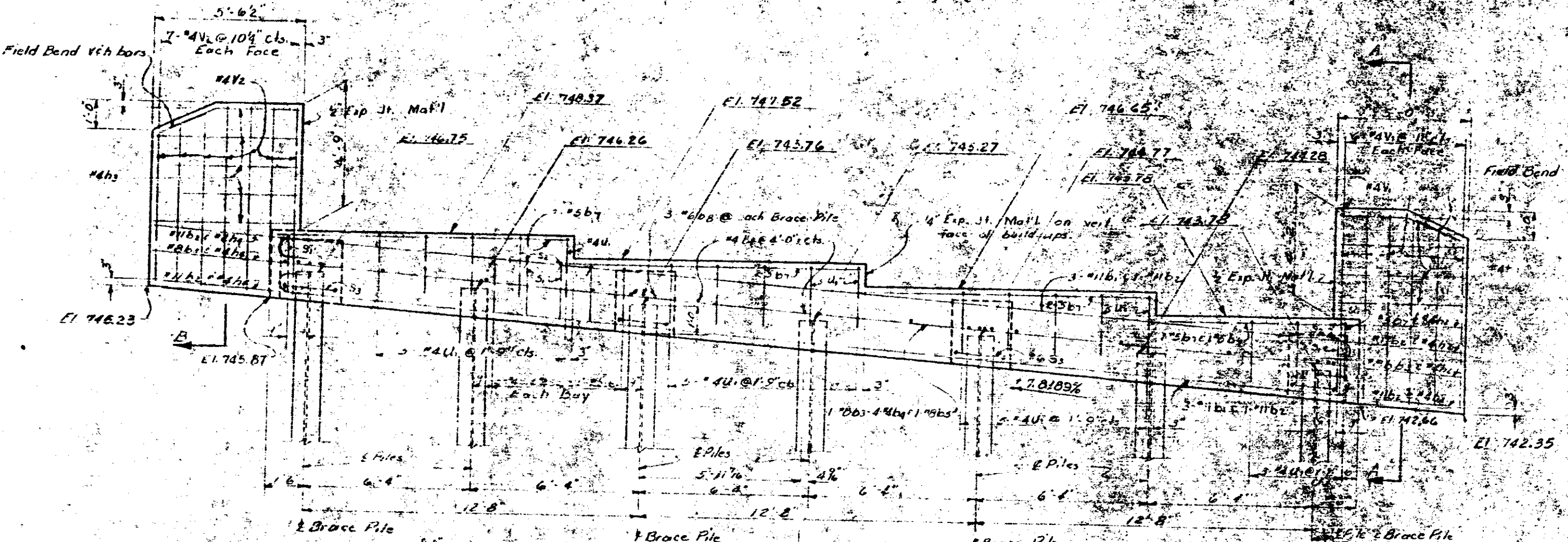
NO. OF SHEETS: 175  
 SHEET NO.: 12

DESIGNED BY: [Name]  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 DATE: [Date]

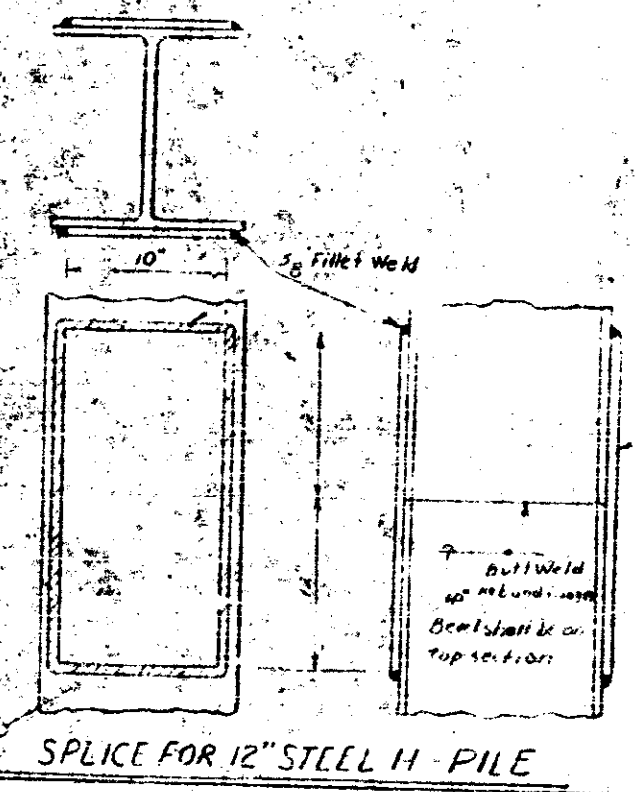




PLAN OF CAP



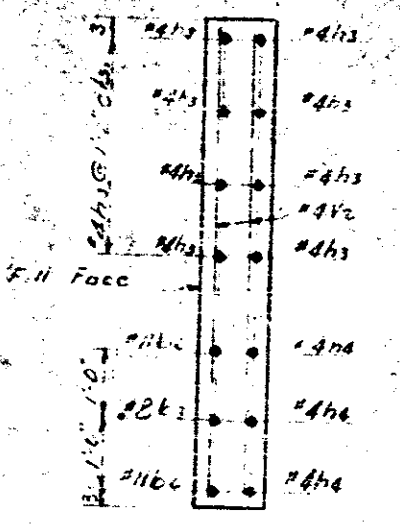
ELEVATION



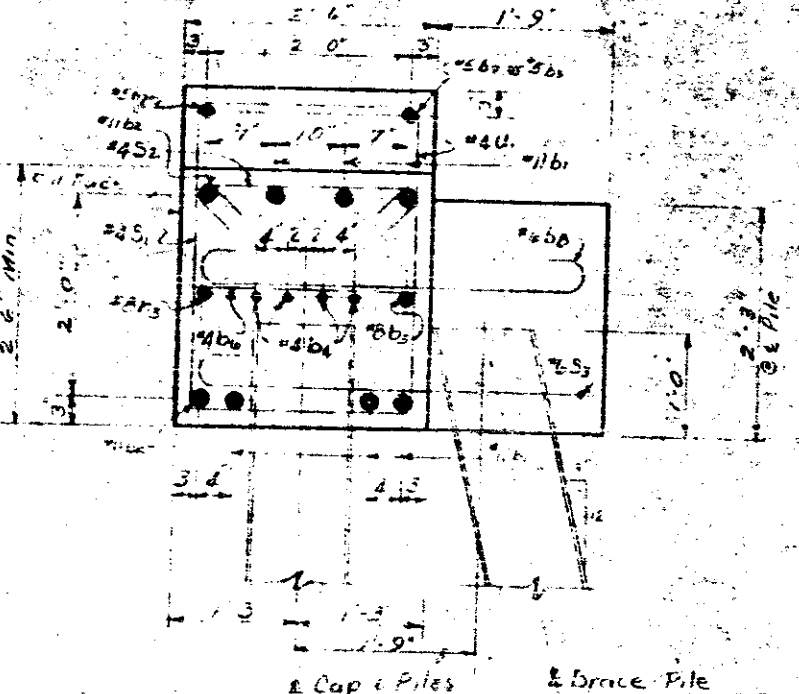
SPlice FOR 12" STEEL H-PILE

BILL OF MATERIAL

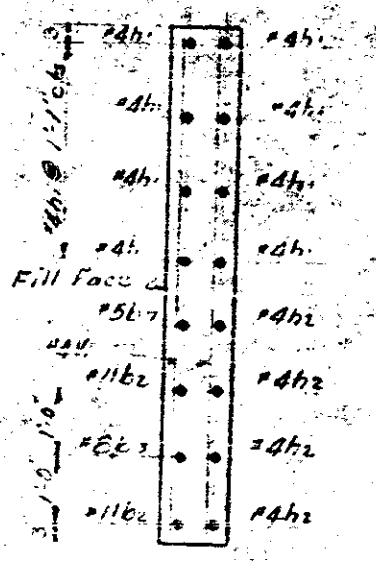
Bar No.	Size	Type	Length	No.
b1	1/2"	Str.	42'0"	1
b2	1/2"	Str.	42'0"	1
b3	1/2"	Str.	49'0"	1
b4	1/2"	Str.	21'0"	1
b5	1/2"	Str.	40'0"	1
b6	1/2"	Str.	21'0"	1
b7	1/2"	Str.	11'0"	1
b8	1/2"	Str.	7'0"	1
b9	1/2"	Str.	7'0"	1
b10	1/2"	Str.	7'0"	1
b11	1/2"	Str.	11'0"	1
b12	1/2"	Str.	11'0"	1
b13	1/2"	Str.	11'0"	1
b14	1/2"	Str.	11'0"	1
b15	1/2"	Str.	11'0"	1
b16	1/2"	Str.	11'0"	1
b17	1/2"	Str.	11'0"	1
b18	1/2"	Str.	11'0"	1
b19	1/2"	Str.	11'0"	1
b20	1/2"	Str.	11'0"	1
b21	1/2"	Str.	11'0"	1
b22	1/2"	Str.	11'0"	1
b23	1/2"	Str.	11'0"	1
b24	1/2"	Str.	11'0"	1
b25	1/2"	Str.	11'0"	1
b26	1/2"	Str.	11'0"	1
b27	1/2"	Str.	11'0"	1
b28	1/2"	Str.	11'0"	1
b29	1/2"	Str.	11'0"	1
b30	1/2"	Str.	11'0"	1
b31	1/2"	Str.	11'0"	1
b32	1/2"	Str.	11'0"	1
b33	1/2"	Str.	11'0"	1
b34	1/2"	Str.	11'0"	1
b35	1/2"	Str.	11'0"	1
b36	1/2"	Str.	11'0"	1
b37	1/2"	Str.	11'0"	1
b38	1/2"	Str.	11'0"	1
b39	1/2"	Str.	11'0"	1
b40	1/2"	Str.	11'0"	1
b41	1/2"	Str.	11'0"	1
b42	1/2"	Str.	11'0"	1
b43	1/2"	Str.	11'0"	1
b44	1/2"	Str.	11'0"	1
b45	1/2"	Str.	11'0"	1
b46	1/2"	Str.	11'0"	1
b47	1/2"	Str.	11'0"	1
b48	1/2"	Str.	11'0"	1
b49	1/2"	Str.	11'0"	1
b50	1/2"	Str.	11'0"	1
b51	1/2"	Str.	11'0"	1
b52	1/2"	Str.	11'0"	1
b53	1/2"	Str.	11'0"	1
b54	1/2"	Str.	11'0"	1
b55	1/2"	Str.	11'0"	1
b56	1/2"	Str.	11'0"	1
b57	1/2"	Str.	11'0"	1
b58	1/2"	Str.	11'0"	1
b59	1/2"	Str.	11'0"	1
b60	1/2"	Str.	11'0"	1
b61	1/2"	Str.	11'0"	1
b62	1/2"	Str.	11'0"	1
b63	1/2"	Str.	11'0"	1
b64	1/2"	Str.	11'0"	1
b65	1/2"	Str.	11'0"	1
b66	1/2"	Str.	11'0"	1
b67	1/2"	Str.	11'0"	1
b68	1/2"	Str.	11'0"	1
b69	1/2"	Str.	11'0"	1
b70	1/2"	Str.	11'0"	1
b71	1/2"	Str.	11'0"	1
b72	1/2"	Str.	11'0"	1
b73	1/2"	Str.	11'0"	1
b74	1/2"	Str.	11'0"	1
b75	1/2"	Str.	11'0"	1
b76	1/2"	Str.	11'0"	1
b77	1/2"	Str.	11'0"	1
b78	1/2"	Str.	11'0"	1
b79	1/2"	Str.	11'0"	1
b80	1/2"	Str.	11'0"	1
b81	1/2"	Str.	11'0"	1
b82	1/2"	Str.	11'0"	1
b83	1/2"	Str.	11'0"	1
b84	1/2"	Str.	11'0"	1
b85	1/2"	Str.	11'0"	1
b86	1/2"	Str.	11'0"	1
b87	1/2"	Str.	11'0"	1
b88	1/2"	Str.	11'0"	1
b89	1/2"	Str.	11'0"	1
b90	1/2"	Str.	11'0"	1
b91	1/2"	Str.	11'0"	1
b92	1/2"	Str.	11'0"	1
b93	1/2"	Str.	11'0"	1
b94	1/2"	Str.	11'0"	1
b95	1/2"	Str.	11'0"	1
b96	1/2"	Str.	11'0"	1
b97	1/2"	Str.	11'0"	1
b98	1/2"	Str.	11'0"	1
b99	1/2"	Str.	11'0"	1
b100	1/2"	Str.	11'0"	1



SECTION B-B



SECTION THRU CAP



SECTION A-A

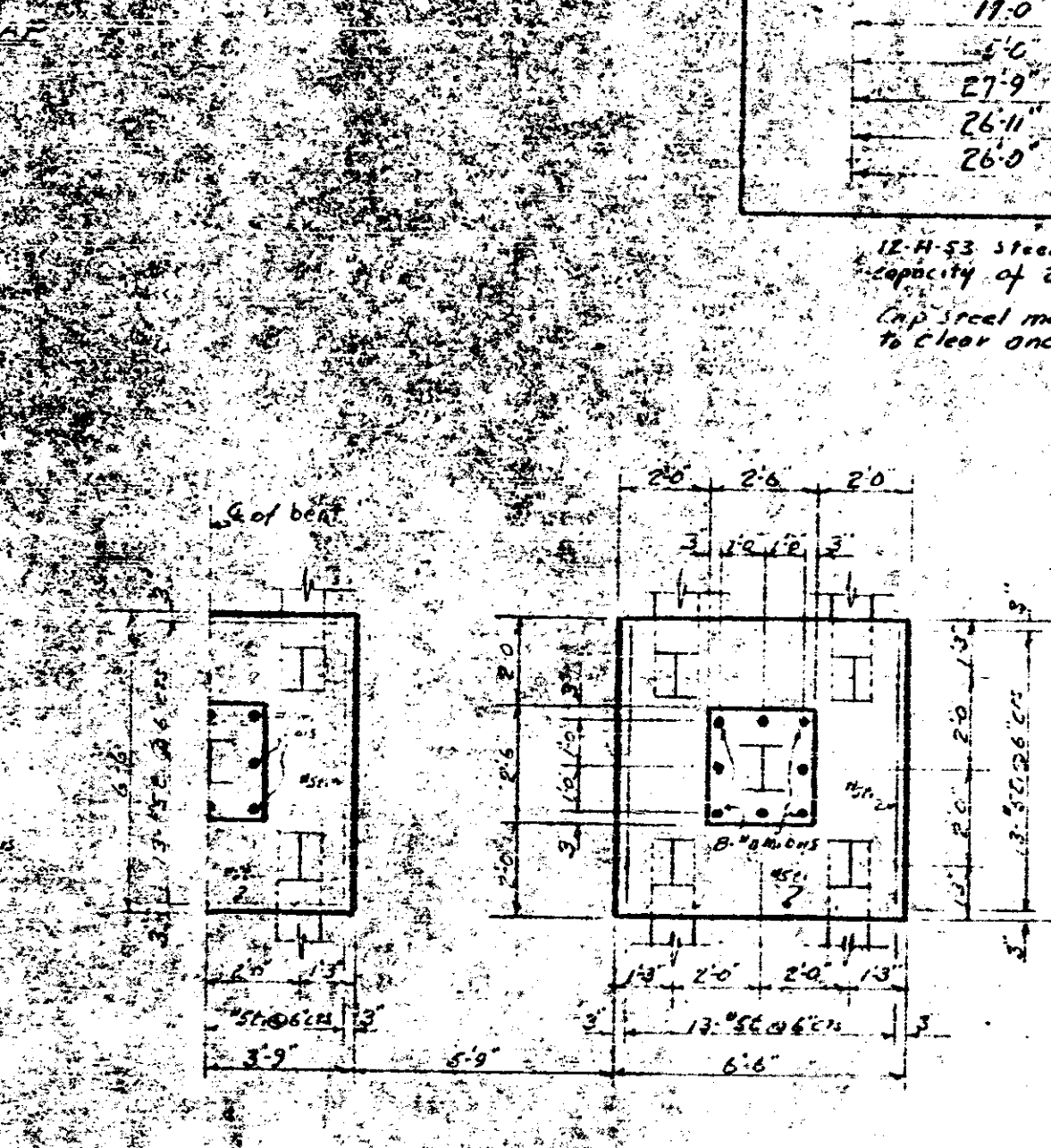
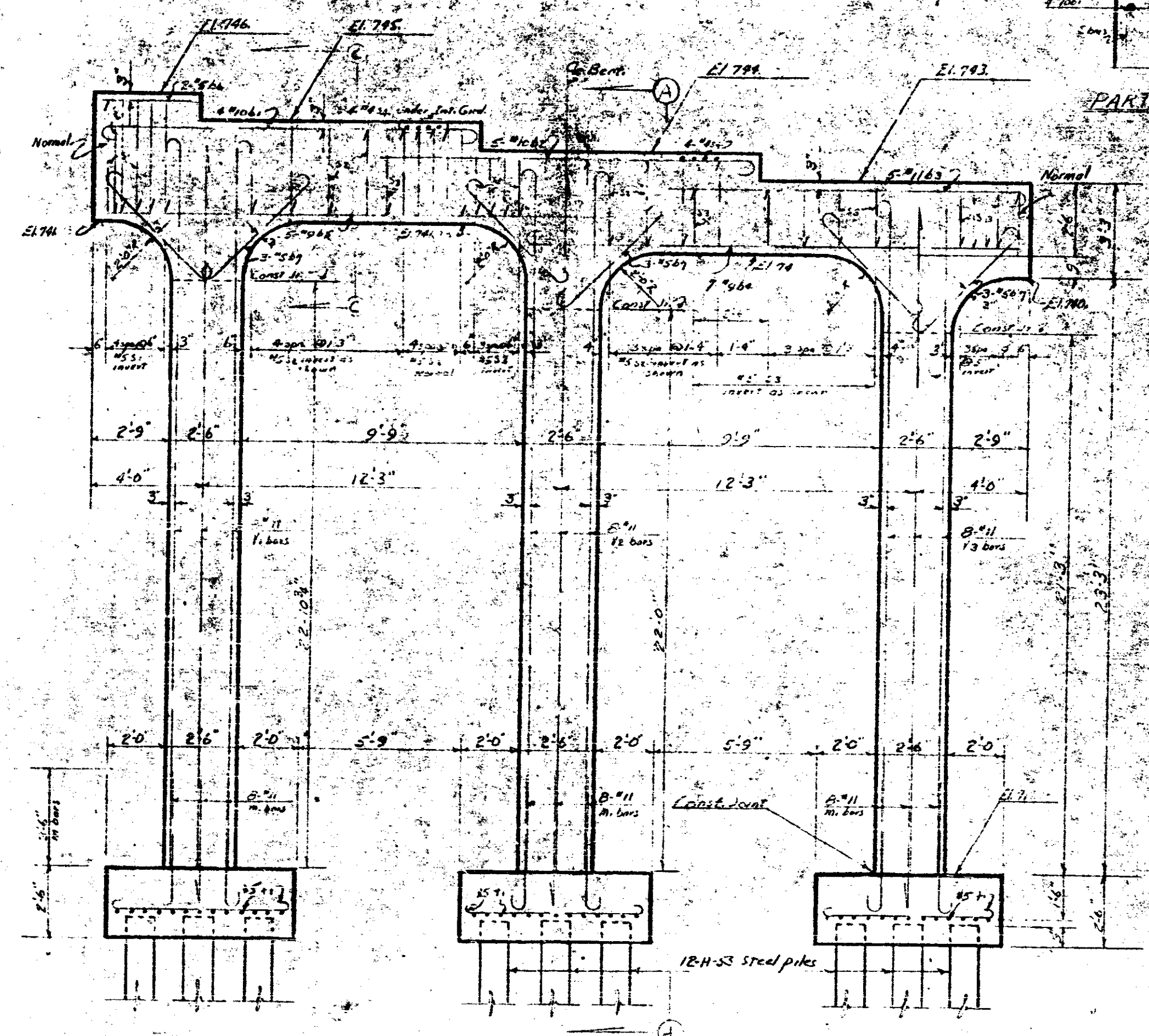
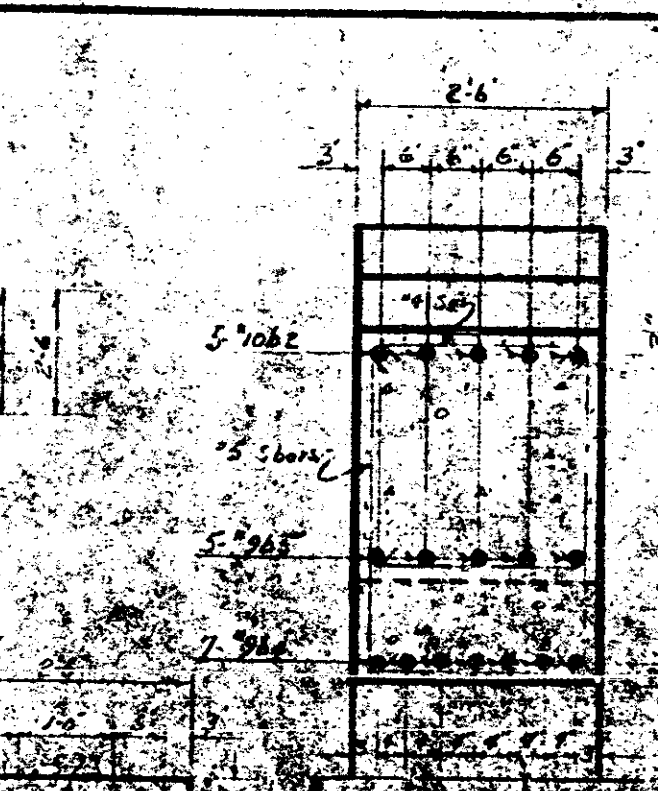
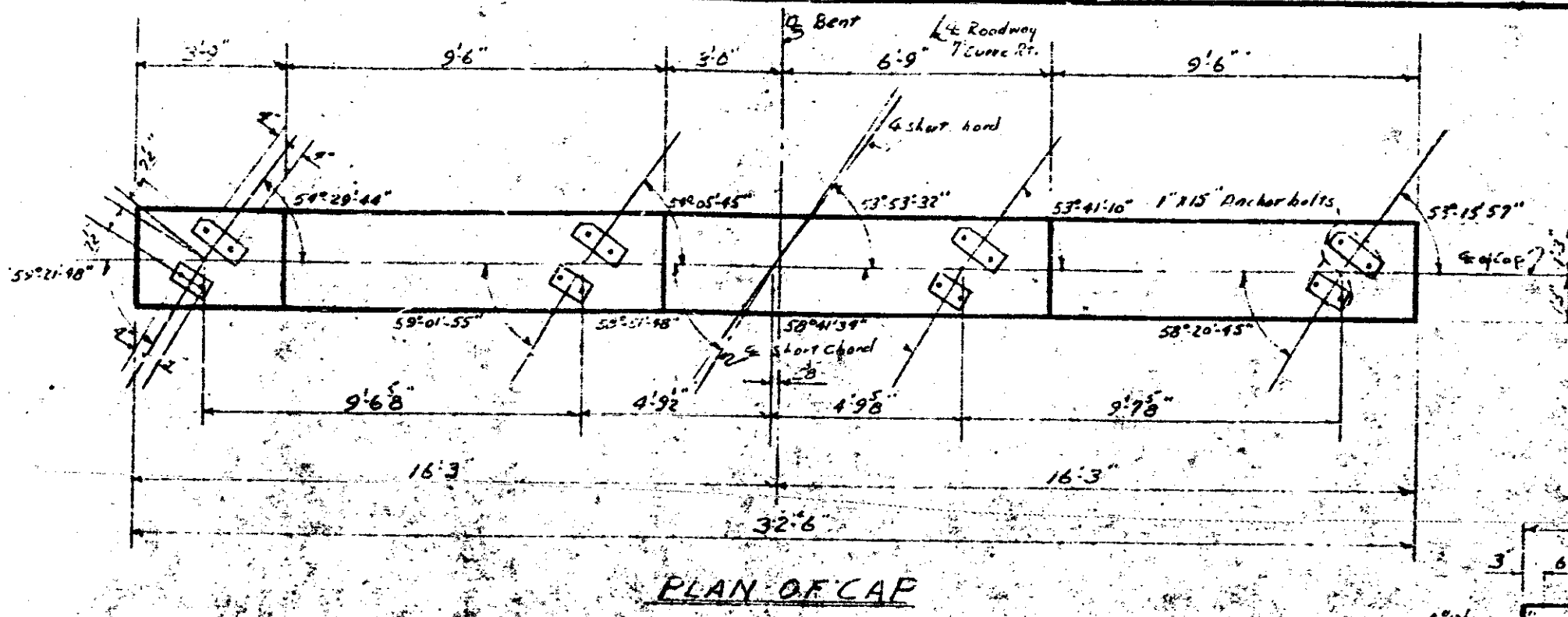
PROJECT NO. 8163E  
 GASTON COUNTY  
 STATION: 165+01.5 II

STATE OF NORTH CAROLINA  
 STATE HIGHWAY COMMISSION  
 END BENT I  
 JAN 1959

DESIGNED BY: J. H. B. 3-7-50  
 DRAWN BY: J. H. B. 3-7-50  
 CHECKED BY: M. L. D. 3-7-50

Revision No. 1, To raise bridge 0'-3", J.H.B. 3-7-50 MRF





**BAR TYPES**

BAR NO.	SIZE	TYPE	LENGTH	HEIGHT
1	12-9"	2	12-7"	20-1
2	12-9"	2	12-7"	31-0
3	11-0"	2	11-0"	38-0
4	9-9"	2	9-9"	45-0
5	9-9"	11	11-9"	30-0
6	5-0"	3	5-0"	7-0
7	27-9"	1	27-9"	1-0
8	26-11"	1	26-11"	1-0
9	26-0"	13	26-0"	13-0

all dimensions are OUT TO OUT

12-H-53 steel piles to be driven to a minimum bearing capacity of 28 tons each.  
Cap steel may be shifted to clear anchor bolts.

**TOTAL BILL OF MATERIAL**

Bar	No.	Size	Type	Length	Height
b1	4	10	1	12-7"	20-1
b2	5	10	2	12-7"	31-0
b3	5	11	2	11-0"	38-0
b4	7	9	2	9-9"	45-0
b5	5	9	11	11-9"	30-0
b6	2	5	3	5-0"	7-0
b7	15	5	1	5-9"	13-0
m.	24	11	2	6-7"	53-9
v1	8	11	2	7-4"	29-7
v2	8	11	2	12-6"	1-0
v3	8	11	2	17-7"	11-2
v4	4	5	3	10-4"	-
v5	14	5	3	9-2"	3-4
v6	15	5	3	7-4"	1-5
v7	8	5	4	2-11"	1-6
v8	10	5	1	7-2"	58-3

12-H-53 steel piles No. 15 LF 300  
As supplied steel 1" 11-9"  
12-H-53 Cap 3-7"  
12-H-53 Excav. Cy 5-57-0

PROJECT NO. P. 15315  
GASTON COUNTY  
STATION: 165+01.5-L

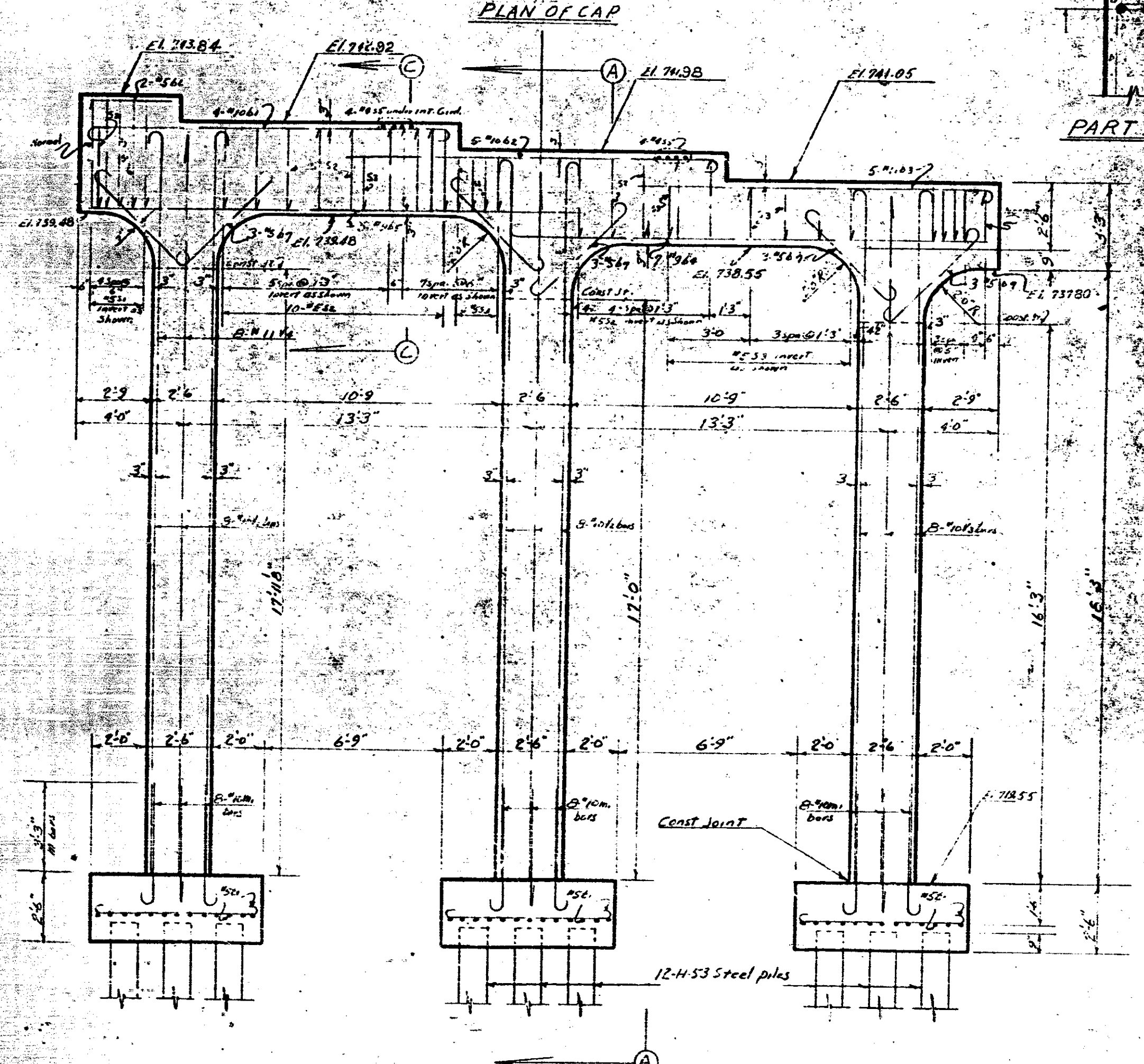
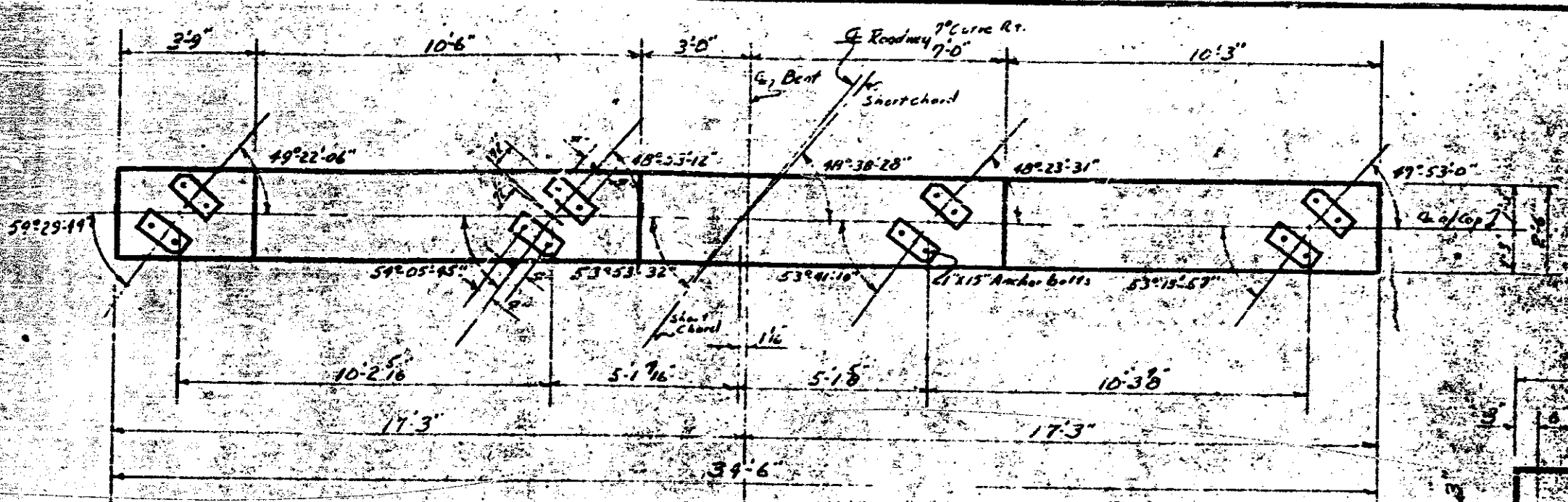
Revision No. 1.  
To raise top of footing elevations and add footing piles. J.N.P. 6-1-57  
Revision No. 2.  
To raise bridge 0'-3" M.S.B. 5-7-60 R.A.S.

STATE OF NORTH CAROLINA  
STATE HIGHWAY COMMISSION  
RALEIGH  
SUBSTRUCTURE  
BENT NO. 1  
FEB. 1959

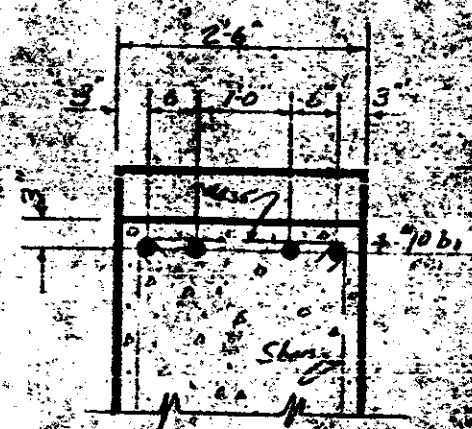
DESIGNED BY: J. H. Palmer DATE: 10-26-57  
DRAWN BY: M. H. Palmer DATE: 10-26-57  
CHECKED BY: M. H. Palmer DATE: 11-2-57

DATE: 1-22-59  
BY: J. H. Palmer  
NO. 1

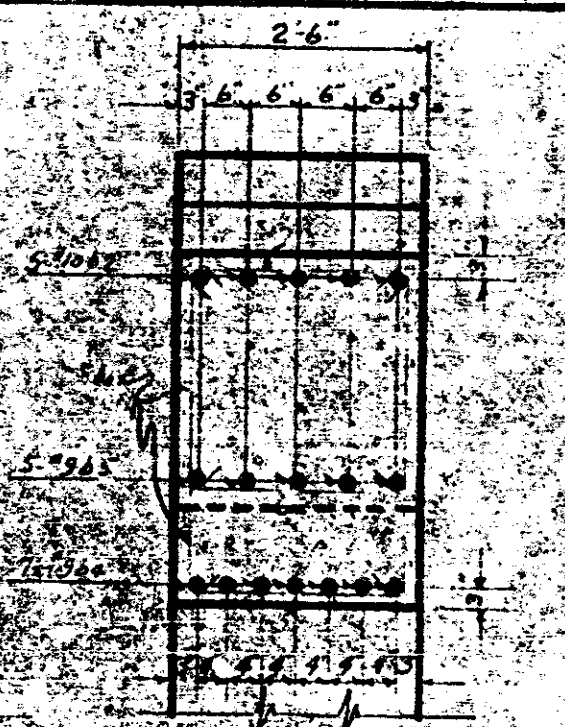




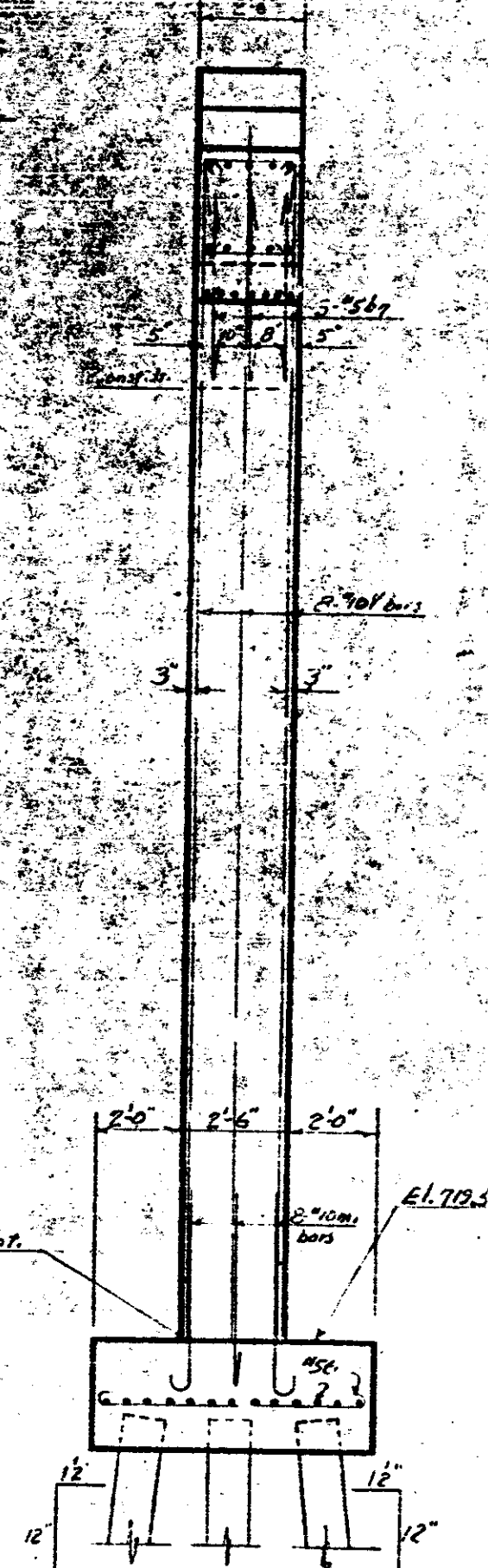
ELEVATION



PART SECTION CC



SECTION THRU CAP AT P.A.



SECTION AA

### BAR TYPES

Bar No.	Size	Type	Length	Quantity
1	1.5"	1	16.7	1
2	1.5"	2	14.1	2
3	1.5"	2	15.4	2
4	1.5"	2	17.5	2
5	1.5"	3	18.9	3
6	1.5"	3	19.3	3
7	1.5"	3	21.1	3
8	1.5"	4	21.1	4
9	1.5"	1	7.2	1
10	1.5"	2	24.1	2
11	1.5"	2	23.2	2
12	1.5"	2	22.5	2
13	1.5"	2	22.5	2
14	1.5"	3	11.1	3
15	1.5"	3	9.3	3
16	1.5"	3	7.4	3
17	1.5"	4	2.11	4
18	1.5"	5	7.2	5

all dimensions are out to out

Bar No.	Size	Type	Length	Quantity
1	1.5"	1	16.7	1
2	1.5"	2	14.1	2
3	1.5"	2	15.4	2
4	1.5"	2	17.5	2
5	1.5"	3	18.9	3
6	1.5"	3	19.3	3
7	1.5"	3	21.1	3
8	1.5"	4	21.1	4
9	1.5"	1	7.2	1
10	1.5"	2	24.1	2
11	1.5"	2	23.2	2
12	1.5"	2	22.5	2
13	1.5"	2	22.5	2
14	1.5"	3	11.1	3
15	1.5"	3	9.3	3
16	1.5"	3	7.4	3
17	1.5"	4	2.11	4
18	1.5"	5	7.2	5

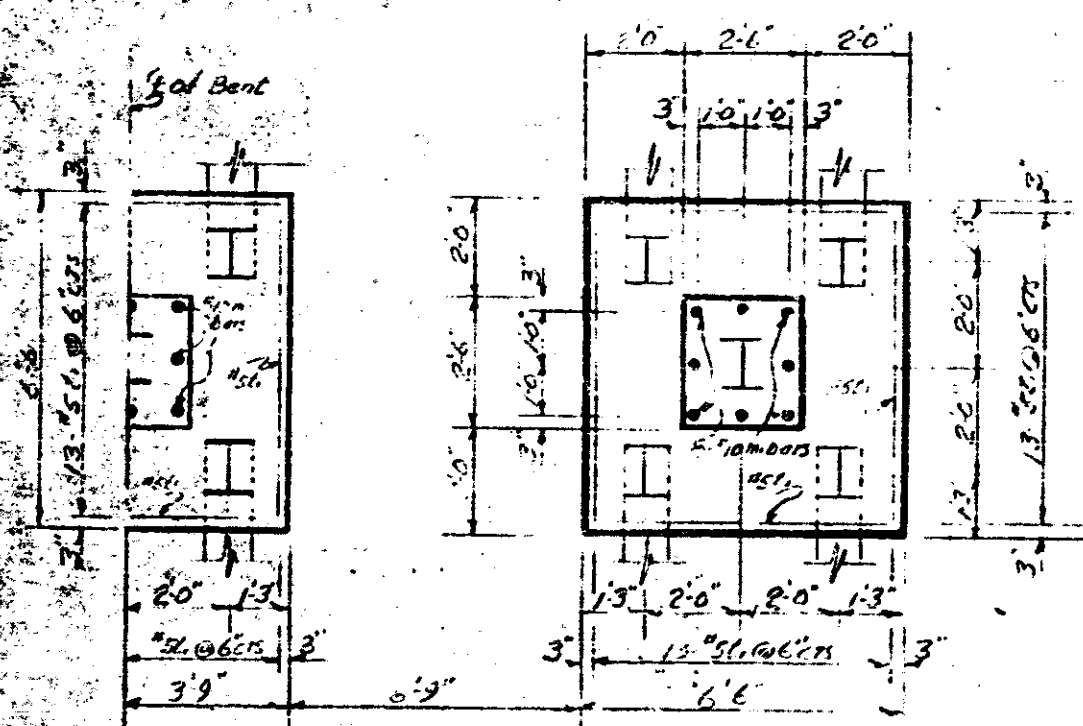
TOTAL BILL OF MATERIAL:

Reinf. Steel LBS 236

Class A Conc. CY 2.1

12 H 53 Steel Piles No. 15 1.2

Unclass. Str. excavation C.Y. 2.1



NOTE:  
12 H 53 Steel piles to be driven to a minimum bearing capacity of 28 tons each.  
Cap steel may be shifted to clear anchor bolts

Revision No 1  
To raise top of footing elevations and change No. of footing piles  
J.N.R. 6-5-57

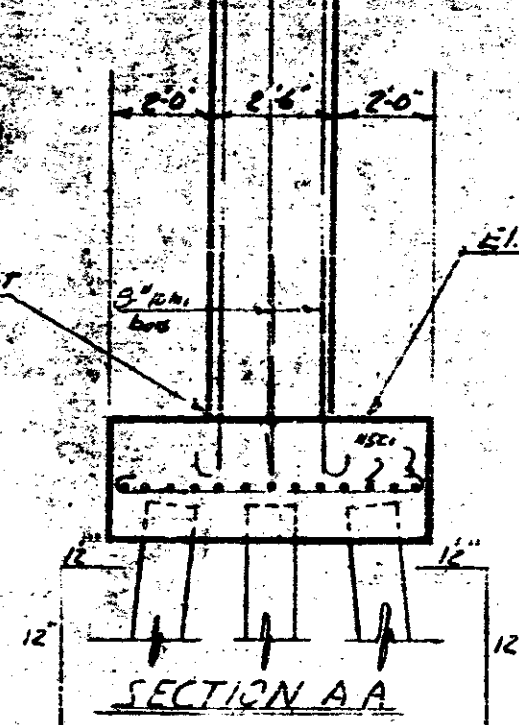
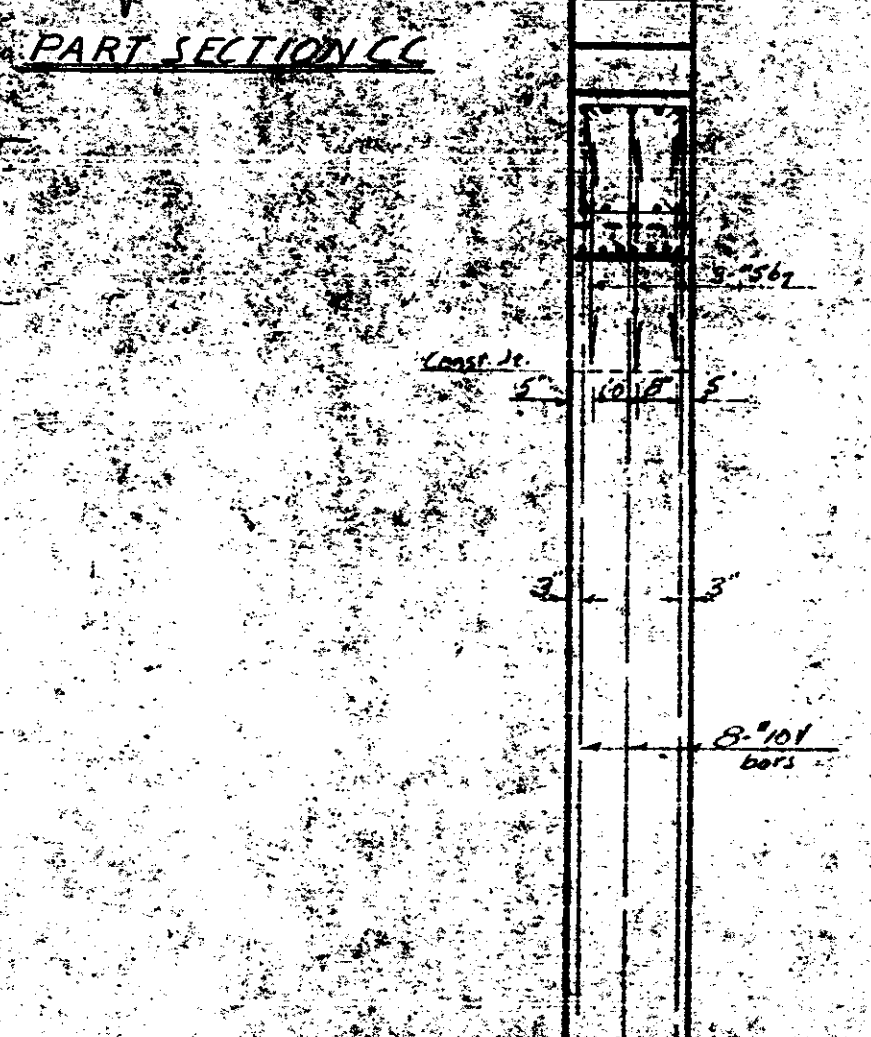
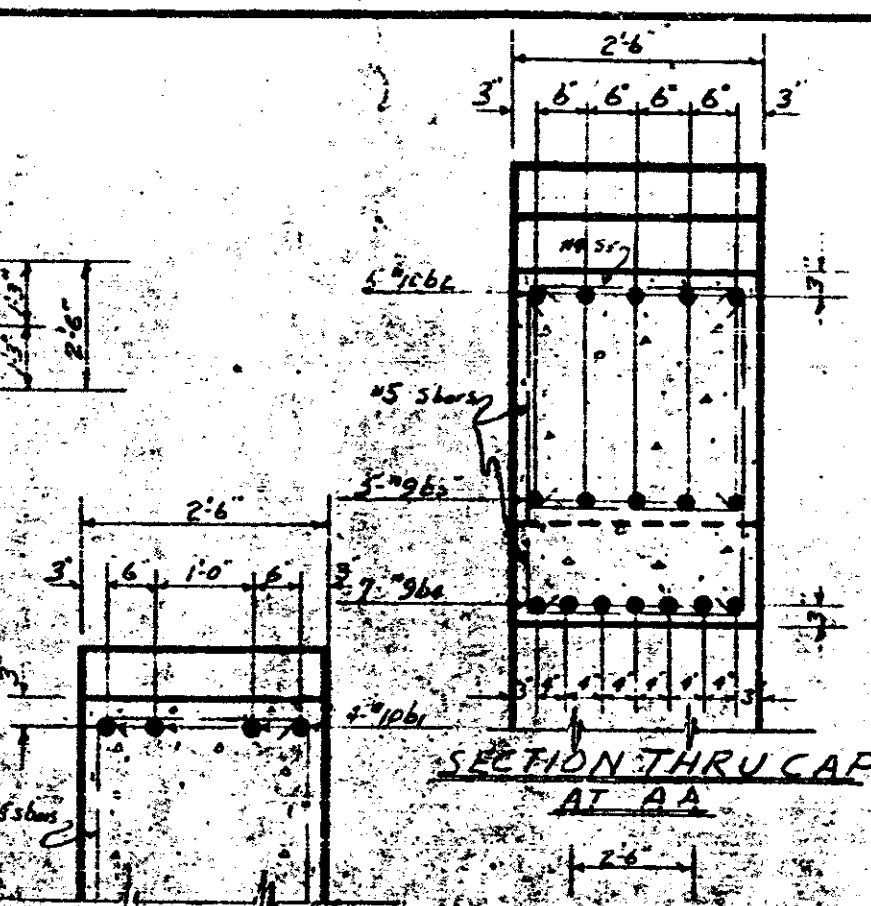
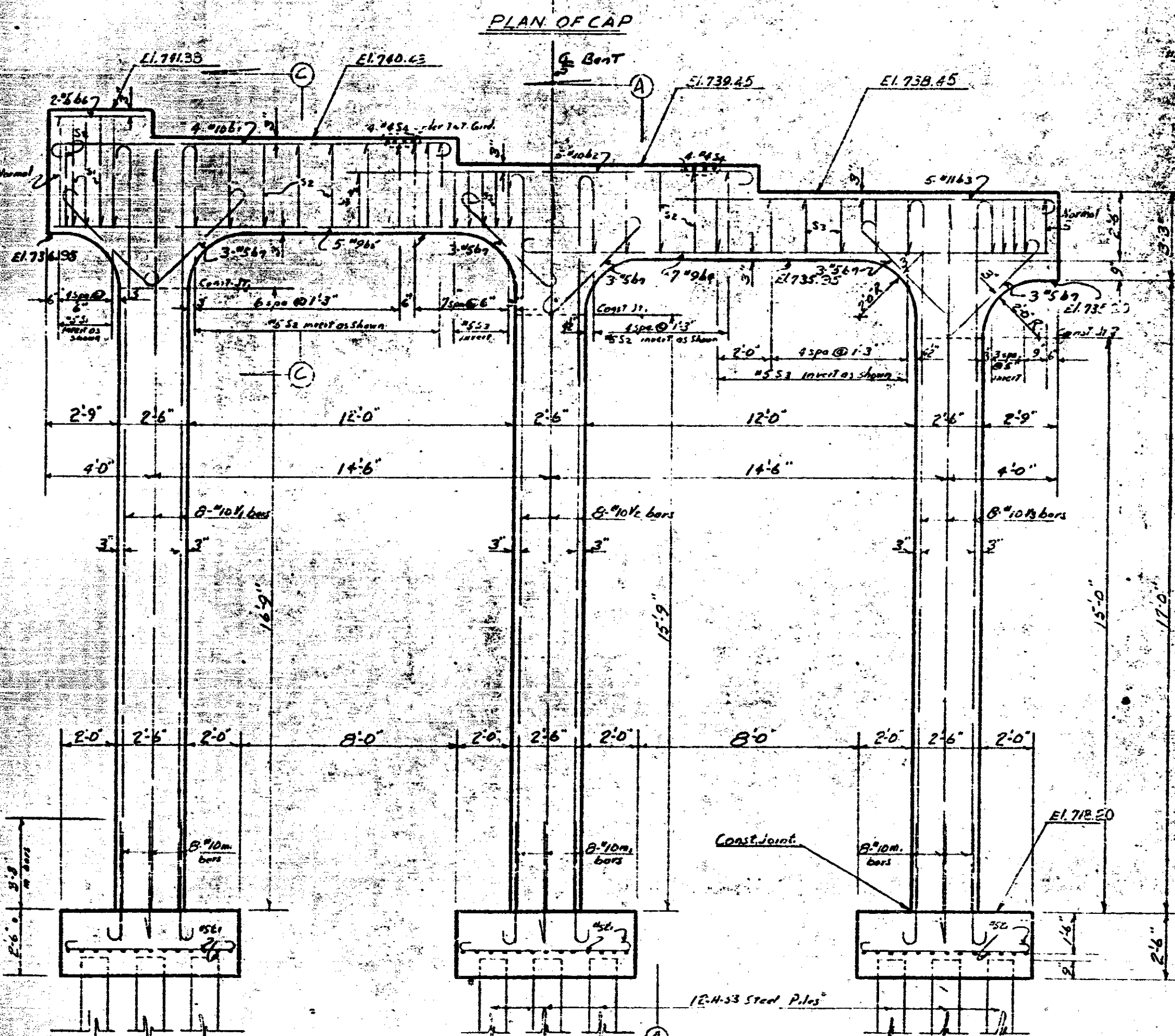
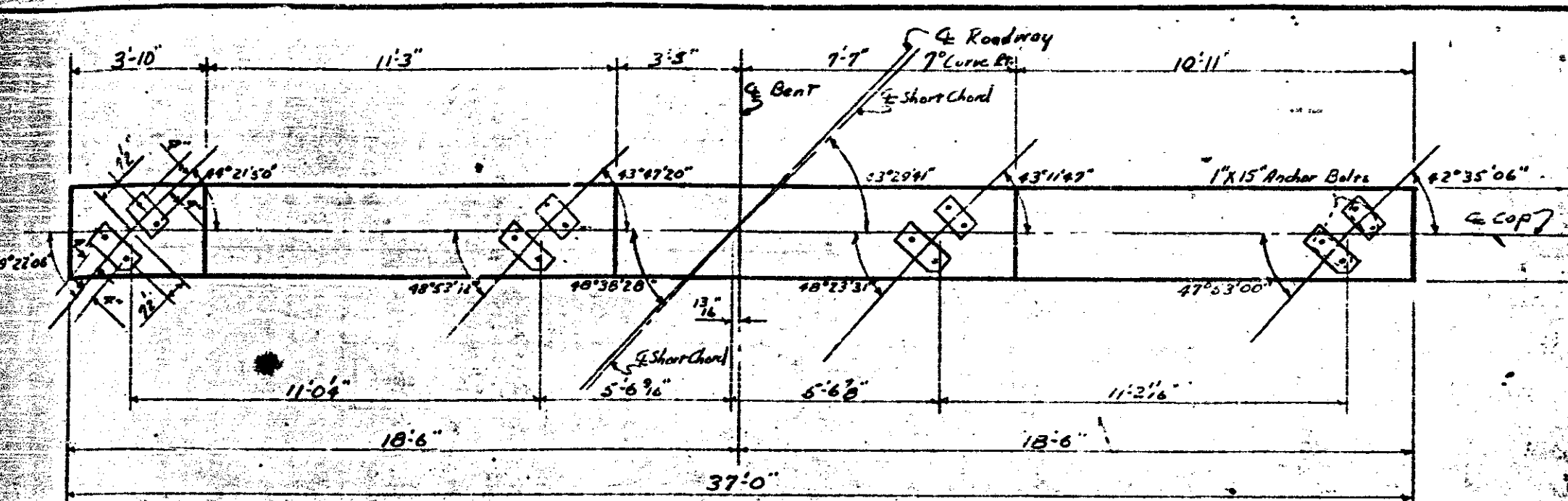
Revision No 2  
To raise bridge 0'-3" O.R.S. 5-2-58  
J.N.R.

PROJECT NO. 16315  
GASTON COUNTY  
STATION: 165+015-L

STATE OF NORTH CAROLINA  
STATE HIGHWAY COMMISSION  
SUBSTRUCTURE  
BENT NO 2  
FEBRUARY 1959

DESIGNED BY: [Signature]  
CHECKED BY: [Signature]  
DATE: Feb. 1959





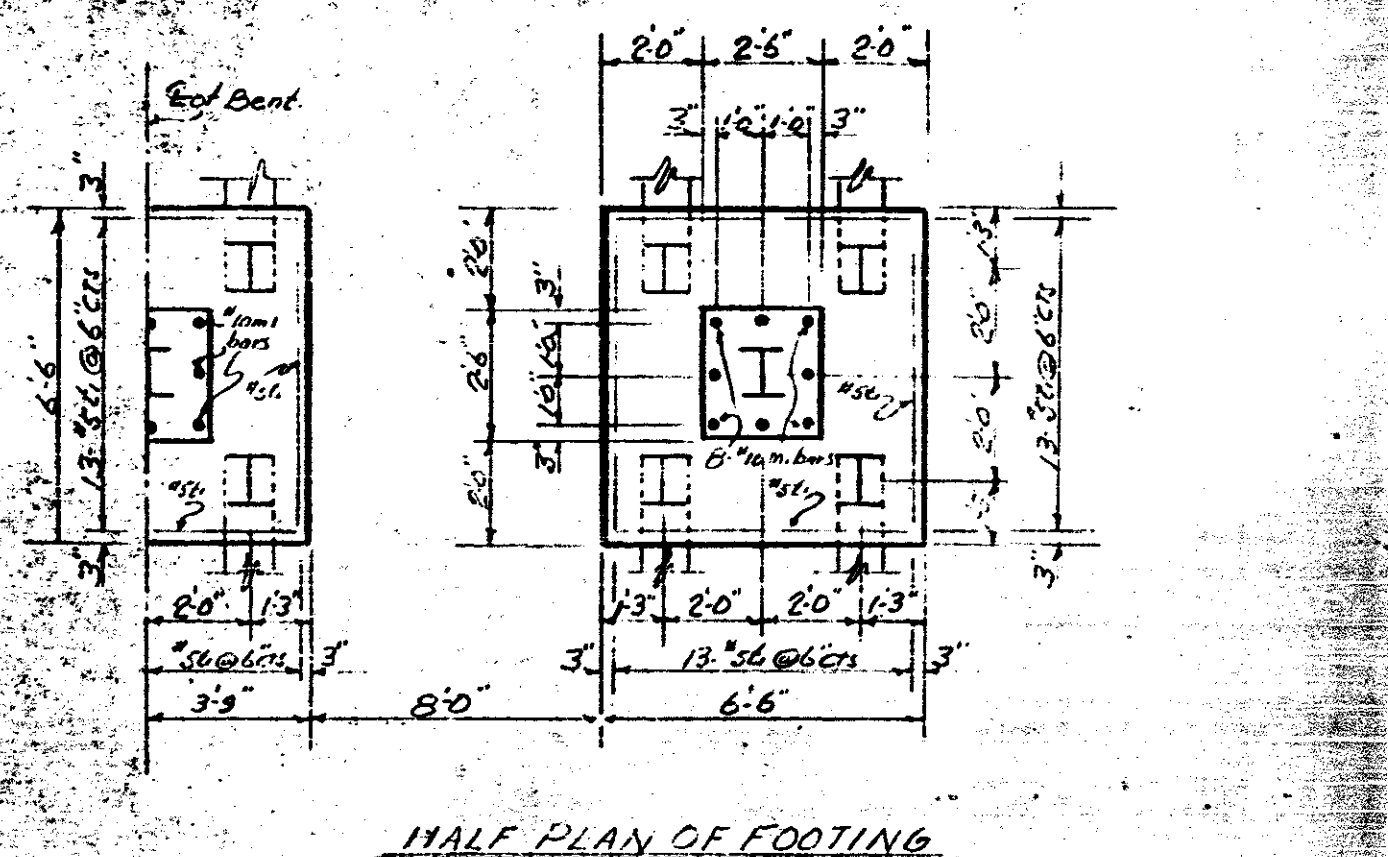
### BAR TYPES

Bar No.	Size	Type	Length	Quantity
b1	4" 10	1	17'-3"	143
b2	5" 10	2	16'-2"	143
b3	5" 11	2	15'-0"	143
b4	7" 9	2	20'-6"	143
b5	5" 9	3rr	20'-0"	340
b6	2" 5	3rr	3'-4"	143
b7	1/2" 5	1	5'-9"	108
m	1/4" 10	2	6'-2"	137
11	8" 10	2	23'-2"	197
12	8" 10	2	22'-2"	163
13	8" 10	2	21'-2"	129
14	5" 9	3	11'-4"	59
15	16" 5	3	9'-4"	156
16	17" 5	3	7'-4"	130
17	8" 4	4	2'-11"	16
18	7/8" 5	1	7'-2"	638

all dimensions are out to out

### TOTAL BILL OF MATERIAL

Reinf. Steel	Lbs	5441
Class 'A' Conc.	CY	361
12-H-53 Steel Piles	No.	15
Unless S.M. Excavation	CY	857.4



**PROJECT NO. 516315**  
**GASTON COUNTY**  
**STATION: 165+01.5-L**

**NOTE**  
 12-H-53 Steel piles to be driven to a minimum bearing capacity of 28 Tons each  
 Cap Steel may be shifted to clear anchor bolts.

DESIGNED BY: [Signature]  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]

DATE: Feb. 1959  
 DATE: Feb. 1959  
 DATE: Feb. 1959

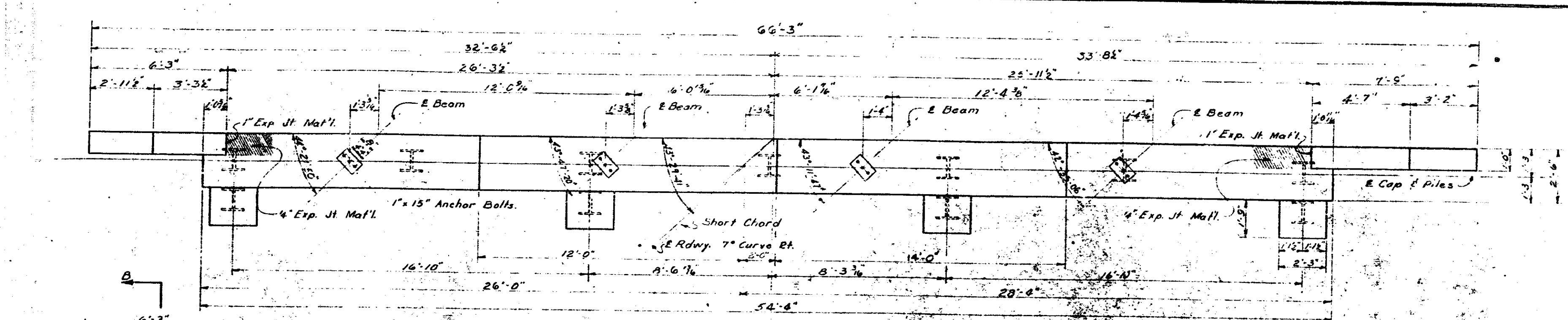
Revision No. 1  
 To raise top of footing elevation and add footing piles J.N.P. 68-59

Revision No. 2  
 To raise bridge 0'-3" B.B.I. / B.P.K.

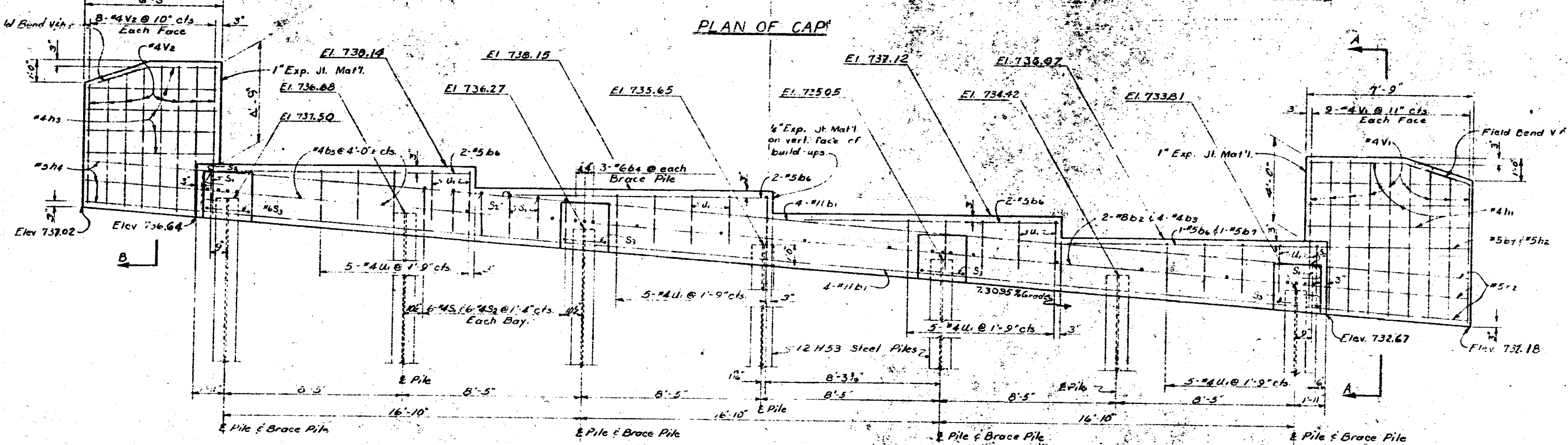
STATE OF NORTH CAROLINA  
 STATE HIGHWAY COMMISSION  
 SUBSTRUCTURE  
 BENT NO 3  
 FEBRUARY 1959

514  
 124  
 107

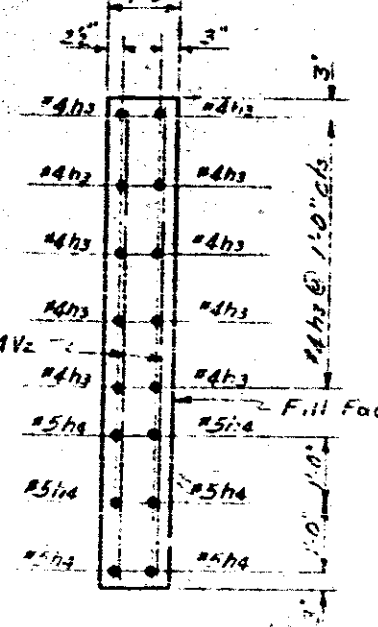




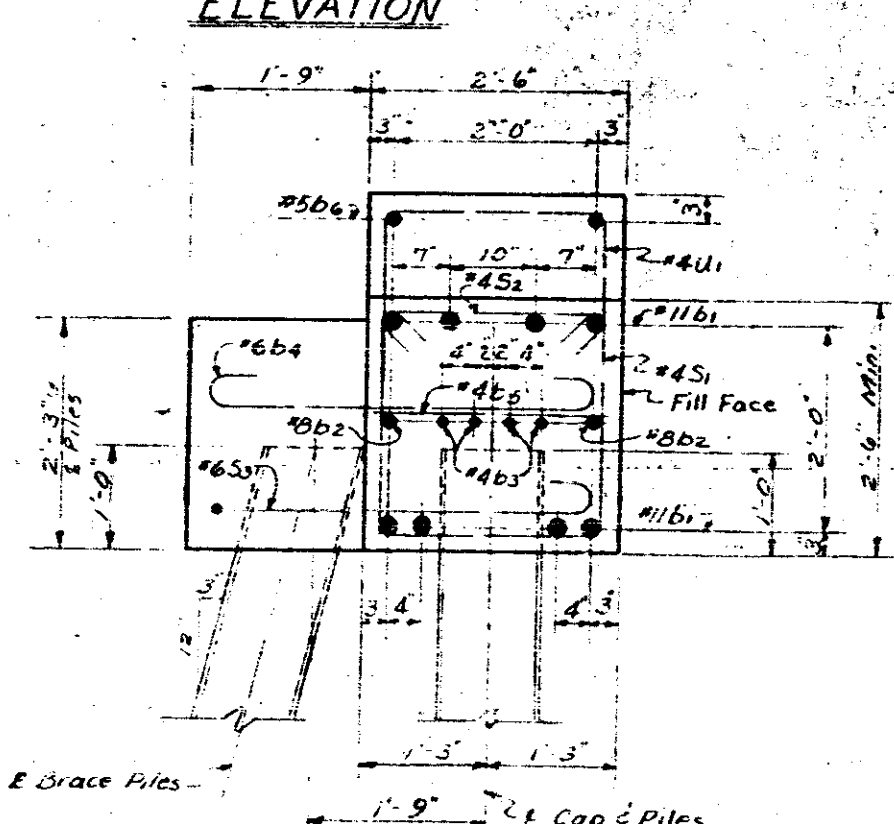
PLAN OF CAP



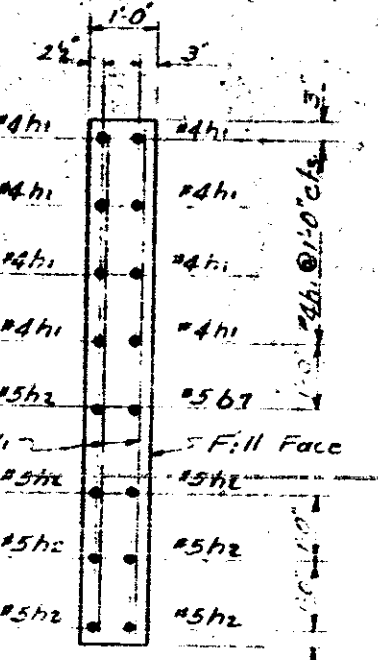
ELEVATION



SECTION B-B

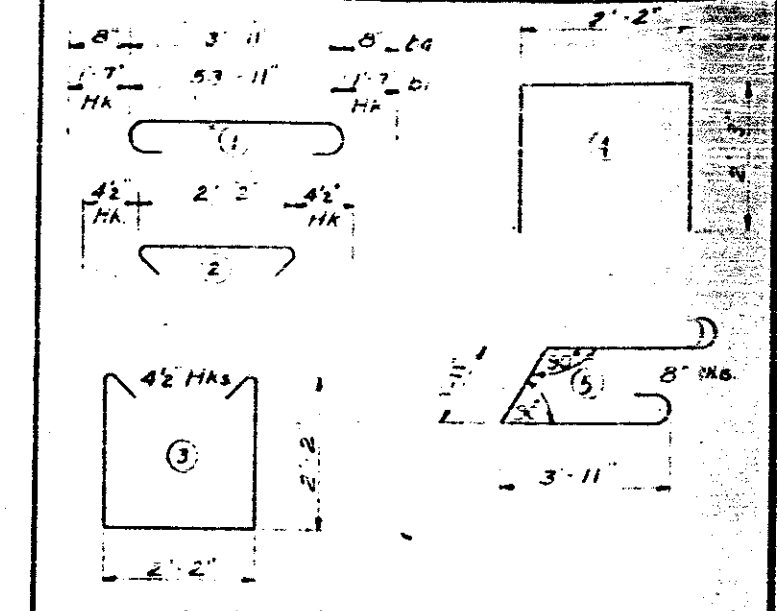


SECTION THRU CAP



SECTION A-A

SHEET NO.	TOTAL SHEETS	FIG. NO.	DATE	NO.
17	175	3	N.C. 8.16315	
F.A. Proj. I-85-1420				



BILL OF MATERIAL

Bar No.	Size	Type	Length	Weight
b1	8	#11	157'-1"	2920
b2	2	#6	53'-11"	283
b3	2	#4	18'-10"	151
b4	12	#4	5'-3"	95
b5	14	#4	2'-2"	20
b6	7	#5	12'-0"	88
b7	1	#5	18'-0"	9
S1	38	#4	7'-3"	184
S2	38	#4	2'-11"	74
S3	4	#6	11'-1"	67
U	20	#4	4'-8"	89
H1	8	#4	7'-5"	40
H2	7	#5	8'-9"	64
H3	10	#4	5'-11"	40
H4	6	#5	7'-3"	45
V	16	#4	7'-1"	84
V2	16	#4	4'-0"	72

Reinforcing Steel 3,846 lbs  
 Class 'A' Concrete 12,000 cu ft  
 #12 H53 Steel Piles 40,934-40 LLF  
 #4 Concrete Slope Protection 277,650 cu ft

Piles to be driven to a minimum bearing capacity of 29 Tons each.  
 If pile splice is required see Sheet S-11 for detail.

PROJECT NO. 8.16315  
 GASTON COUNTY  
 STATION 165+01.5-1

STATE OF NORTH CAROLINA  
 STATE HIGHWAY COMMISSION  
 END BENT #2  
 JAN 1959

DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE

REVISIONS

NO.	DATE	DESCRIPTION
1	JAN 1959	

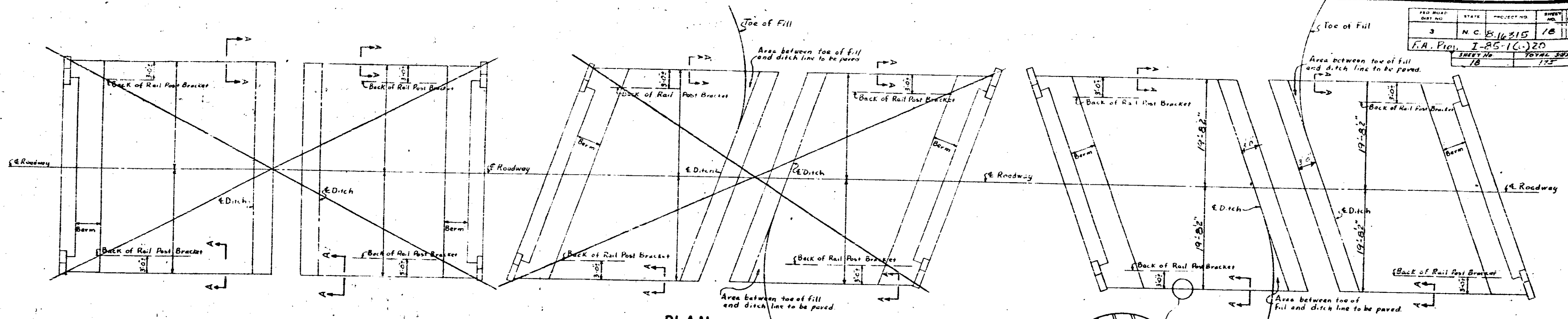
5-15  
 124

DESIGNED BY: [Signature]  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]

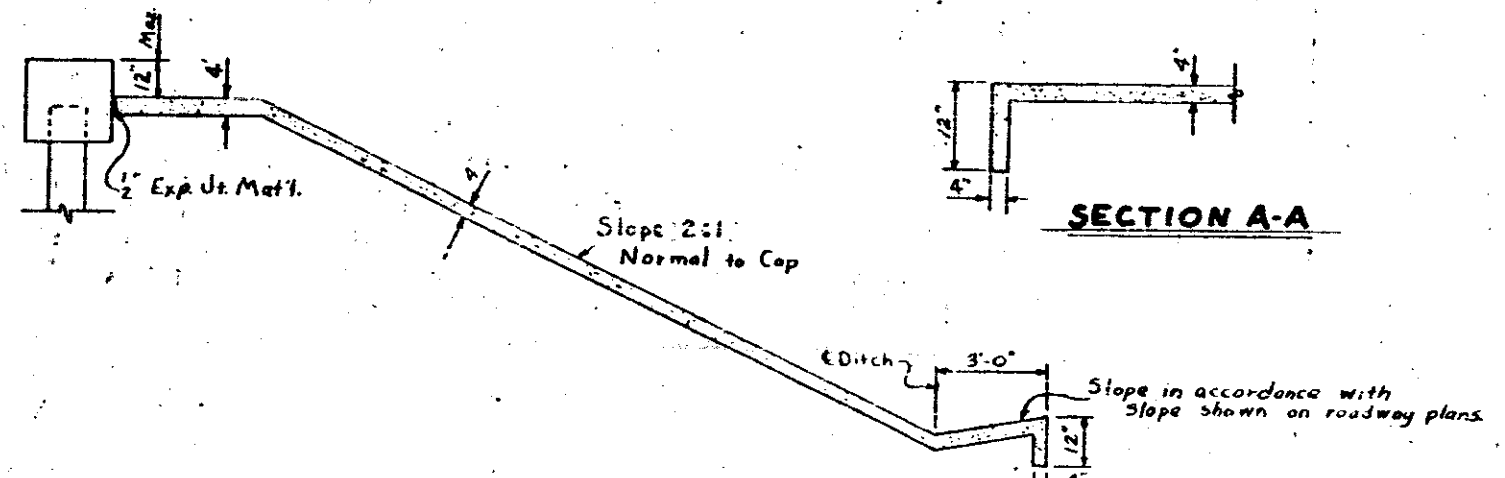
Revision No. 1 - To raise bridge 6'-3" J.H.B. 7-7-60/BRT



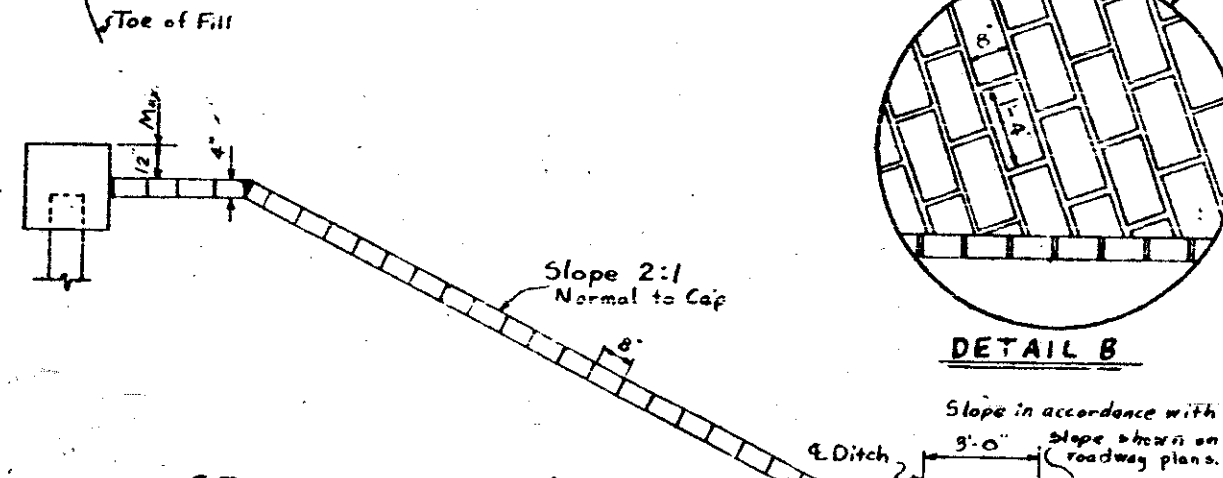
PROJECT NO.	8-16315	SHEET NO.	18	TOTAL SHEETS	175
STATE	N.C.	DATE	SEP 20 1958		
F.A. Plan		I-85-16315-20			
SHEET NO.		18		TOTAL SHEETS	
				175	



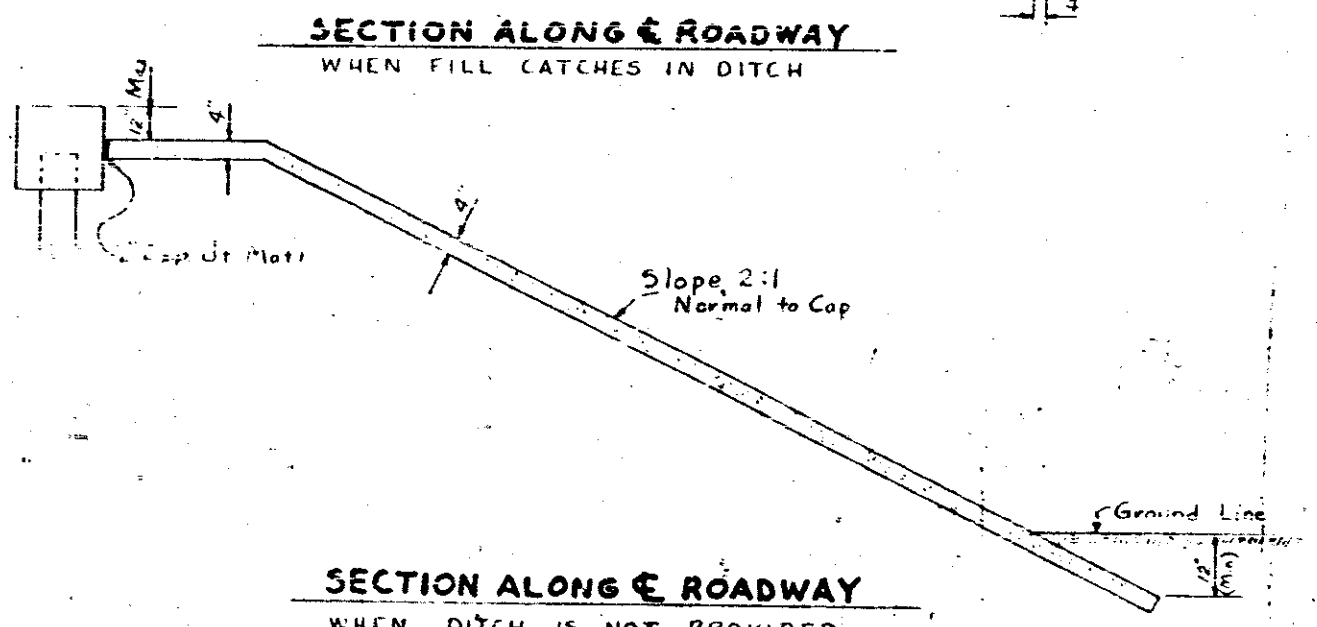
PLAN



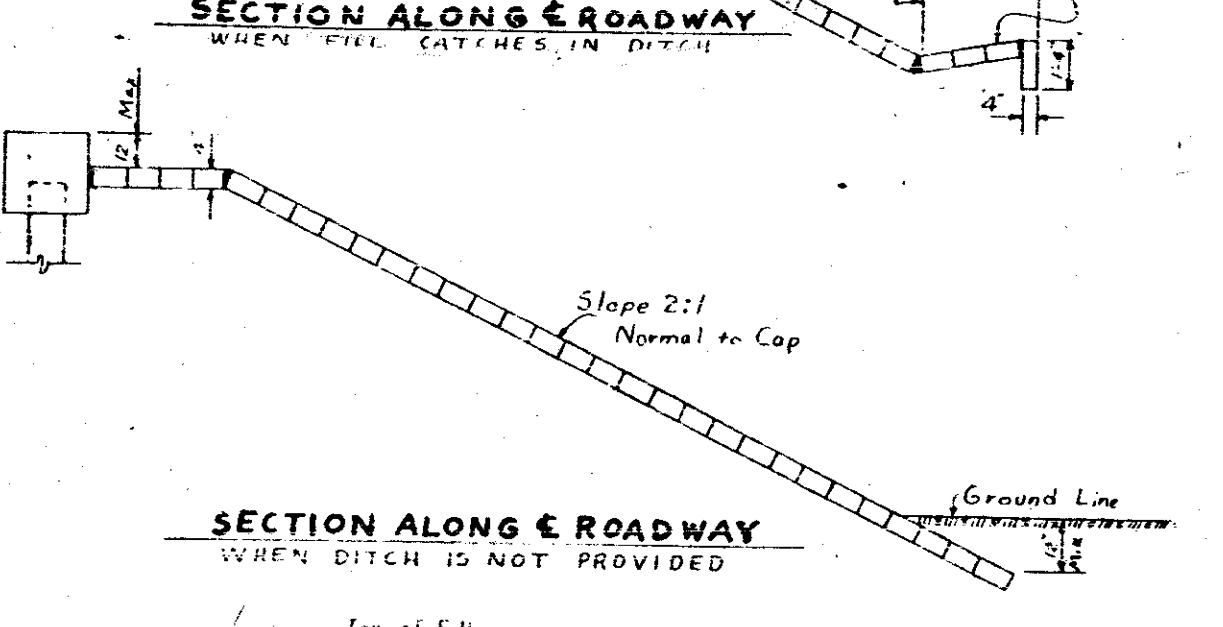
SECTION A-A



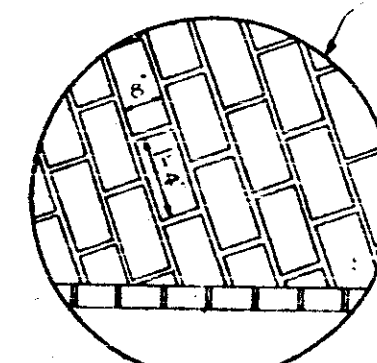
SECTION ALONG ROADWAY WHEN FILL CATCHES IN DITCH



SECTION ALONG ROADWAY WHEN DITCH IS NOT PROVIDED



SECTION ALONG ROADWAY WHEN DITCH IS NOT PROVIDED



DETAIL B

**SLOPE PROTECTION PAVING**  
 A 4" concrete slope protection paving shall be placed under the ends of the bridge. Limits of the protection shall be as shown in the details. Bids will be accepted on either Alternate "A" or "B" as described below.  
 Immediately before placing the paving, the slope shall be properly shaped and firmly compacted so that it conforms to the lines and grades shown. The finished surface shall be reasonably smooth and uniform and shall not vary from lines, grades, and sections shown by more than 1/4" along a 10' straight edge.

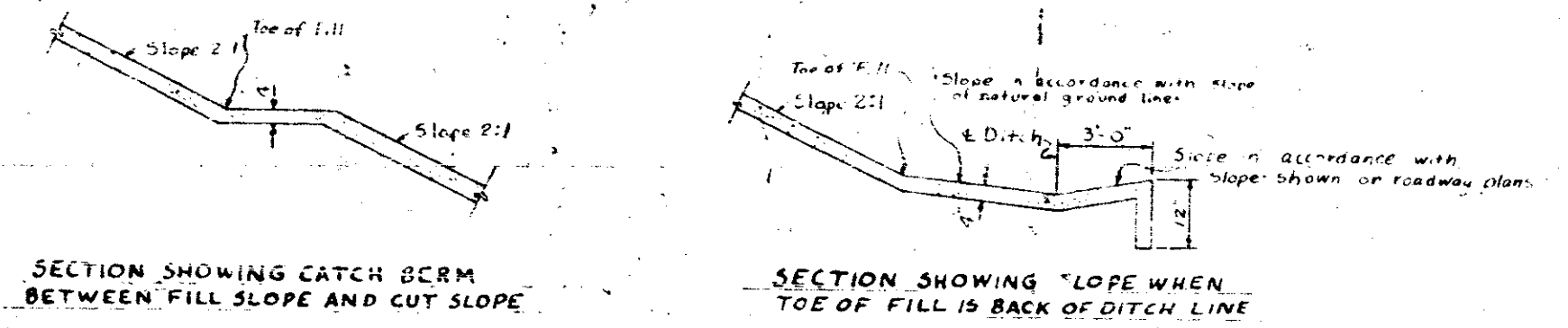
**ALTERNATE "A"**  
 Alternate "A" shall consist of 4" poured in place concrete paving as shown in details on this sheet. Concrete shall be Class B using standard size Number 20 coarse aggregate. The concrete surface shall be floated with a wooden float and finished.  
 The quantity to be paid for under this item shall be the number of square yards of slope protection measured in place complete and accepted, including the area of the toe walls below 4" thickness of protection (for example 8' pay area for toe wall 10' deep).

The quantity measured as provided for above, shall be paid for at the contract unit price per square yard for 4" Concrete Slope Protection, complete in place, which price and payment shall include compensation for all excavation, backfilling, preparation of slopes, and all materials, labor, equipment, tools, and incidentals necessary to complete the work.

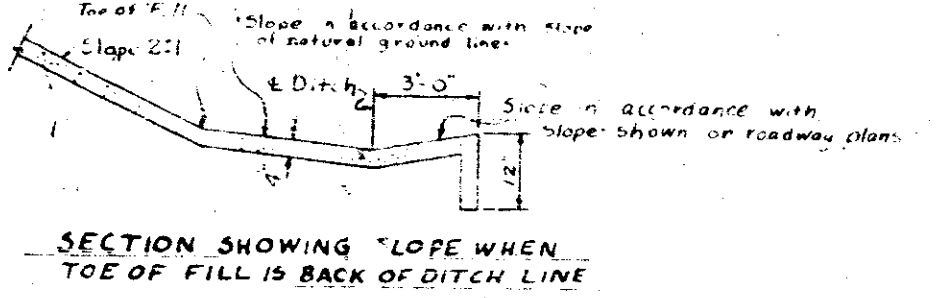
**ALTERNATE "B"**  
 Alternate "B" shall consist of solid concrete blocks 4" x 8" x 16" laid in horizontal courses such that those in successive courses will break joints with units in the preceding one. Blocks are to be laid with their long axis parallel to the and butt cap with grouted joints preferably 1/4" but not less than 1/8" nor more than 1/4" wide between successive courses and ends of blocks. Joints shall be grouted by pouring a mixture of one part portland cement to three parts sand mixed with sufficient water to enable the mixture to be poured through a spout.

The concrete blocks shall be cast to accurate dimensions, shall have uniform surface color and texture, and shall be manufactured of materials to produce a compressive strength of not less than 3000 p.s.i. at age of 28 days. No broken blocks shall be used except in constructing a straight line along each side of the paving down the slope. Care shall be taken to break the blocks so as to give a uniform workmanlike joint and surface.  
 Method of measurement and basis of payment shall be as prescribed above under Alternate "A" except that the item shall be 4" Concrete Block Slope Protection instead of 4" Concrete Slope Protection.

PROJECT NO. 8-16315  
 GASTON COUNTY  
 STATION: 165+01.5-L

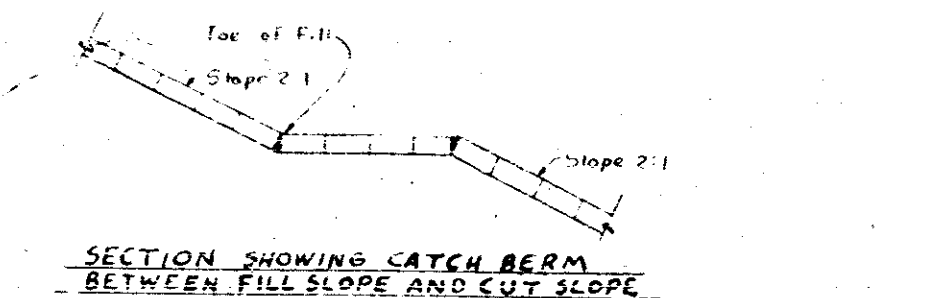


SECTION SHOWING CATCH BERM BETWEEN FILL SLOPE AND CUT SLOPE

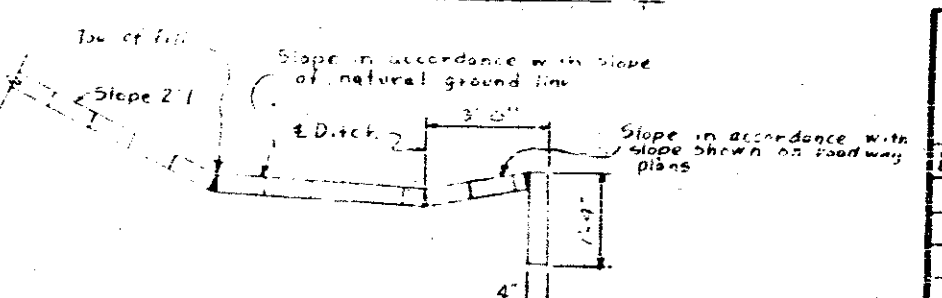


SECTION SHOWING SLOPE WHEN TOE OF FILL IS BACK OF DITCH LINE

DETAILS FOR ALTERNATE A



SECTION SHOWING CATCH BERM BETWEEN FILL SLOPE AND CUT SLOPE



SECTION SHOWING SLOPE WHEN TOE OF FILL IS BACK OF DITCH LINE

DETAILS FOR ALTERNATE B

	4" Concrete Slope Protection	
	4" Concrete Block Slope Protection	
	5' V.	
	E.B.#1	E.B.#2
BRIDGE @ 165+01.5-L	335	310
	280.52	277.61

STATE OF NORTH CAROLINA  
**STATE HIGHWAY COMMISSION**  
 STANDARD  
**SLOPE PROTECTION PAVING**  
 DETAILS  
 SEPTEMBER, 1958

SPECIAL	ASSEMBLED BY Jim Mills	DATE 3-5-59
	CHECKED BY Mark Underwood	DATE 3-27-59
STANDARD	DRAWN BY R.P. Ogden	DATE Sept 3, 1958
	CHECKED BY A.W. Temple	DATE Sept 19, 1958