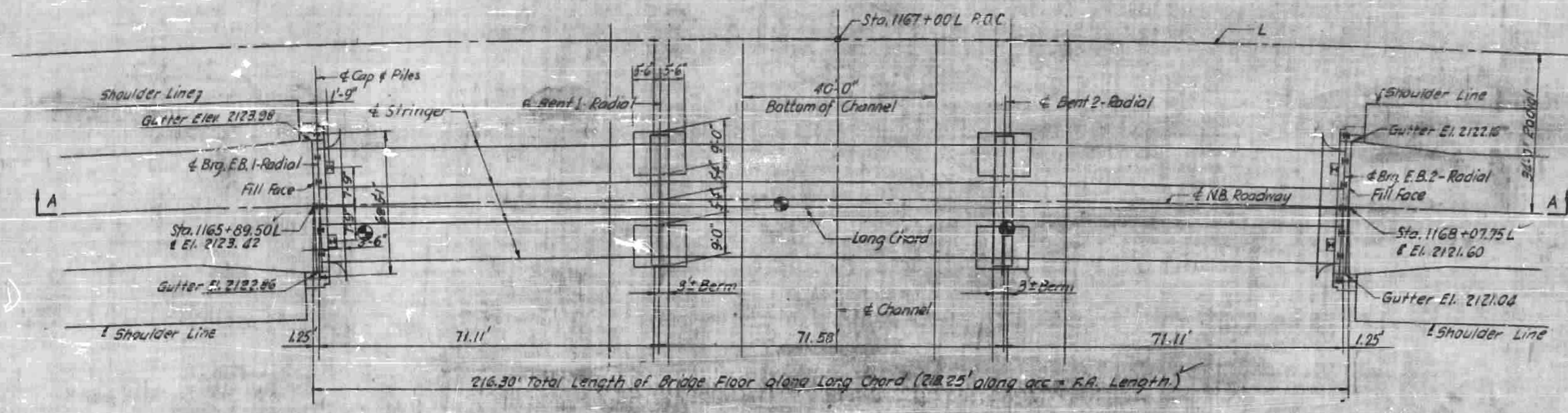
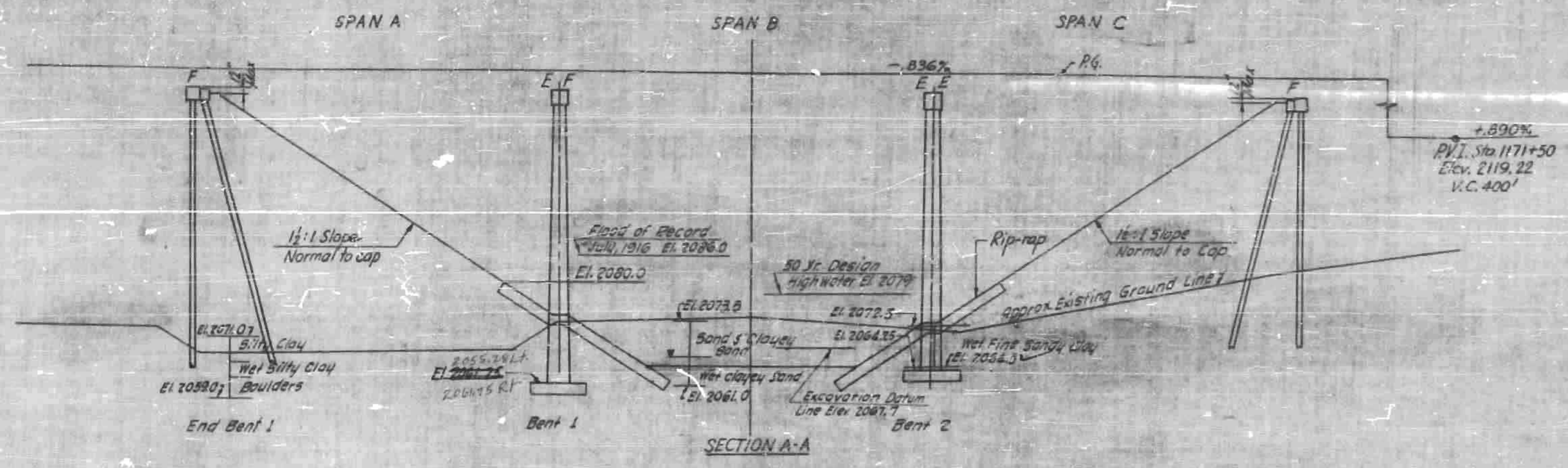


DATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
11-1-53	AS1 569	1	1
F. A. PROJ. NO.			

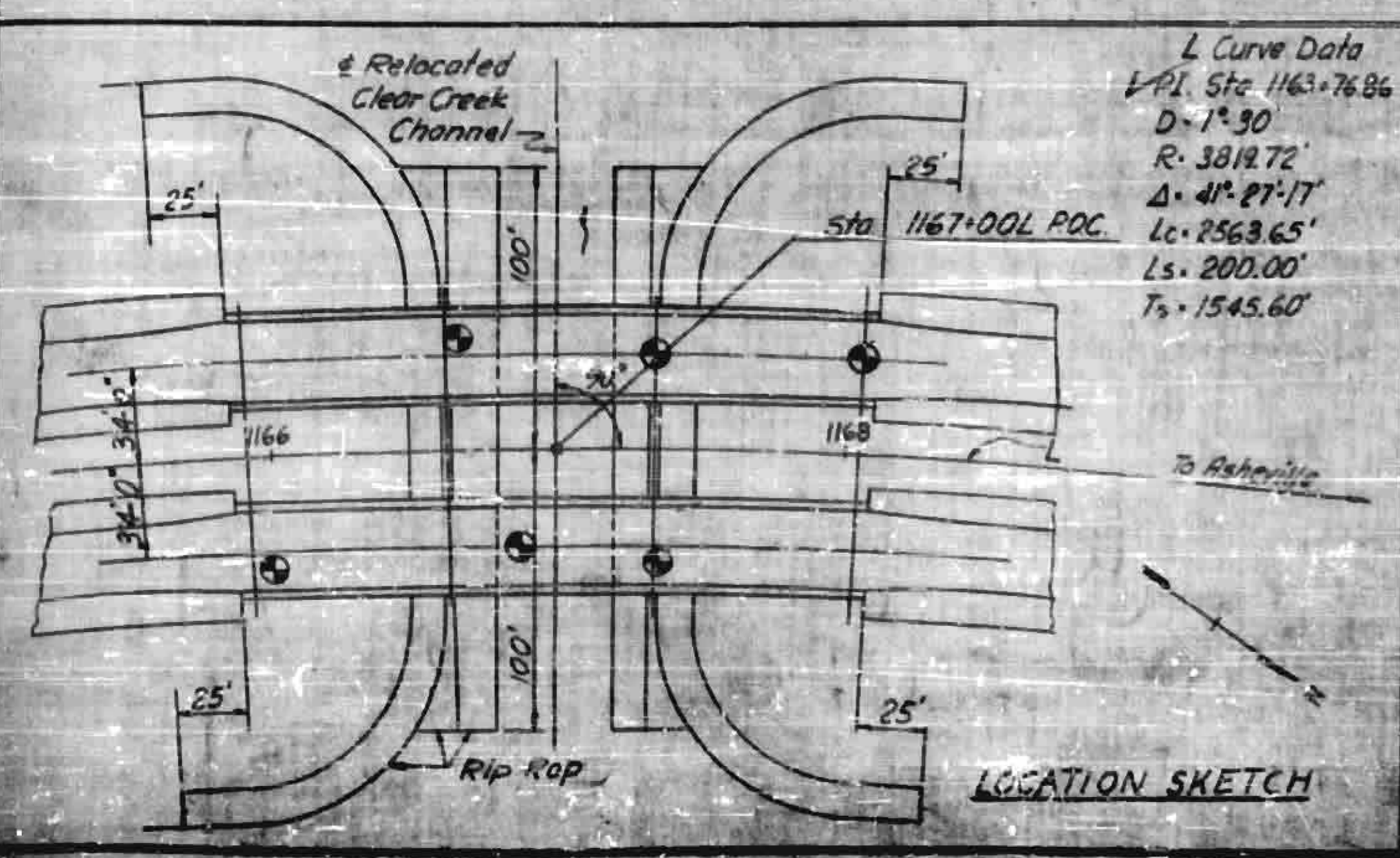
STATE	ROUTE	DATE
N.C.	8	8-18-53
FED. AID PROJ. 7-26-11512		

**NOTES**

- Loading: A.A.S.H.O. H20-516-44 and B.R.R. modified loading for military vehicles.
- Future surfacing: 20 lbs per sq. ft.
- Roadway width: 28'-0" curb to curb.
- For other design data and general notes, see General Notes Sheet.
- Concrete surfaces shall be given a finish in accordance with the specifications.
- Work is not to be started on Bents 1 and 2 until after channel section has been excavated and fills placed at End Bents. See Special Provisions.
- Excavation shall be measured from lower limit of rip-rap protection.
- All piles at End Bents shall be driven through the roadway fill.
- Piles for End Bents shall be driven to a minimum bearing capacity of 30 Tons.
- Footings at bents 1 & 2 are designed for a bearing pressure of 6 tons per sq. ft.



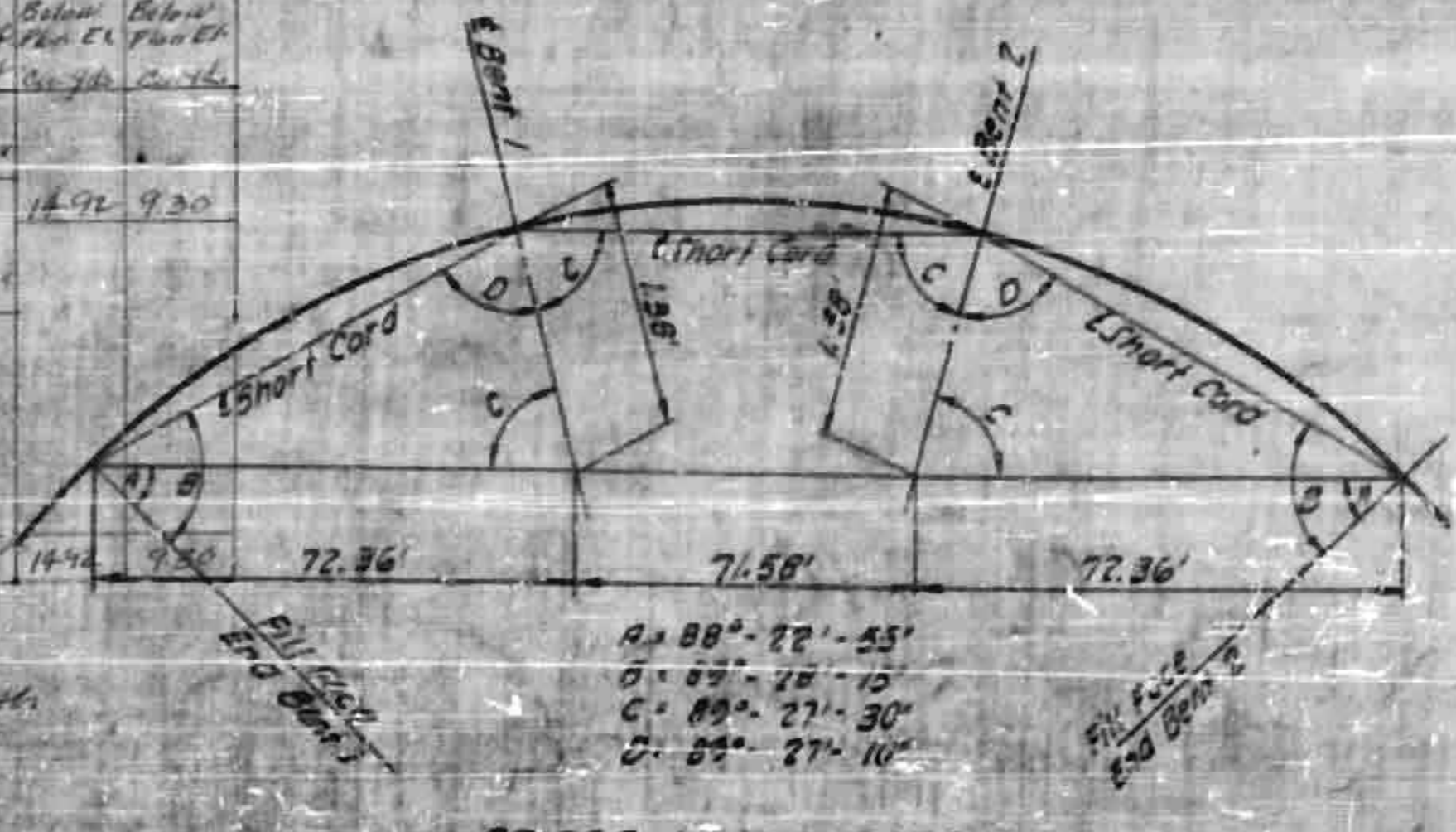
Benchmark: 3 nails in 15' oak 100' N. Sta. 11691.75  
Elev. 2124.42  
Benchmark: Sta. N.C. Highway Marker, 475' N. of Sta. 1162+00. Elevation 2122.42  
● Indicates 2 1/2" cased hole boring  
▼ Indicates ground water  
I certify that this structure was built according to Plans, except as noted.  
RESIDENT ENGINEER



L Curve Data  
L.P.I. Sta. 1163+76.86  
D = 1° 30'  
R = 3819.72'  
Δ = 41° 27' 17"  
Lc = 2563.65'  
Ls = 200.00'  
Ts = 1545.60'

**CLEAR CREEK N.B. TOTAL BILL OF MATERIAL**

Item	Class of Concrete Cu. Yds.	Reinforcing Steel Approx. Lbs.	Structural Steel Approx. Lbs.	23P53 Steel Piles No. in P.	SH EXCOV. Cu. Yds.	Plain Rip Rap Class 2 Sq. Yds.	Metal Rails Lbs. Ft.	10 D.P. Wet Excavation 53 Steel Piles Below Fill Face Cut-off for EL. Found
Superstructure	113.2	198,500		9	111	1625	427.04	
End Bent #1	7.4	2,919						
Bent #1	113.2	198,500		9	111	1625	427.04	1492.930
Bent #2	14.371							
End Bent #2	17.6	2,919		9	111	1625	427.04	76.6
Approach Curbs	3.2	16						
Totals	455.987	93377	198,500	18	222	3250	854.08	1564.860



PROJECT NO. 8-18293  
HENDERSON COUNTY  
STATION 1167+00.1  
N.B. BRIDGE

STATE OF NORTH CAROLINA  
STATE HIGHWAY COMMISSION  
BALDWIN

GENERAL DRAWING  
BRIDGE OVER  
RELOCATED CLEAR CREEK  
ON PROPOSED NORTHBOUND  
INTERSTATE ROUTE 28

APPROVED BY: [Signature]  
DATE: 6-18-53

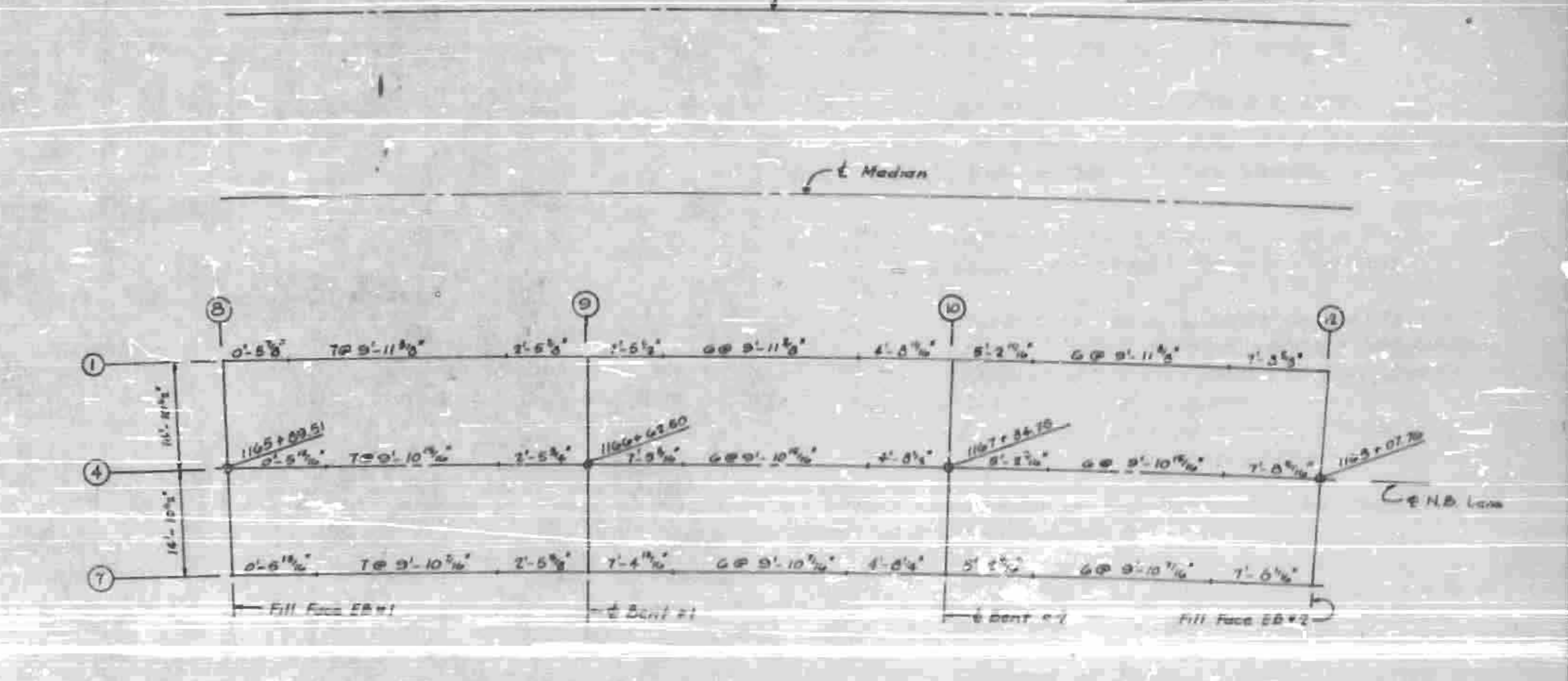
Revision No. 3: To change length of metal rail  
Revision No. 2: To change length of metal rail  
Revision No. 1: Revised to change for quarter curve.  
6-4-53

Column 1 bottom of overhang			Column 2 top of curb		Column 3 E of Beam		Column 4 E of Roadway			Column 5 E of Beam		Column 6 Top of curb		Column 7 Bottom of overhang		
Dist	Elev	Fill Face	Dist	Elev	Dist	Elev	Dist	Elev	Fill Face	Dist	Elev	Dist	Elev	Dist	Elev	Fill Face
0'-5"	2122.215	1165+30					0'-5"	2122.422	1165+30					0'-5"	2122.169	1165+30
9'-11"	.186	1166+00					9'-10"	.338	1166+00					9'-10"	.101	1166+00
9'-11"	2122.094	+10					9'-10"	.754	+10					9'-10"	2122.017	+10
9'-11"	2122.971	+20					9'-10"	.171	+20					9'-10"	2121.934	+20
9'-11"	.887	+30					9'-10"	.087	+30					9'-10"	.850	+30
9'-11"	.504	+40					9'-10"	2123.006	+40					9'-10"	.767	+40
9'-11"	.740	+50					9'-10"	2122.920	+50					9'-10"	.683	+50
9'-11"	.686	+60					9'-10"	.896	+60					9'-10"	.593	+60
7'-5"	.615	± Bent #1					7'-5"	.816	± Bent #1					7'-5"	.578	± Bent #1
7'-5"	.553	+70					7'-5"	.753	+70					7'-5"	.516	+70
9'-11"	.460	+80					9'-10"	.648	+80					9'-10"	.492	+80
9'-11"	.324	+90					9'-10"	.546	+90					9'-10"	.347	+90
9'-11"	.302	1167+00					9'-10"	.502	1167+00					9'-10"	.265	1167+00
9'-11"	.218	+10					9'-10"	.418	+10					9'-10"	.181	+10
9'-11"	.135	+20					9'-10"	.335	+20					9'-10"	.098	+20
9'-11"	.091	+30					9'-10"	.251	+30					9'-10"	2121.014	+30
4'-8"	2122.011	± Bent #2					4'-8"	.212	± Bent #2					4'-8"	2120.914	± Bent #2
5'-2"	2121.968	+40					5'-2"	.168	+40					5'-2"	.931	+40
9'-11"	.884	+50					9'-10"	.084	+50					9'-10"	.847	+50
9'-11"	.800	+60					9'-10"	2122.000	+60					9'-10"	.763	+60
9'-11"	.717	+70					9'-10"	2121.917	+70					9'-10"	.680	+70
9'-11"	.635	+80					9'-10"	.833	+80					9'-10"	.596	+80
9'-11"	.550	+90					9'-10"	.750	+90					9'-10"	.513	+90
9'-11"	.466	1168+00					9'-10"	.666	1168+00					9'-10"	.429	1168+00
7'-8"	2121.401	Fill Face					7'-8"	2121.601	Fill Face					7'-8"	2120.344	Fill Face

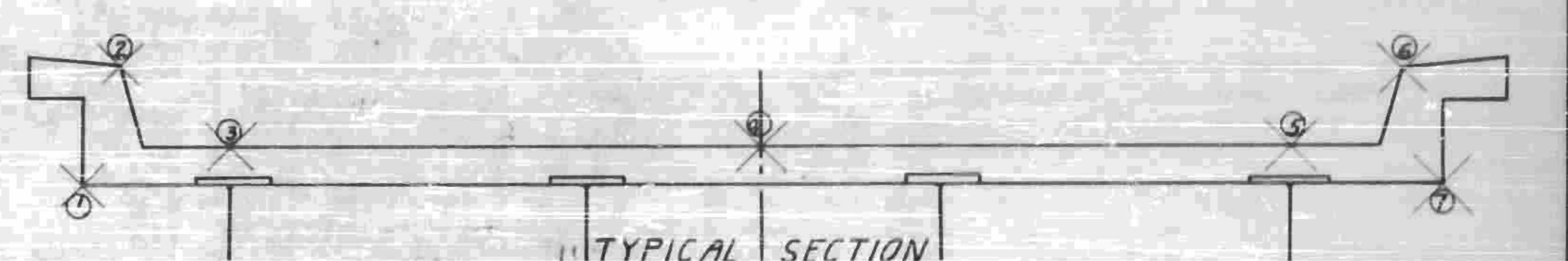
**GRADE DATA**

P.I. Sta 1171+00  
 P.I. Elev 2119.52  
 Length of Curve 400'  
 G1 = -0.036% G2 = +0.090%

Full Road E.M. No. STATE PROJECT NO. 618293  
 SHEET NO. 432 569



PLAN



TYPICAL SECTION

Elevations shown in these tables are final required elevations of the completed structure. In setting up form elevations and screed elevations, provisions must be made for deflections where required.

For columns 8 thru 12, points are at 2'-0" intervals normal to E. of roadway from left gutter line to right gutter line.

SUPERIMPOSED DEAD LOAD DEFLECTIONS (inches)				
Int.	SPAN	SPAN	SPAN	SPAN
Int.	For Deflections See Structural Steel Details			
Ext.				

HEADERS

Column 8 Fill Face of EB 1	Column 9 E of Bent 1	Column 10 E of Bent 2	Column 11 E of Bent 3	Column 12 Fill Face of EB 2
Point Elev	Point Elev	Point Elev	Point Elev	Point Elev
Lt. Gutter 2123.986	Lt. Gutter 2123.576	Lt. Gutter 2122.772		Lt. Gutter 2122.161
2'-0" .506	2'-0" .296	2'-0" .692		2'-0" .681
.876	.216	.612		2122.001
.746	.136	.532		2121.921
.666	2123.056	.452		.841
.586	2122.976	.372		.761
.506	.896	.292		.681
.426	.816	.212		.601
.346	.736	.132		.521
.266	.656	2122.052		.441
.186	.576	2121.972		.361
.106	.496	.892		.281
2123.026	.416	.812		.201
2'-0" 2122.946	2'-0" .336	2'-0" .732		.121
Rt. Gutter 2122.866	Rt. Gutter 2122.256	Rt. Gutter 2121.652		Rt. Gutter 2121.041

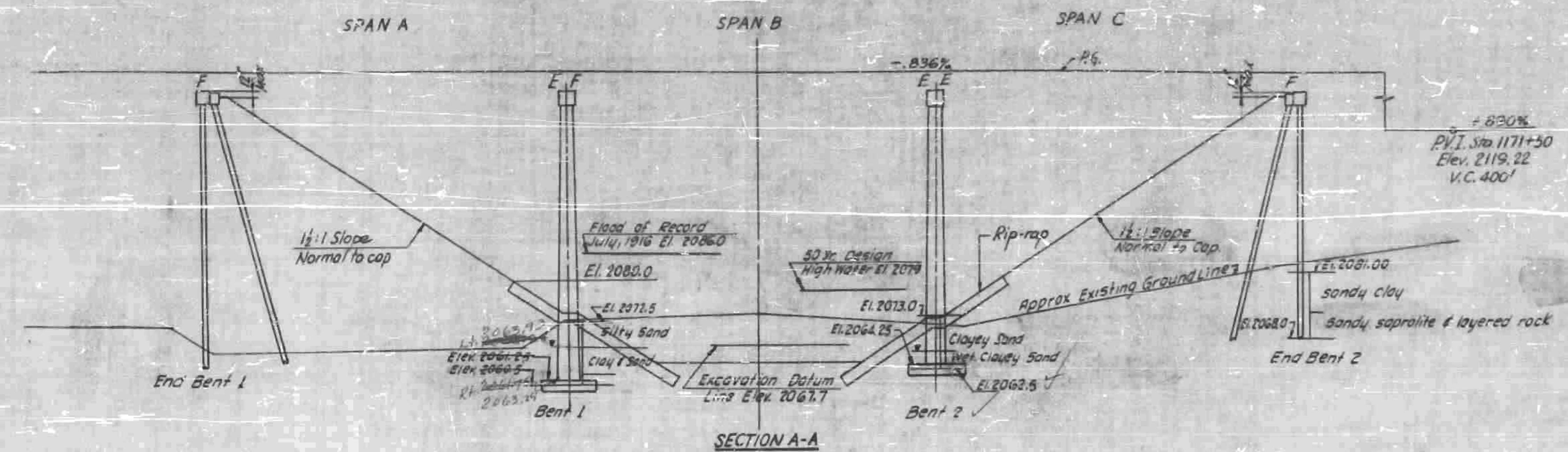
PROJECT No 618293  
 HENDERSON COUNTY  
 STATION 1167+00 L  
 NB Bridge

STATE OF NORTH CAROLINA  
**STATE HIGHWAY COMMISSION**  
 ELEVATIONS  
 FOR  
 SETTING UP  
 FORMS AND SCREEDS

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			2		
2			3		

DESIGNED BY G. H. ... DATE March 1963  
 CHECKED BY ... DATE March 21 1963

DATE	REV. NO.	BY	CHKD.
433 569		8.18293	
FED. AID PROJ. I-76-15712			



**NOTES**

Loading: AASHTO H-20-S16-44 and BRR modified loading for military vehicles.

Future surfacing: 20 lbs per sq. ft.

Roadway width: 28' 0" curb to curb

For other design data and general notes, see General Notes Sheet.

Concrete surfaces shall be given a finish in accordance with the specifications.

Work is not to be started on Bents 1 and 2 until after channel section has been excavated and fills placed at End Bents. See Special Provisions.

Excavation shall be measured from lower limit of rip-rap protection.

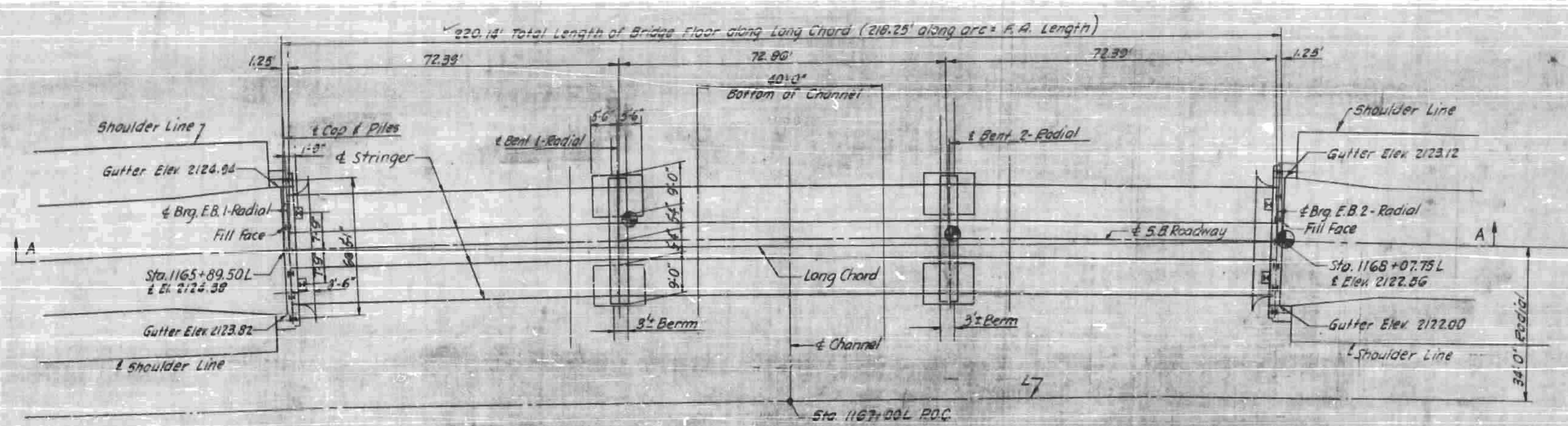
All piles at End Bents shall be driven through the roadway fill.

Piles for End Bents shall be driven to a minimum bearing capacity of 30 Tons.

Footings at Bents 1 & 2 are designed for a bearing pressure of 4 tons per sq. ft.

I certify that this structure was built according to Plans except as noted.

RESIDENT ENGINEER

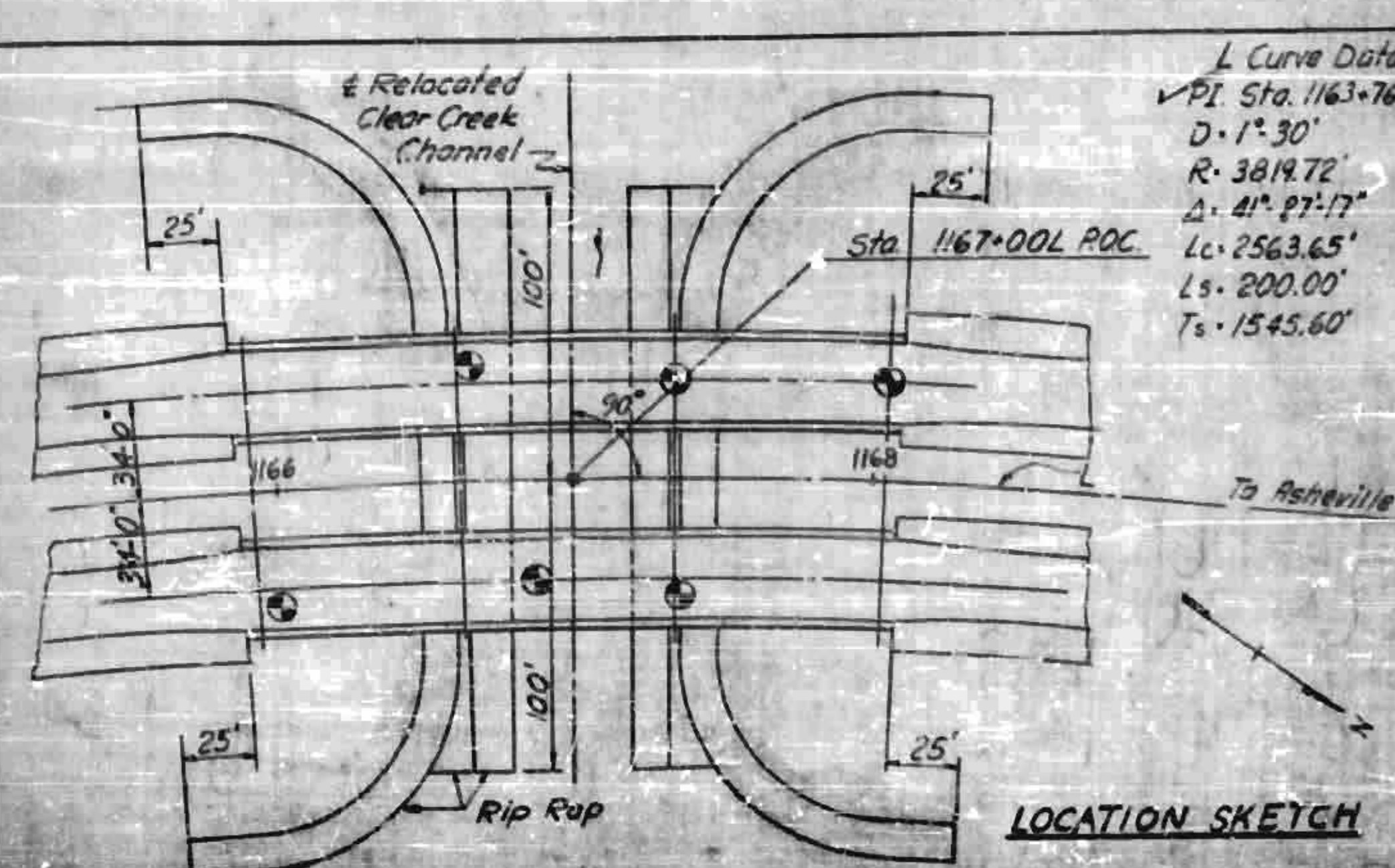


Benchmark: 3 nails in 15" oak, 100' Lt. Sta. 1167+75 L, Elev. 2118.42.

Benchmark: Sta. N.C. Highway Marker #75' Rt. of Sta. 1162+00, Elevation 2130.40

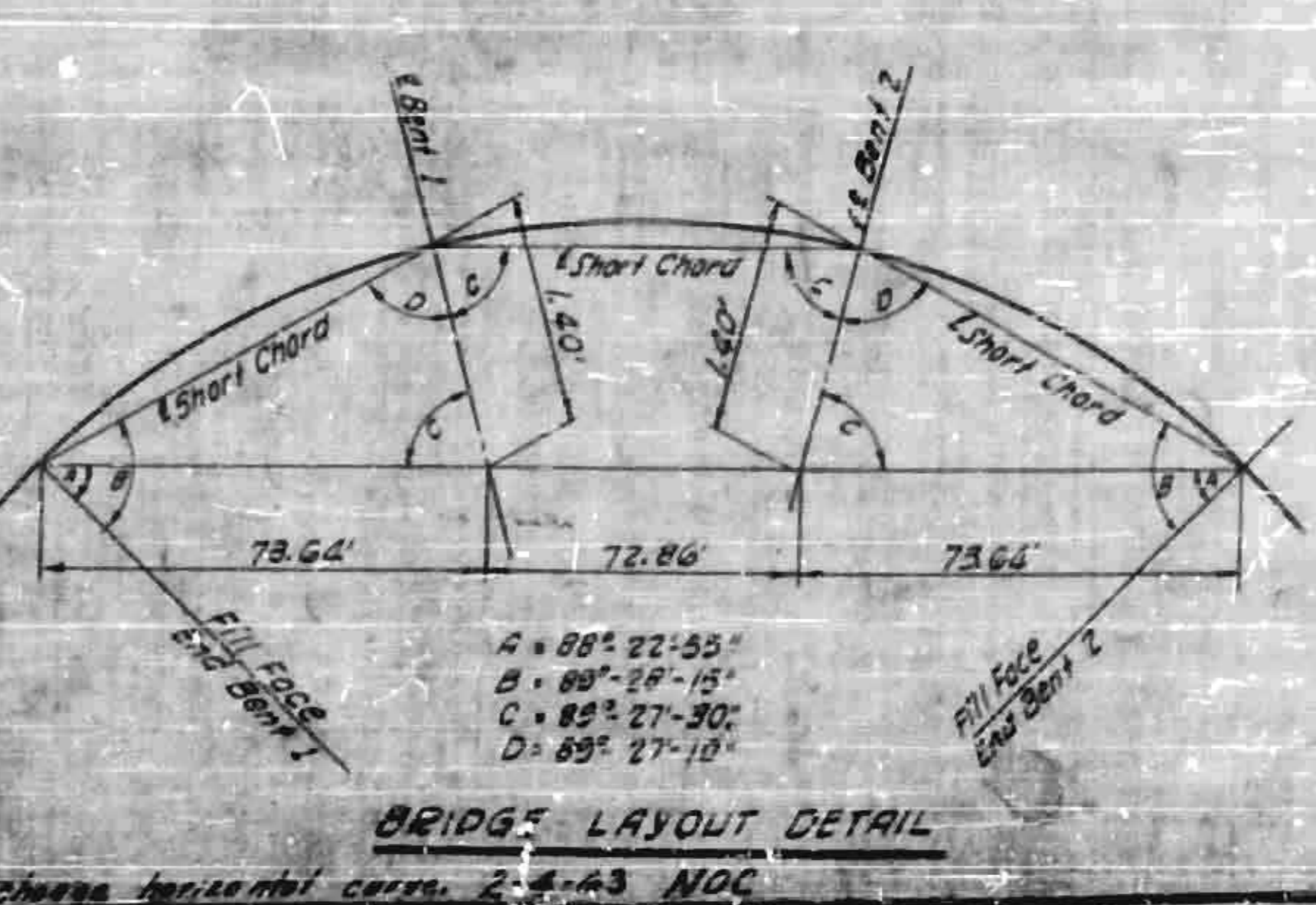
⊙ Indicates 24" cased hole boring.

▼ Indicates ground water.



**CLEAR CREEK S.B.**  
**TOTAL BILL OF MATERIAL**

Item	Quantity	Unit	Weight (Lbs)	Volume (Cu Yds)	Area (Sq Yds)	Length (Lin Ft)
Superstructure	216.8	Cu Yds	205,600			434.73
End Bent #1	17.4	Cu Yds	2,919			26.18
Bent #1	25.0	Cu Yds	14,026			
Bent #2	25.0	Cu Yds	14,026			
End Bent #2	17.4	Cu Yds	2,919			26.18
Approach Curbs	8.2	Cu Yds	76			
<b>Totals</b>	<b>489.8</b>		<b>205,600</b>			<b>494.73</b>



PROJECT NO. 8.18293  
 HENDERSON COUNTY  
 STATION 1167+00L  
 S.B. BRIDGE

STATE OF NORTH CAROLINA  
STATE HIGHWAY COMMISSION  
RALEIGH

GENERAL DRAWING  
BRIDGE OVER  
RELOCATED CLEAR CREEK  
ON PROPOSED SOUTHBOUND  
INTERSTATE ROUTE 26

DESIGNED BY: [Signature] DATE: 5-22-62  
 CHECKED BY: [Signature] DATE: 5-22-62  
 APPROVED BY: [Signature] DATE: 5-22-62

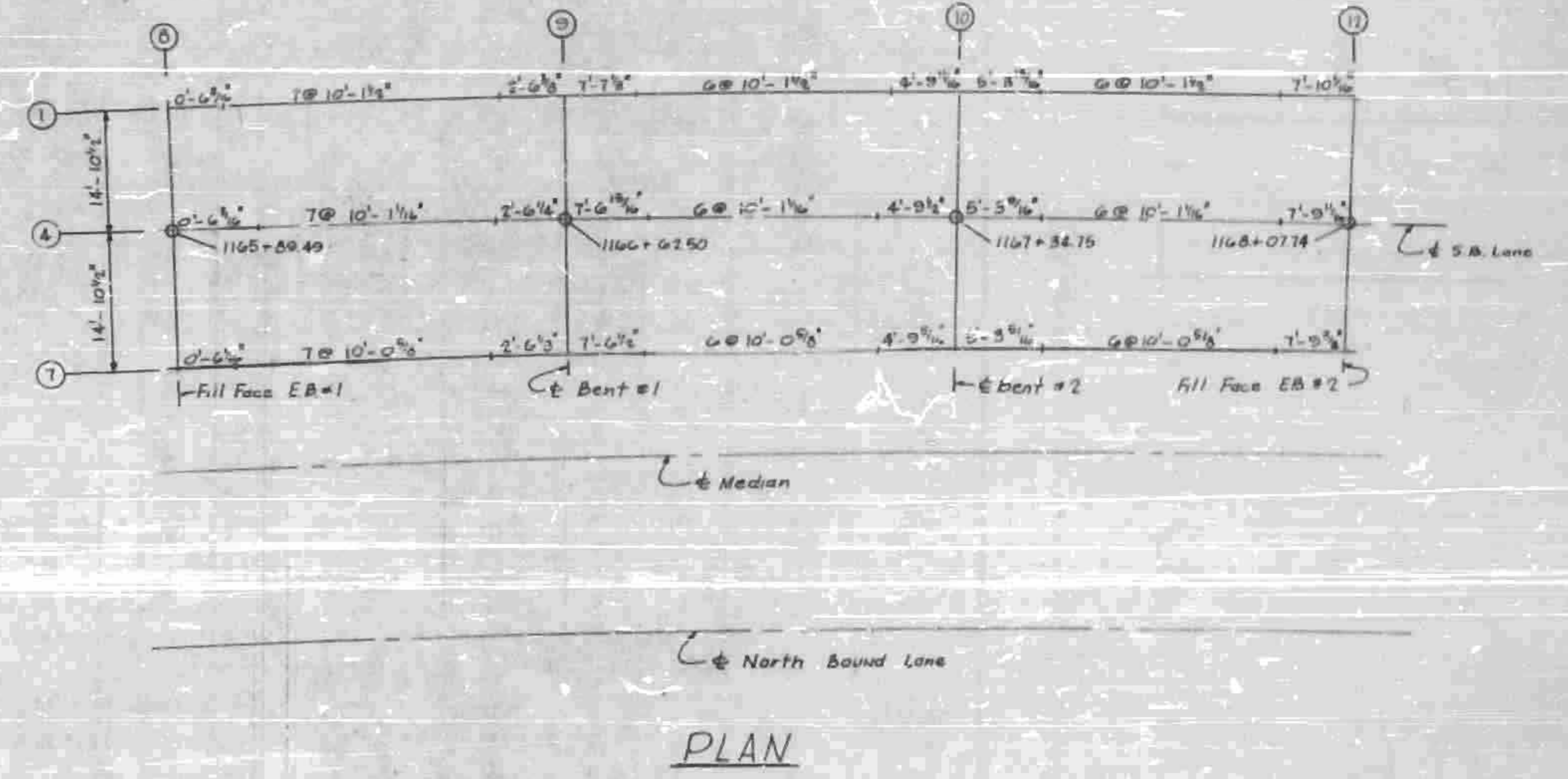
Revision #3 To change length of metal rail.  
 Revision #2 To change amount of steel quantities.  
 Revision #1 Revised to change horizontal curve 2-4-63 NOC

Column 1 Bottom of overhang		Column 2 top of curb		Column 3 E of Beam		Column 4 E of Roadway		Column 5 E of Beam		Column 6 Top of curb		Column 7 Bottom of Overhang	
Dist	Elev	Dist	Elev	Dist	Elev	Dist	Elev	Dist	Elev	Dist	Elev	Dist	Elev
0'-0"	2124.156	0'-0"	2124.384	0'-0"	2124.384	0'-0"	2124.384	0'-0"	2124.384	0'-0"	2124.384	0'-0"	2124.145
10'-11 1/2"	.182	10'-0"	.295	10'-0"	.295	10'-0"	.295	10'-0"	.295	10'-0"	.295	10'-0"	.145
10'-11 1/2"	.098	10'-0"	.214	10'-0"	.214	10'-0"	.214	10'-0"	.214	10'-0"	.214	10'-0"	.277
10'-11 1/2"	.014	10'-0"	.151	10'-0"	.151	10'-0"	.151	10'-0"	.151	10'-0"	.151	10'-0"	.898
10'-11 1/2"	.275	10'-0"	.214	10'-0"	.214	10'-0"	.214	10'-0"	.214	10'-0"	.214	10'-0"	.810
10'-11 1/2"	.847	10'-0"	.764	10'-0"	.764	10'-0"	.764	10'-0"	.764	10'-0"	.764	10'-0"	.727
10'-11 1/2"	.764	10'-0"	.680	10'-0"	.680	10'-0"	.680	10'-0"	.680	10'-0"	.680	10'-0"	.645
10'-11 1/2"	.680	10'-0"	.596	10'-0"	.596	10'-0"	.596	10'-0"	.596	10'-0"	.596	10'-0"	.559
10'-11 1/2"	.596	10'-0"	.513	10'-0"	.513	10'-0"	.513	10'-0"	.513	10'-0"	.513	10'-0"	.526
10'-11 1/2"	.513	10'-0"	.429	10'-0"	.429	10'-0"	.429	10'-0"	.429	10'-0"	.429	10'-0"	.490
10'-11 1/2"	.429	10'-0"	.346	10'-0"	.346	10'-0"	.346	10'-0"	.346	10'-0"	.346	10'-0"	.475
10'-11 1/2"	.346	10'-0"	.262	10'-0"	.262	10'-0"	.262	10'-0"	.262	10'-0"	.262	10'-0"	.440
10'-11 1/2"	.262	10'-0"	.178	10'-0"	.178	10'-0"	.178	10'-0"	.178	10'-0"	.178	10'-0"	.405
10'-11 1/2"	.178	10'-0"	.095	10'-0"	.095	10'-0"	.095	10'-0"	.095	10'-0"	.095	10'-0"	.370
10'-11 1/2"	.095	10'-0"	.011	10'-0"	.011	10'-0"	.011	10'-0"	.011	10'-0"	.011	10'-0"	.335
10'-11 1/2"	.011	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.300
10'-11 1/2"	.211	10'-0"	.127	10'-0"	.127	10'-0"	.127	10'-0"	.127	10'-0"	.127	10'-0"	.265
10'-11 1/2"	.127	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.230
10'-11 1/2"	.044	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.195
10'-11 1/2"	.211	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.160
10'-11 1/2"	.128	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.125
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10'-11 1/2"	.211	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.055
10'-11 1/2"	.128	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.020
10'-11 1/2"	.044	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.085
10'-11 1/2"	.211	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.050
10'-11 1/2"	.128	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.015
10'-11 1/2"	.044	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.080
10'-11 1/2"	.211	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.045
10'-11 1/2"	.128	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.010
10'-11 1/2"	.044	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.075
10'-11 1/2"	.211	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.040
10'-11 1/2"	.128	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.005
10'-11 1/2"	.044	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.211	10'-0"	.070
10'-11 1/2"	.211	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.128	10'-0"	.035
10'-11 1/2"	.128	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.044	10'-0"	.000

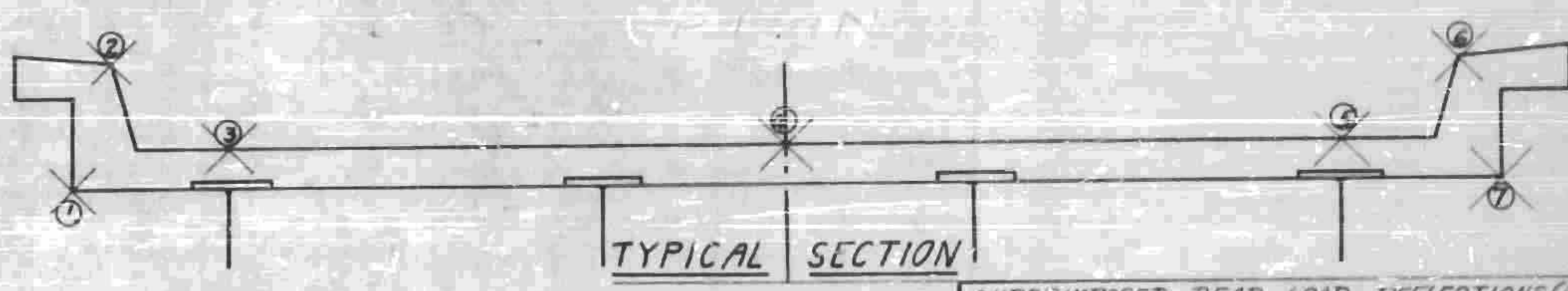
GRADE DATA

P.I. Sta. 1171+50  
 P.I. Elev. 2118.22  
 Length of Curve 400'  
 G1 = -0.886 % G2 = +0.890 %

DATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
		434	569



PLAN



TYPICAL SECTION

Elevations shown in these tables are final required elevations of the completed structure. In setting up form elevations and screed elevations, provisions must be made for deflections where required.

For columns 8 thru 12, points are at 2'-0" intervals normal to E of roadway from left gutter line to right gutter line.

Int.	SPAN	SPAN	SPAN	SPAN	Details
EAT	For Deflections	See Structural Steel			

HEADERS

Column 8	Column 9	Column 10	Column 11	Column 12
Fill Face of EB 1	E of Bent 1	E of Bent 2	E of Bent 3	Fill Face EB 2
Point Elev	Point Elev	Point Elev	Point Elev	Point Elev
Lt Gutter 2124.940	Lt Gutter 2124.386	Lt Gutter 2125.782	Lt Gutter 2125.782	Lt Gutter 2123.141
2'-0" .866	2'-0" .756	2'-0" .652	2'-0" .652	2'-0" 2123.041
2'-0" .766	2'-0" .176	2'-0" .572	2'-0" .572	2'-0" 2122.961
2'-0" .706	2'-0" .096	2'-0" .492	2'-0" .492	2'-0" .881
2'-0" .646	2124.016	2'-0" .412	2'-0" .412	2'-0" .801
2'-0" .586	2123.756	2'-0" .332	2'-0" .332	2'-0" .721
2'-0" .526	2'-0" .856	2'-0" .252	2'-0" .252	2'-0" .641
2'-0" .466	2'-0" .776	2'-0" .172	2'-0" .172	2'-0" .561
2'-0" .406	2'-0" .696	2'-0" .092	2'-0" .092	2'-0" .481
2'-0" .346	2'-0" .616	2123.012	2123.012	2'-0" .401
2'-0" .286	2'-0" .536	2122.992	2122.992	2'-0" .321
2'-0" .226	2'-0" .456	2'-0" .852	2'-0" .852	2'-0" .241
2'-0" .166	2'-0" .376	2'-0" .772	2'-0" .772	2'-0" .161
2'-0" .106	2'-0" .296	2'-0" .692	2'-0" .692	2'-0" .081
2'-0" .046	2123.826	2123.216	2122.612	2'-0" 2122.001

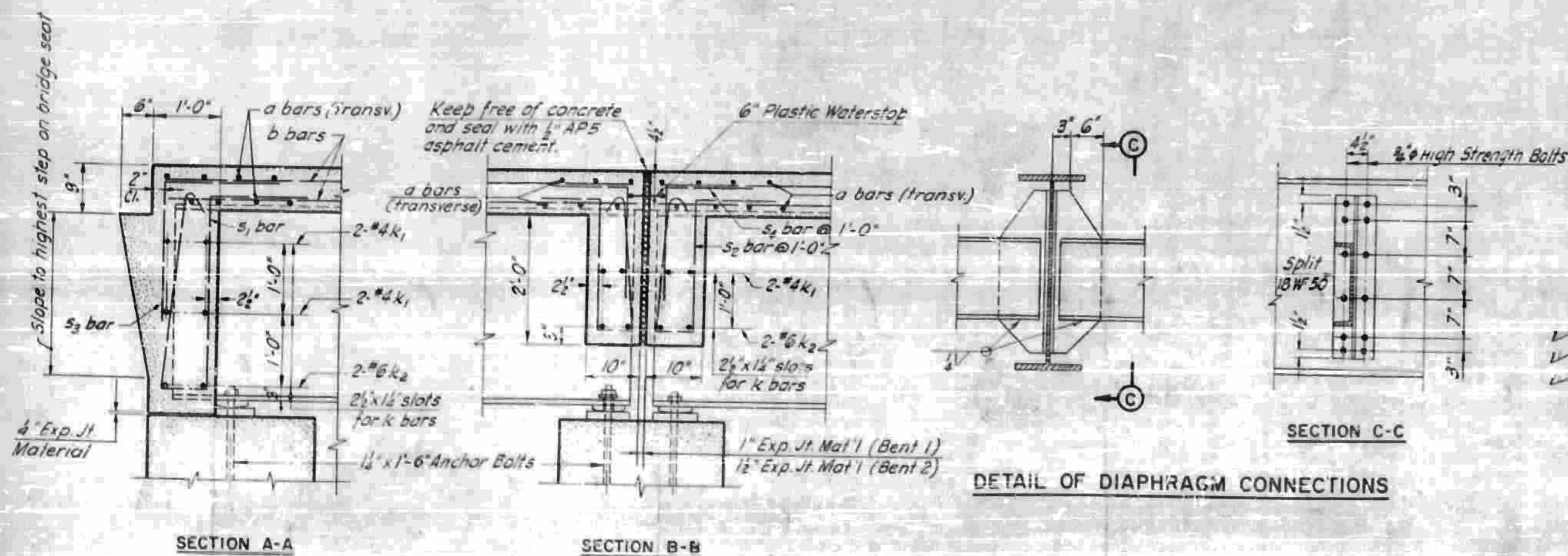
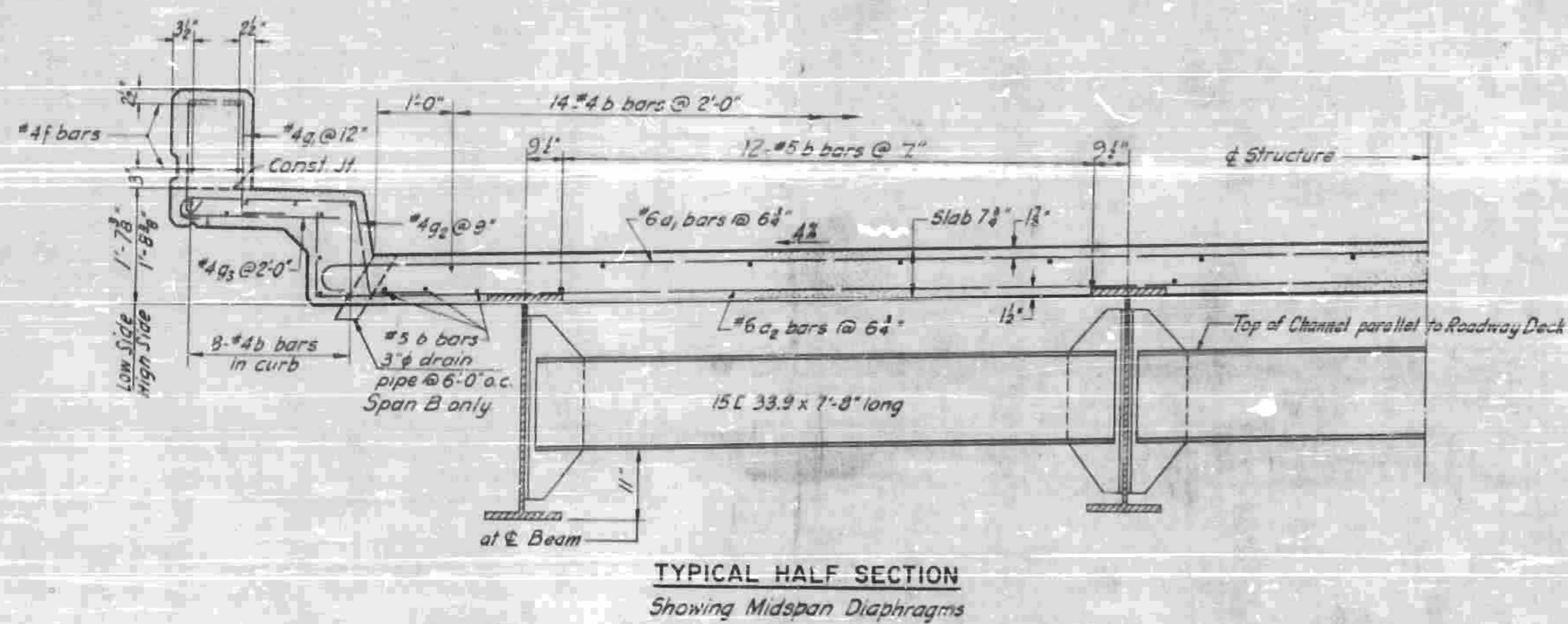
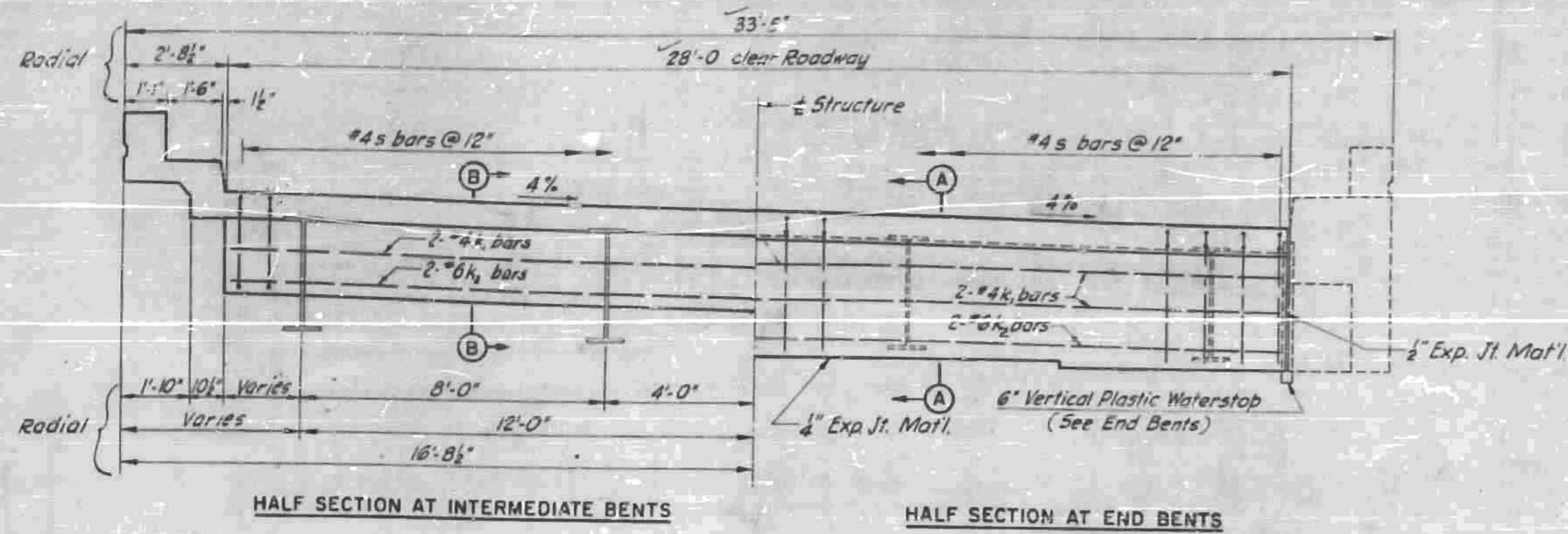
PROJECT NO. 8.18293  
 HENDERSON COUNTY  
 STATION: 1167+00.1  
 S.B. Bridge

STATE OF NORTH CAROLINA  
**STATE HIGHWAY COMMISSION**  
 RALEIGH  
**ELEVATIONS FOR SETTING UP FORMS AND SCREDS**

APPROVED: 1281

REVISIONS: 1381

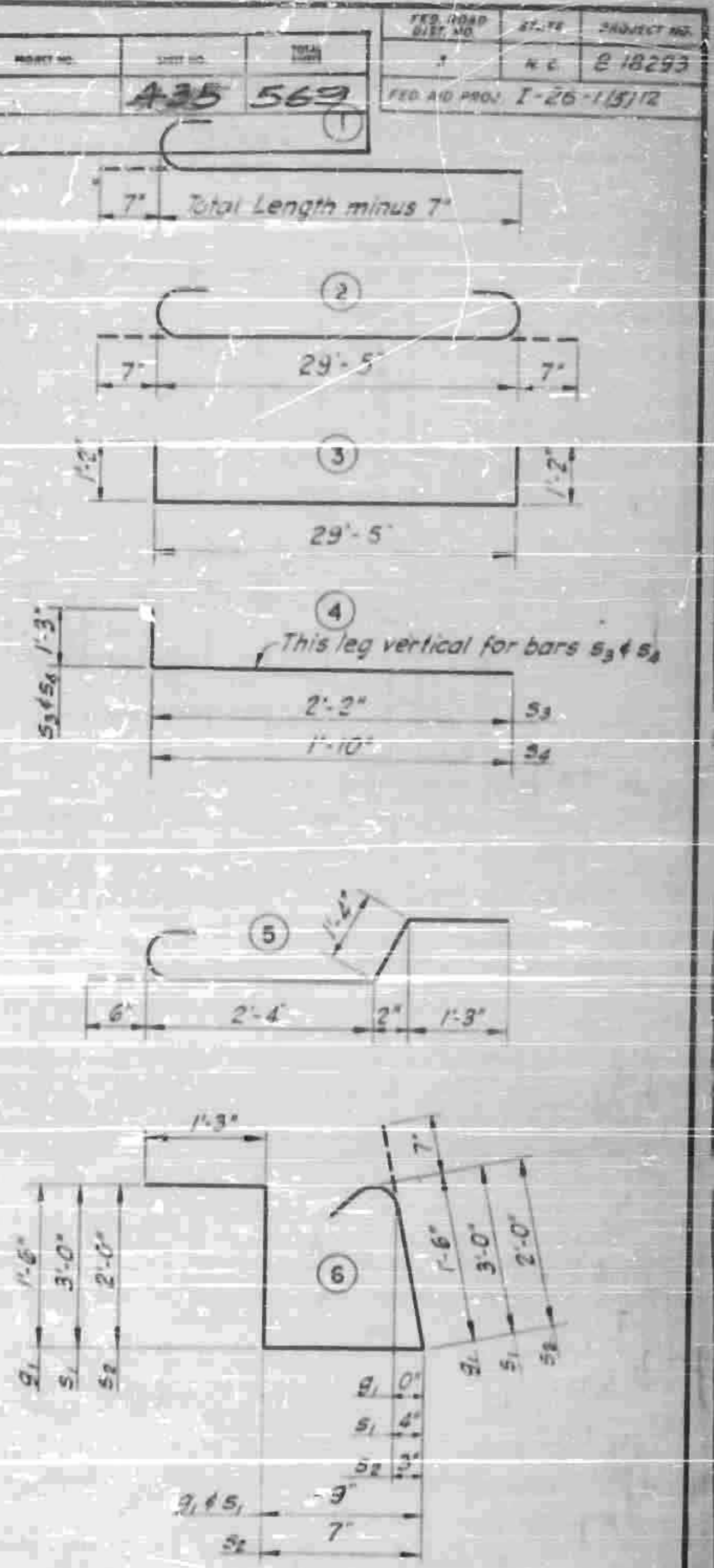
NO.	BY	DATE	NO.	BY	DATE



**BILL OF MATERIALS — 3 SPANS**

BAR	NUMBER OF BARS			TOTAL	SIZE	TYPE	LENGTH	WEIGHT
	SPAN A	SPAN B	SPAN C					
<b>S. B. BRIDGE</b>								
a1	127	131	127	385	6	2	30-7	17685
a2	126	130	126	382	6	3	31-9	18217
a3	10	-	10	20	6	Str.	21-8	831
b1	126	-	126	252	5	Str.	25-3	5672
b2	48	-	48	96	4	"	24-6	1571
b3	-	90	-	90	4	"	25-0	1503
b4	42	-	42	84	4	"	25-3	1417
b5	-	126	-	126	5	"	25-6	3351
b6	32	66	32	130	4	"	4'-0"	370
f1	24	-	24	48	4	Str.	24-6	706
f2	-	24	-	24	4	"	25-0	401
g1	143	147	143	433	4	6	5-7	1615
g2	191	195	191	577	4	5	5-5	2008
g3	73	74	73	220	4	Str.	2-4	343
k1	6	4	6	16	4	Str.	27-7	294
k2	4	4	4	12	6	"	27-7	497
s1	28	-	28	56	4	6	8-7	318
s2	28	56	28	112	4	6	6-5	480
s3	28	-	28	56	4	4	3-5	128
s4	28	56	28	112	4	4	3-1	231
<b>N. B. BRIDGE</b>								
a1	125	128	125	378	6	2	30-7	17364
a2	124	127	124	375	6	3	31-2	17883
a3	10	-	10	20	6	Str.	22-8	831
b1	126	-	126	252	5	Str.	25-3	5677
b2	48	-	48	96	4	"	24-6	1539
b3	-	90	-	90	4	"	25-0	1473
b4	42	-	42	84	4	"	25-3	1309
f1	24	-	24	48	4	Str.	24-6	710
f2	-	24	-	24	4	"	24-6	393
b5	-	126	-	126	5	"	25-0	3295
g1	141	145	141	427	4	6	5-7	1553
g2	197	192	197	586	4	5	5-5	2048
g3	72	73	72	217	4	Str.	2-4	330
k1	6	4	6	16	4	Str.	27-7	294
k2	4	4	4	12	6	"	27-7	497
s1	28	-	28	56	4	6	8-7	318
s2	28	56	28	112	4	6	6-5	480
s3	28	-	28	56	4	4	3-5	128
s4	28	56	28	112	4	4	3-1	231
b	31	64	31	126	4	"	4'-0"	337

Southbound Structure	Northbound Structure
Reinforcing Steel 58,850 lbs	Reinforcing Steel 57,829 lbs
Class "A" Concrete 216.8 cu. yds	Class "A" Concrete 218.2 cu. yds
Structural Steel 205,400 lbs	Structural Steel 198,300 lbs
Single Bar Metal Railing 434.73 Lin. Ft.	Single Bar Metal Railing 427.04 Lin. Ft.



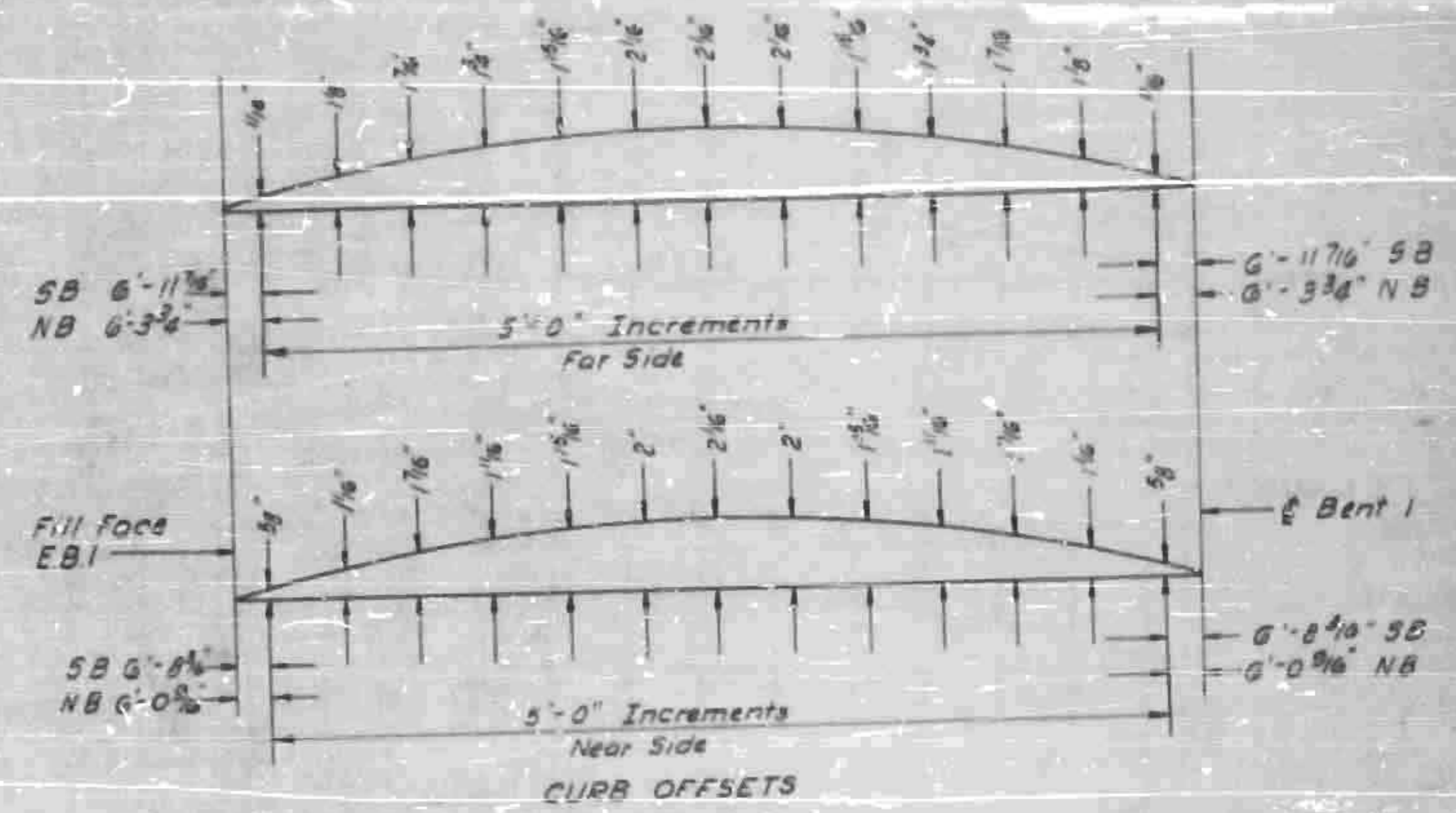
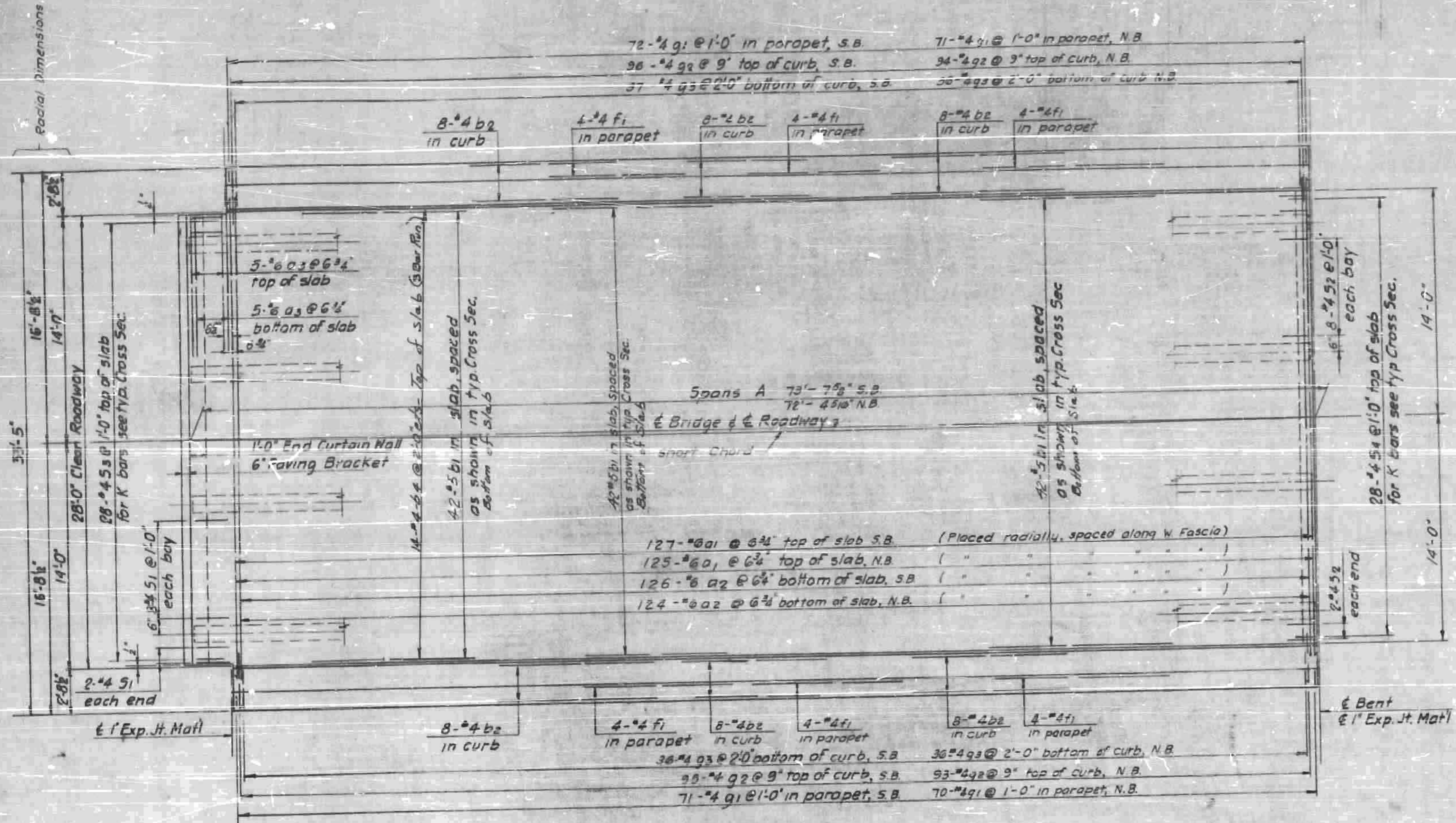
PROJECT NO. 3 18293  
Henderson COUNTY  
STATION 1167.00L  
N.B. & S.B. Bridge

STATE OF NORTH CAROLINA  
STATE HIGHWAY COMMISSION  
RALEIGH

SUPERSTRUCTURE  
CROSS SECTIONS

Revision No 2: To change length of metal rail.  
Revision No 1: To change b bars in bottom of slab.

NO.	BY	DATE	REVISION
1	CBP	1/16/53	AS SHOWN
2	CBP	1/16/53	AS SHOWN



PLAN

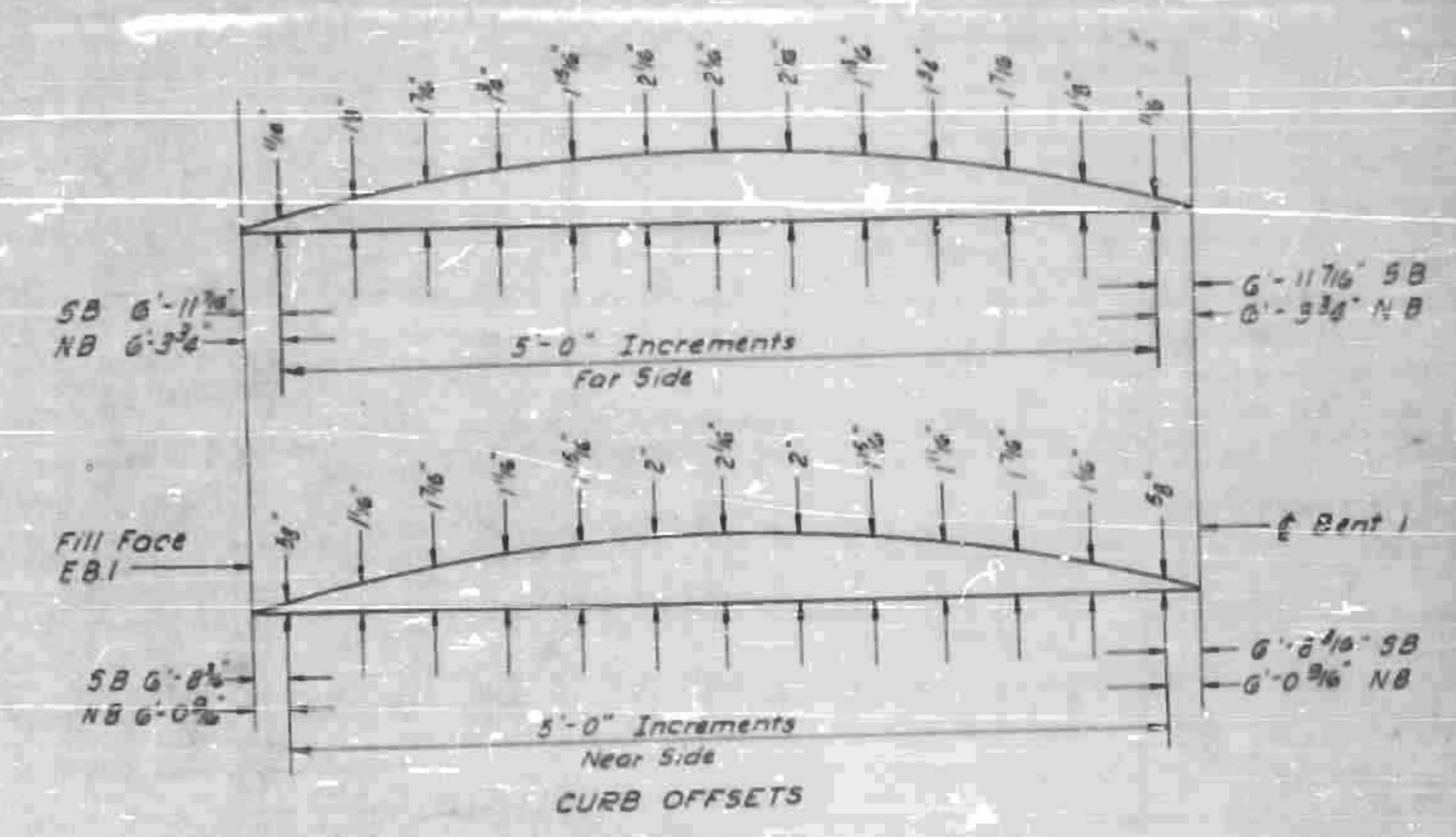
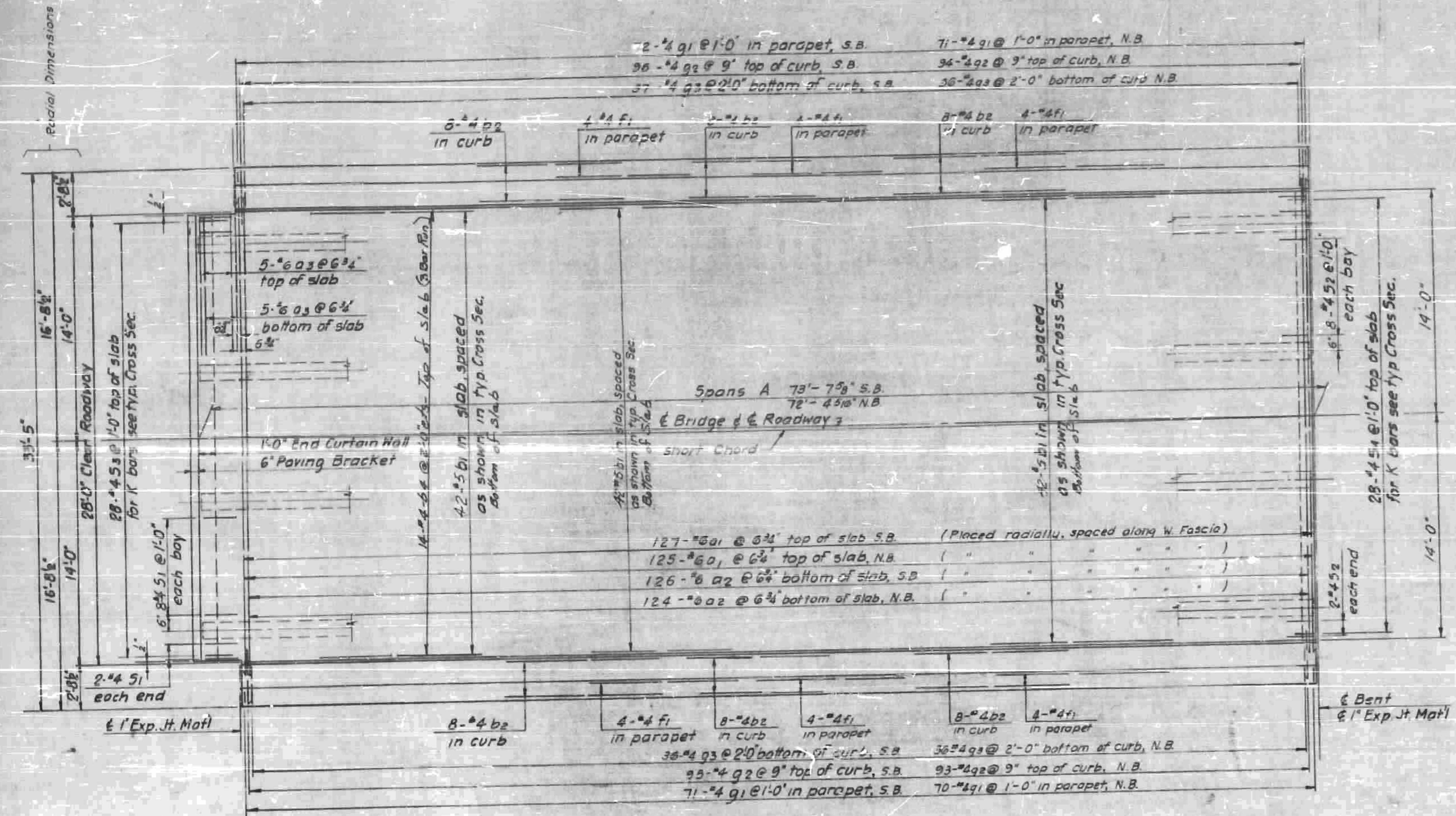
PROJECT NO. 818293  
 Henderson COUNTY  
 STATION 1167+00 L  
 NB & S.B. Bridge

STATE OF NORTH CAROLINA	
STATE HIGHWAY COMMISSION	
SUPERSTRUCTURE	
SPAN A	

Revision No 1: To change b bars in slab

REVISION NO 1: TO CHANGE b BARS IN SLAB

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		436	569
S.A. PROJ. NO.			



PLAN

PROJECT NO. 818293  
 Henderson COUNTY  
 STATION 1167+00 L  
 NB & SB Bridge

STATE OF NORTH CAROLINA	
STATE HIGHWAY COMMISSION	
RALEIGH	
SUPERSTRUCTURE	
SPAN A	

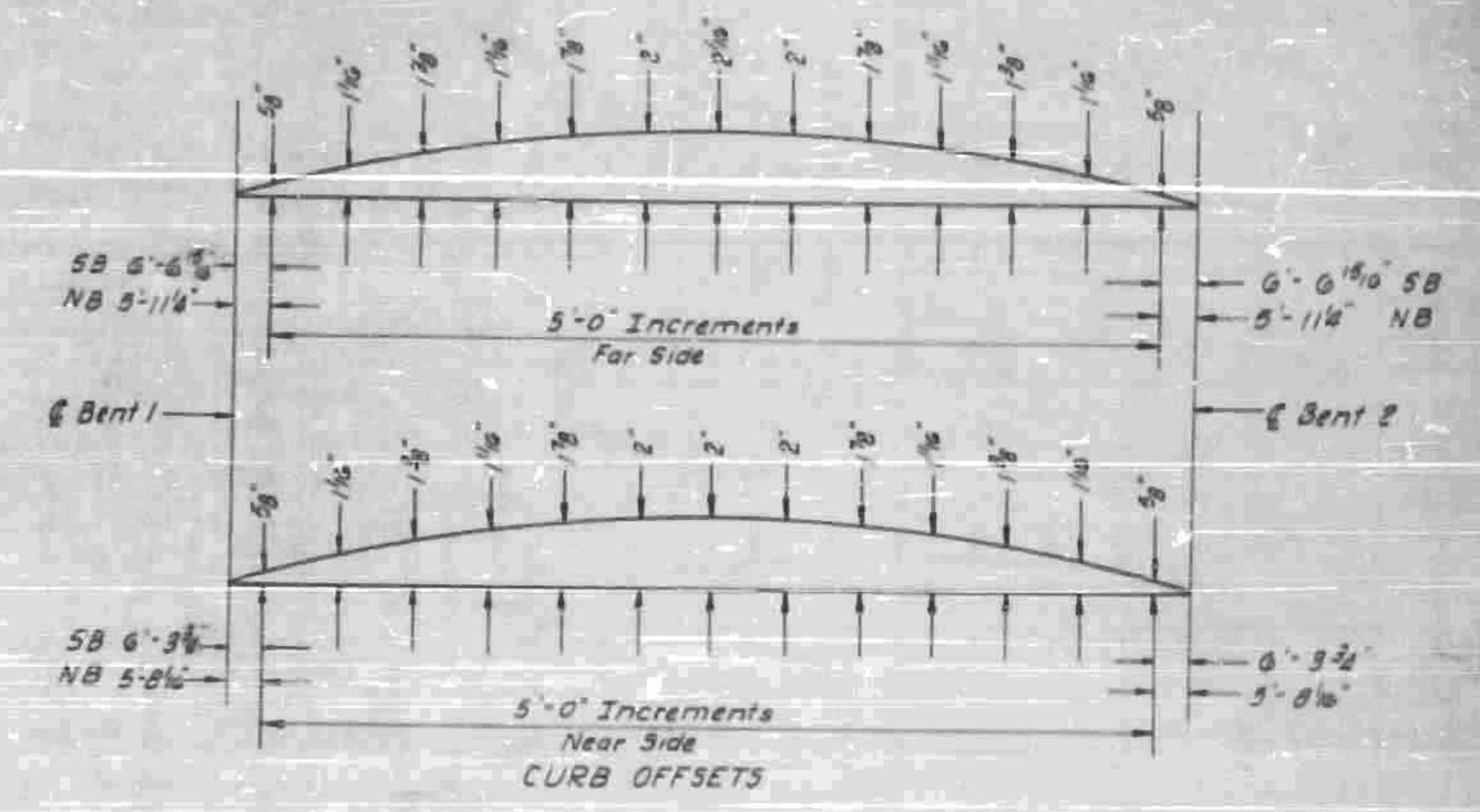
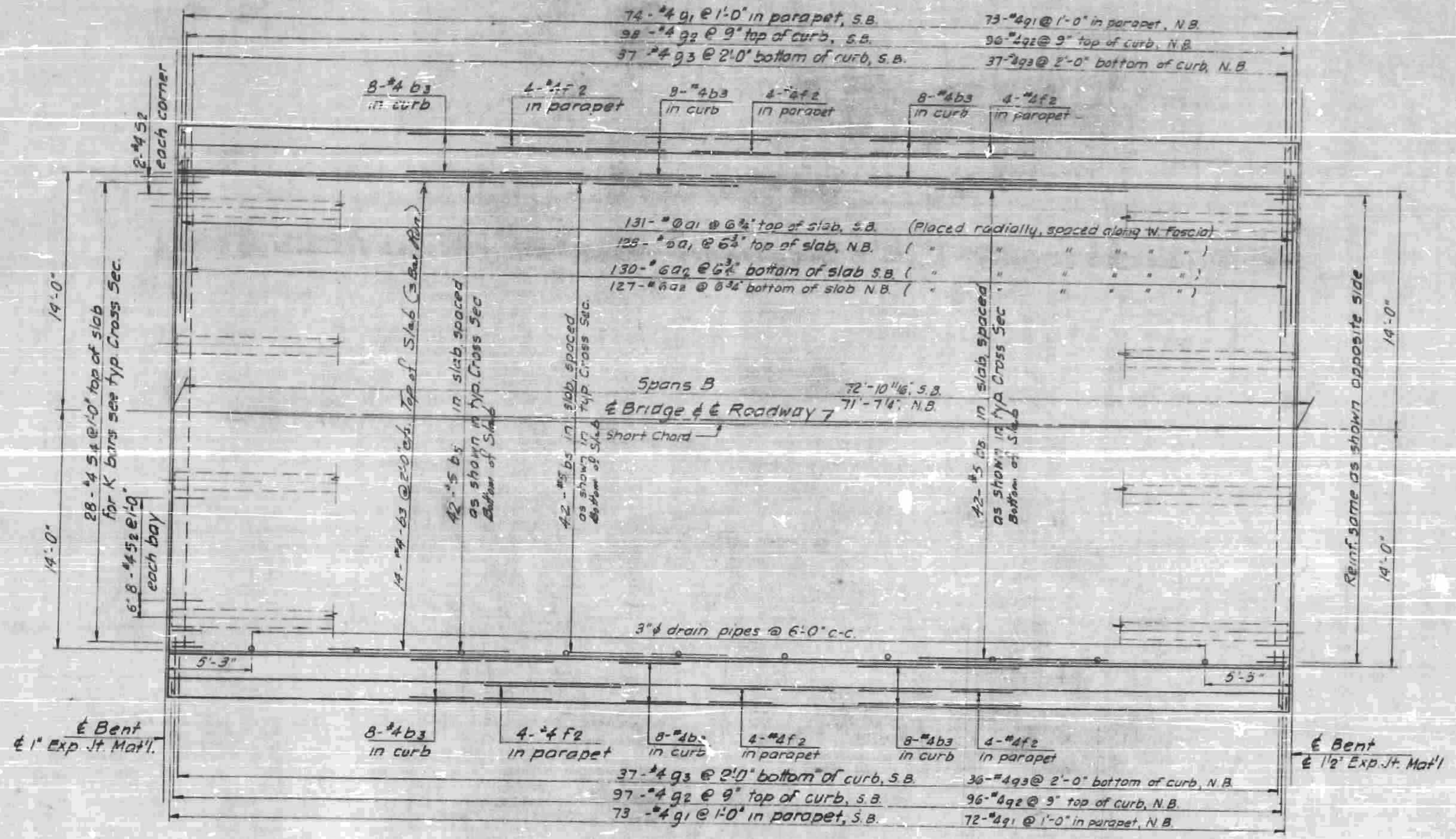
REVISIONS	DATE
1	4-17-63
2	
3	
4	

Revision No 1: To change 6" bars in slab

REVISION NO 1: TO CHANGE 6" BARS IN SLAB

FED. AID PROJ. NO.	818293
STATE	N.C.
PROJECT NO.	818293

DATE	NO.	BY
1/23/43	1	
F. A. PROJ. NO. 437 569		



PLAN

PROJECT NO. 818293  
 Henderson COUNTY  
 STATION 1167+00  
 N.B. & S.B. Bridge

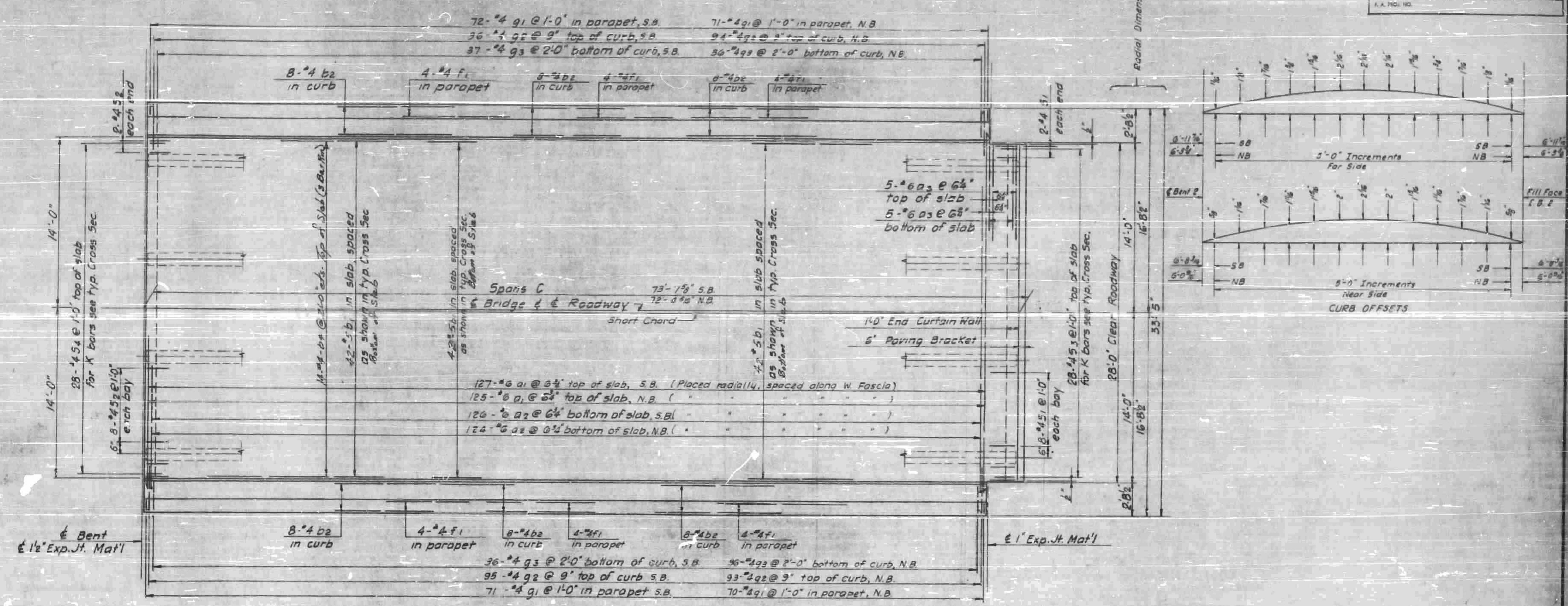
STATE OF NORTH CAROLINA STATE HIGHWAY COMMISSION RALEIGH	
SUPERSTRUCTURE SPAN B	
DATE	BY
1/23/43	

Revision No. 1 To change 5" bars in slab ✓ set  
 INCREASING TO 10" CHANGE 5" BARS IN SLAB ✓ SET



FED. ROAD DIST. NO.	STATE	PROJECT NO.
3	N.C.	8.16.23
FED. ROAD PROJ. 1-26-157R		

STATION	PROJECT NO.	DATE	SCALE
	488	569	
S.A. PROJ. NO.			



PLAN

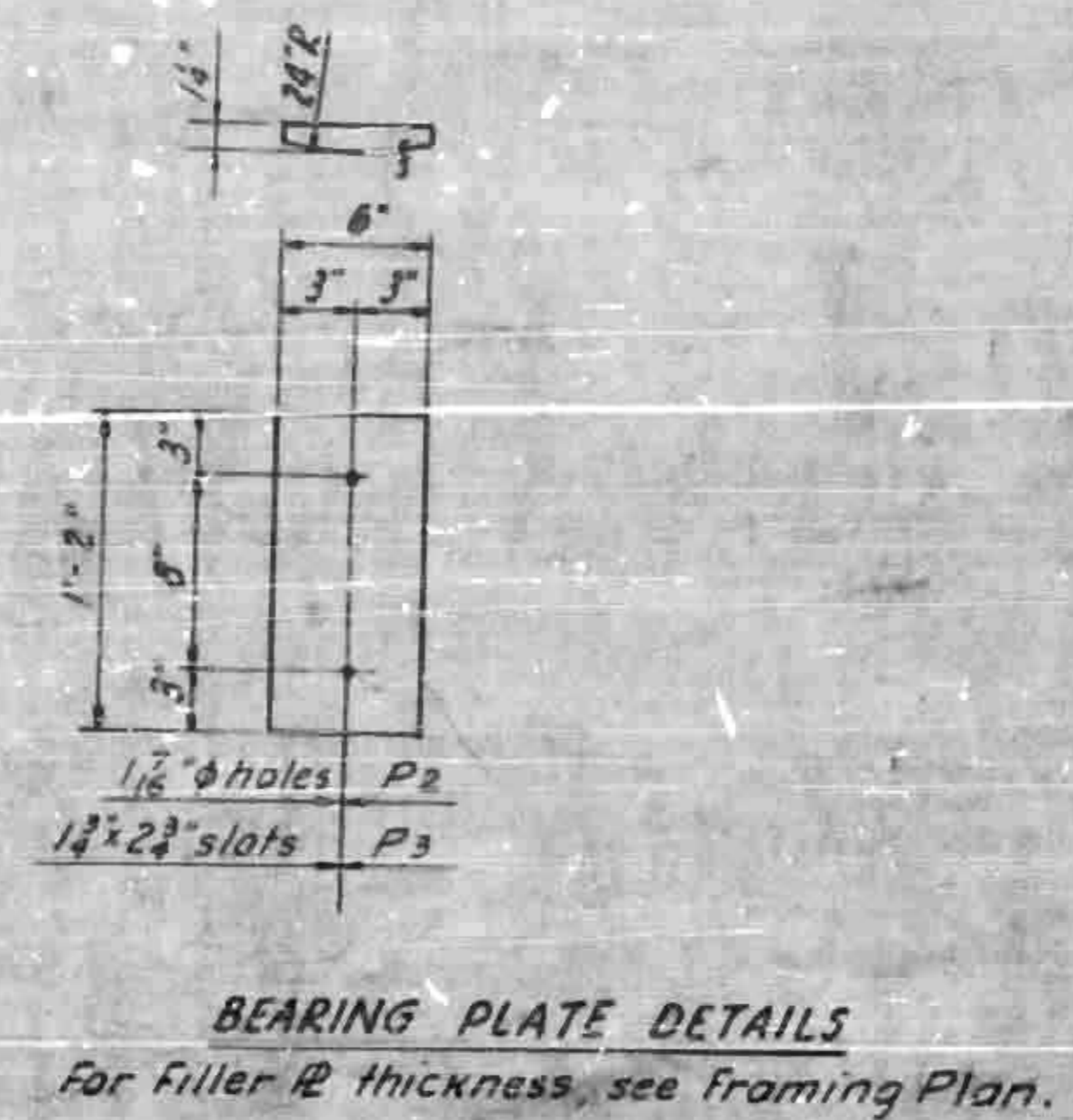
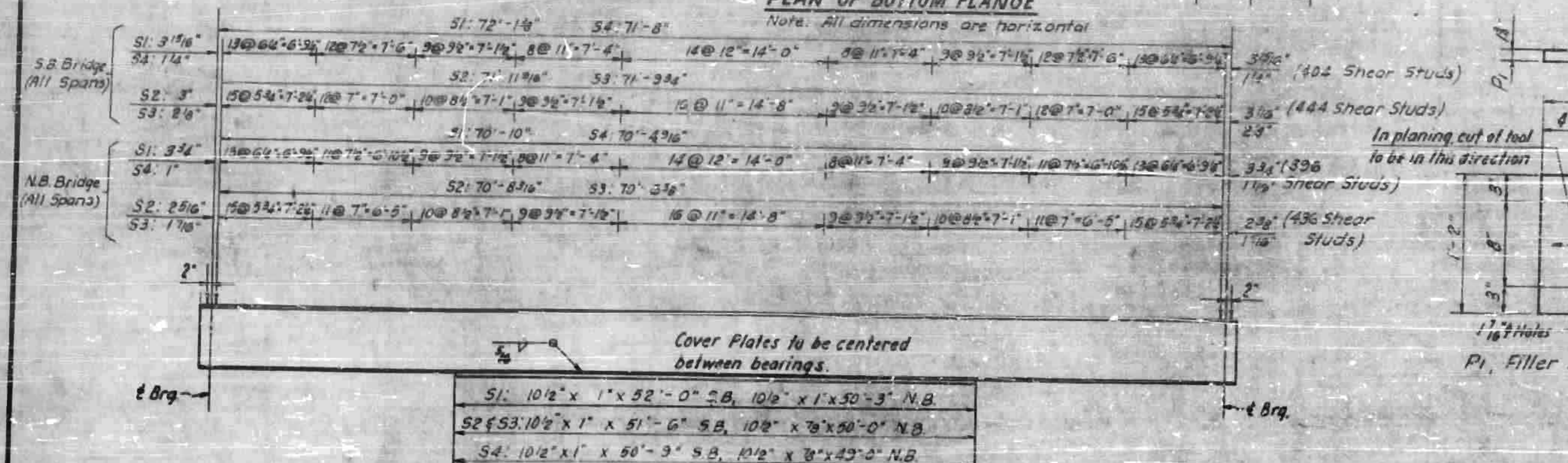
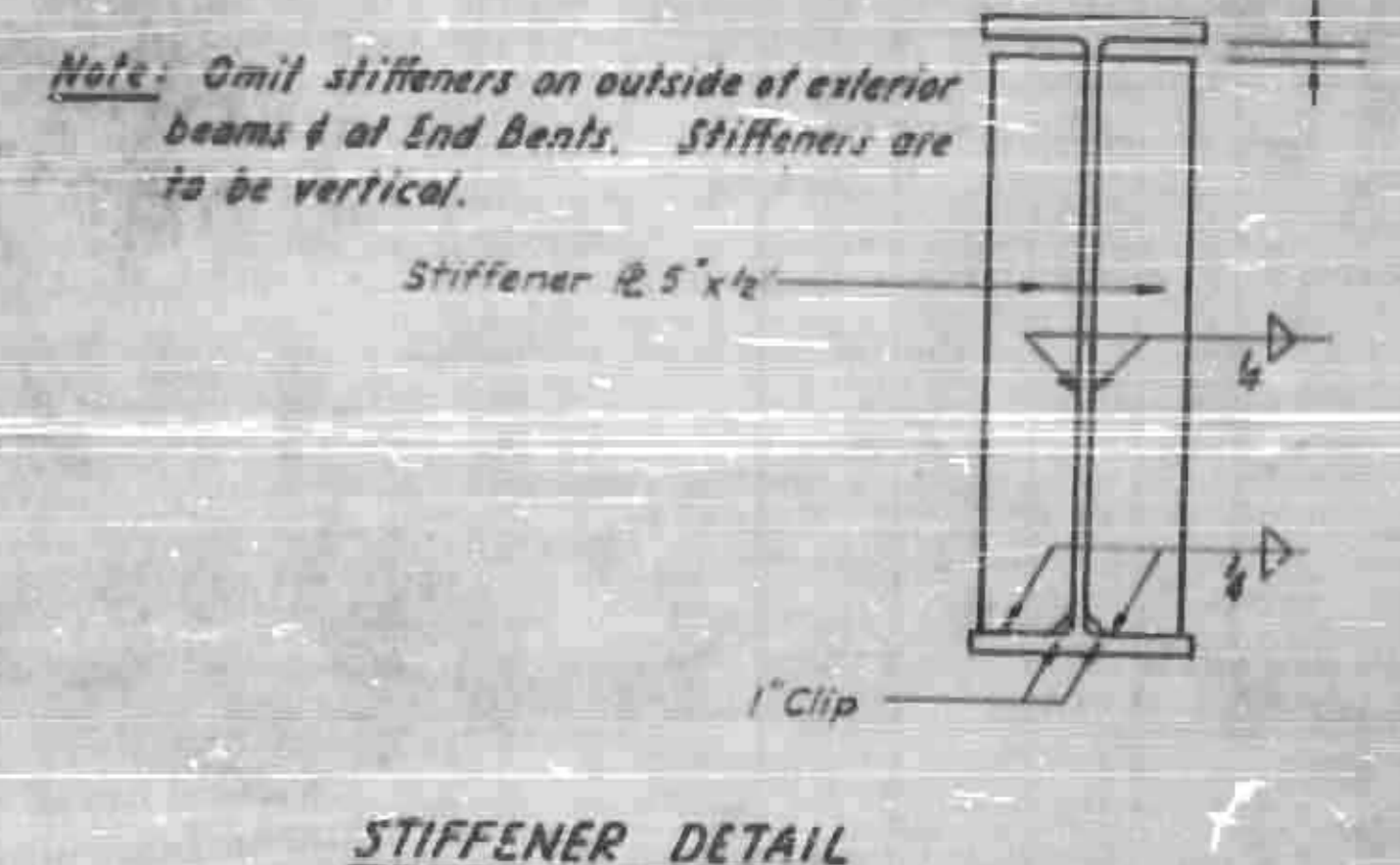
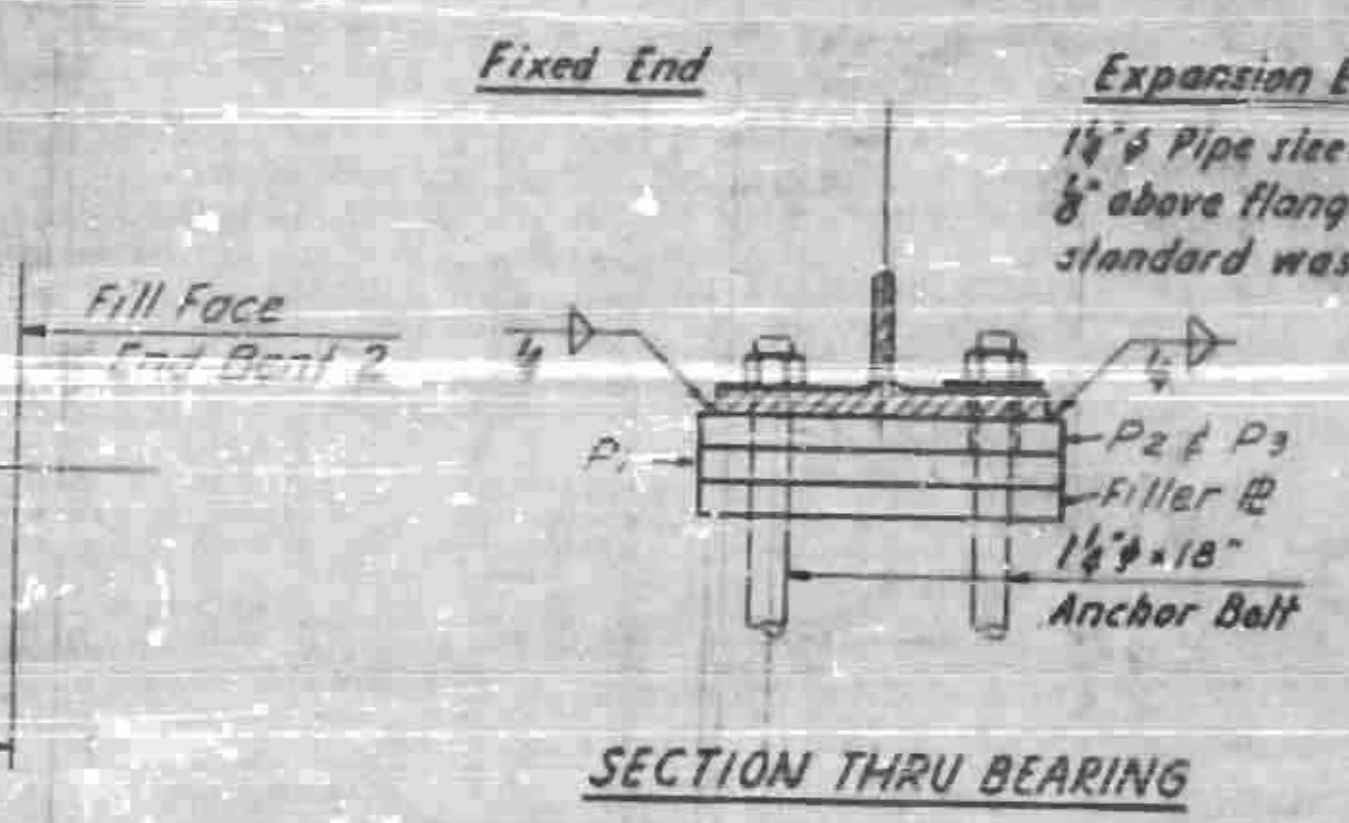
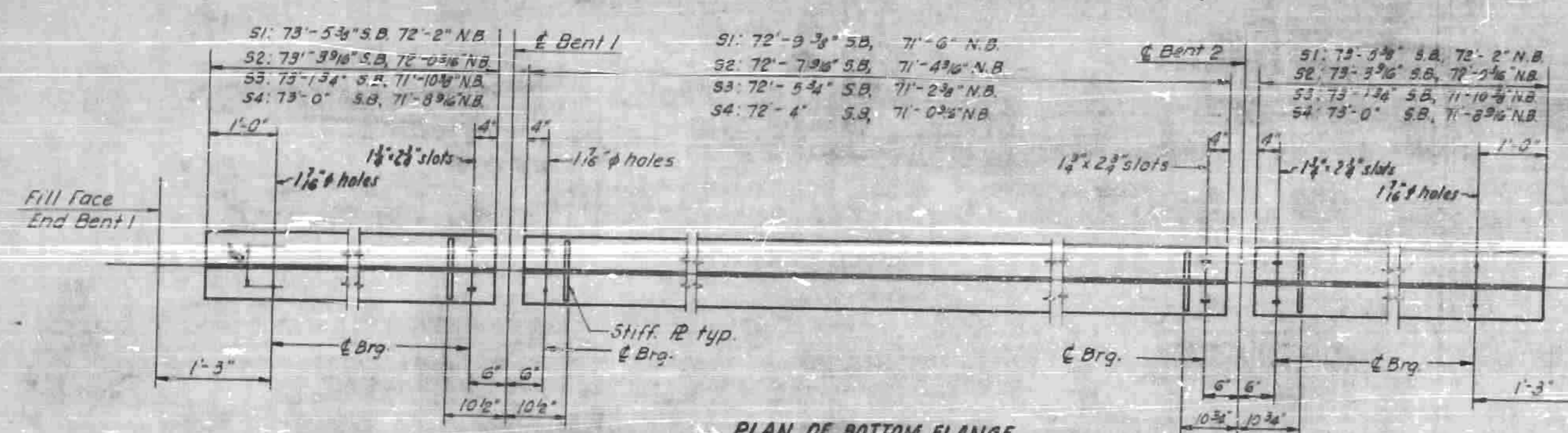
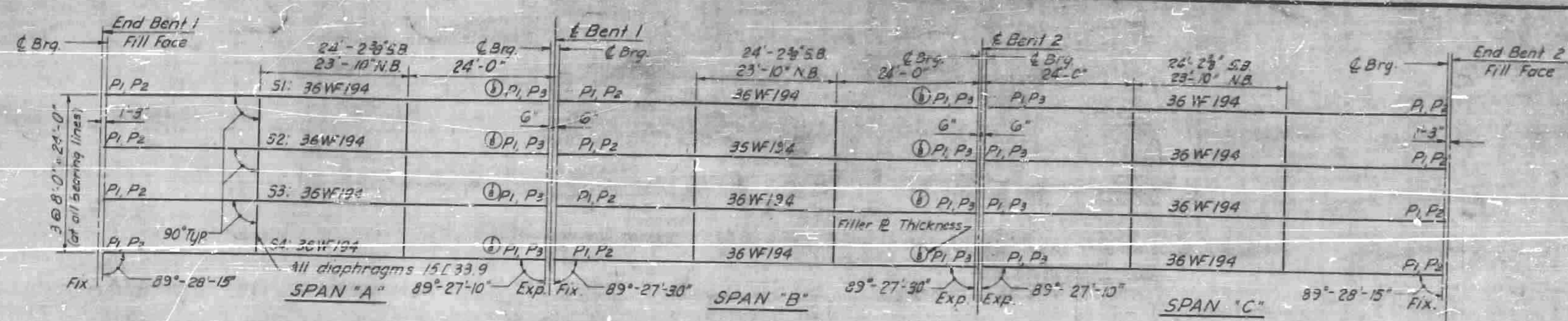
PROJECT NO. 818293  
 Henderson COUNTY  
 STATION 1167+00L  
 N.B. & S.B. Bridge

STATE OF NORTH CAROLINA	
STATE HIGHWAY COMMISSION	
RALEIGH	
SUPERSTRUCTURE	
SPAN C	

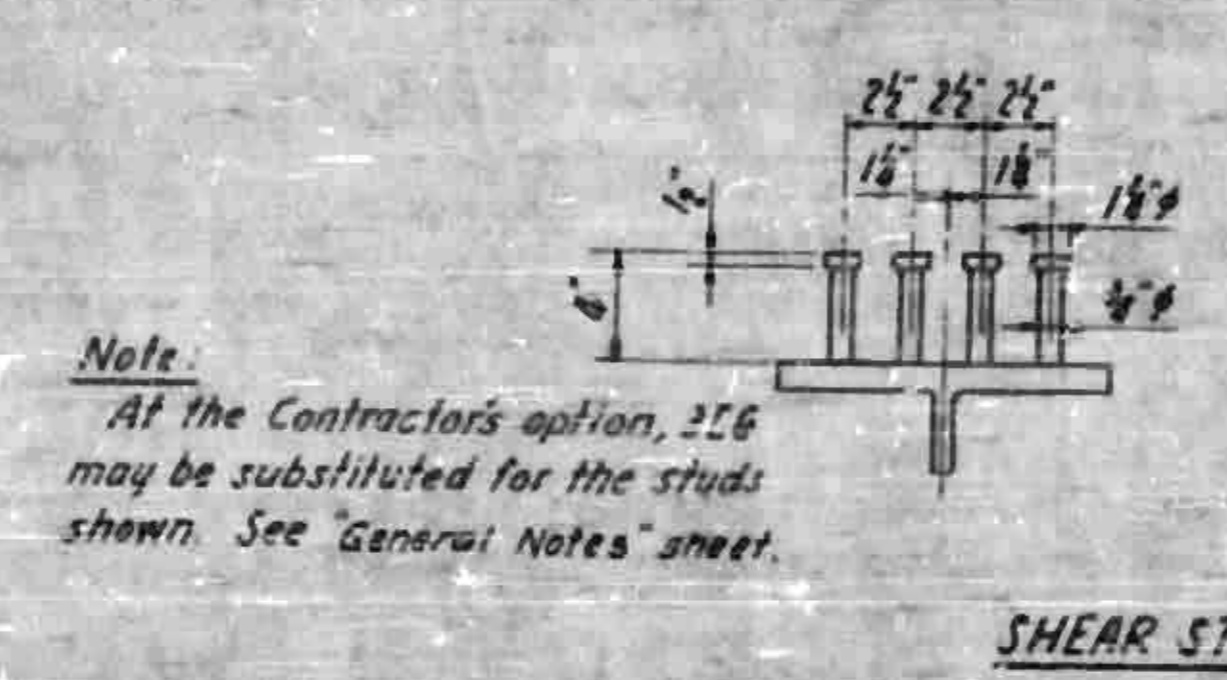
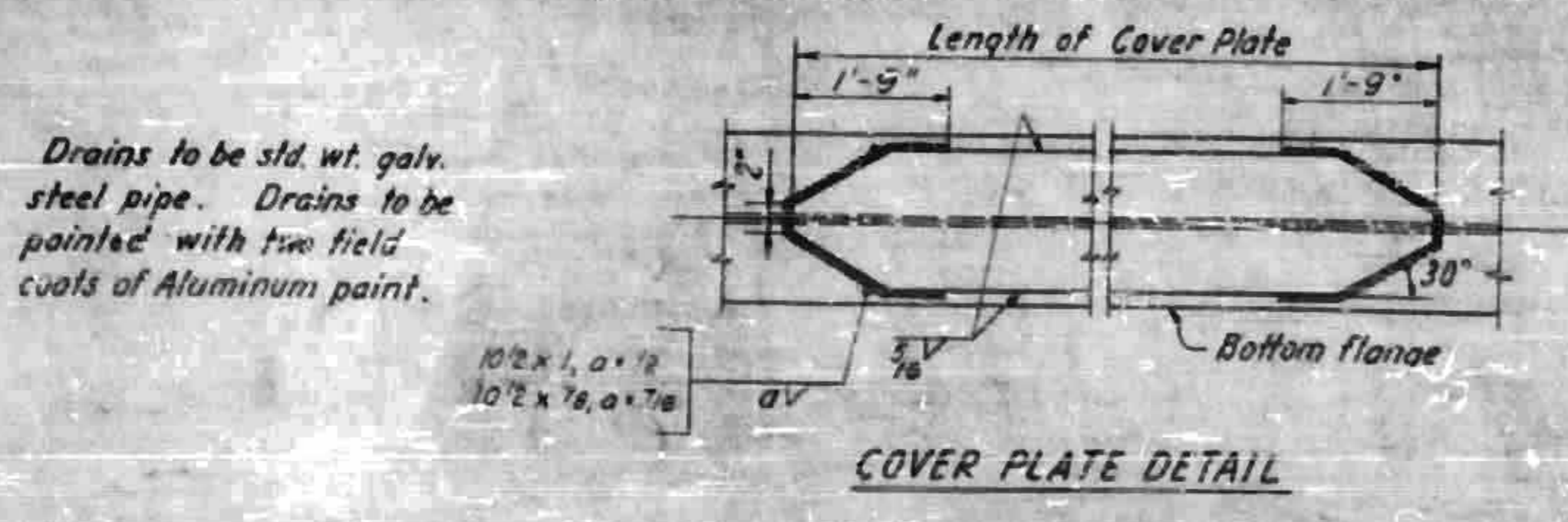
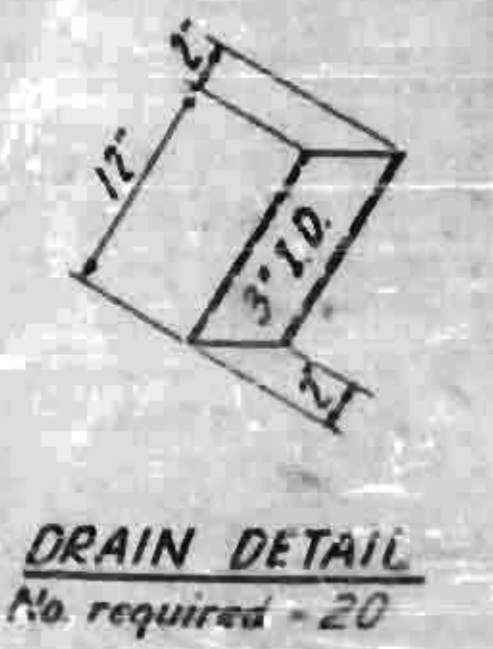
Revision No. 1. To change 5" bars in slab feet

PER. NO.	DATE	PROJECT NO.
8	8.18.29	8.18293
FED. HD PROJ. I-26-1(5)1B		

YEAR	PROJECT NO.	DATE
8	A39	569
I. A. PROJ. NO.		



	S.B. Bridge		N.B. Bridge	
	S1 Int. Bm	S4	S1 Int. Bm	S4
Steel	5 1/8"	5 1/8"	5 1/8"	5 1/8"
Concrete	1 3/8"	1 3/8"	1 3/8"	1 3/8"
Total DL Defl	1 7/8"	1 7/8"	1 3/4"	1 3/4"
Vertical Curve				
Total Camber	1 7/8"	1 7/8"	1 3/4"	1 3/4"



**NOTES:**  
All WF beams, cover plates and channel shear connectors on this sheet shall conform to ASTM-A36 specifications.  
Allowable extreme fibre stress under 1/2 specification is 20,000 lbs. per sq. inch.

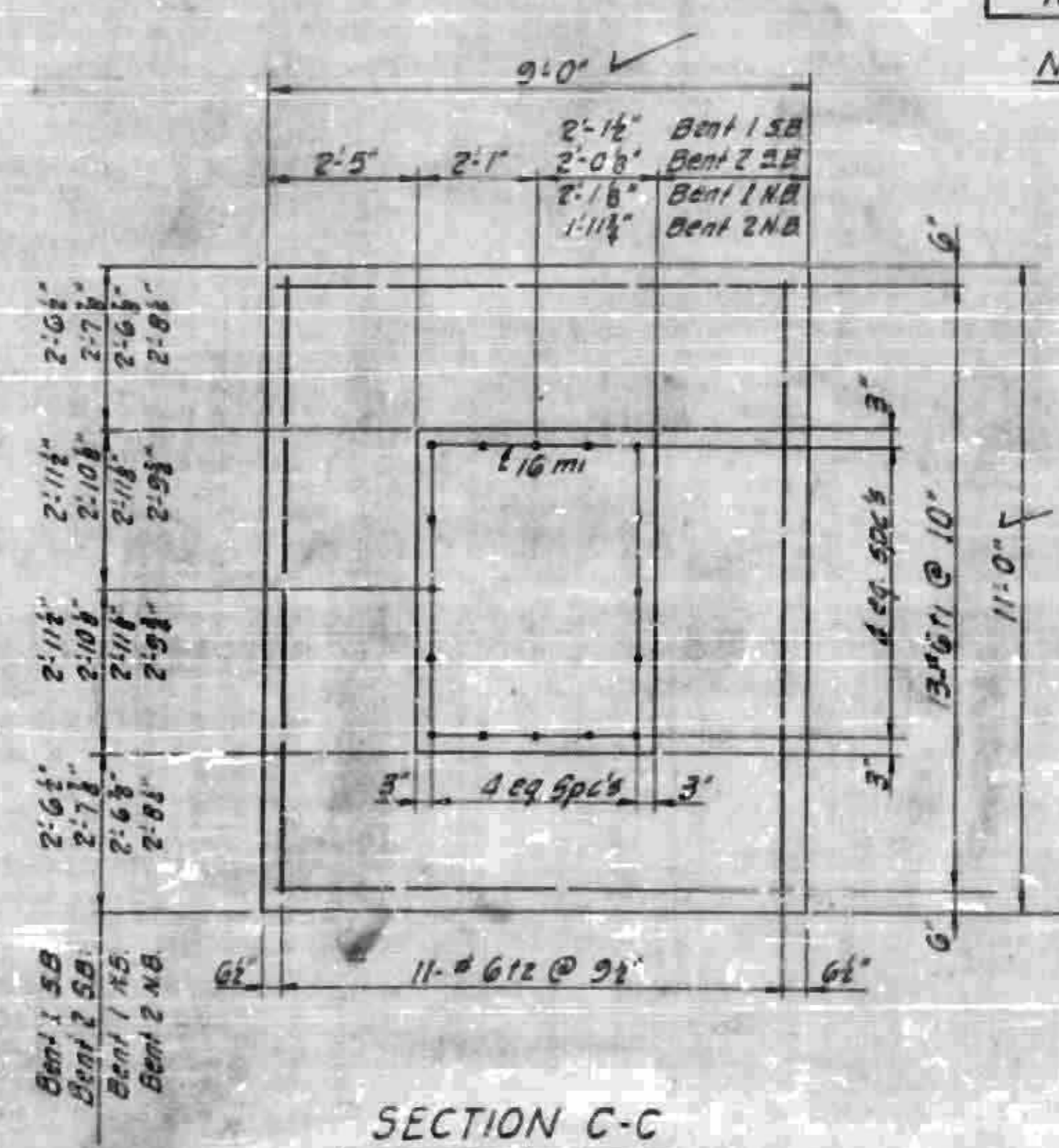
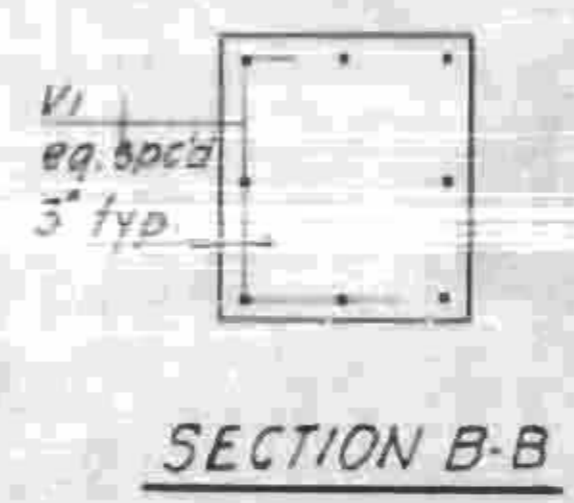
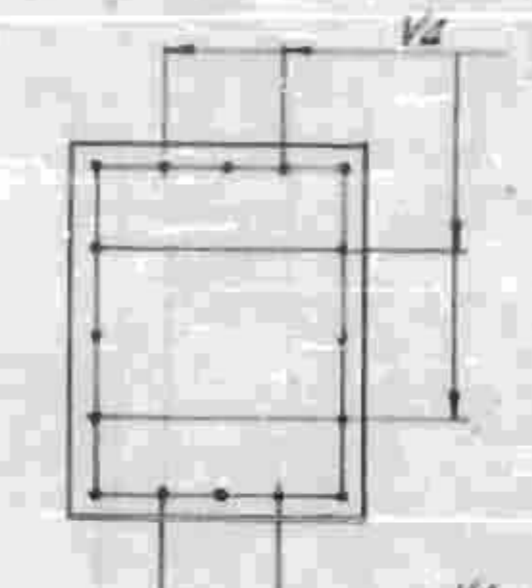
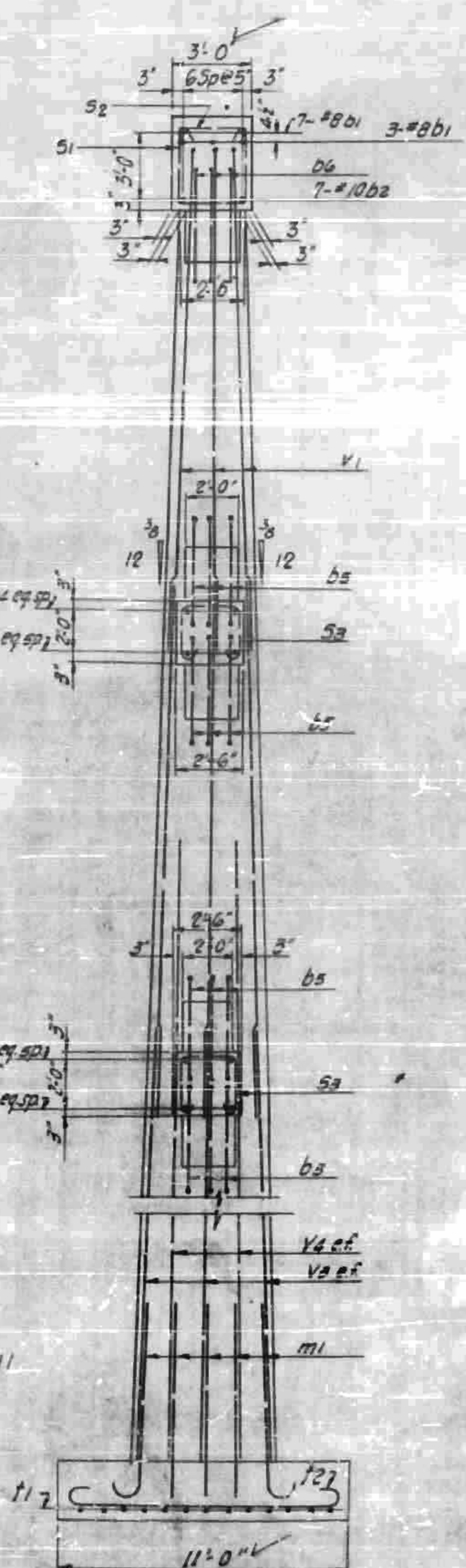
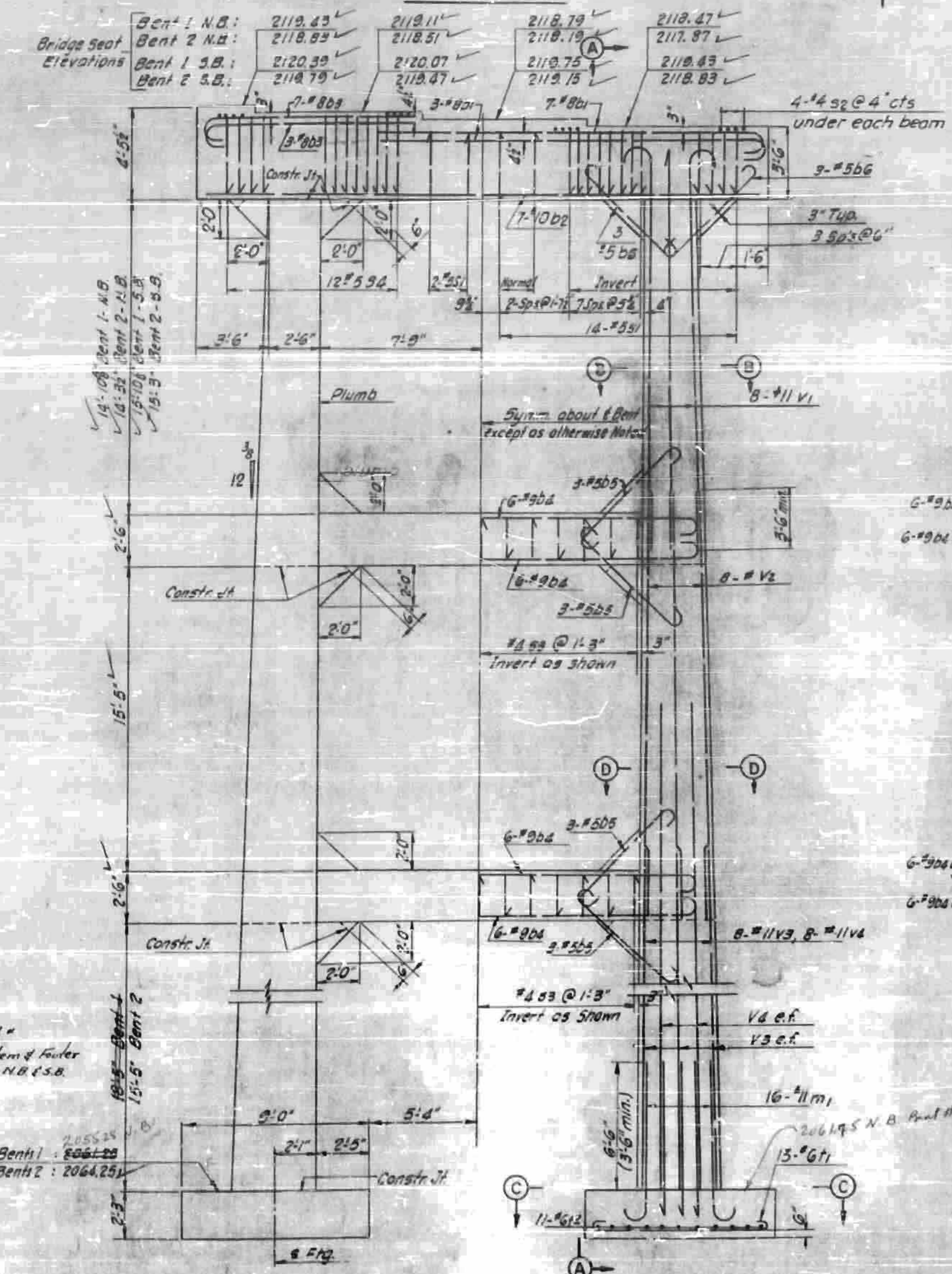
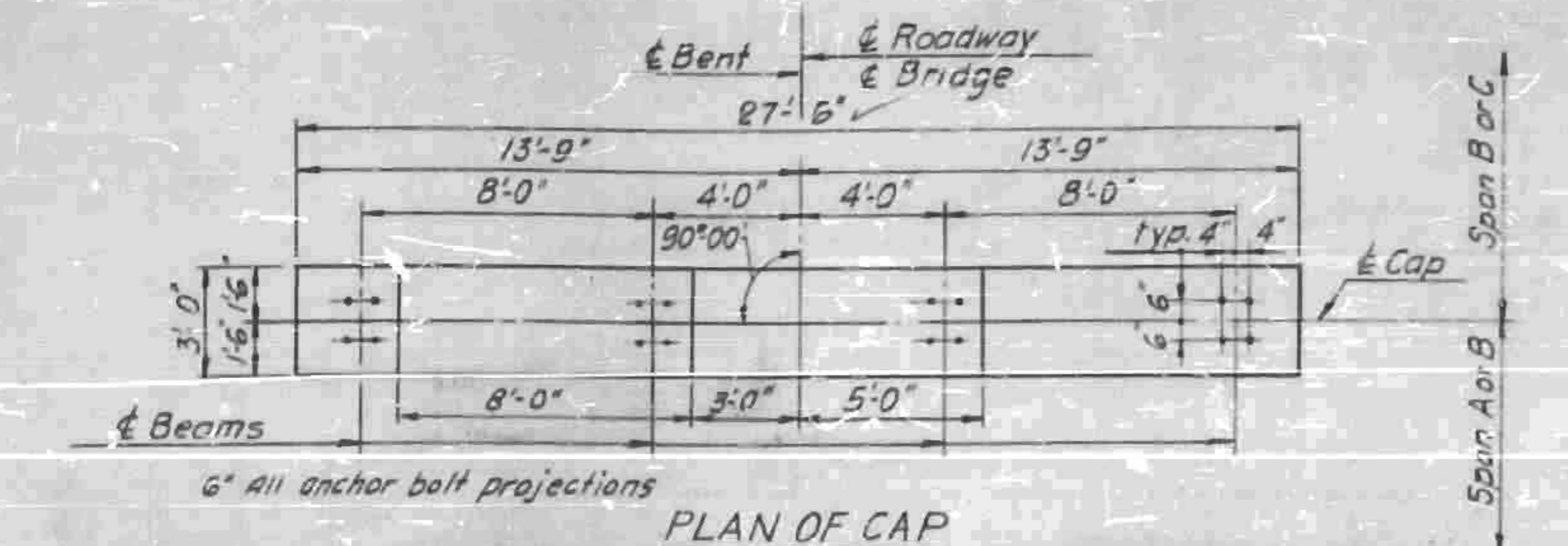
PROJECT NO. 8.18293  
Henderson COUNTY  
STATION 1167 + 00L  
N.B. & S.B. Bridge

STATE OF NORTH CAROLINA  
STATE HIGHWAY COMMISSION  
DALLAS

STRUCTURAL STEEL

Revised: 11.1.30. To change width on S1 Int. Bm.

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	FED. ROAD DIST. CT.	STATE	PROJECT OR. NO.
N.C.	440	569		8	N.C.	818293
F. A. PROJ. NO.			FED. AID PROJ. 7-26-15712			



BAR DETAILS				BILL OF MATERIAL			
For 1 Bent							
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT		
b1	10	8	2	20-8	533		
b2	7	10	5	27-0	813		
b3	10	8	2	11-2	300		
b4	24	9	1	23-5	1938		
b5	24	5	1	7-8	182		
b6	12	8	1	7-2	90		
s1	16	5	4	9-10	164		
s2	16	4	3	3-5	37		
s3	26	4	4	7-3	126		
s4	12	5	4	11-1	199		
v1	16	11	2	21-6	1828		
v2	16	11	5	23-0	1955		
v3	16	11	5	23-0	1870		
v4	16	11	5	10-0	1615		
v6	16	11	5	26-0	2210		
m1	32	11	2	9-6	1289		
t1	26	6	1	8-10	389		
t2	22	6	1	11-10	391		
				16	11	71-6	2496
Bent 1 N.B.							
Reinforcing Steel Lbs.				1524			
Class A Concrete Cu Yds.				10000			
Bent 2 N.B.							
Reinforcing Steel Lbs.				14371			
Class A Concrete Cu Yds.				5338			
Bent 1 S.B.							
Reinforcing Steel Lbs.				14806			
Class A Concrete Cu Yds.				5338			
Bent 2 S.B.							
Reinforcing Steel Lbs.				14371			
Class A Concrete Cu Yds.				5338			

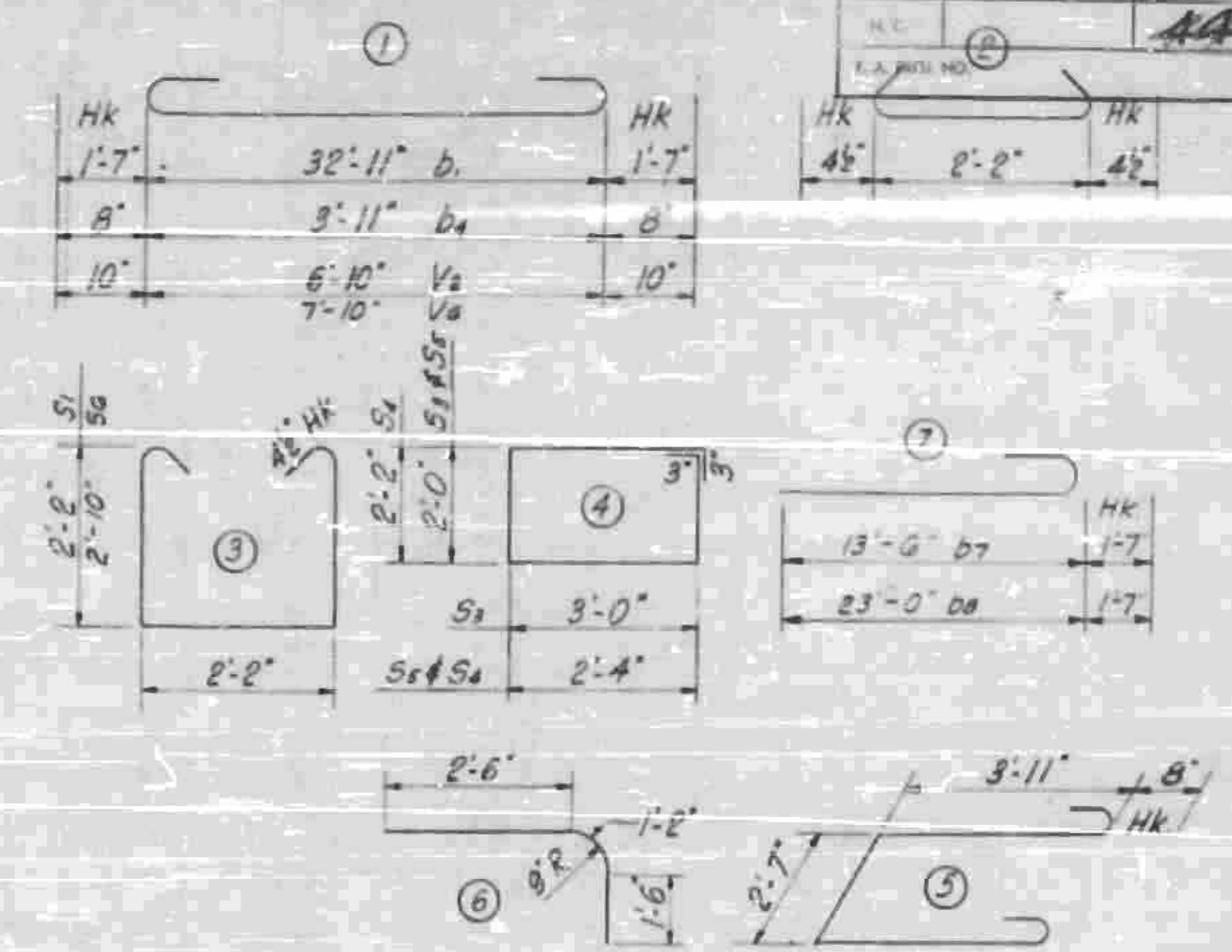
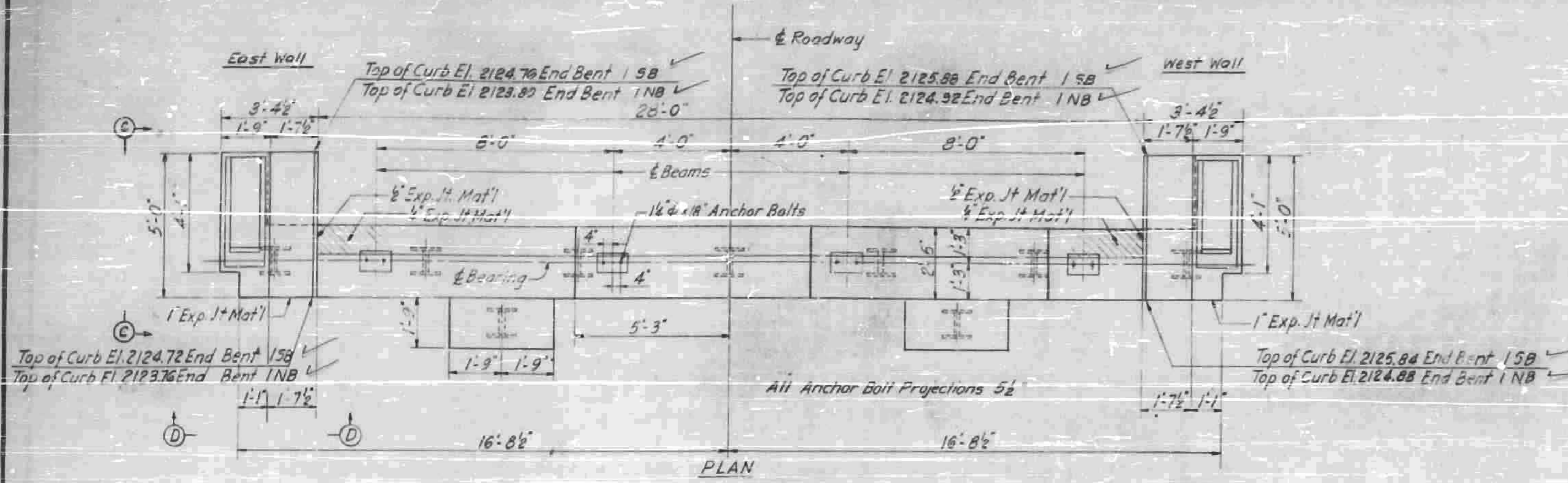
Note: All bar dimensions are out to out.  
Note: Cap Reinforcing steel may be shifted to clear anchor bolts.

\* splice steel for lowered footing

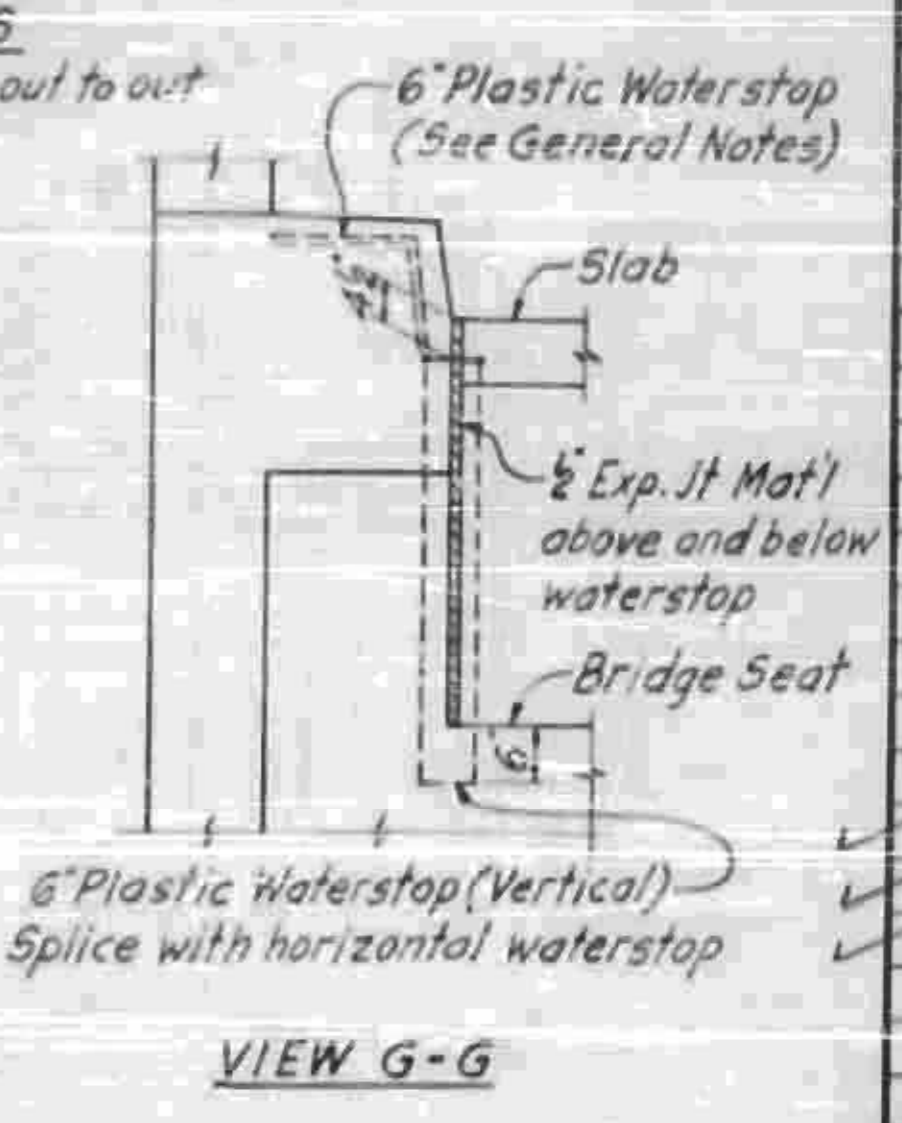
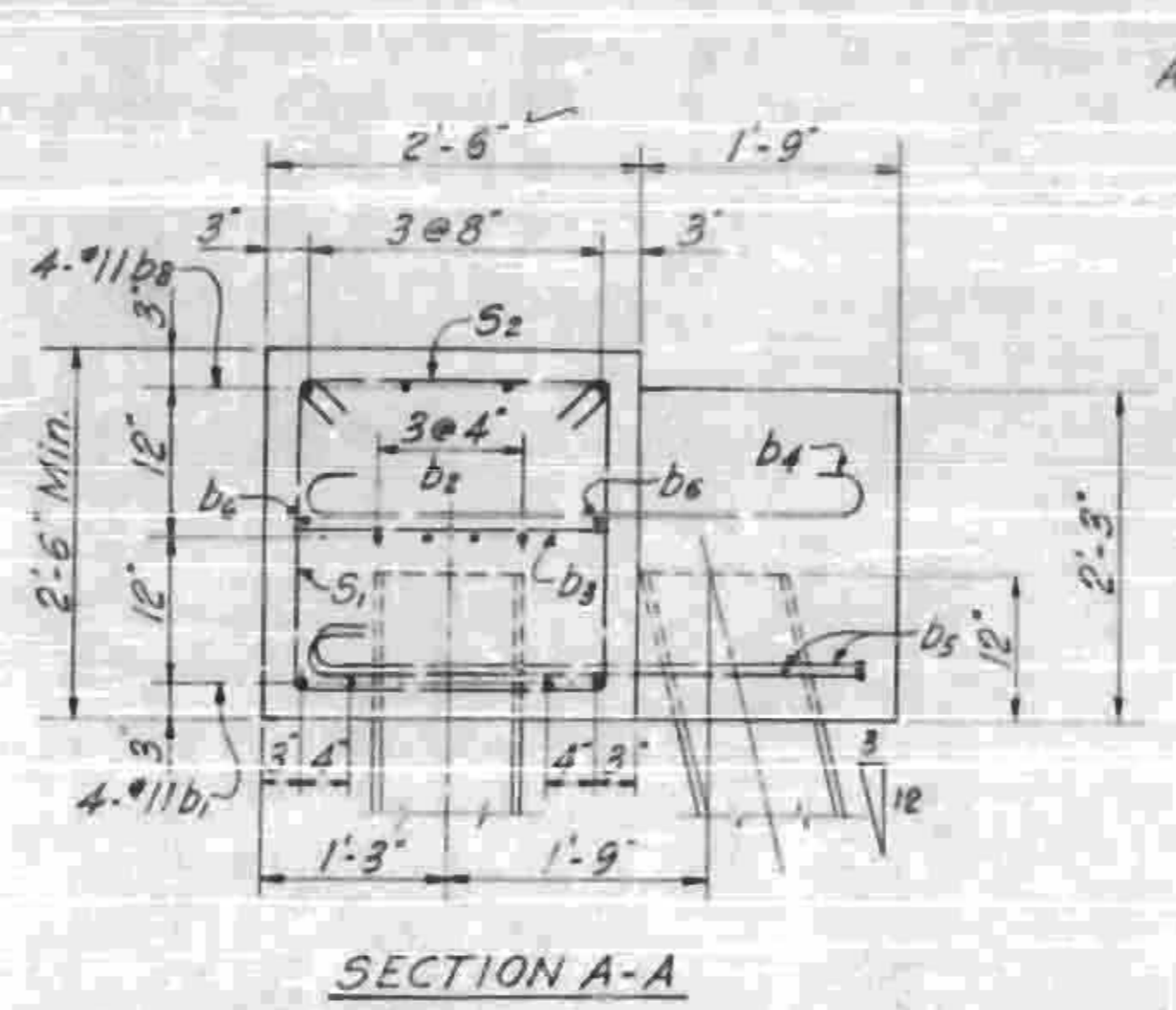
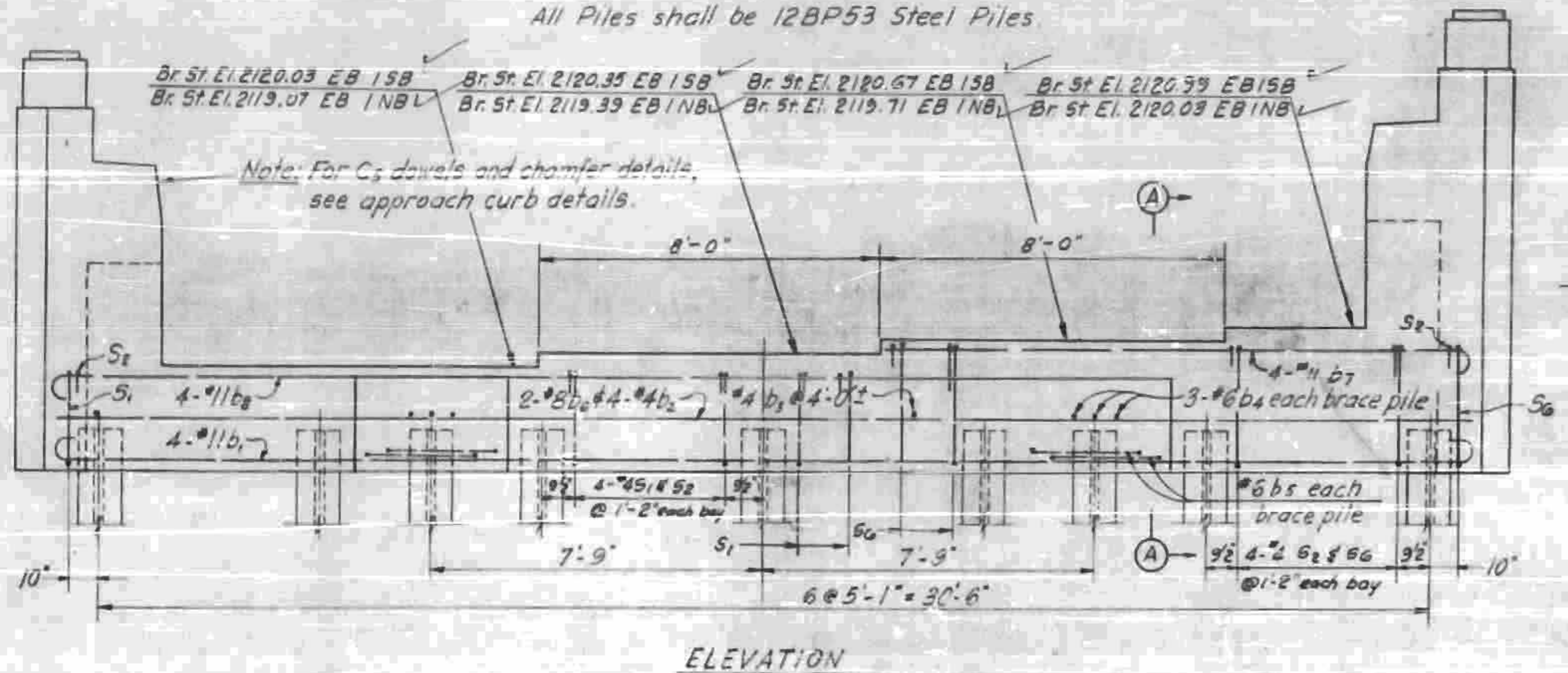
PROJECT NO. 818293  
Henderson COUNTY  
STATION 1167+00 L  
NB or SB Bridge

STATE OF NORTH CAROLINA	
STATE HIGHWAY COMMISSION	
RALEIGH	
BENTS 1 & 2	
DATE	BY
DATE	BY
DATE	BY
DATE	BY

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	AAV 569		
FED. ROAD DIST. NO.	STATE	PROJECT NO.	
8	N.C.	818293	
FED. AID PROJ. 7-26-16712			



BILL OF MATERIAL					
FOR END BENT 1-NB					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
b1	#11	1	36'-1"	767	
b2	#4	51r	32'-11"	88	
b3	#4	51r	2'-2"	13	
b4	#6	1	5'-3"	47	
b5	#8	5	11'-2"	71	
b6	#8	51r	32'-11"	176	
b7	#11	7	15'-1"	321	
b8	#11	7	24'-7"	522	
b9	#4	6	5'-2"	14	
h1	#4	51r	3'-5"	9	
h2	#6	51r	3'-9"	45	
h3	#4	51r	3'-9"	55	
h4	#6	51r	4'-8"	141	
h5	#4	51r	2'-3"	6	
S1	#4	3	7'-3"	73	
S2	#4	2	2'-11"	51	
S3	#4	4	10'-6"	56	
S4	#4	4	9'-6"	57	
S5	#4	4	9'-2"	12	
S6	#4	8	9'-7"	89	
V1	#4	51r	8'-2"	34	
V2	#7	1	8'-6"	104	
V3	#4	51r	2'-3"	18	
V4	#4	51r	2'-6"	13	
V5	#4	51r	9'-2"	63	
V6	#7	1	9'-6"	116	



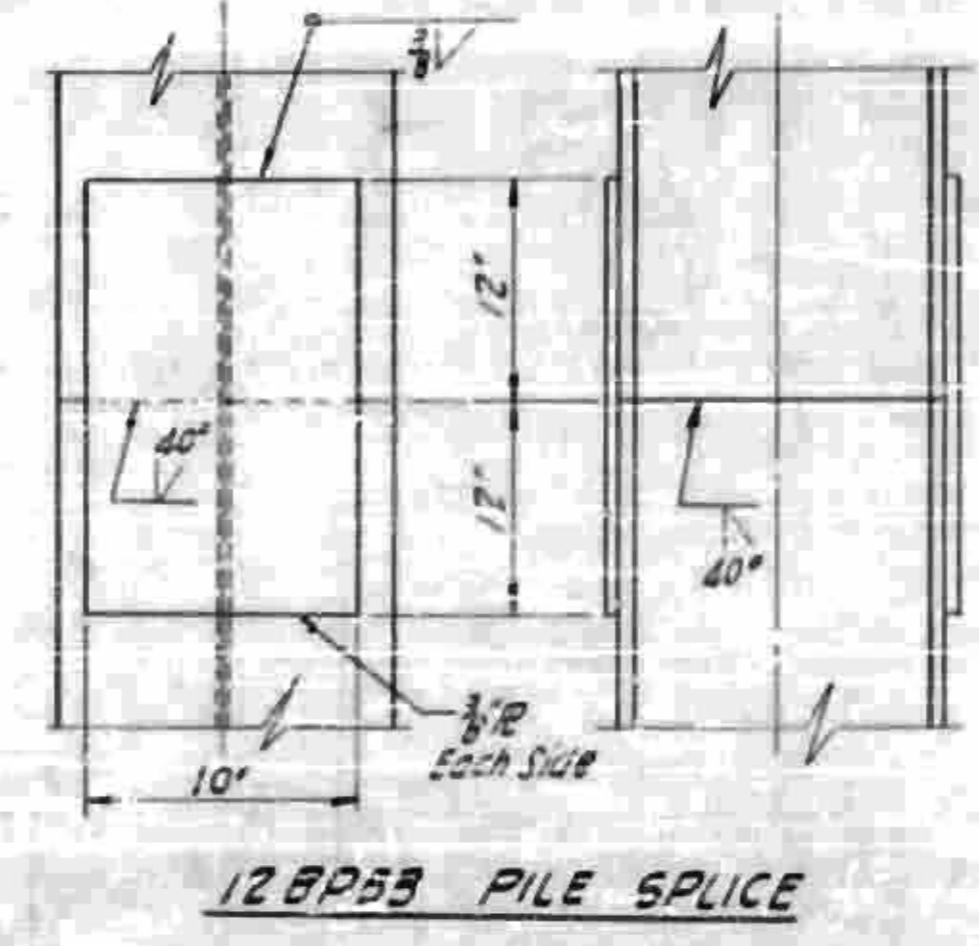
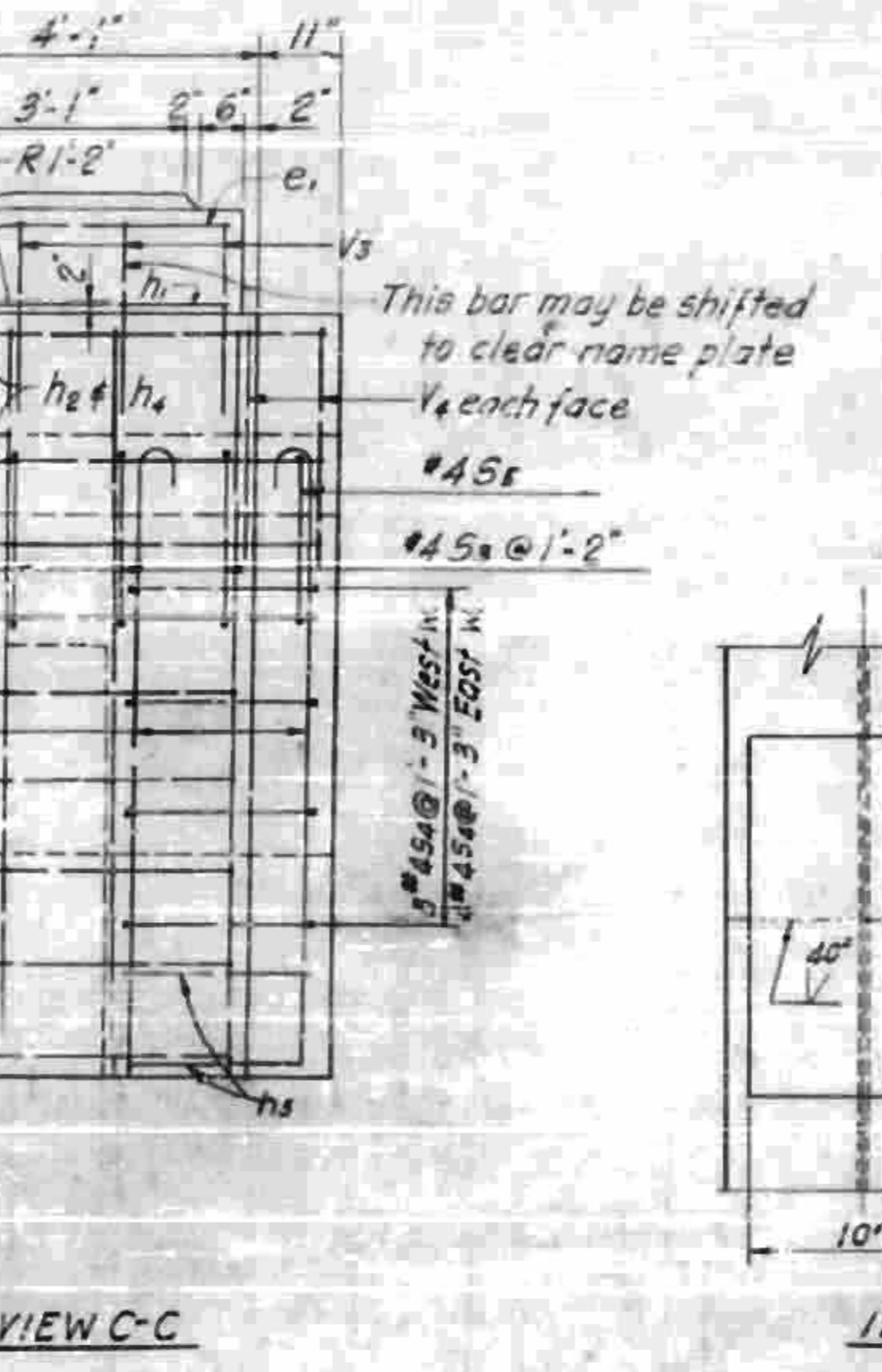
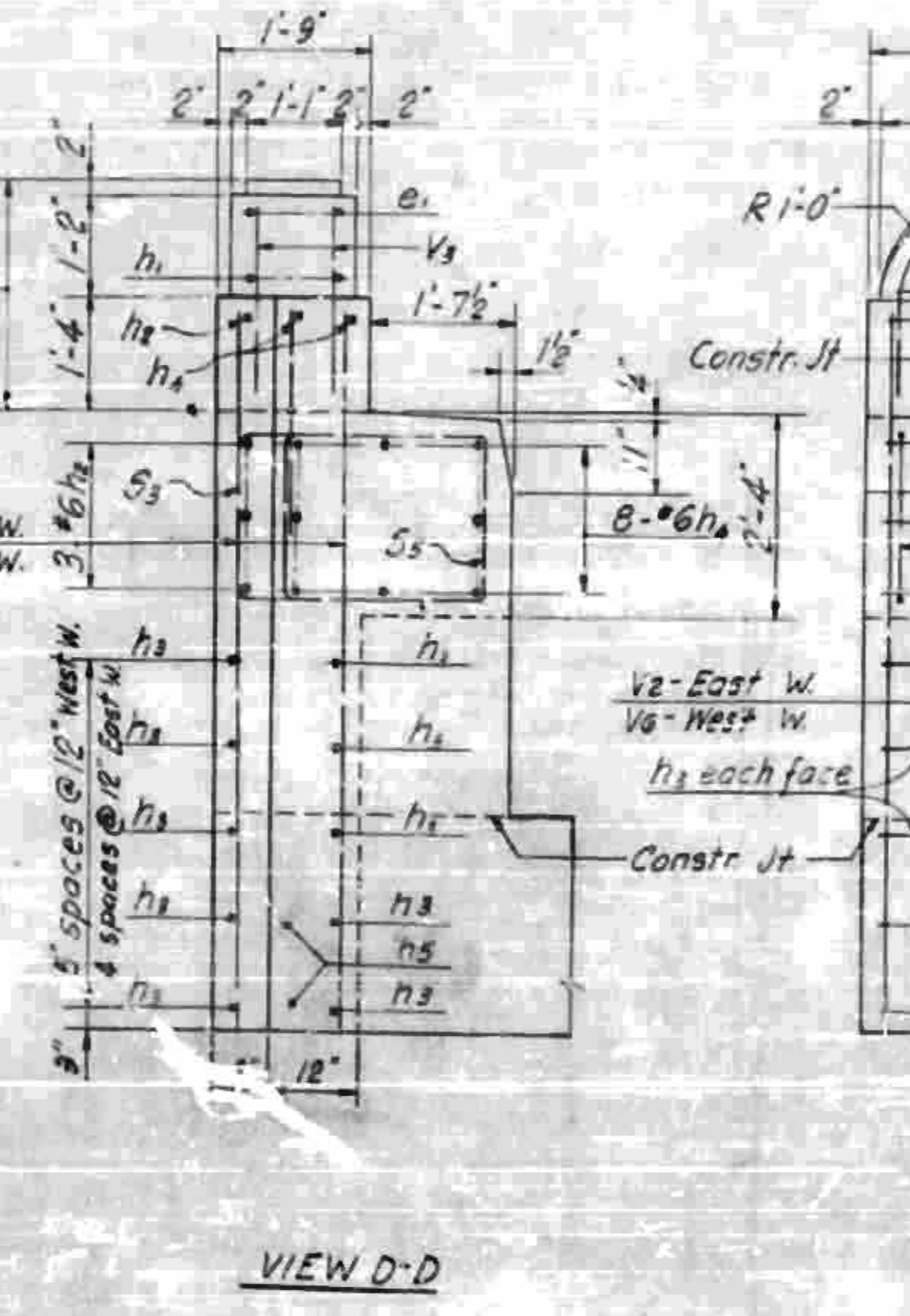
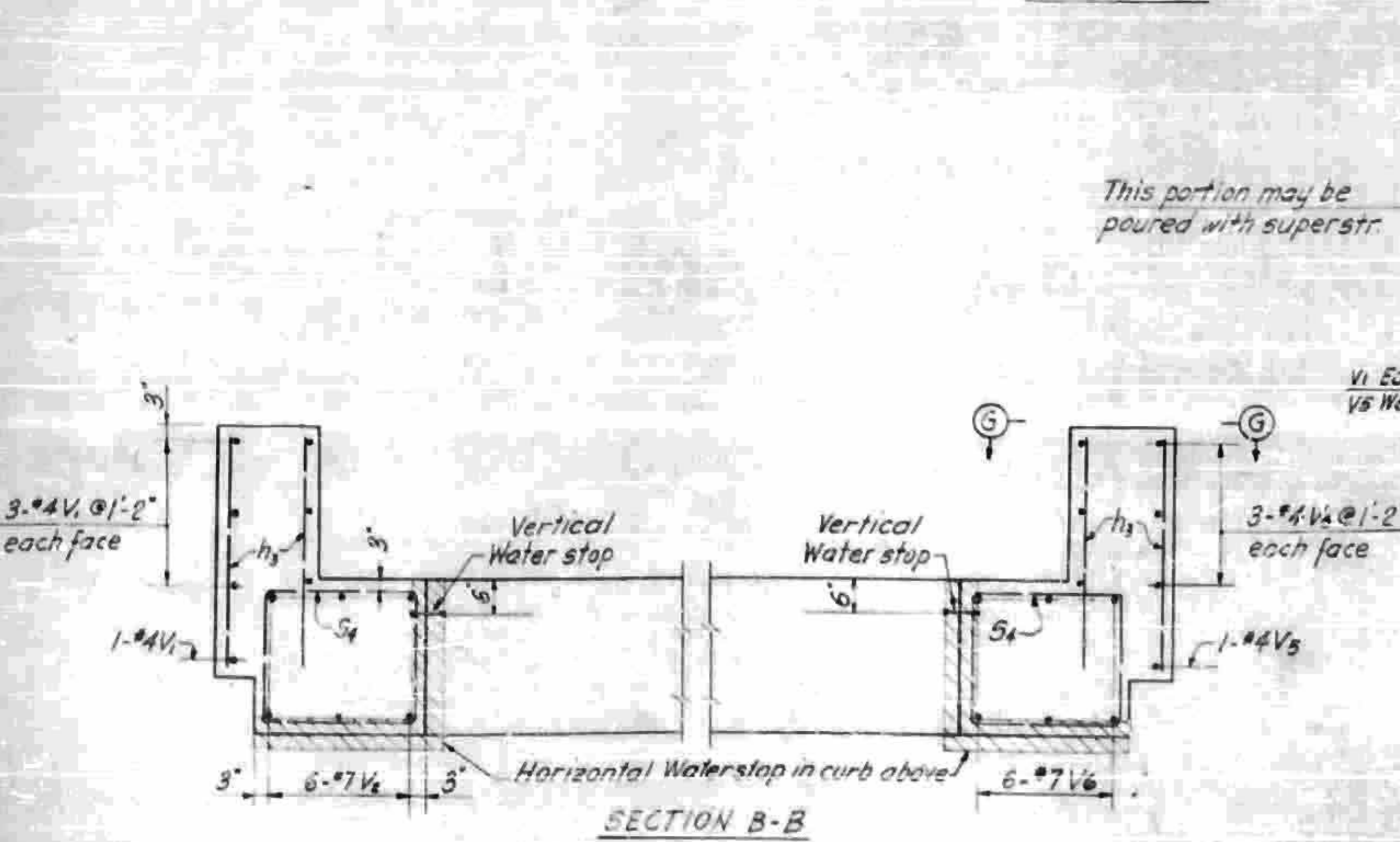
Total Quantities for one End Bent:

- Reinforcing Steel lbs. 2,515
- Class A Concrete cu. yds. 17.4
- 12 BP53 Steel Piles No. 9
- 12 BP53 Steel Piles lin. ft. 807
- EB 1-NB = 476'-0"
- EB 1-SB = 440'-9"

Bill of material and quantities for End Bent 1-SB same

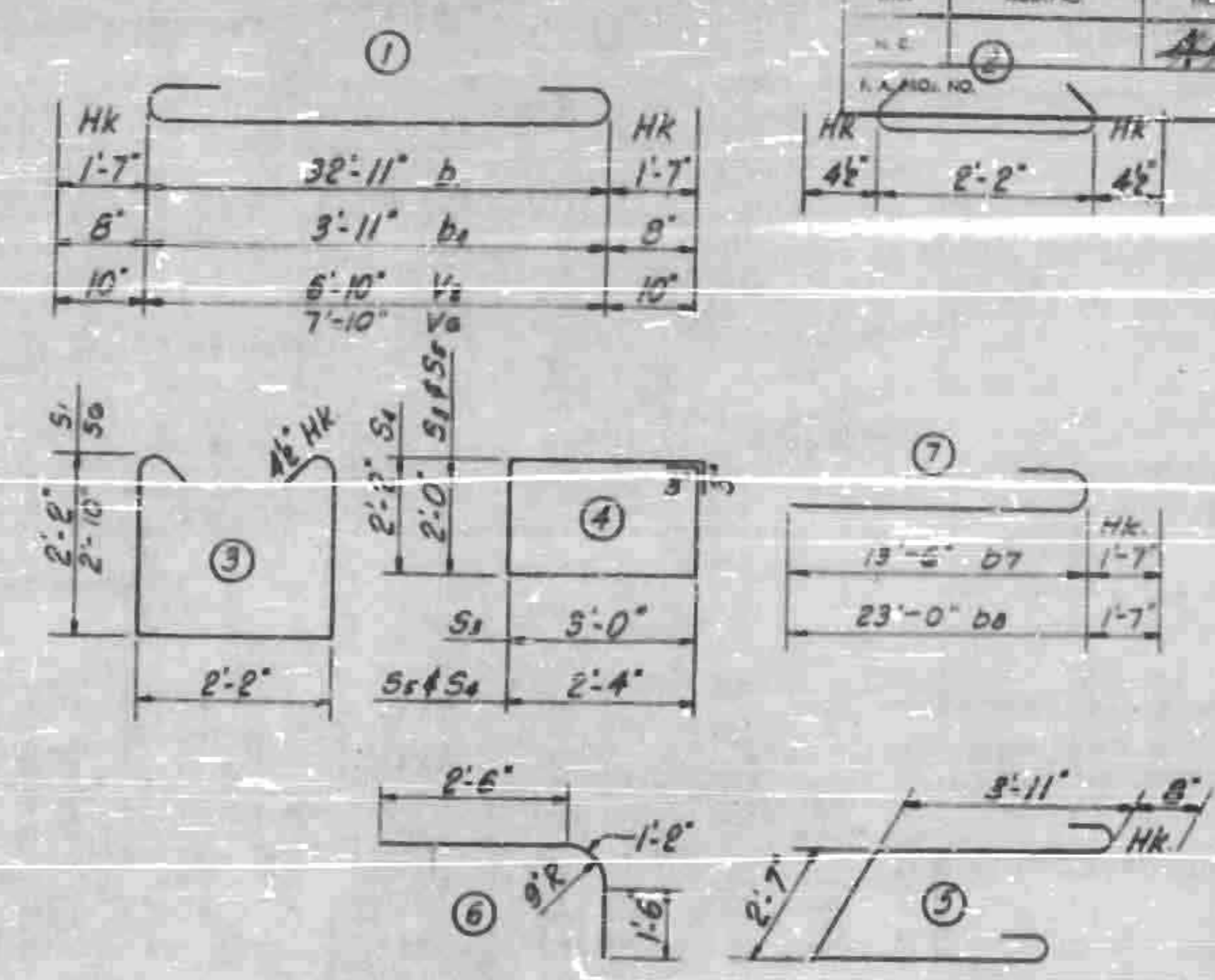
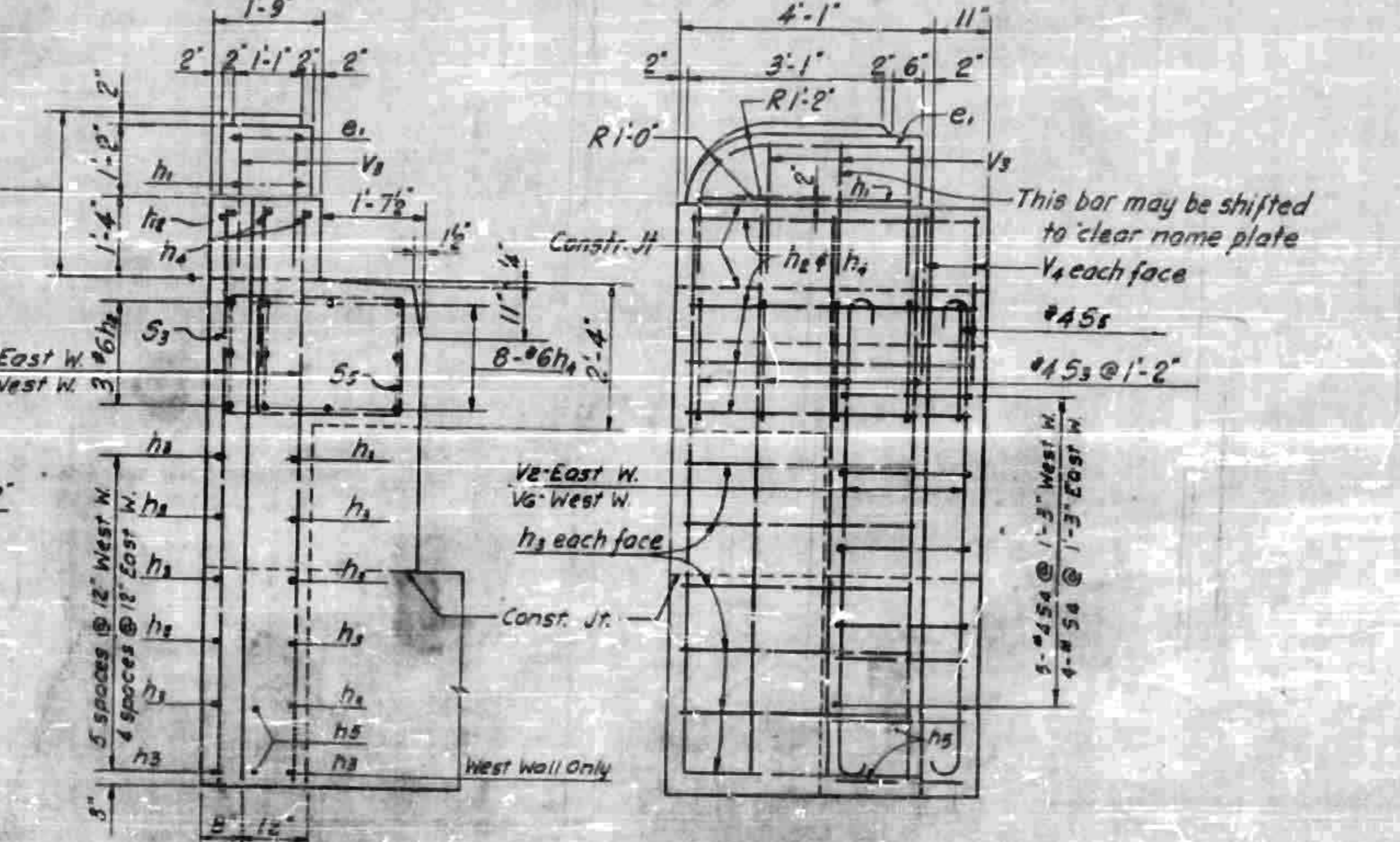
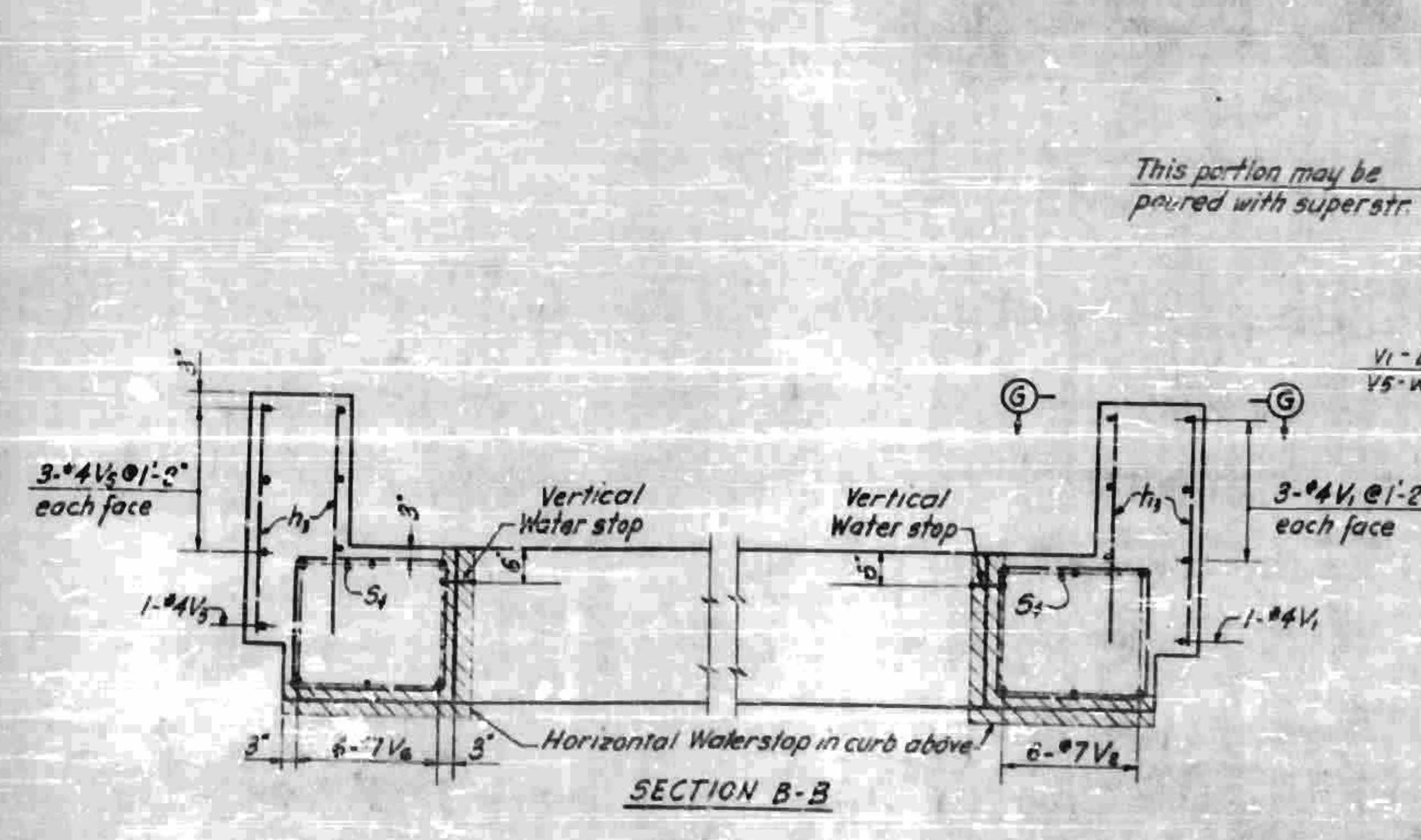
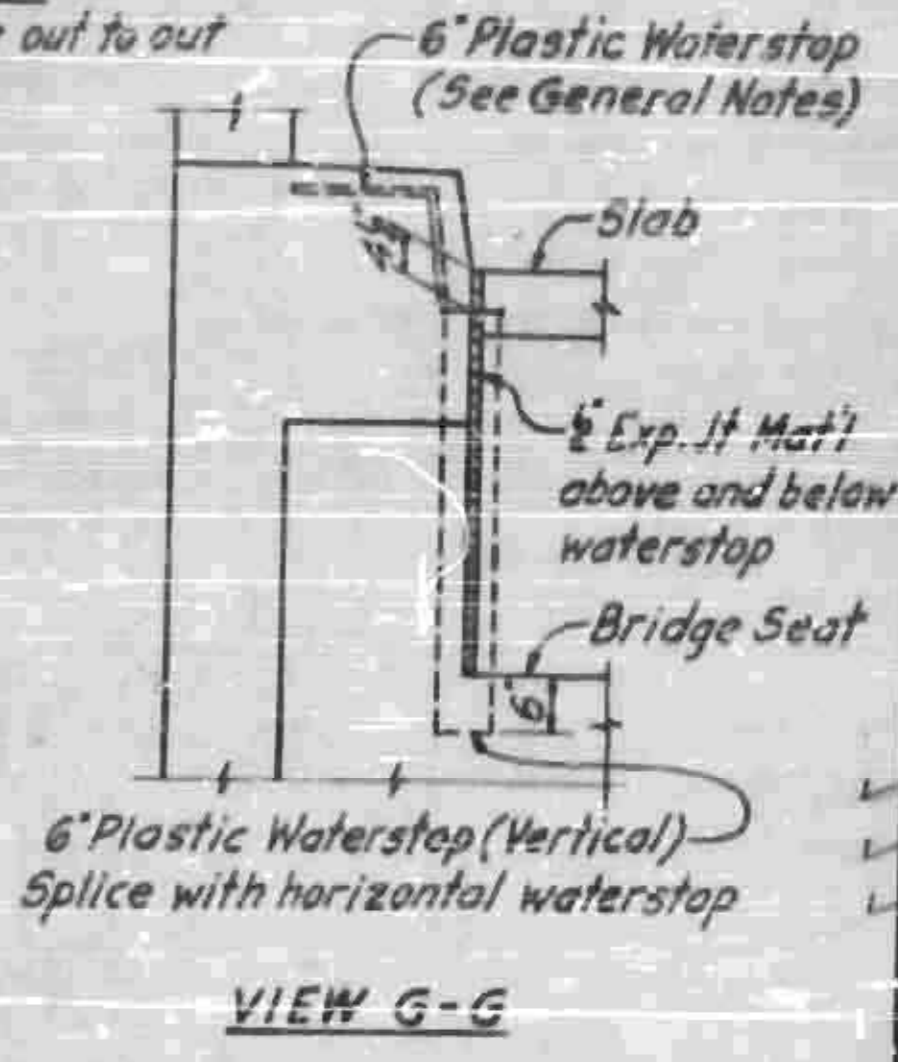
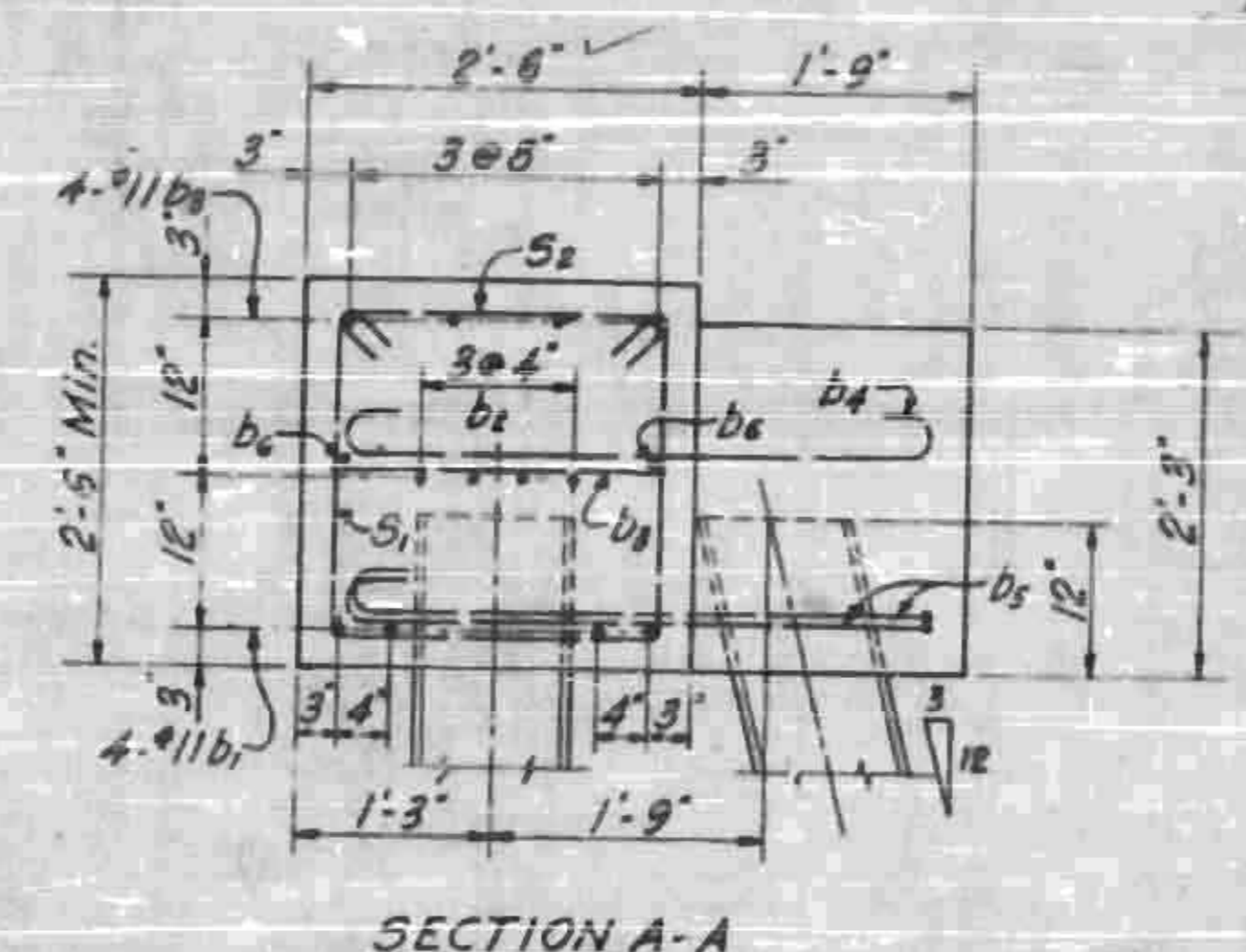
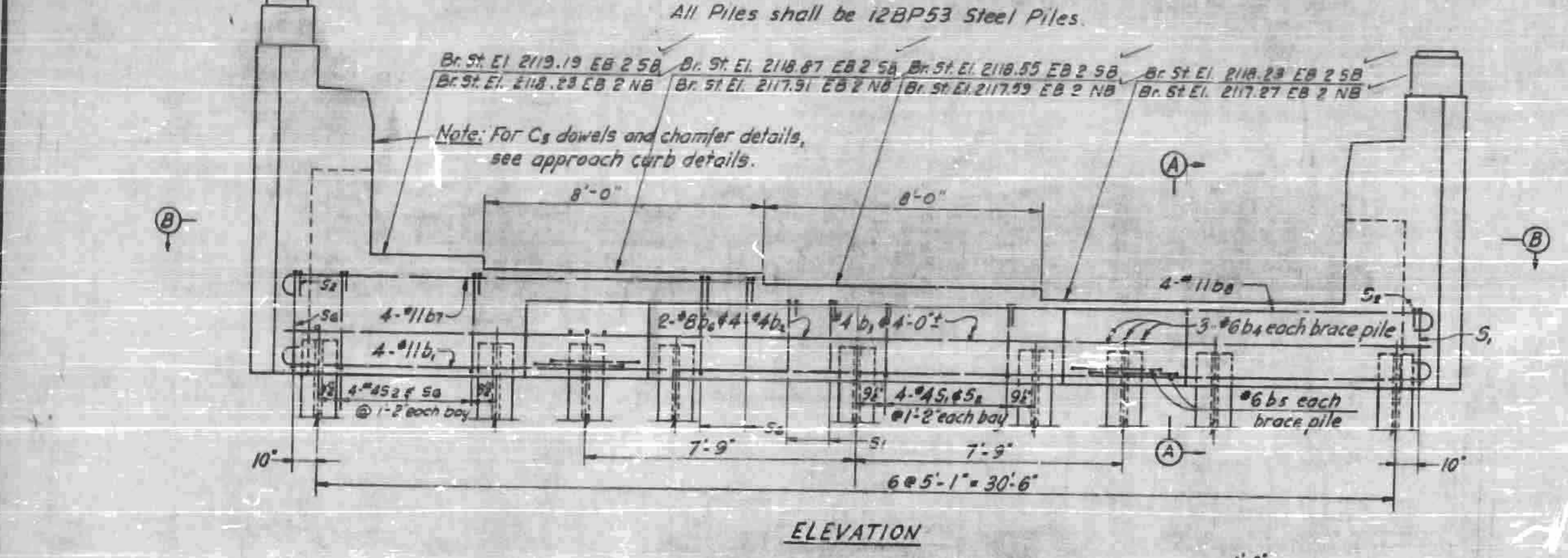
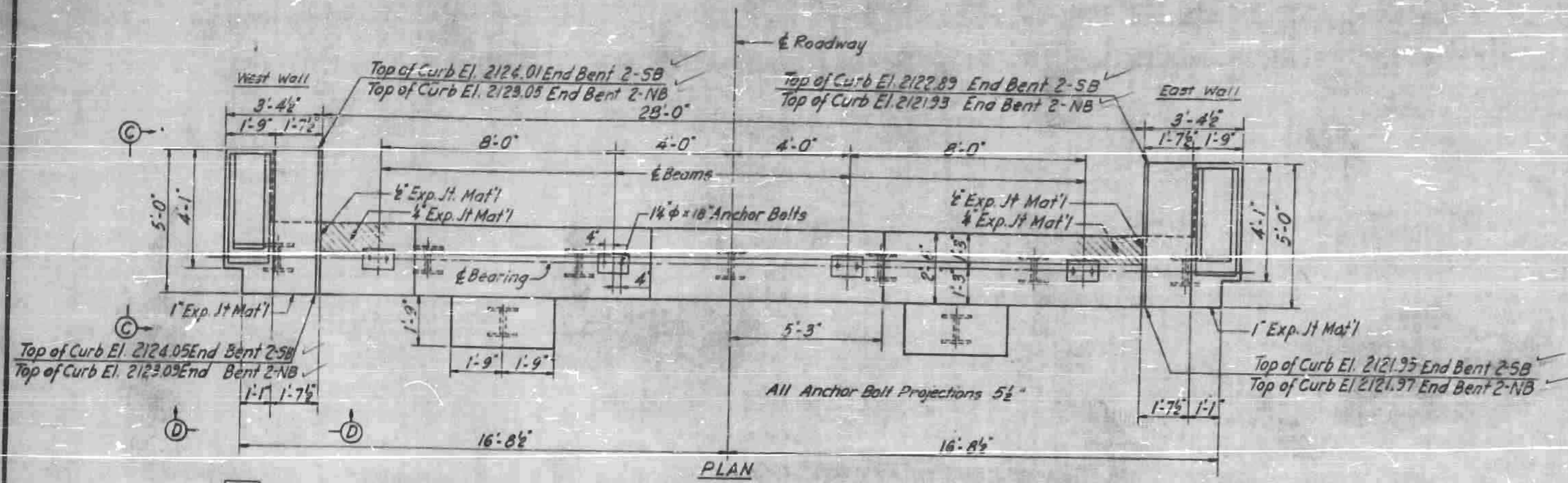
\* Concrete displaced by pile heads has been deducted

PROJECT NO. 8.18293  
Henderson COUNTY  
STATION 1167+00 L  
N.B. & S.B. Bridge



DATE		STATE OF NORTH CAROLINA STATE HIGHWAY COMMISSION RALEIGH
BY	DATE	
REVISIONS		END BENTS I
BY	DATE	

PROJECT NO.	8 18293
DATE	4-12-56
PROJECT	END BENTS 2
REV. NO.	1-26-16512



BILL OF MATERIAL					
FOR END BENT 2-NB					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
b1	4	#11	1	36'-1"	767
b2	4	#4	Str	32'-11"	88
b3	9	#4	Str	2'-2"	13
b4	6	#4	1	3'-3"	41
br	4	#6	5	11'-9"	71
ba	2	#8	Str	32'-11"	176
b7	4	#11	7	15'-1"	321
ba	4	#11	7	24'-7"	522
e1	4	#4	6	5'-2"	14
h1	4	#4	Str	3'-5"	9
h2	8	#6	Str	3'-9"	45
h3	22	#4	Str	3'-9"	59
h4	20	#6	Str	4'-8"	141
hr	4	#4	Str	2'-3"	6
S1	15	#4	3	7'-3"	73
S2	26	#4	2	2'-11"	31
S3	8	#4	4	10'-6"	56
S4	3	#4	4	9'-6"	37
S5	2	#4	4	9'-2"	12
S6	11	#4	3	8'-7"	63
V1	7	#4	Str	8'-2"	38
V2	6	#7	1	8'-6"	104
V3	12	#4	Str	2'-9"	18
V4	8	#4	Str	2'-6"	13
V5	7	#4	Str	3'-2"	43
V6	6	#7	1	3'-6"	116

Total Quantities for one End Bent:  
 Reinforcing Steel lbs. 2,919  
 Class "A" Concrete cu yds. 17.4  
 12 BP53 Steel Piles No. 9  
 12 BP53 Steel Piles lin. ft. 418  
 EB 2-NB = 3412  
 EB 2-SB = 4140

Bill of Material and Quantities for End Bent 2SB Same.

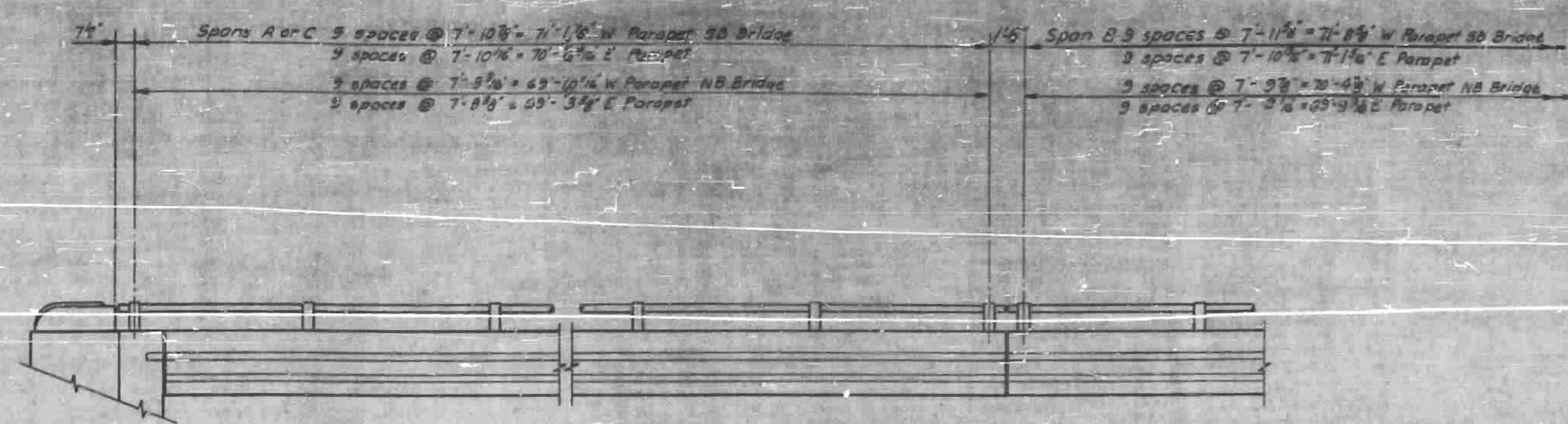
\* Concrete displaced by pile heads has been deducted.

PROJECT NO. 8 18293  
 Henderson COUNTY  
 STATION 1167 + 00L  
 NB & SB Bridge

STATE OF NORTH CAROLINA	
STATE HIGHWAY COMMISSION	
RALEIGH	
END BENTS 2	

FED. ROAD DIST. NO.	STATE	PROJECT NO.
3	N.C.	818293
FED. AID PROJ. 1-26-15712		

DATE	REVISION NO.	BY	DATE
	443 569		



PARAPET AND RAILING ELEVATION

**NOTES:**

Unless noted on the plans, maximum length of rail section to be two panels plus "stick thru."

End of rail to clear face of concrete End Post by 1/2".

For double panel runs of rail, set screws shall be set tight at center post and snug at ends to allow for expansion.

For single panel runs, set screw to be tight at one end and snug at other end.

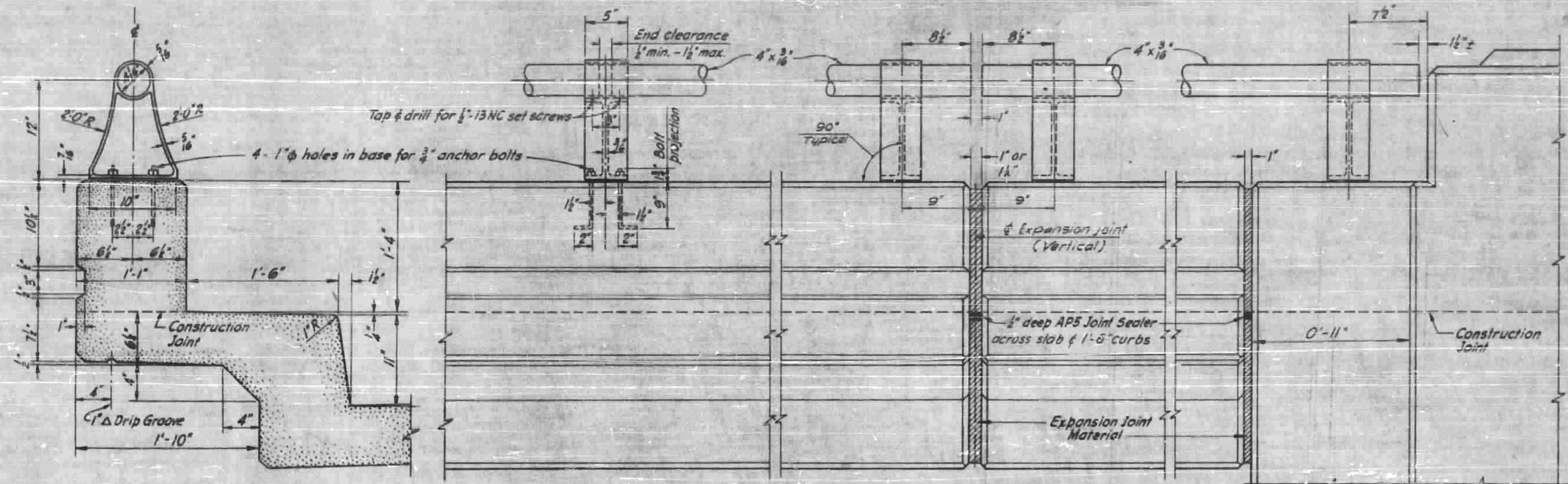
3/4" Anchor bolts - hex nuts and washers to be steel galvanized in accordance with ASTM A-153 and painted with 2 coats of aluminum paint after erection.

Cast posts to be as shown or an approved equal.

Certified Mill reports are required for rails and posts. Shop inspection is not required.

Metal Rail Posts to be set normal to curb grade.

Method of measurement for Metal Rails:  
 Unless otherwise stated, the length of Metal rails to be paid for shall be the continuous horizontal length measured from end to end of rail, excepting concrete posts, but without deductions for spaces between rail sections.



TYPICAL SECTION ELEVATION JOINT DETAILS AT BENTS JOINT DETAILS AT END BENTS

PARAPET AND RAILING DETAILS

At the Contractor's option metal rail may be either Aluminum or Galvanized Steel in accordance with the requirements of the general notes and the following specifications for the alternate materials; however, the Contractor will be required to use the same rail material on all structures on the project for which metal rail is designated.

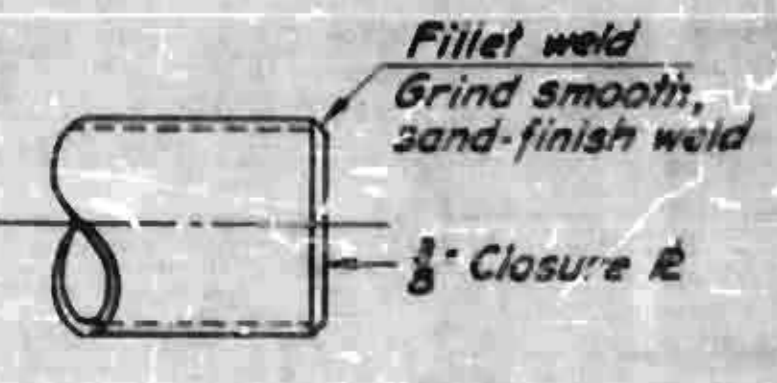
- ALUMINUM RAILS**
- Aluminum alloys are to be as follows:
  - Cast Rail Posts A356-T6
  - Round Tubular Rail 6061-T6 or 6062-T6
  - Set Screws 2024-T4
  - Closure Plates 6061-T6 or 6062-T6

Round tubular Rails are to be 4" O.D. with 3/16" minimum wall thickness.

The base of rail posts, or any other aluminum surface in contact with concrete shall be thoroughly coated with an aluminum impregnated caulking compound of approved quality.

- GALVANIZED STEEL RAILS**
- Material and galvanizing are to conform to the following specifications:
- Cast Rail Post Malleable cast iron ASTM A47 Grade 35010, Galvanized to ASTM A123
  - Cast Steel, ASTM A132 Class 70, Galvanized to ASTM A123
  - 4" O.D. Rail Standard 3" Steel Pipe, ASTM A53 Galvanized
  - Closure Plates Ship Steel, ASTM A-345 Grade C, Galvanized to ASTM A123
  - Set Screws Standard Steel Hex Screws, Galvanized to ASTM A153

The cut ends of galvanized pipe railing, the end closure plate, weld after grinding smooth and areas adjacent to the weld where spatter coating has been burned by welding shall be thoroughly cleaned by wire brushing to remove all traces of welding flux and loose or cracked spatter after which these cleaned areas shall be given two coats of zinc paint meeting the requirements of Federal Specification MIL-P-26915 (USAF) Type I.



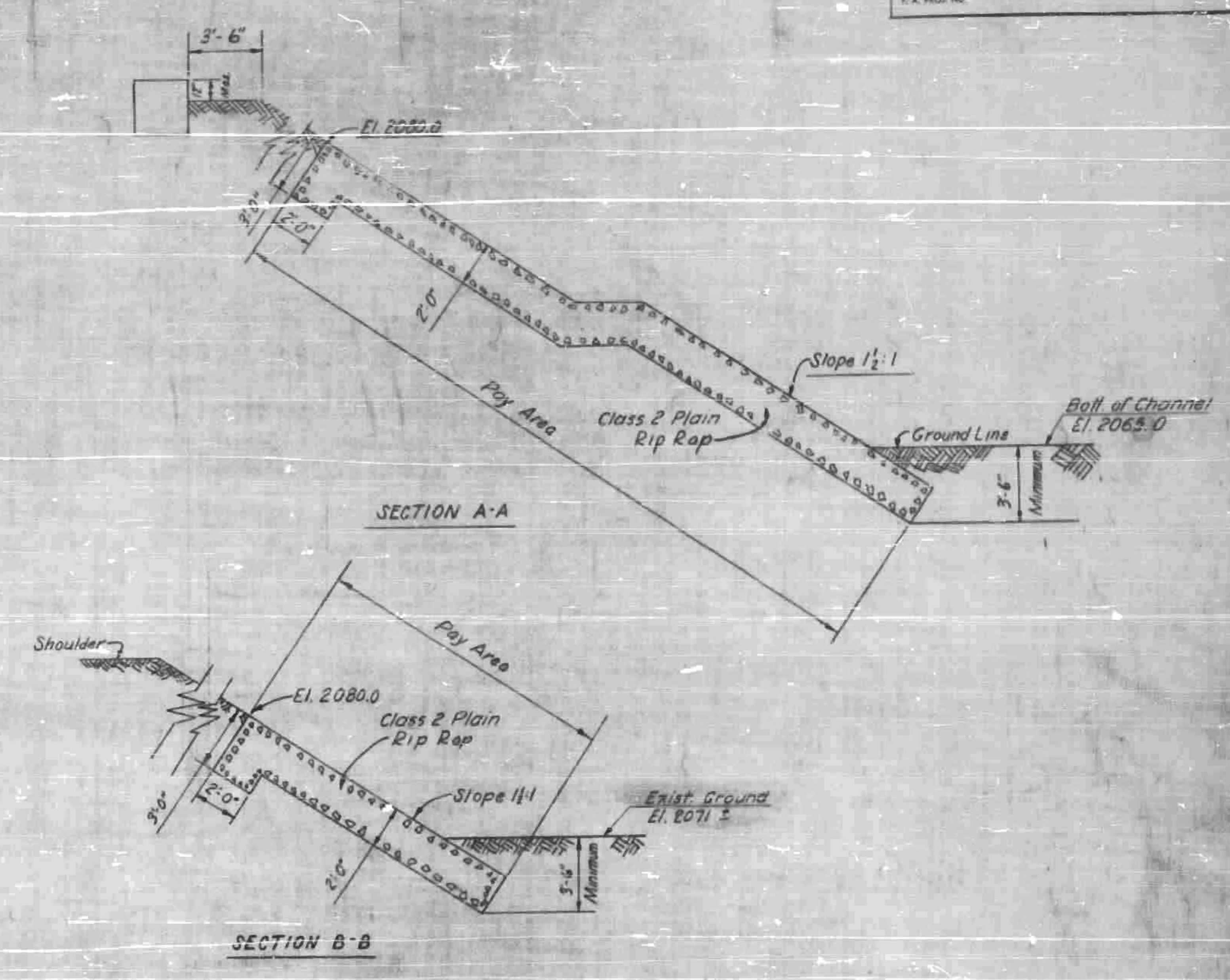
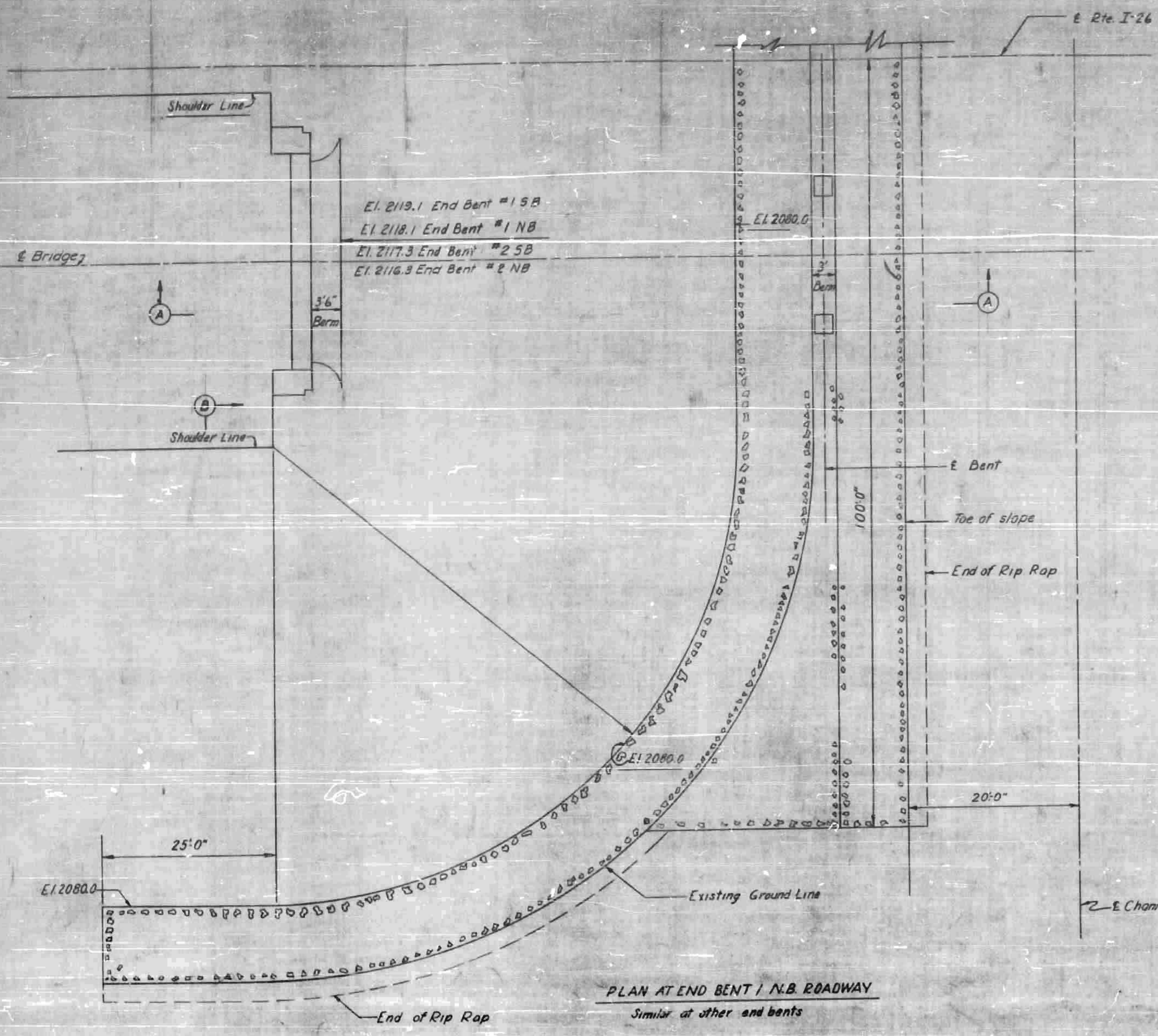
DETAIL END CLOSURE

PROJECT NO. 818293  
 Henderson COUNTY  
 STATION 1167+00L  
 N.B. & S.B. Bridge

STATE OF NORTH CAROLINA	
STATE HIGHWAY COMMISSION	
RALEIGH	
PARAPET AND RAILING DETAILS	

FED. ROAD DIST. NO.	STATE	PROJECT NO.
2	N.C.	8-18293
Fed. Aid Proj. I-26-165		

STATE	PROJECT NO.	DATE	SCALE
N.C.	444	569	
S.A. NO. NO.			



PROJECT NO. 8-18293  
 HENDERSON COUNTY  
 STATION 1167+00.1  
 N.B. # 5.B Bridge

STATE OF NORTH CAROLINA	
STATE HIGHWAY COMMISSION	
RIP-RAP DETAILS	
DATE	BY
DATE	BY
DATE	BY