

NC 0100  
F.A. Proj. F-229(9)

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*FINAL ESTIMATE ON NORTH CAROLINA STATE  
PROJECT NO 6126  
F.A. NO. F-229(9)  
FOR*

*STRUCTURES ON U.S. ROUTE NO. 52 FROM A POINT  
ON U.S. 74 APPROX. 1 MILE EAST OF WADESBOBO  
SOUTHEAST TO U.S. 52 AT THE MORVEN CITY LIMITS.*

*ANSON COUNTY  
DIVISION NO. 10*

*CONTRACTOR: MAGILL CONTRACTING CO., INC.  
WHITMIRE, S. C.*

*CONTRACT LET. JULY 27, 1954  
WORK STARTED SEPT. 30, 1954  
WORK COMPLETED AUGUST 17, 1955*

*M.E. BEATTY DIVISION ENGINEER  
G.B. STRICKLAND RESIDENT ENGINEER  
T.L. PATTERSON MASONRY INSPECTOR*

*Note: The final survey note books, properly marked and described, submitted herewith as a part of this final estimate are as follows:*

- 1. Resident Engineer's Diary.*
- 2. Masonry Book.*

DATE  
NO. OF SHEETS  
NO. OF PAGES  
NO. OF FIGURES  
NO. OF TABLES  
NO. OF NOTES  
NO. OF REFERENCES  
NO. OF INDEXES  
NO. OF CORRECTIONS  
NO. OF AMENDMENTS  
NO. OF DELETIONS  
NO. OF ADDITIONS  
NO. OF CHANGES  
NO. OF REVISIONS  
NO. OF FINAL APPROVALS

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NO. OF ADDITIONS  
NO. OF CHANGES  
NO. OF REVISIONS  
NO. OF FINAL APPROVALS

TABLE OF OVERRUNS & UNDERRUNS  
 PROJECT 6126 (STR)

ITEMS	ORIG. EST.	FINAL EST.	OVERRIDE	UNDERRUN
CU. YDS. UNCL. STR. EXCAV.	1,575	2,270.6	695.6	
CU. YDS. UNCL. CHNL. EXCAV.	360	270.4		89.6
MAINT. & REM. OF EXIST. STR. @ STA. 204+50	LUMP. SUM.	None		\$200.00 deleted from contract change order no. 2
CU. YDS. CLASS. A CONCRETE	1,193	1200.1	7.01	
LBS. REINFORCING STEEL	203,100	204,257	1,157	
70,500 LBS. (APPROX.) STRUCTURAL STEEL	LUMP. SUM.	LUMP. SUM.	None	None
LIN. FT. 12" @ 33" STEEL H PILES	1,005	799.67		205.33
50 YDS. CONCRETE BR. RAP	620	792.82	172.82	
50 YDS. METHOD A WATERPROOFING	18	15.78		2.22
LIN. FT. 12" @ 33" STEEL PILE CUT-OFF	0	192.33	192.33	192.33
CU. YDS. COND. CULV. FOUNDATION AT STA. 204+50	0	151	151	

See Letter of Transmittal for Explanations.

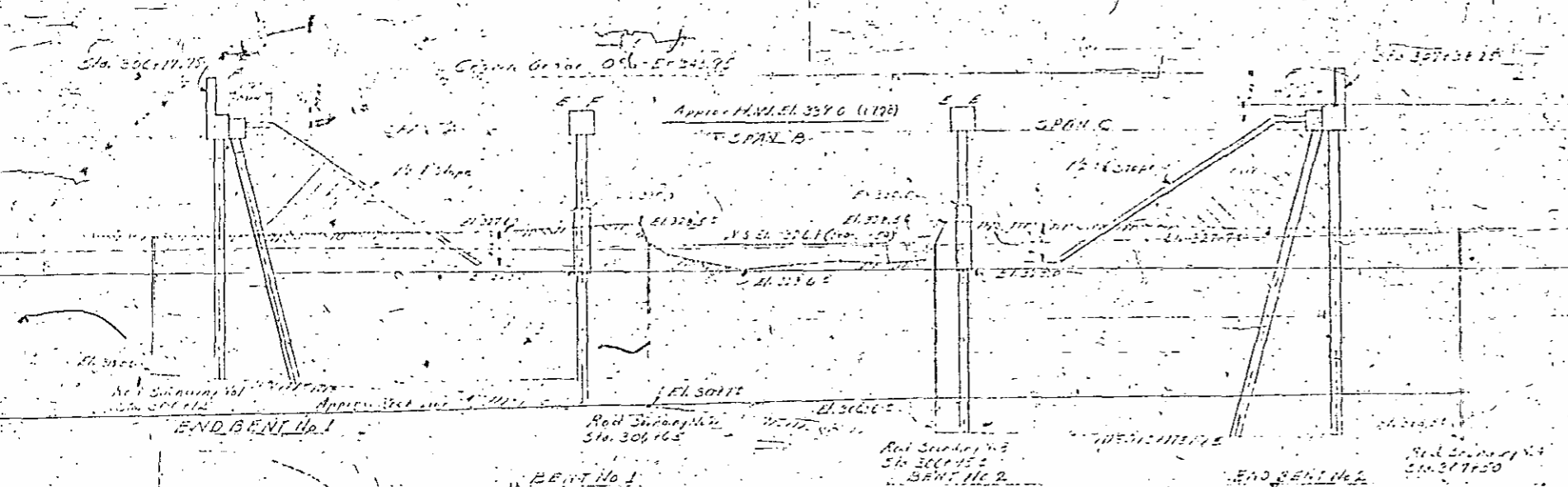
Computed By: *W.H. [Signature]* Date: Oct. 10, 1955

Checked By: *Jr. H. [Signature]* Date: Oct. 18, 1955

See Masonry Book Page

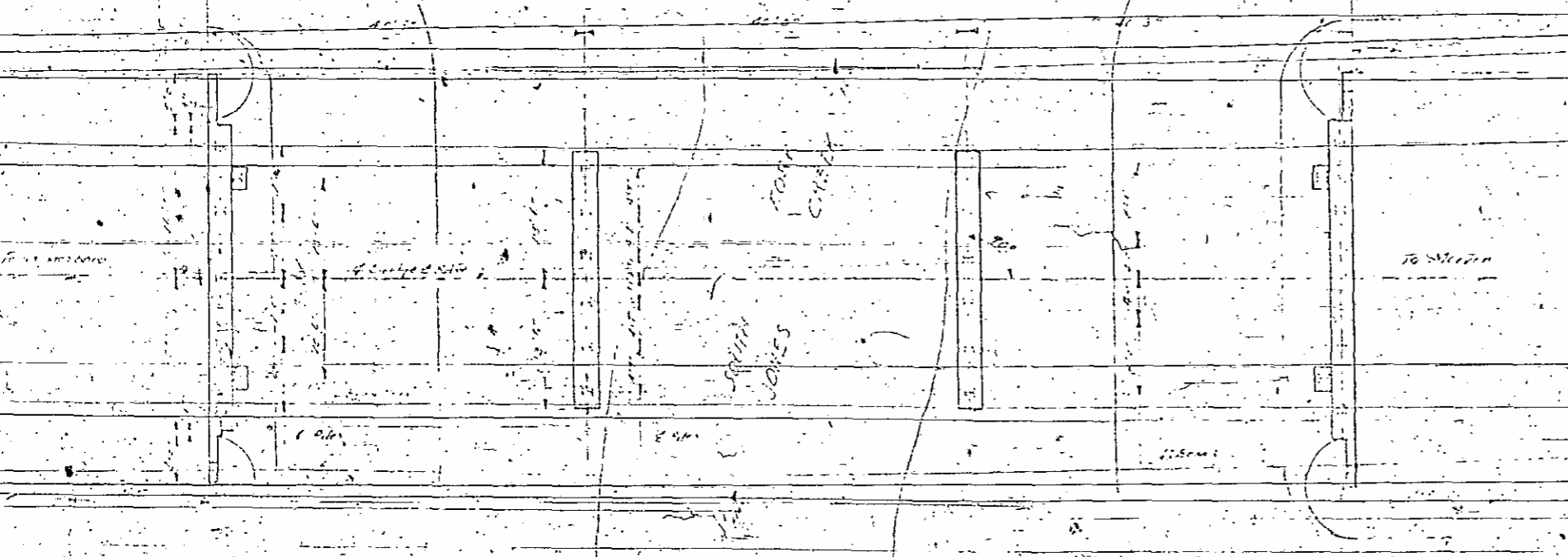
Sta. 306+75  
Sta. 306+75

Sta. 307+50



ELEVATION ALONG A BRIDGE  
Length of Bridge Floor 170'-6"

Reel # 622  
Pos # 10



PLAN

TOTAL BILL OF MATERIAL						
ITEM	QTY	UNIT	PRICE	TOTAL	REMARKS	
Steel Deck	100	sq ft	4.470	447.00		
Truss Members	100	lb	4.00	400.00		
Diagonal Bracing	100	lb	4.00	400.00		
End Posts	100	lb	4.00	400.00		
Other	100	lb	4.00	400.00		
<b>TOTAL</b>				<b>1647.00</b>		

PROJECT NO. 6126  
ANSON COUNTY  
STATION: 306+75-2  
#14

STATE OF NORTH CAROLINA  
STATE HIGHWAY  
PUBLIC WORKS COMMISSION  
GENERAL DRAWING  
BY JOHN JONES  
ON U.S. 52  
WALES, DAVIS & COMPANY  
Raleigh, N.C.

SPECIAL DESIGN BY: DATE: CHECKED BY: DATE: APPROVED BY: DATE:

SHEET OF

G. Bridge  
Sta. 306+78.12

Sta. 306+11.75

CROWN Grade 0% - El. 343.95

Sta. 307+38.25

SPAN A

Approx. H.W. El. 339.0 (1908)

SPAN B

SPAN C

12:1 Slope

12:1 Slope

El. 339.0

Rod Sounding No. 1  
Sta. 306+12

END BENT No. 1

Approx. Rock Line

Rod Sounding No. 2  
Sta. 306+65

BENT No. 1

Rod Sounding No. 3  
Sta. 306+75  
BENT No. 2

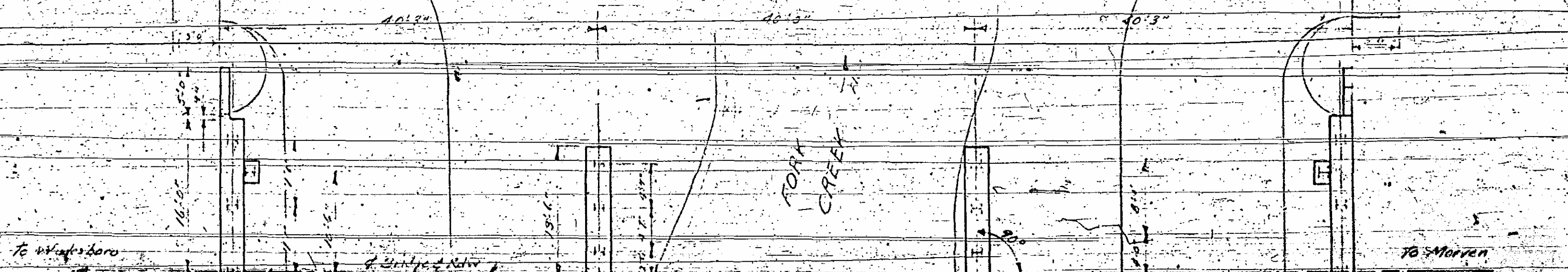
El. 339.5

Rod Sounding No. 4  
Sta. 307+50

END BENT No. 2

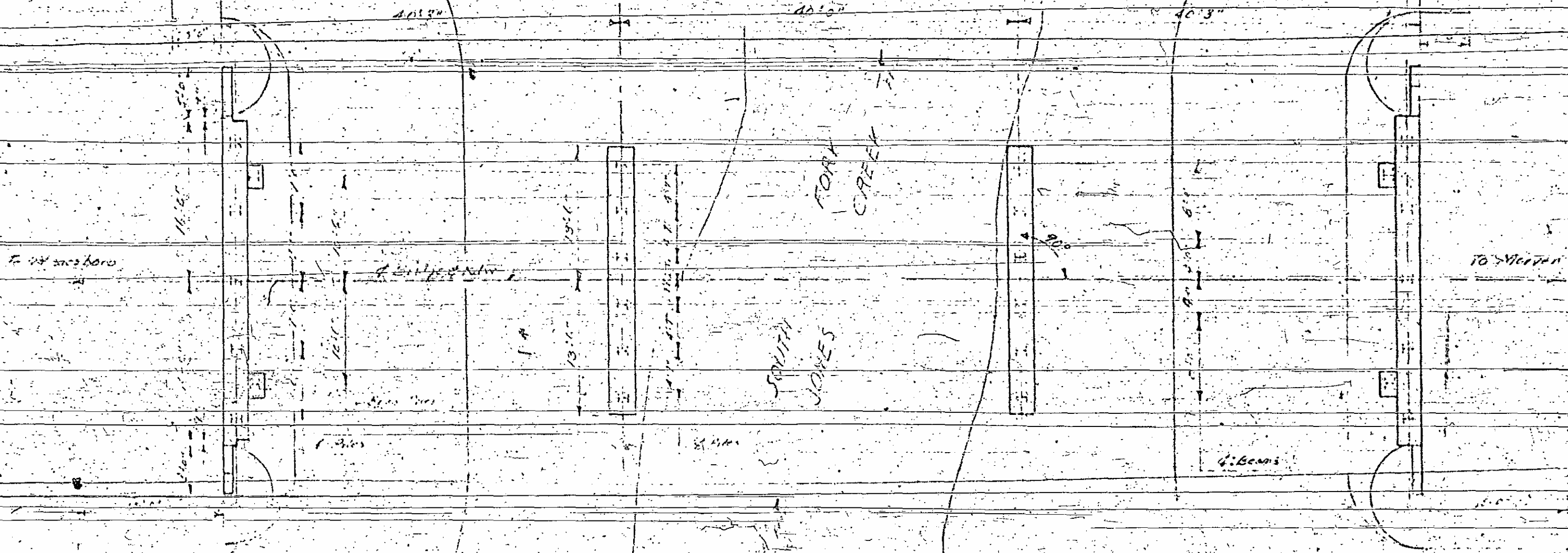
### ELEVATION ALONG & BRIDGE

Length of Bridge Floor 120'-6"



ELEVATION ALONG & BRIDGE

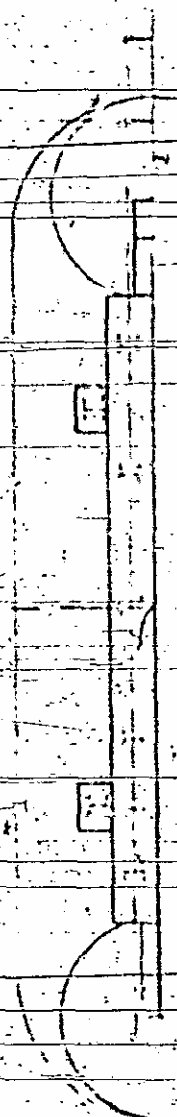
Length of Bridge floor 120'-6"



PLAN

DESIGNED BY.....	DATE.....
DRAWN BY.....	DATE.....
CHECKED BY.....	DATE.....

SPECIAL



To Meriden

TOTAL BILL OF MATERIAL						
ITEM	QTY	UNIT	PRICE	TOTAL		REMARKS
				AMOUNT	EXTENSION	
GRAVEL	11	CU YD	1.20	13.20		
CRUSHED STONE	7	CU YD	1.50	10.50		
CEMENT	7	CU YD	1.50	10.50		
TOTAL				34.20		

PROJECT NO. 6126

ANSON COUNTY

STATION: 305+78.12

STATE OF NORTH CAROLINA  
 STATE HIGHWAY AND  
 PUBLIC WORKS COMMISSION  
 BILLSON  
 GENERAL SUPERVISOR  
 COUNTY ENGINEER  
 COUNTY COMMISSIONER  
 COUNTY CLERK  
 COUNTY SHERIFF  
 COUNTY JAILER  
 COUNTY TOWNSHIP CLERK  
 COUNTY TOWNSHIP SHERIFF  
 COUNTY TOWNSHIP JAILER  
 COUNTY TOWNSHIP CLERK

SHEET OF

10.3

To Morten

### TOTAL BILL OF MATERIAL

	CROSS SECTION EQUIV.	TOTAL LBS.	STRUCTURE LBS.	12153		TOTAL	LBS.
				NO.	QTY.		
CONCRETE	110		61,370			12	
PIPE	70			7			
BRICK	20		3,115				
WOOD	100		1,500				
IRON	101			7			
ASPHALT	30						31
<b>TOTAL</b>							<b>74</b>

PROJECT NO. 6126

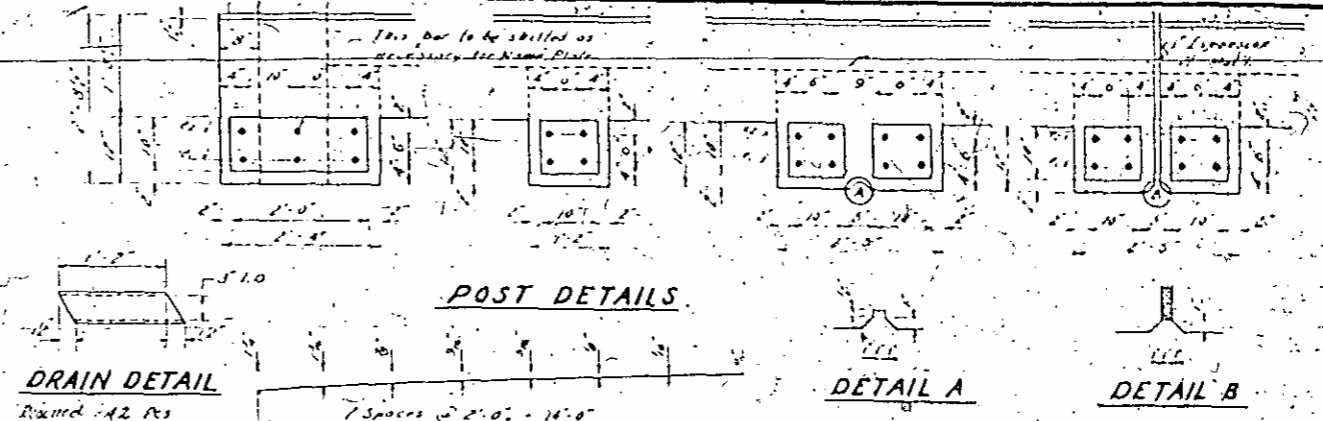
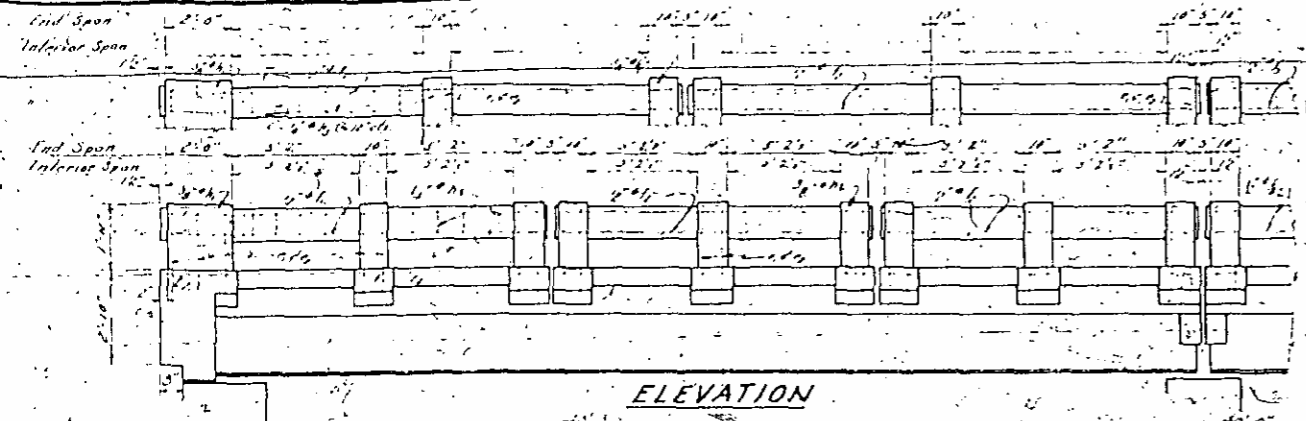
ANSON COUNTY

STATION: 306+78.12

STATE OF NORTH CAROLINA  
 STATE HIGHWAY  
 PUBLIC WORKS COMMISSION

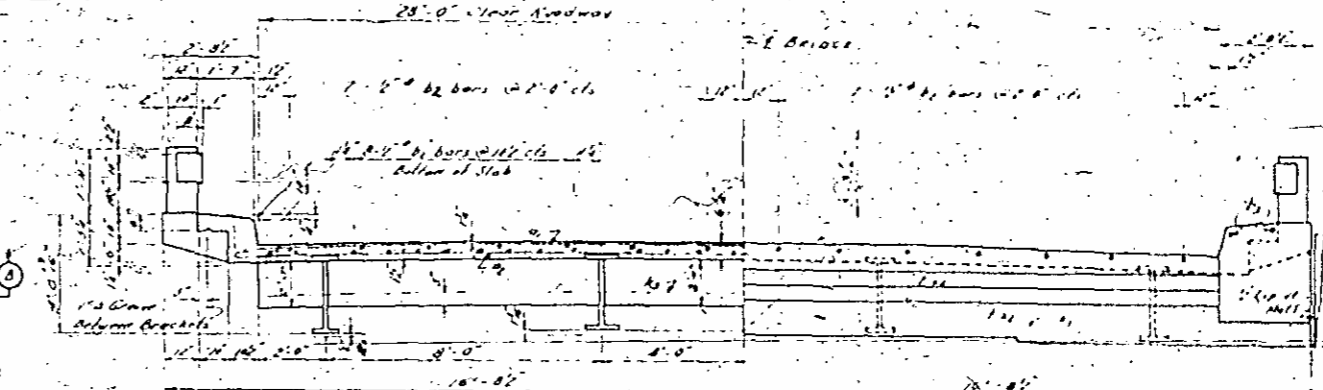
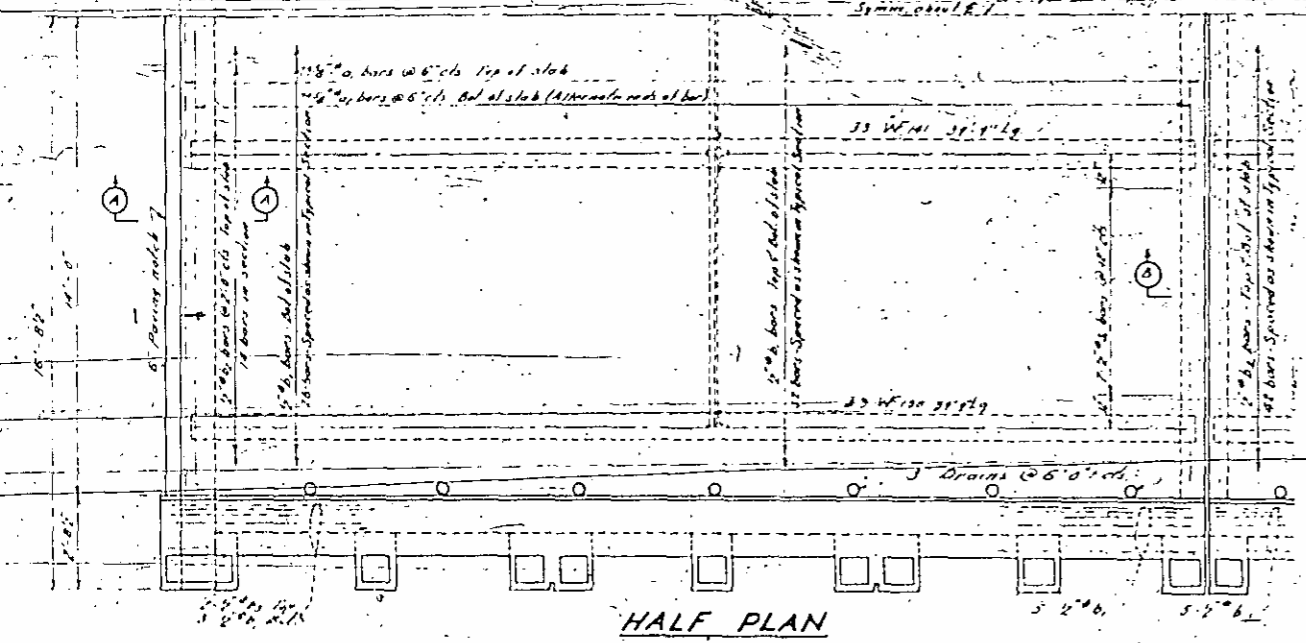
SHEET OF

PROJECT NO.	6126	SHEET NO.	5-6
DATE: 1-19-29			



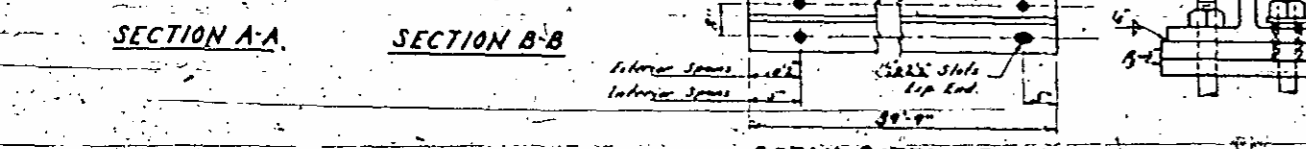
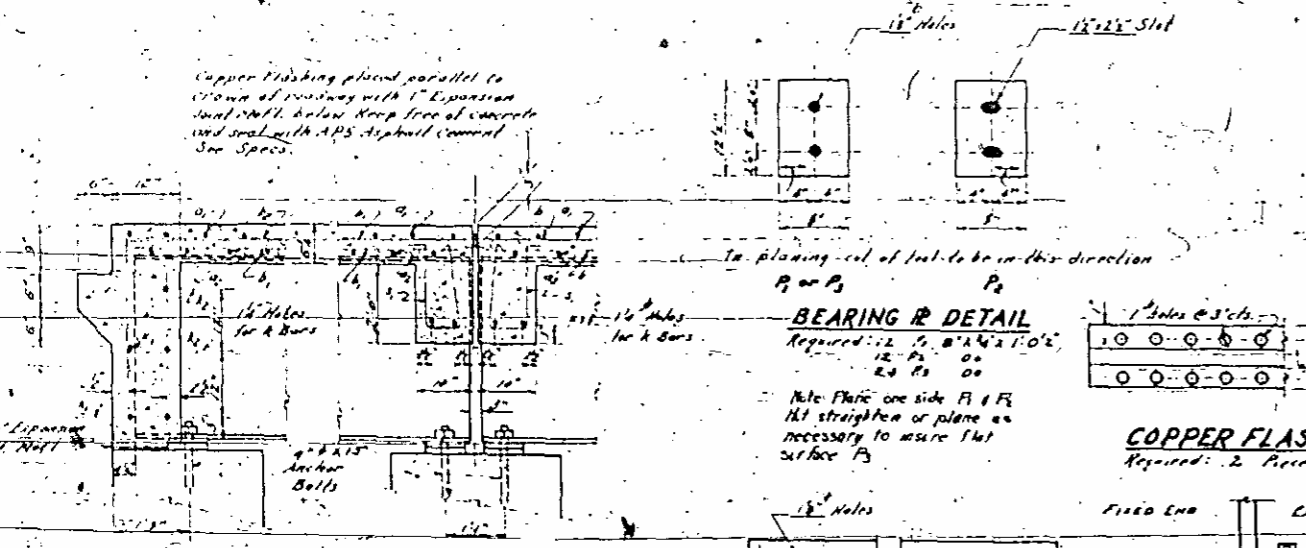
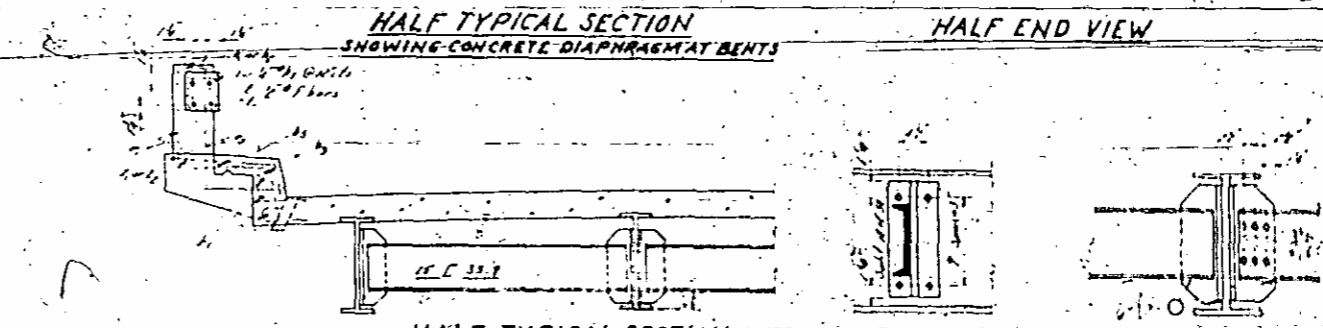
**DESIGN DATA**

Specifications: AASH (1924)  
 Assumed Load: 150 psf  
 Impact Allowance: See Specs  
 Structural Steel: AISC # 21  
 Reinforcing Steel: AISC # 21  
 Concrete in Compression: 1500 p.s.i.  
 Concrete in Tension: 30 p.s.i.



**NOTES**

All the reinforcement upon shop can be cut to suit. It is to be made by the contractor. Reinforcement to be placed in concrete in accordance with the drawings. Reinforcement to be placed in concrete in accordance with the drawings.



**BAR DETAILS**

Bar dimensions are out to out.

**BILL OF MATERIAL FOR 30,000 P.S.I.**

Bar No.	Size	Type	Length	Weight
1	1/2"	1	30'-0"	14.7
2	1/2"	1	30'-0"	14.7
3	1/2"	1	30'-0"	14.7
4	1/2"	1	30'-0"	14.7
5	1/2"	1	30'-0"	14.7
6	1/2"	1	30'-0"	14.7
7	1/2"	1	30'-0"	14.7
8	1/2"	1	30'-0"	14.7
9	1/2"	1	30'-0"	14.7
10	1/2"	1	30'-0"	14.7
11	1/2"	1	30'-0"	14.7
12	1/2"	1	30'-0"	14.7
13	1/2"	1	30'-0"	14.7
14	1/2"	1	30'-0"	14.7
15	1/2"	1	30'-0"	14.7
16	1/2"	1	30'-0"	14.7
17	1/2"	1	30'-0"	14.7
18	1/2"	1	30'-0"	14.7
19	1/2"	1	30'-0"	14.7
20	1/2"	1	30'-0"	14.7
21	1/2"	1	30'-0"	14.7
22	1/2"	1	30'-0"	14.7
23	1/2"	1	30'-0"	14.7
24	1/2"	1	30'-0"	14.7
25	1/2"	1	30'-0"	14.7
26	1/2"	1	30'-0"	14.7
27	1/2"	1	30'-0"	14.7
28	1/2"	1	30'-0"	14.7
29	1/2"	1	30'-0"	14.7
30	1/2"	1	30'-0"	14.7

PROJECT NO. 6126  
 ANSON COUNTY  
 STATION: 306+78.4

STATE OF NORTH CAROLINA  
 STATE HIGHWAY AND  
 PUBLIC WORKS COMMISSION

STANDARD  
 I BEAM SUPERSTRUCTURE  
 WITH RC FLOOR & RAIL  
 20' ROADWAY

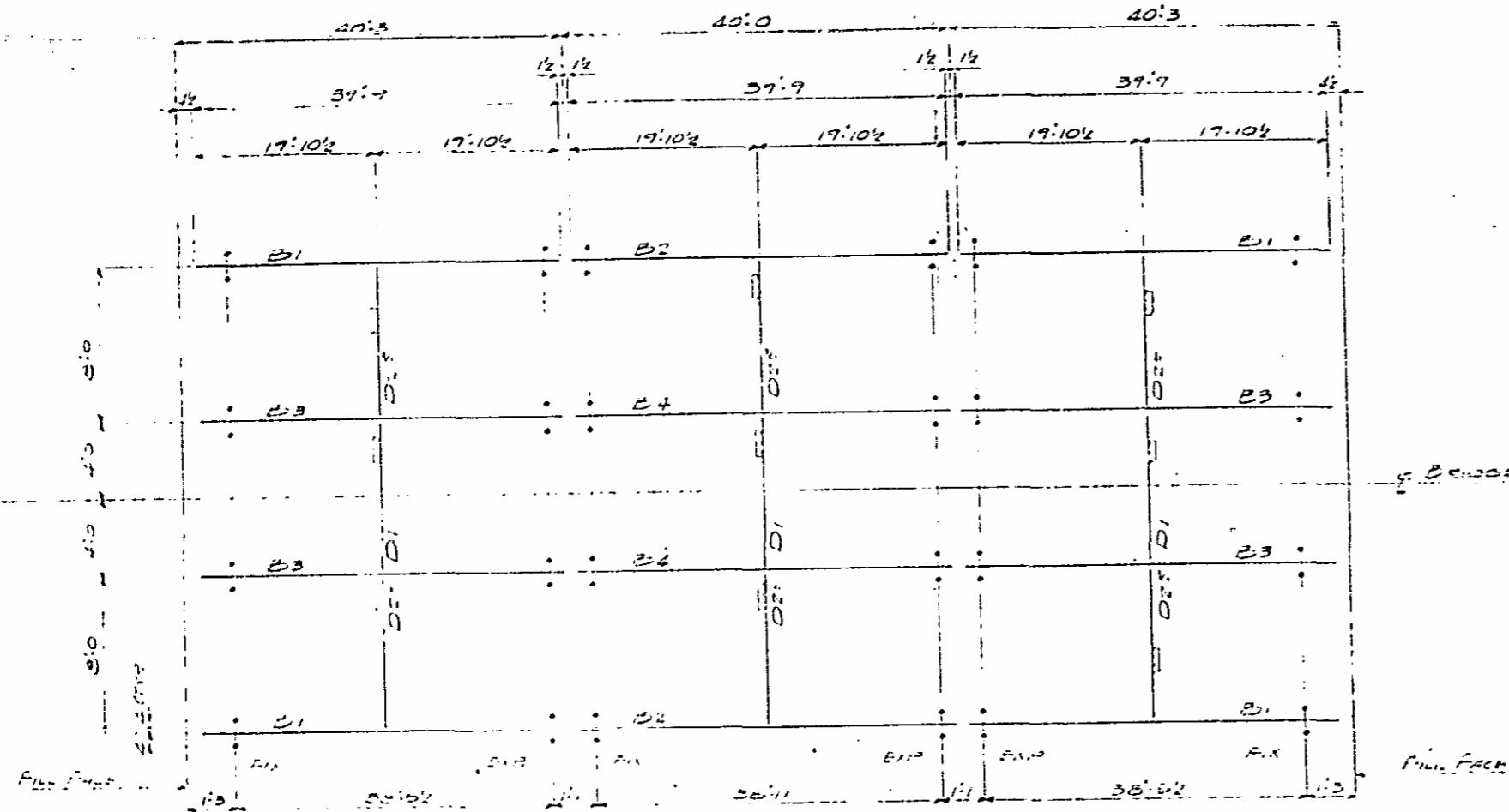
JANUARY 1929

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STANDARD	DESIGNED BY: [Signature]	DATE: 1-19-29
	CHECKED BY: [Signature]	DATE: 1-19-29
	CONTRACT NO.:	

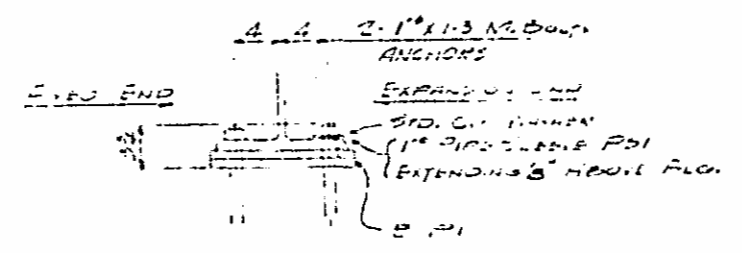








ANCHOR SETTING & ERECTION PLAN  
 ALL GIRDER BMS. - 33W-130 - EXTERIOR - 33W-141 INTERIOR  
 ALL I DIAPHRAGMS - 15L33.9



TYP ANCHOR SETTING DETAIL

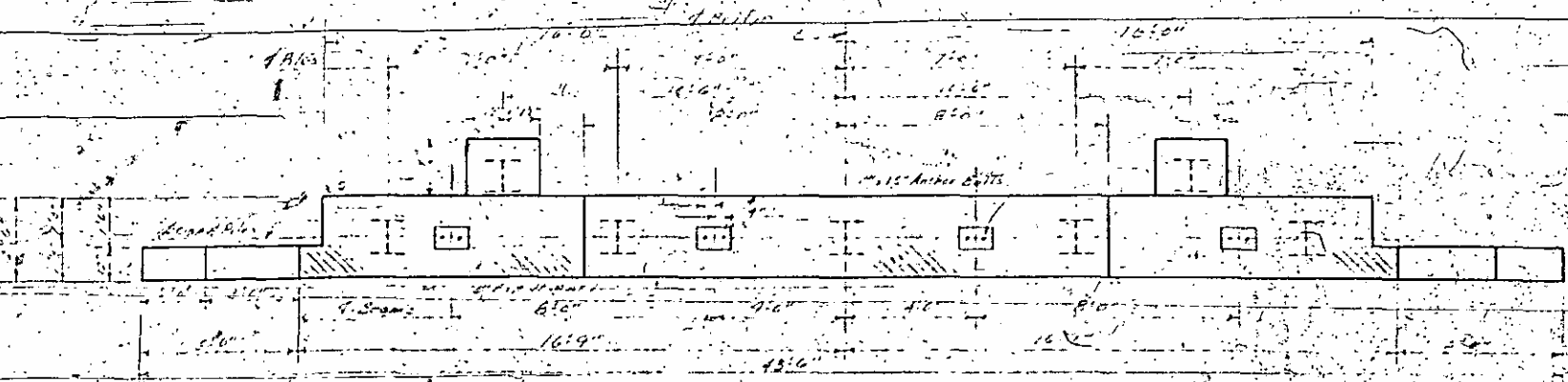
NOTE:  
 PLANNED SURFACES  
 TO BE IN CONTACT

GENERAL NOTES  
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 CHECKED BY: [Signature]  
 APPROVED BY: [Signature]

GENERAL NOTES  
 ORDER NO. 12505  
 DETAILS OF ANCHOR SETTING & ERECTION  
 FOR [Project Name]  
 CUSTOMER: [Customer Name]  
 AT ANSON COUNTY, N.C.

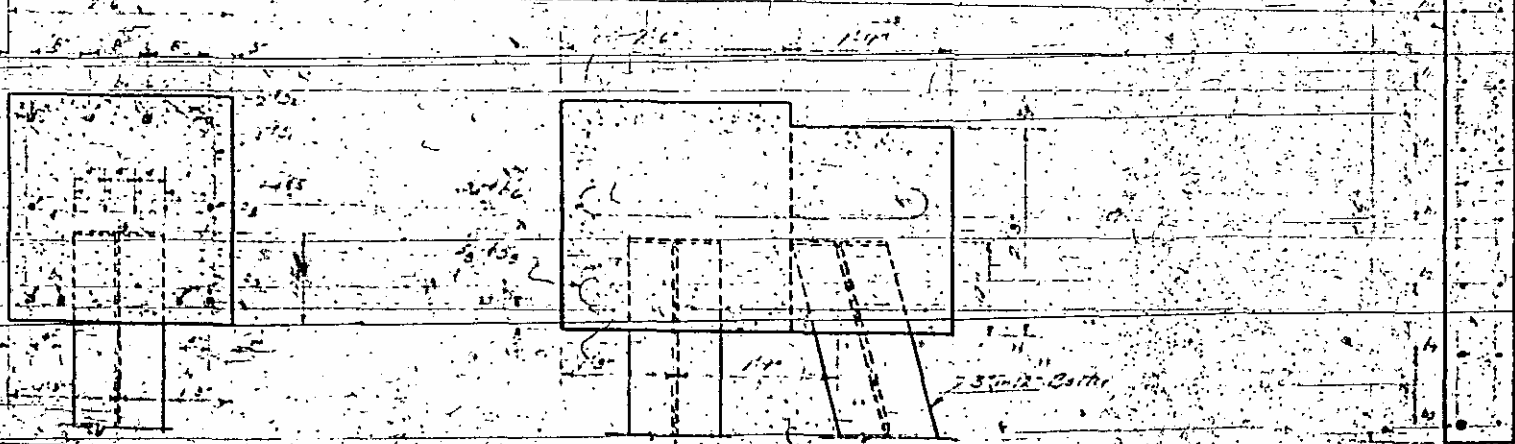
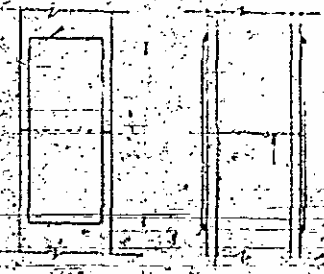
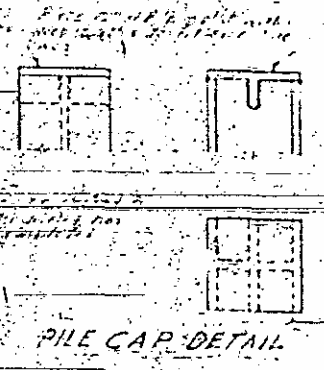
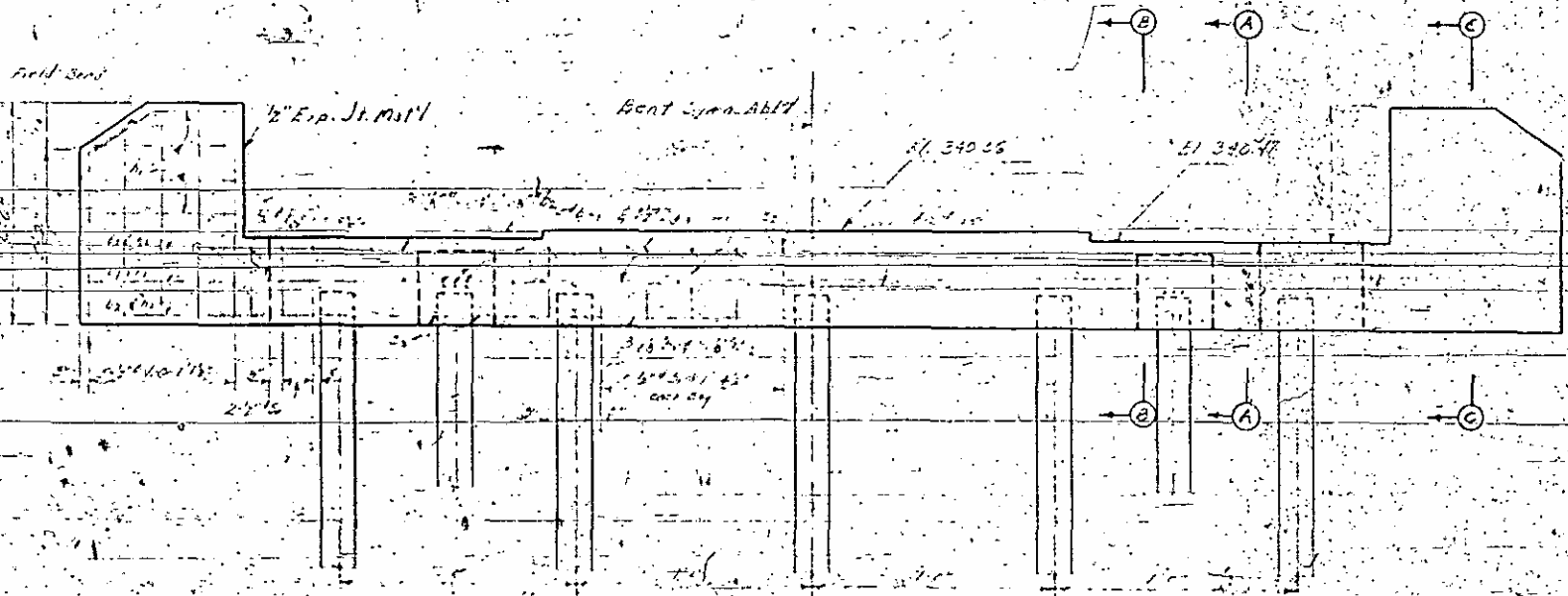
REVISIONS	

PROJECT NO.	STATE	PROJECT	DATE	SCALE
6126	N.C.	C.126	5-7-11	1/4"
RA PROJ - 7-224 (9)				



BILL OF MATERIALS FOR ONE END BENT

BAR TYPES	NO.	SIZE	LENGTH	WEIGHT	REMARKS
①	1	1/2"	16.0'	4.43	
②	2	1/2"	16.0'	4.43	
③	4	1/2"	16.0'	8.86	
④	4	1/2"	16.0'	8.86	
⑤	4	1/2"	16.0'	8.86	
⑥	4	1/2"	16.0'	8.86	
⑦	4	1/2"	16.0'	8.86	
⑧	4	1/2"	16.0'	8.86	
⑨	4	1/2"	16.0'	8.86	
⑩	4	1/2"	16.0'	8.86	
⑪	4	1/2"	16.0'	8.86	
⑫	4	1/2"	16.0'	8.86	
⑬	4	1/2"	16.0'	8.86	
⑭	4	1/2"	16.0'	8.86	
⑮	4	1/2"	16.0'	8.86	
⑯	4	1/2"	16.0'	8.86	
⑰	4	1/2"	16.0'	8.86	
⑱	4	1/2"	16.0'	8.86	
⑲	4	1/2"	16.0'	8.86	
⑳	4	1/2"	16.0'	8.86	
㉑	4	1/2"	16.0'	8.86	
㉒	4	1/2"	16.0'	8.86	
㉓	4	1/2"	16.0'	8.86	
㉔	4	1/2"	16.0'	8.86	
㉕	4	1/2"	16.0'	8.86	
㉖	4	1/2"	16.0'	8.86	
㉗	4	1/2"	16.0'	8.86	
㉘	4	1/2"	16.0'	8.86	
㉙	4	1/2"	16.0'	8.86	
㉚	4	1/2"	16.0'	8.86	
㉛	4	1/2"	16.0'	8.86	
㉜	4	1/2"	16.0'	8.86	
㉝	4	1/2"	16.0'	8.86	
㉞	4	1/2"	16.0'	8.86	
㉟	4	1/2"	16.0'	8.86	
㊱	4	1/2"	16.0'	8.86	
㊲	4	1/2"	16.0'	8.86	
㊳	4	1/2"	16.0'	8.86	
㊴	4	1/2"	16.0'	8.86	
㊵	4	1/2"	16.0'	8.86	
㊶	4	1/2"	16.0'	8.86	
㊷	4	1/2"	16.0'	8.86	
㊸	4	1/2"	16.0'	8.86	
㊹	4	1/2"	16.0'	8.86	
㊺	4	1/2"	16.0'	8.86	
㊻	4	1/2"	16.0'	8.86	
㊼	4	1/2"	16.0'	8.86	
㊽	4	1/2"	16.0'	8.86	
㊾	4	1/2"	16.0'	8.86	
㊿	4	1/2"	16.0'	8.86	

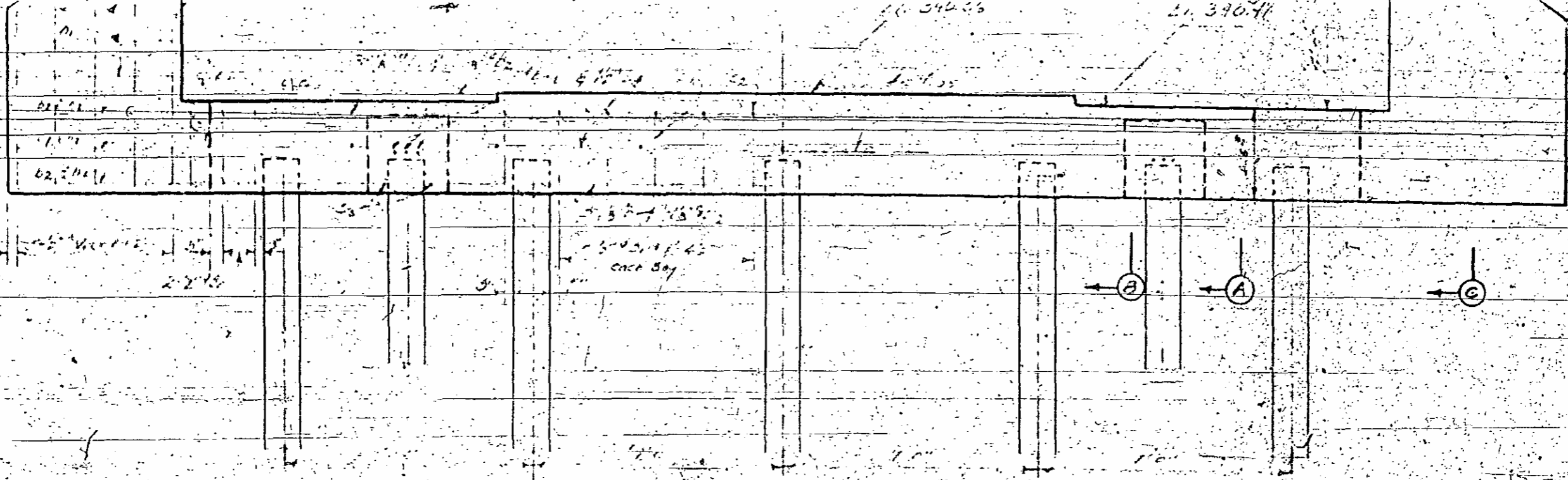


PROJECT NO. 6126  
 ANSON COUNTY  
 STATION 30678.2  
 END BENTS 142

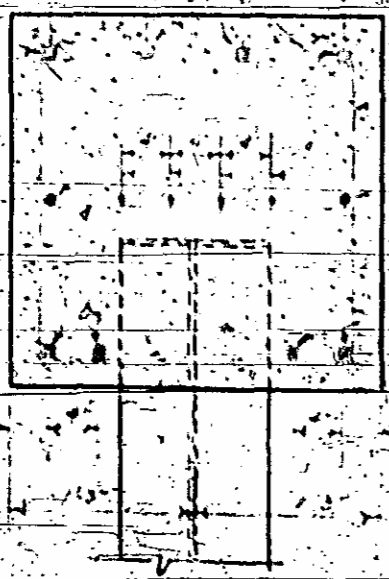
STATE OF NORTH CAROLINA  
 STATE HIGHWAY AND  
 PUBLIC WORKS COMMISSION  
 SUBSTRUCTURE  
 MAY 1954

DESIGNED BY: A. G. Shaw  
 CHECKED BY: [Signature]  
 DATE: [Date]

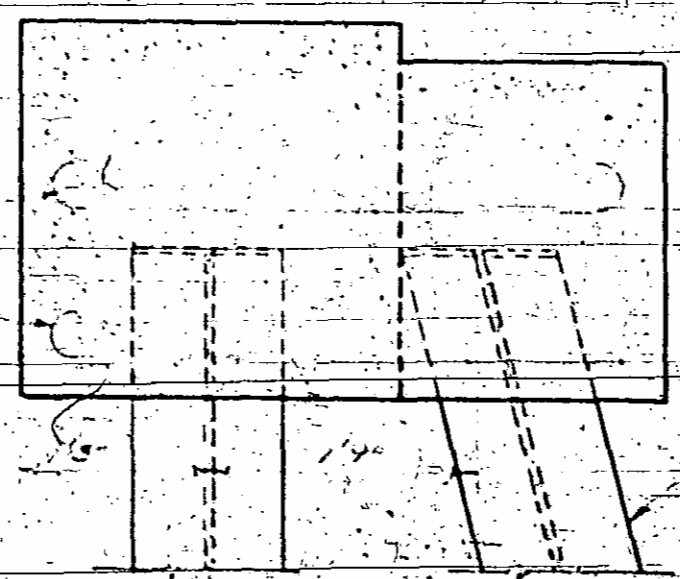
SHEET 1 OF 11



ELEVATION END BENTS 1 & 2



SECTION A-A

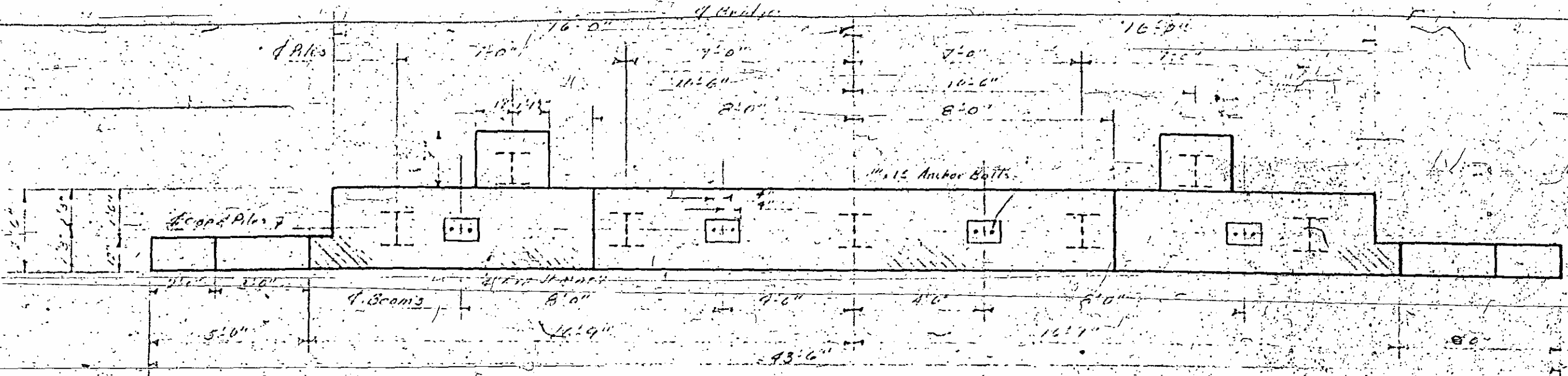


SECTION B-B

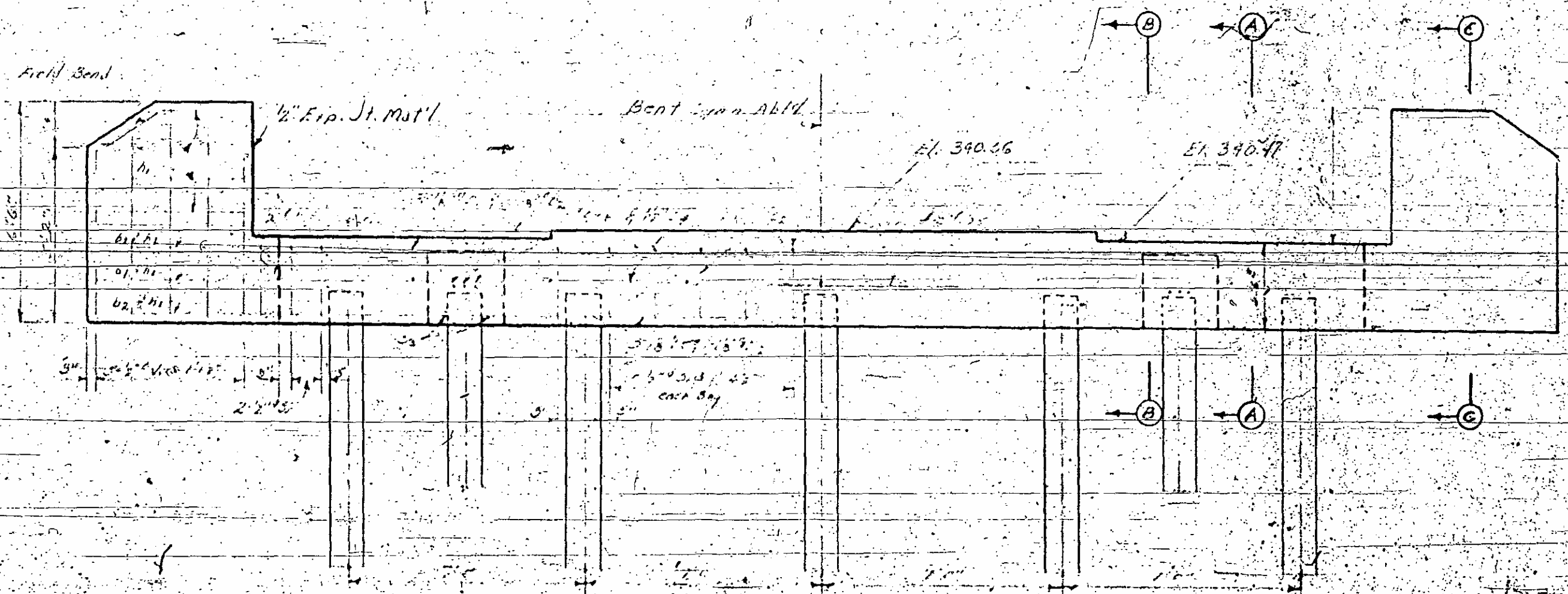


SECTION C-C

SPECIAL	DESIGNED BY	DATE
	DRAWN BY	DATE
	TRACED BY	DATE
	CHECKED BY	DATE



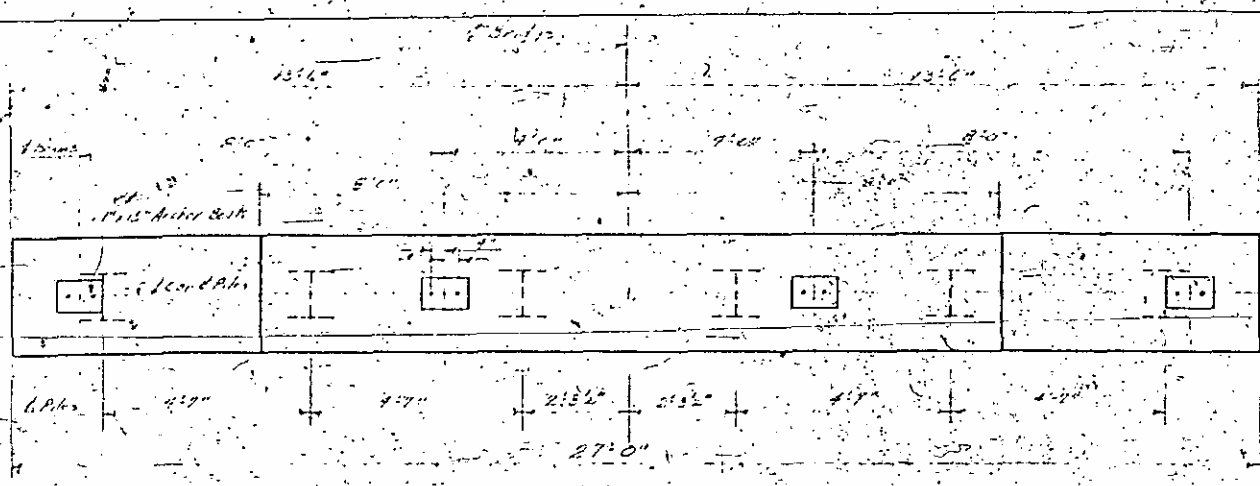
PLAN OF CAP-END BENTS 1 & 2



ELEVATION END BENTS 1 & 2

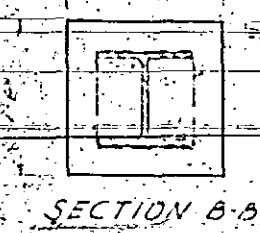
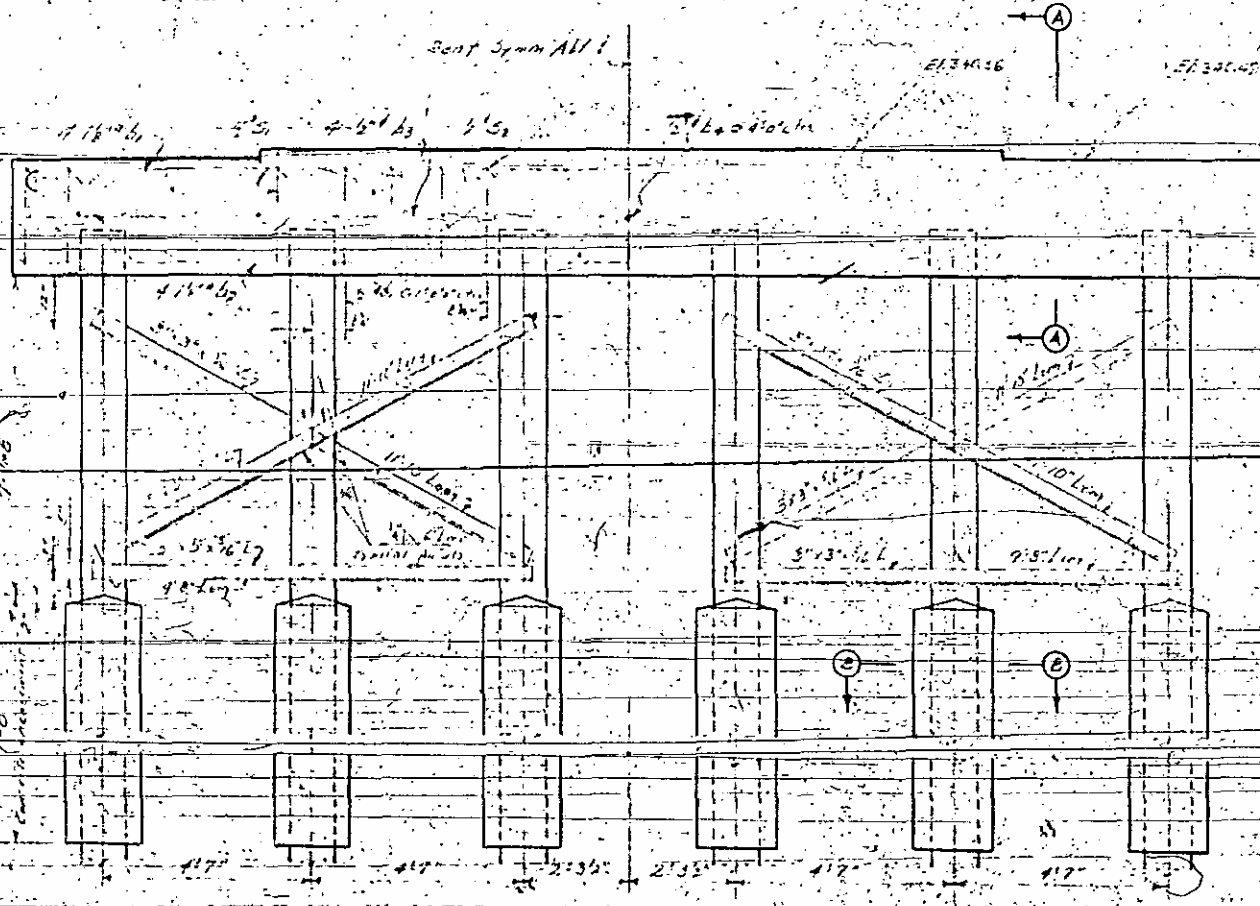
NO.	STATE	PROJECT NO.	SHEET	TOTAL
3	N.C.	6126	5-B	11

C.A. REAR - E-229 (1)



**BILL OF MATERIALS ONE BENT**

BAR TYPES	NO.	SIZE	LENGTH	WEIGHT	TOTAL WEIGHT
1	4	1 1/2"	20' 0"	1.10	4.40
2	4	1 1/2"	20' 0"	1.10	4.40
3	4	1 1/2"	20' 0"	1.10	4.40
4	4	1 1/2"	20' 0"	1.10	4.40
5	4	1 1/2"	20' 0"	1.10	4.40
6	4	1 1/2"	20' 0"	1.10	4.40
7	4	1 1/2"	20' 0"	1.10	4.40
8	4	1 1/2"	20' 0"	1.10	4.40
9	4	1 1/2"	20' 0"	1.10	4.40
10	4	1 1/2"	20' 0"	1.10	4.40
11	4	1 1/2"	20' 0"	1.10	4.40
12	4	1 1/2"	20' 0"	1.10	4.40
13	4	1 1/2"	20' 0"	1.10	4.40
14	4	1 1/2"	20' 0"	1.10	4.40
15	4	1 1/2"	20' 0"	1.10	4.40
16	4	1 1/2"	20' 0"	1.10	4.40
17	4	1 1/2"	20' 0"	1.10	4.40
18	4	1 1/2"	20' 0"	1.10	4.40
19	4	1 1/2"	20' 0"	1.10	4.40
20	4	1 1/2"	20' 0"	1.10	4.40
21	4	1 1/2"	20' 0"	1.10	4.40
22	4	1 1/2"	20' 0"	1.10	4.40
23	4	1 1/2"	20' 0"	1.10	4.40
24	4	1 1/2"	20' 0"	1.10	4.40
25	4	1 1/2"	20' 0"	1.10	4.40
26	4	1 1/2"	20' 0"	1.10	4.40
27	4	1 1/2"	20' 0"	1.10	4.40
28	4	1 1/2"	20' 0"	1.10	4.40
29	4	1 1/2"	20' 0"	1.10	4.40
30	4	1 1/2"	20' 0"	1.10	4.40
31	4	1 1/2"	20' 0"	1.10	4.40
32	4	1 1/2"	20' 0"	1.10	4.40
33	4	1 1/2"	20' 0"	1.10	4.40
34	4	1 1/2"	20' 0"	1.10	4.40
35	4	1 1/2"	20' 0"	1.10	4.40
36	4	1 1/2"	20' 0"	1.10	4.40
37	4	1 1/2"	20' 0"	1.10	4.40
38	4	1 1/2"	20' 0"	1.10	4.40
39	4	1 1/2"	20' 0"	1.10	4.40
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53	4	1 1/2"	20' 0"	1.10	4.40
54	4	1 1/2"	20' 0"	1.10	4.40
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83	4	1 1/2"	20' 0"	1.10	4.40
84	4	1 1/2"	20' 0"	1.10	4.40
85	4	1 1/2"	20' 0"	1.10	4.40
86	4	1 1/2"	20' 0"	1.10	4.40
87	4	1 1/2"	20' 0"	1.10	4.40
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89	4	1 1/2"	20' 0"	1.10	4.40
90	4	1 1/2"	20' 0"	1.10	4.40
91	4	1 1/2"	20' 0"	1.10	4.40
92	4	1 1/2"	20' 0"	1.10	4.40
93	4	1 1/2"	20' 0"	1.10	4.40
94	4	1 1/2"	20' 0"	1.10	4.40
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96	4	1 1/2"	20' 0"	1.10	4.40
97	4	1 1/2"	20' 0"	1.10	4.40
98	4	1 1/2"	20' 0"	1.10	4.40
99	4	1 1/2"	20' 0"	1.10	4.40
100	4	1 1/2"	20' 0"	1.10	4.40



PROJECT NO. 6126  
 ANSON COUNTY  
 STATION: 306+78.12  
 BENTS No 142

STATE OF NORTH CAROLINA  
 STATE HIGHWAY AND  
 PUBLIC WORKS COMMISSION

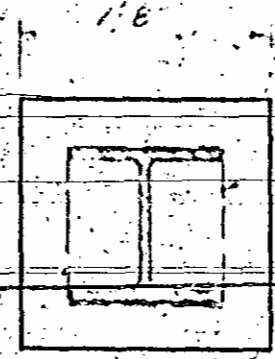
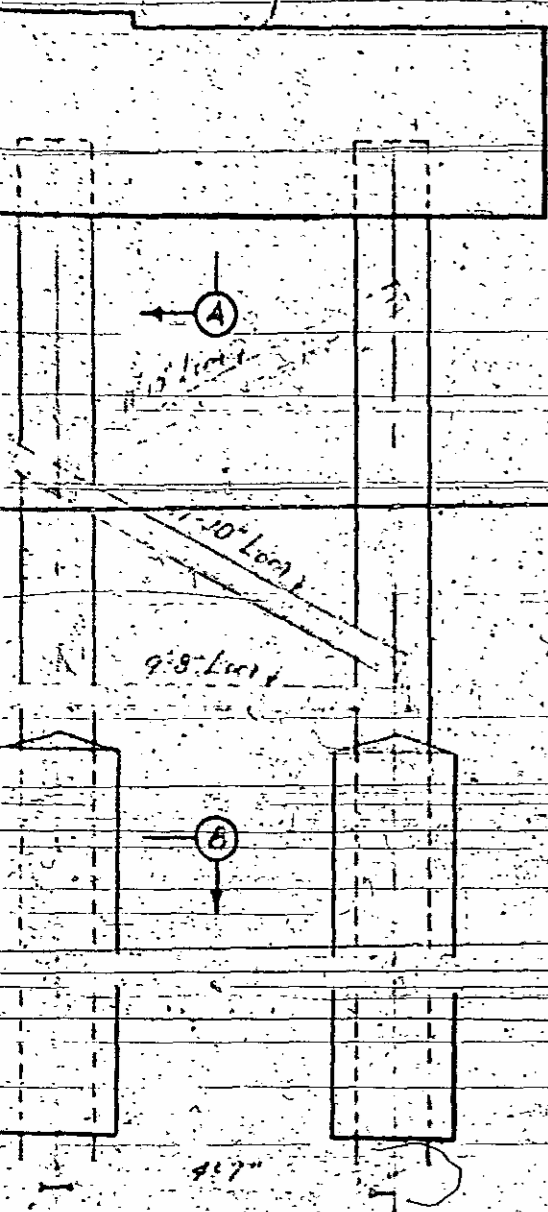
SUBSTRUCTURE

MAY 1954

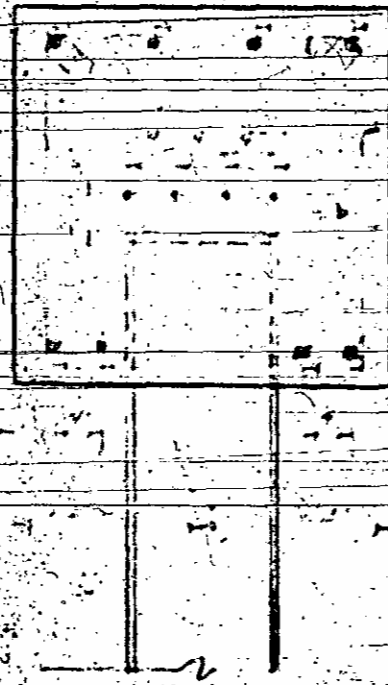
DESIGNED BY: J. Barlow  
 CHECKED BY: J. Barlow  
 DATE: May 1954

SHEET 5-B OF 11

EP 34047

SECTION B-B



SECTION A-A

PROJECT NO. 6126  
 ANSON COUNTY  
 STATION: 306+78.1  
 BENTS No 1 & 2

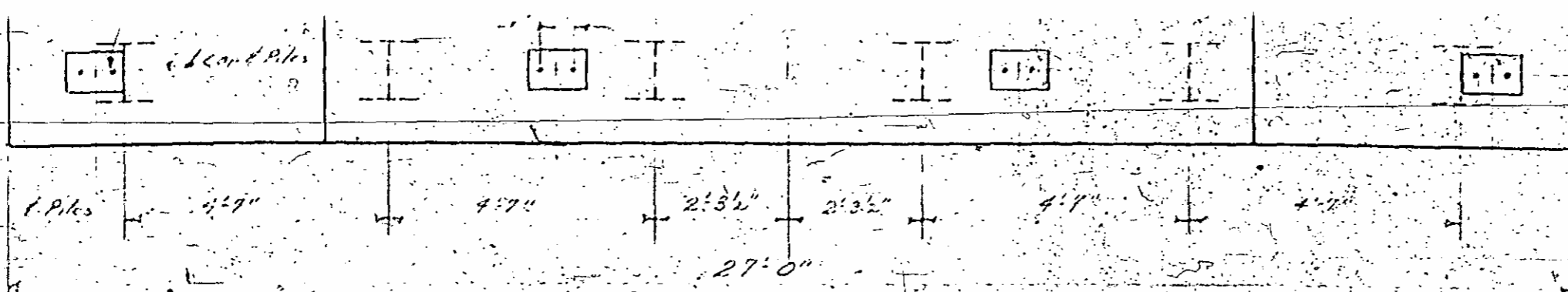
STATE OF NORTH CAROLINA  
 STATE HIGHWAY AND  
 PUBLIC WORKS COMMISSION

SUBSTRUCTURE

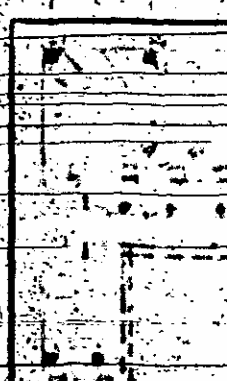
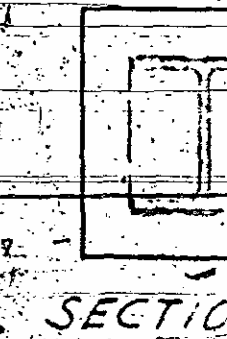
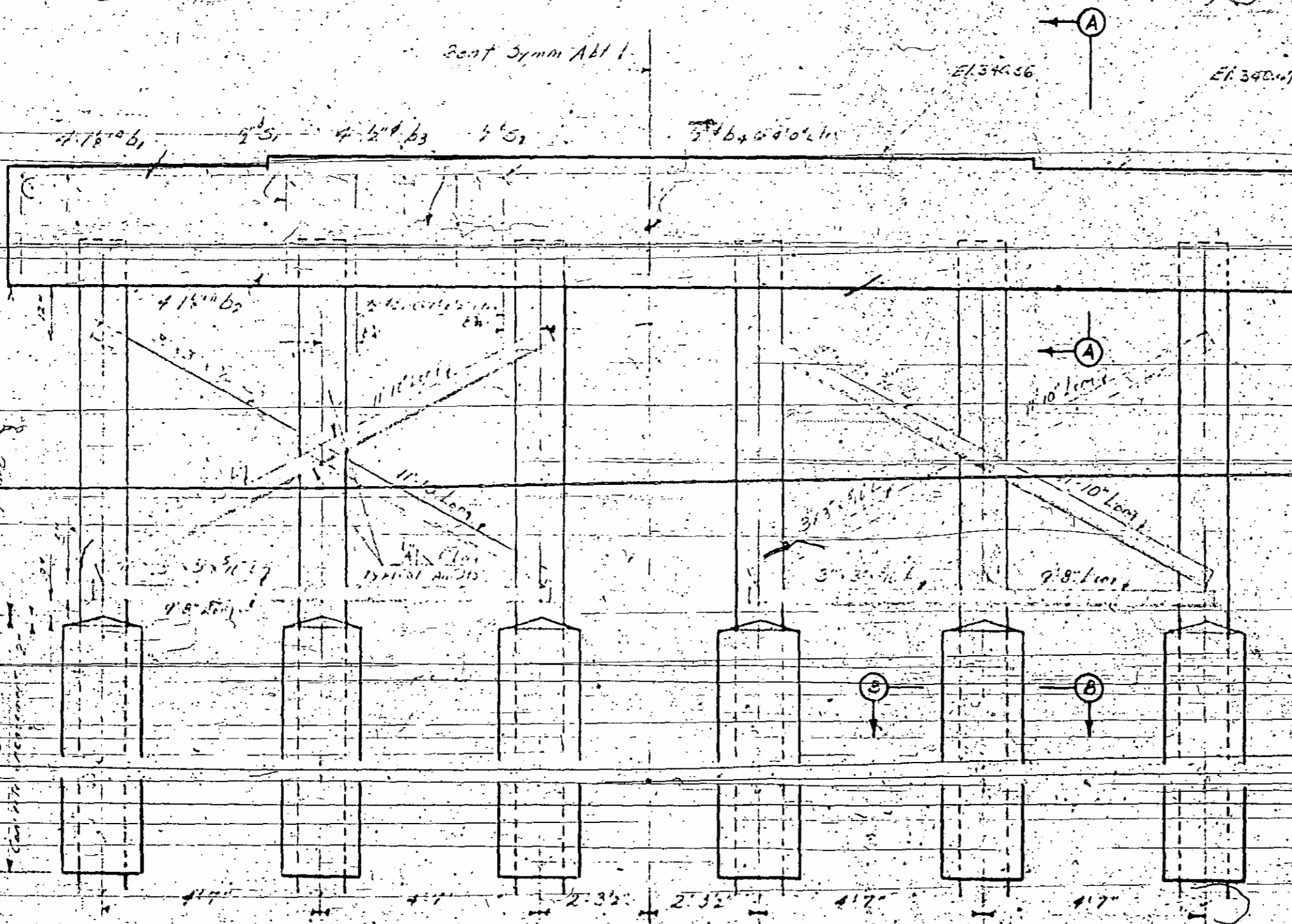
MAY 1954

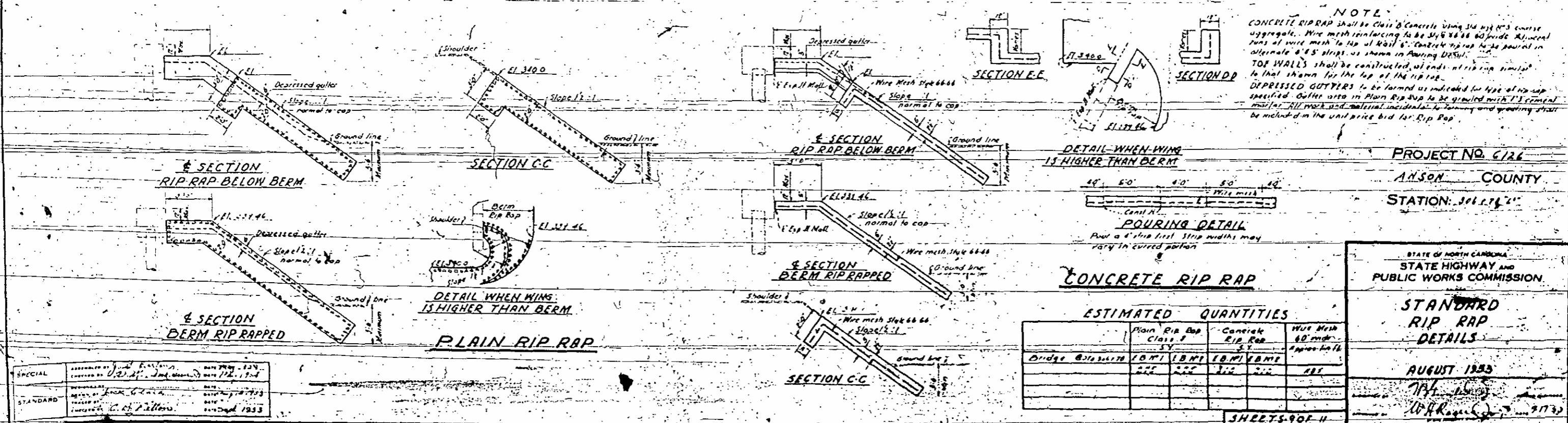
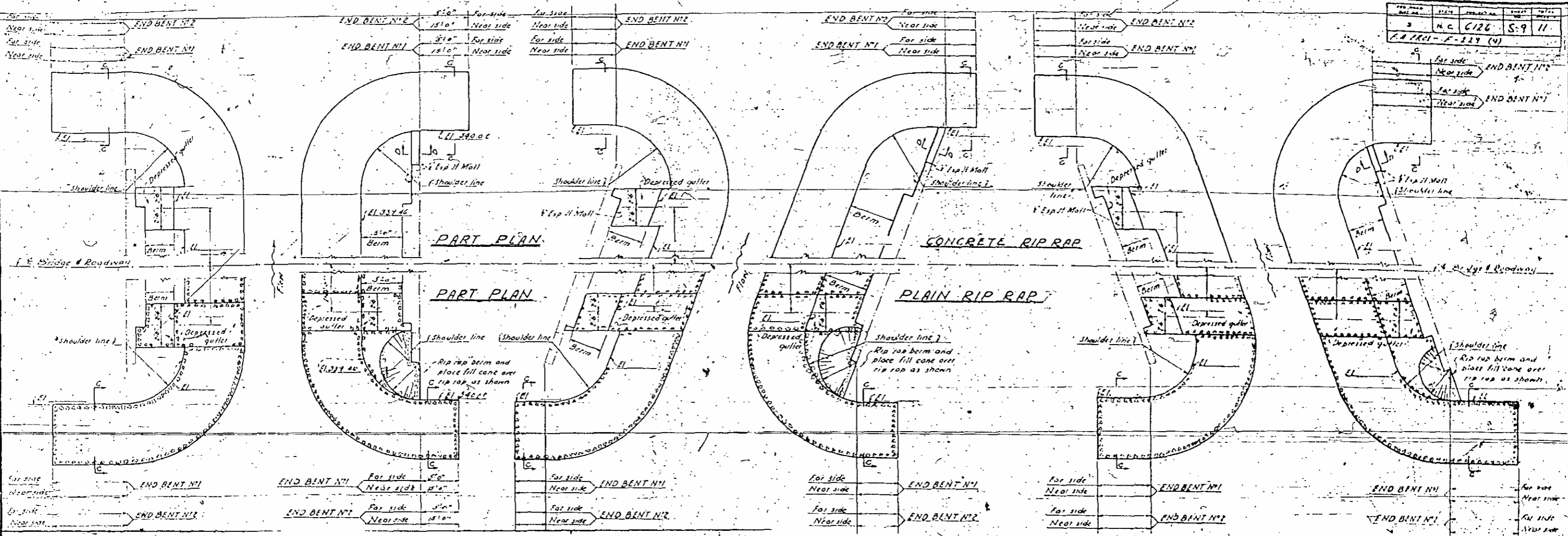
DESIGNED BY  
 DRAWN BY





PLAN OF CAP BENTS 1 & 2





**ESTIMATED QUANTITIES**

	Plain Rip Rap Class B	Concrete Rip Rap	Wire Mesh 60 mesh
Bridge Bents with 10' M1	10.0	10.0	10.0
Bridge Bents with 10' M2	10.0	10.0	10.0
Bridge Bents with 10' M3	10.0	10.0	10.0
Bridge Bents with 10' M4	10.0	10.0	10.0
Bridge Bents with 10' M5	10.0	10.0	10.0

PROJECT NO. C126  
 ANSON COUNTY  
 STATION: 301.25+00

STATE OF NORTH CAROLINA  
 STATE HIGHWAY AND  
 PUBLIC WORKS COMMISSION

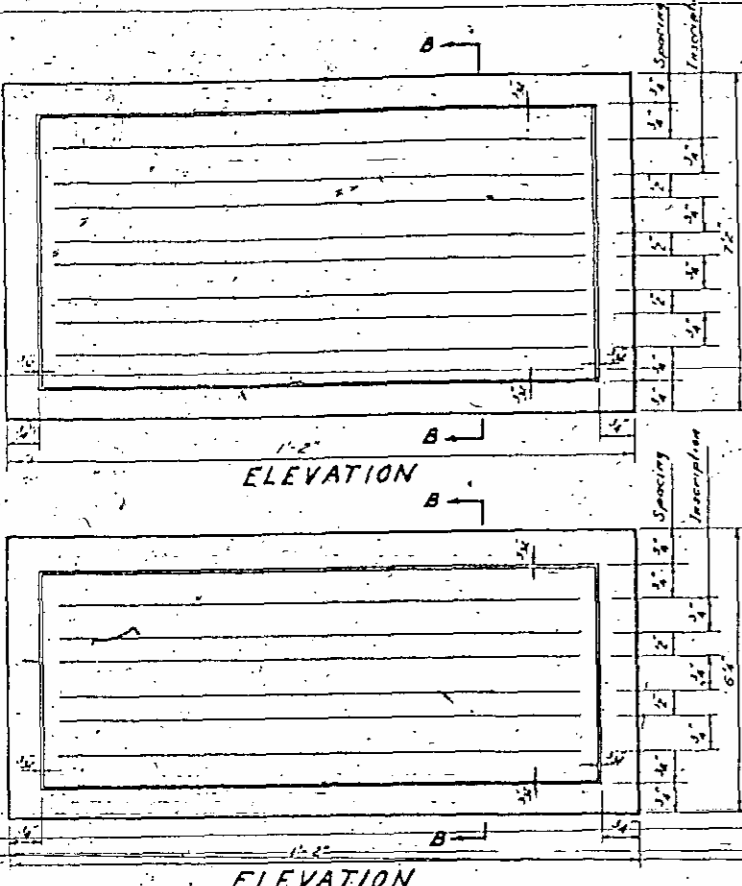
**STANDARD  
 RIP RAP  
 DETAILS**

AUGUST 1933

W. H. Rogers

SPECIAL  
 APPROVED BY: [Signature]  
 DATE: [Date]

STANDARD  
 APPROVED BY: [Signature]  
 DATE: [Date]



ANSON COUNTY  
STATE PROJECT 6126  
FEDERAL AID  
1954

DETAIL SHOWING CORRECT WORDING  
NAME PLATE USING FOUR LINES

ANSON COUNTY  
STATE PROJECT 6126  
FEDERAL AID  
1954

DETAIL SHOWING CORRECT WORDING  
NAME PLATE USING THREE LINES

ELEVATION

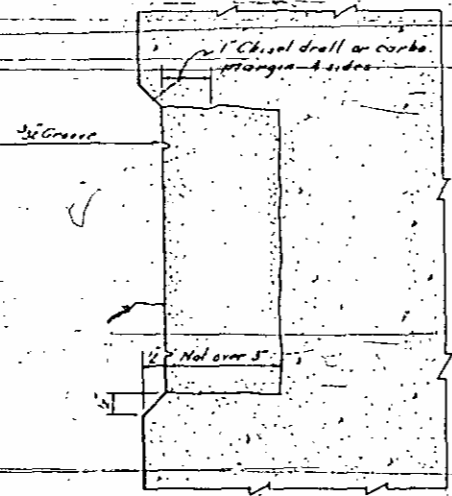
**GENERAL NOTE**

Two name plates are required for each bridge: one on each right hand end post approaching the bridge. See Location Detail.

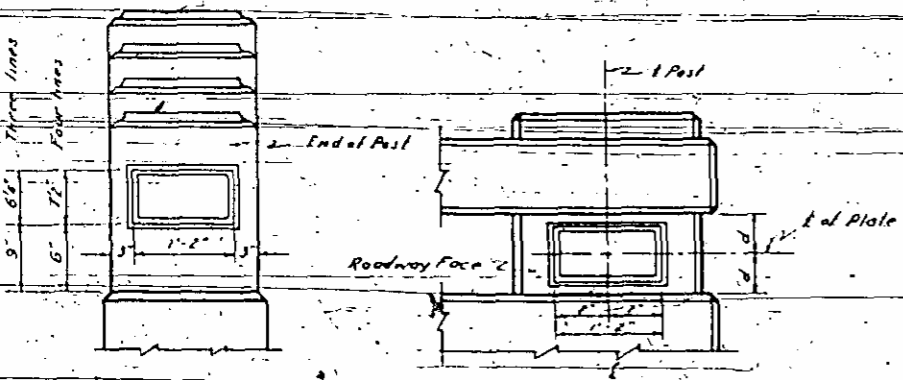
The name plates are to be made of granite. Granite shall be light gray, fine or medium grained, sound in quality and free from defects that would mar its appearance. Exposed faces of plates to have a fine rubbed finish.

Lettering shall be sandblast sunk, 1/4" high, vertical, Modern Roman style. The wording shall be as shown in the "Detail showing the Correct Wording."

The entire cost of the name plates, complete in place shall be included in the contract price bid for class "A" concrete.

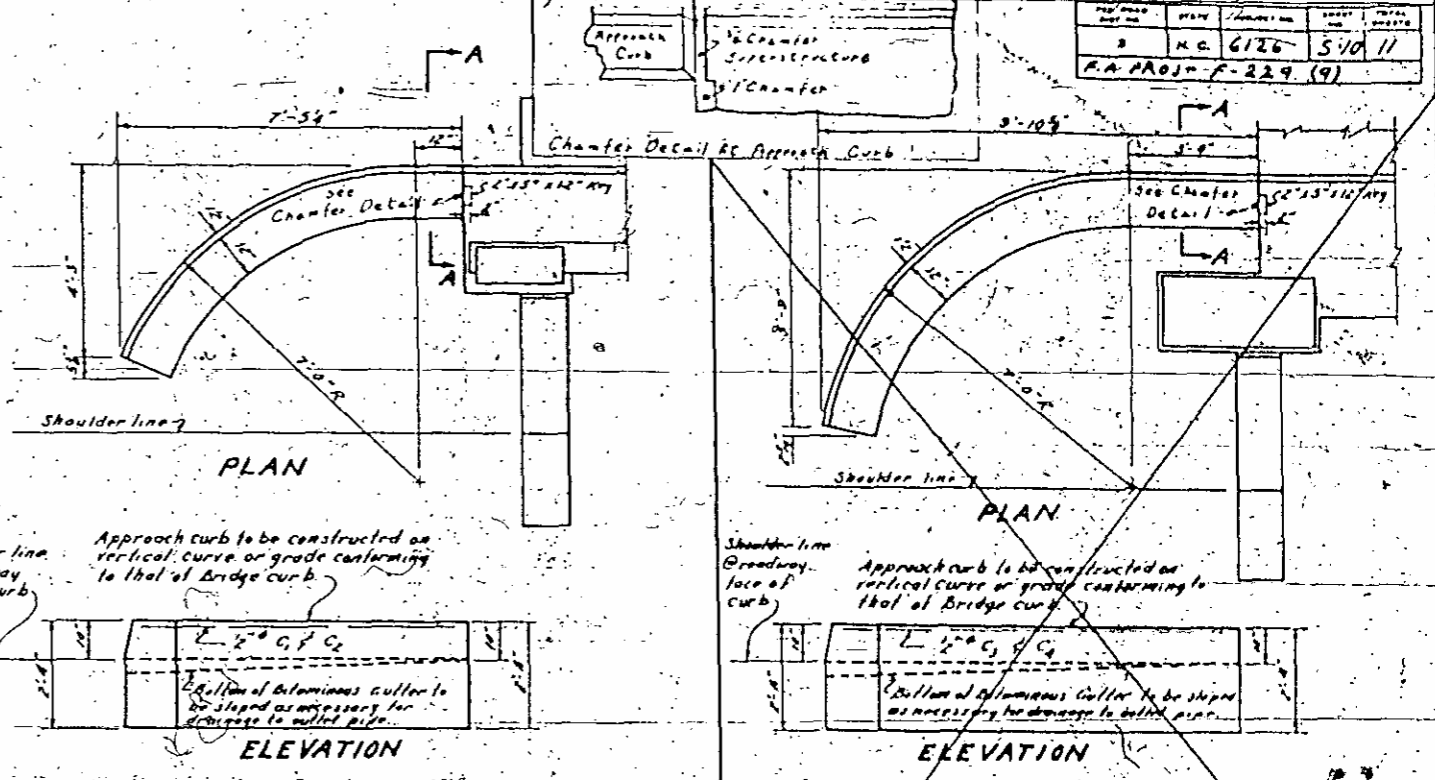


SECTION B-B



FOR BALUSTER TYPE RAIL      FOR BAR TYPE RAIL  
LOCATION DETAIL FOR NAME PLATES

**NAME  
PLATES**



PLAN

ELEVATION

Shoulder line @ roadway face of curb

Approach curb to be constructed on vertical curve or grade conforming to that of bridge curb.

Bottom of aluminum gutter to be sloped as necessary for drainage to milled pipe.

**BILL OF MATERIAL FOR 4 CURBS**

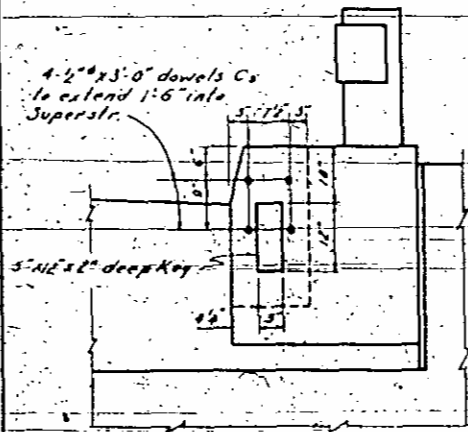
Bar No.	Size	Length	Weight
C <sub>1</sub>	4"	7'-5 1/2"	21
C <sub>2</sub>	4"	6'-6"	23
C <sub>3</sub>	16"	3'-0"	32
Reinforcing Steel, Lbs.			76
Class "A" Concrete, C.Y.			3.2

TO BE USED WITH 12" & 18" CURBS

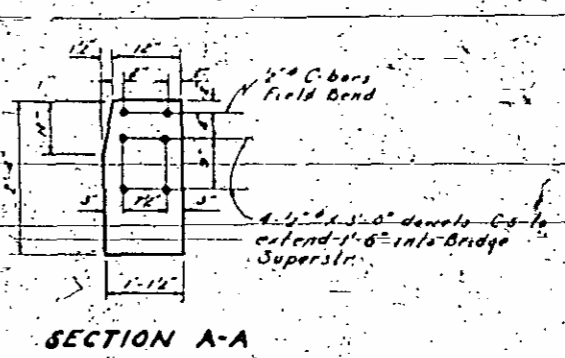
**BILL OF MATERIAL FOR 4 CURBS**

Bar No.	Size	Length	Weight
C <sub>1</sub>	4"	11'-0"	29
C <sub>2</sub>	4"	17'-0"	32
C <sub>3</sub>	16"	3'-0"	32
Reinforcing Steel, Lbs.			93
Class "A" Concrete, C.Y.			4.8

TO BE USED WITH 2' & 3' WALKS



END ELEVATION SHOWING  
KEY IN SUPERSTRUCTURE



SECTION A-A

**APPROACH  
CURBS**

NOTE: The excavation for curbs will not be measured and paid for as a separate item. The entire cost for same is to be included in the bid price bid for Class "A" Concrete.

Dowels and Bluminous surfacing of ends of bridge to be furnished and placed by Roadway Contractor.

PROJECT NO. 6126  
ANSON COUNTY  
STATION: 306+78.2

STATE OF NORTH CAROLINA  
STATE HIGHWAY AND  
PUBLIC WORKS COMMISSION

STANDARD  
APPROACH CURBS  
AND  
NAME PLATES

SEPT. 1953

APPROVED BY: J. P. Law      DATE: MAY 1, 1954

DESIGNED BY: J. P. Law      DATE: MAY 1, 1954

STANDARD      DATE: Sept. 1953

**DESIGN DATA**

Specifications Live Load Impact Allowance Stress in Extreme Fiber of Structural Steel Tension in Web Reinforcement Reinforcing Steel in Tension Concrete in Compression Concrete in Shear Shear Force Timber Treated as Untreated Extreme Fiber Stress Compression Perpendicular to Grain in Timber Equivalent Fluid Pressure of Earth

A.A.S.H.O. (1953) See Plans See Specifications 18,000 Lbs. per sq. in. 18,000 Lbs. per sq. in. 18,000 Lbs. per sq. in. 1,000 Lbs. per sq. in. 90 Lbs. per sq. in. 1,800 Lbs. per sq. in. 375 Lbs. per sq. in. 30 Lbs. per cu. ft.

**MATERIAL AND WORKMANSHIP**

Except as may otherwise be specified on plans or in the Special Provisions, all material and workmanship shall be in accordance with the 1953 Standard Specifications of the N.C. State Highway & Public Works Commission.

**CONCRETE**

Class A Concrete shall be used throughout. Standard size No. 3 coarse aggregate shall be used for all concrete except where plans call for No. 4 in basements above top of curbs. All concrete, except that in basements above top of curbs, shall be compacted by Mechanical Vibration.

**CHAMBERS**

Unless otherwise noted on plans, all exposed corners of concrete shall be chamfered, except as follows: baluster type piles, 3/4" radius with baluster type nos. as shown on plans; expansion joints and balusters, 3/4" for type nos. and posts, 1/2" and structures of with scuppers.

**SURFACE FINISH**

Concrete to be finished in accordance with the Specifications, except as otherwise provided on plans or in Special Provisions.

**EXPANSION JOINT MATERIAL**

All expansion joint material shall be cork. Two-ply roofing felt shall be placed over all joints in the expansion joint material; the felt to be placed on the side of the joint adjacent to the pouring.

**COPPER FLASHING**

When called for on plans in expansion joints, copper flashing may be soldered in order to extend lengths required. Joints shall be soldered. See Specifications.

**TINTING RED LEAD AND ALUMINUM PAINT**

In order to obtain a color contrast between coats, an approved tinting pigment shall be added to the first coats of red lead and aluminum paint. Approved lamp black in an amount not to exceed 4 ounces per gallon of linseed oil is an acceptable tinting agent for red lead paint, and approved prussian blue paste in an amount not to exceed 4 ounces per gallon of paint is satisfactory for aluminum paint.

**CONSTRUCTION JOINTS**

No construction joints, other than those shown on the plans, will be permitted. Curbs, slab and curtain walls for T-hm bridges, and curbs, slab, curtain walls and girders for deck girder bridges shall be poured in one continuous operation allowing no time for initial set to take place between them.

**REINFORCING STEEL**

All reinforcing steel, except 1/4" bars, shall be deformed bars. All dimensions relative to placement of reinforcing steel are to centers of bars. Dimensions on bar details are to centers of bars or are cut to cut dimensions as indicated on each plan sheet. No splices, other than those shown on plans, will be permitted. All reinforcing steel shall be securely held in correct positions.

**STRUCTURAL STEEL**

Structural steel shall meet all the requirements of the Specifications and shall be given one shop coat and one field coat of red lead and finally two field coats of aluminum paint. Red lead paint for both shop and field coats shall conform to the requirements of A.A.S.H.O. M-72, Type II. Detail drawings for structural steel shall be submitted for approval. No suggested drawings will be accepted.

**METHOD "A" WATERPROOFING**

Where method "A" waterproofing over joints is called for on plans, strips of waterproofing are to be 2'-0" wide and placed symmetrical about the joints.

**STEEL PILE CAPS**

The cost of steel pile caps as detailed on plans, complete in place, shall be included in the unit contract price per foot for steel piles of the size and weight called for. Pile caps may be obtained from pile cut-offs.

**PAINTING STEEL PILES**

No paint will be required for steel piles used in basements. Upper coatings of zinc-rich paint shall be applied to the top of an elevation below water surface or ground line. The area of steel pile caps and jackets shall be completely enclosed from the bottom of the piles to the top of the jackets. The water surface jacket coating shall be given two coats of red lead and two coats of aluminum paint. Red lead shall conform to the requirements of A.A.S.H.O. M-72, Type II. See Specifications.

**WIRE MESH FOR JACKETS OR ENGAGEMENT AROUND STEEL PILES**

Where wire mesh around steel piles is called for on plans, it shall be of bi-directional type, 12 gauge with 4" x 3" openings or 13 gauge with 4" x 4" openings. No allowance will be made for wire mesh.

**DIMENSIONS SHOWN IN SECTIONS THROUGH I-BEAM SPANS**

All dimensions which are given in sections and are affected by dead load deflections are dimensions at center line of soffit. Where blocks are shown over beams for building up to the slab, the vertical dimensions of the walls shall be increased between leading points to compensate for dead load deflections. Where bottom of slab is in line with bottom of top flanges, depth of slab between bearings shall be increased to compensate for dead load deflection.

**ALLOWANCE FOR DEAD LOAD DEFLECTIONS AND SETTLEMENT**

Bridges shall be built on the grade or vertical curve, shown on plans. (In basements) slabs and curbs, shall conform to the grade or curve. Marshal posts shall be built flush in setting forms for I-beam bridges, in alternate shall be made for dead load deflections in addition to the elevations shown. If deflections are not shown on plans, they will be furnished by the Bridge Engineer. In setting falsework and forms for reinforced concrete spans an allowance shall be made for dead load deflections, settlement of falsework, and settlement of center which shall be provided in addition to the elevations shown. All falsework of the falsework, the finished structure shall conform to the elevations shown plus the allowance for permanent camber specified by the Engineer.

**EXCAVATION AND FOUNDATION DATA**

The information shown on plans pertaining to excavation and foundation data and all elevations of ground line and water surfaces shall be believed to be correct and are furnished for the convenience of bidders, but the State Highway and Public Works Commission assumes no responsibility for quantities as indicated on the information given. See Specifications.

**EXCAVATION FOR BENT CAPS AND JACKETS AROUND PILES**

Excavation and backfill required for bent caps and pile jackets will not be measured and paid for as a separate item. The entire cost of same to be included in the unit price for Class A Concrete.

**DRIVING PILES THROUGH FILL**

The Contractor's attention is called to the fact that where piles require that they be driven through the fill, he will not be permitted to drive the piles in the soil banks until the fill has been placed up to a certain elevation. In the event the Contractor computes that work will not be done prior to placing the fill adjacent to the center of the bridge and it is desired to purchase insurance of this work, the contractor shall have no claim against the Commission due to such delay, but the working time will be counted against him during the period if it is necessary for him to suspend operations on this account.

**BONDING NEW CONCRETE TO OLD**

Where plans call for bonding existing concrete structures, or structures requiring new concrete, the surface of the existing structures shall be prepared as indicated in plans. Existing steel caps and bolts shall be left in place to extend into new concrete.

If expansion anchor bolts are called for, they shall be drilled into old concrete using power drills 1/2" to 3/4" dia. 12" to 36" lengths, or hand drills 1/2" to 3/4" and 15" to 36" lengths. American Expansion anchors or approved equal shall be used.

Construction surfaces of the old concrete shall be thoroughly roughened, cleared of loose material, wetted and finished with cement mortar immediately before casting new concrete. The entire cost of the same work including expansion anchors and all materials pertaining thereto shall be included in the unit contract price for Class A Concrete.

**BEARINGS FOR I-BEAM SPANS**

At the Contractor's option he may, for I-beam spans, use fabric 3/4" thick, or an approved equivalent between the concrete cap and the masonry pile. In lieu of the usual curbs and red lead as required by the Specifications. If used, the fabric shall be cut to the same plan dimensions as the masonry pile.

**SPECIAL NOTE**

Generally, in case of discrepancy, the standard sheet of notes shall govern over the Specifications, and the reverse of the same shall govern over the Standard Specifications. This sheet applies only to projects advertised after Jan. 1, 1953.

STATE OF NORTH CAROLINA  
STATE HIGHWAY AND  
PUBLIC WORKS COMMISSION  
  
STANDARD NOTES  
  
Standard S-N 1953

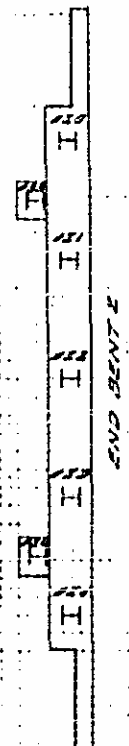
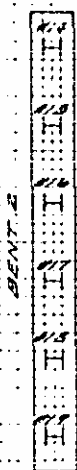
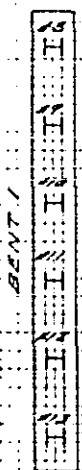
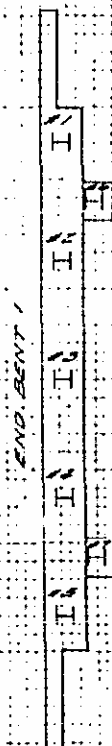
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DESIGNED BY  
DRAWN BY  
CHECKED BY  
DATE

Revised to change language from 1953 to 1954 and to add note relative to painting piles. 1-15-54 by J. H. S. J. S.

Revised to change language from 1953 to 1954 and to add note relative to painting piles. 1-15-54 by J. H. S. J. S.

12 - 12" x 53# STEEL H. PILES  
STA. 306+78

Scale 3/16" = 1'



Date	Pile No.	Ordered Length	Cut Off	Pay Length	Drop	Penetration Last 5 Blows	Bearing Tons	Date	Pile No.	Ordered Length	Cut Off	Pay Length	Drop	Penetration Last 5 Blows	Bearing Tons
4-18-55	1	35	4'10"	30'2"	15"	3"	28.13	4-1-55	14	40	4'10"	35'2"	13"	1 3/4"	33.33
	2	35	4'6"	30'6"		2 3/4"	31.03		15	40	6'3"	33'9"		1 1/2"	35.62
	3	35	4'2"	30'10"		2 1/2"	30.00		16	40	6'0"	34'0"		2 3/4"	30.00
	4	35	2'3"	32'9"		2'8"	28.97		17	40	7'5"	32'7"		2'4"	31.03
	5	35	5'5"	29'4"		2 3/4"	29.03		18	40	7'0"	33'0"		2 1/2"	31.00
	6	35	4'11"	30'1"		2 3/4"	30.00		19	40	7'6"	32'6"		2'4"	31.03
	7	35	3'11"	31'1"		2"	32.14	3-30-55	20	40	11'7 1/2"	28'4 1/2"		2"	32.14
4-18-55	8	40	6'9"	33'3"		2 1/2"	30.00		21	40	10'11 1/2"	29'8 1/2"		2 1/2"	30.00
	9	40	9'0"	31'0"		2 1/4"	31.03	3-31-55	22	40	11'1"	28'11"		2 3/4"	30.00
	10	40	5'7"	31'5"		2"	32.14		23	40	10'6 1/2"	29'9 1/2"		2'4"	31.03
	11	40	3'0"	32'0"		2 1/2"	30.00		24	40	14'0"	26'0"		2"	32.14
	12	40	9'10"	30'2"		2"	32.14		25	40	11'9 1/2"	28'2 1/2"		2 3/4"	30.00
	13	40	10'3"	29'9"		1 1/2"	34.62		26	40	13'3"	26'4"		2"	32.14
								TOTALS		1005	205'4"	799'5"			

SUMMARY - 12 - 12" x 53# STEEL H. PILES

End Bent	Ordered Length	Cut Off	Pay Length	Cut Off	Pay Length
End Bent 1	240	3025	214'75	26'75	26'75
Bent 1	240	5242	187'55	49'42	49'42
Bent 2	240	3909	201'00	36'00	36'00
End Bent 2	280	8366	196'34	80'16	80'16
TOTALS	1005	205'33	799'67	192'33	192'33

\* Deduction made for plates welded on piles

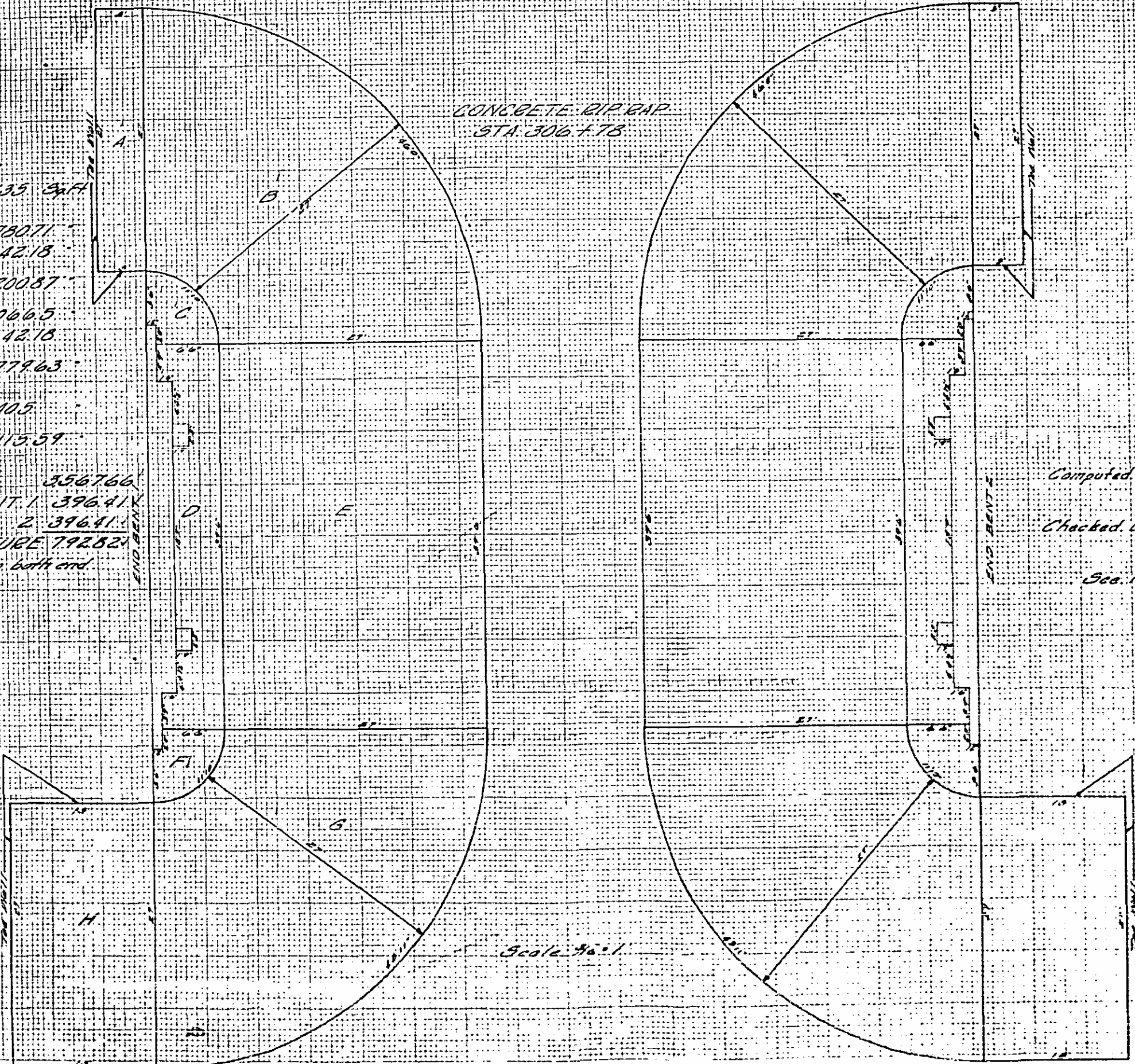
See Masonry Book Page 7, 3, 4, 9  
 Computed By: *[Signature]* Date: *[Date]*  
 Checked By: *[Signature]* Date: *[Date]*  
 Gravity Hammer Weight: 3000 Lbs

STRUCTURAL  
 SHEET # 11 OF 11 SHEETS

COMPUTATIONS  
 $A = 27 \times 5 = 135 \text{ Sq Ft}$   
 $B = \frac{46 + 11.83}{2} \times 27 = 1707.1$   
 $C = 78.54 \times (7.5)^2 - 20 \times 10 = 42.18$   
 $D = 39.5 \times 6.5 - 32 \times 1.5 = 200.87$   
 $E = 2 \times 22.5 \times 17.5 = 1,066.5$   
 $F = 78.54 \times (7.5)^2 - 20 \times 10 = 42.18$   
 $G = \frac{45.92 + 11.83}{2} \times 27 = 1796.3$   
 $H = 27 \times 10 = 270$   
 Top Walls  $1.58 \times (5 + 15) = 405$   
 $26.58 + 26.58 = 113.59$

TOTAL 30 FT 3567.66  
 TOTAL 30 YDS END BENT 1 39641  
 2 39641  
 STRUCTURE 79282

Note that measurements on both end bents are identical.



Computed By *W. H. Smith* Date *July 23, 1953*  
 Checked By *H. H. Smith* Date *July 23, 1953*  
 See Masonry Book Pages 10 & 11

SUMMARY OF QUANTITIES  
 PROJ. 6126 (STR)

COND. CULV. FOUNDATION AT STA. 204+50	STATION	UNCL. STR. EXCAV.	UNCL. CHNL. EXCAV.	MAINT. & REM. OF EXIST. STR. AT STA. 204+50	CLASS. A CONCRETE	REINFC. STEEL	70,300 LBS. (APPROX.) STRUCTURAL STEEL	12" x 53" STEEL H PILES	CONC. BIP RAP	METH. A WATER PROOFING	12" x 53" STEEL H PILE CUT OFF
	4+18	365.9	12.1		206.7	33,076					
	21+15	410.7	240		133.5	22,809					
151	204+50	766.6	212.7	0	482.5	84,309					
	205+75	722.4	216		221.5	35,154					
	306+75				155.8	28,807	LUMP SUM	79,967	79,252	1578	192.33
151	TOTALS	2,425.3	270.4	0 Deleted from contract	1,200.0	204,257	LUMP SUM	79,967	79,252	1578	192.33

See Masonry Book - Pgs. 35.

Computed By: *O.H. Mandy* Date: Oct 18, 1955

Checked By: *H. M. Guder* Date: Oct 18, 1955

THE FINAL ESTIMATE  
 PROJECT 6126 (STE)

AMOUNT	UNIT	ITEM	CONTRACT UNIT PRICE	TOTAL AMOUNT
22706	CU. YD.	UNCL. STRUCT. EXCAV.	2.00	454120
270.4	CU. YD.	UNCL. CHNL. EXCAV.	1.00	27040
NONE	LUMP SUM	MAINT. & REM. OF EXIST. STR. AT STA. 204+50		0.00
120001	CU. YD.	CLASS. A CONCRETE	42.00	5040042
204257	LB.	REINFORCING STEEL	0.10	2042570
LUMP SUM	LUMP SUM	70,300 LBS. (APPROX.) STRUCTURAL STEEL		3900.00
79967	LIN. FT.	12" #53* STEEL H. PILES	6.00	479802
792821	30. YD.	CONCRETE RIP RAP	5.50	4360515
1578	30. YD.	METHOD 'A' WATERPROOFING	3.00	12624
192331	LIN. FT.	12" #53* STEEL H. PILE CUT OFF	3.00	576993
151	CU. YD.	COND. CULV. FOUNDATION AT STA. 204+50	5.00	755

Computed By: *[Signature]*

Date: Oct 19, 1955

Checked By: *[Signature]*

Date: Feb 18, 1956

TOTAL AMOUNT OF FINAL ESTIMATE  
 LESS PREVIOUS PAYMENTS ESTS 1-1A INCL  
 AMOUNT DUE ON FINAL ESTIMATE

4275143  
 4400000  
 5727851  
 170702

I hereby certify that I have checked this final estimate and that it is true and correct according to my best knowledge and belief.

Signed: *[Signature]*  
 Resident Engineer

Date: Dec. 9, 1955

Examined and Approved:

Signed: *[Signature]*  
 Division Engineer

Date: 12-13-55



ANSON  
#14

Pat,  
Per your  
Request.  
- Jeff  
4-4-95

A COMPLETE  
SET OF PLANS  
JD 4-4-95