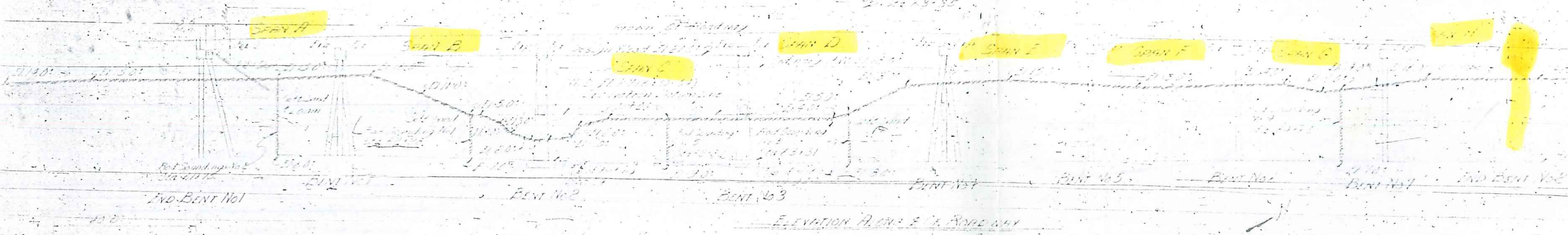


CONCRETE DIAGRAM



45010
 HERTFORD
 Rail # 647
 pos 7.

11-16-99

S. LEE

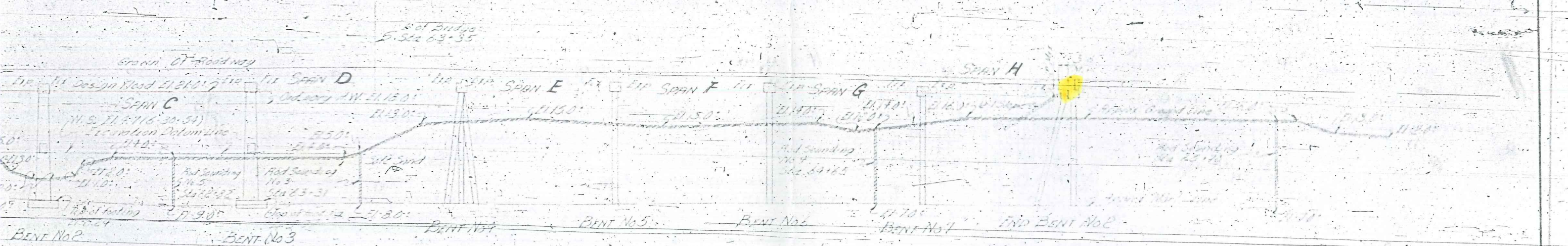
PROJECT NO. _____
 COUNTY _____
 STATION: _____

STATE OF NORTH CAROLINA
 STATE HIGHWAY AND
 PUBLIC WORKS COMMISSION

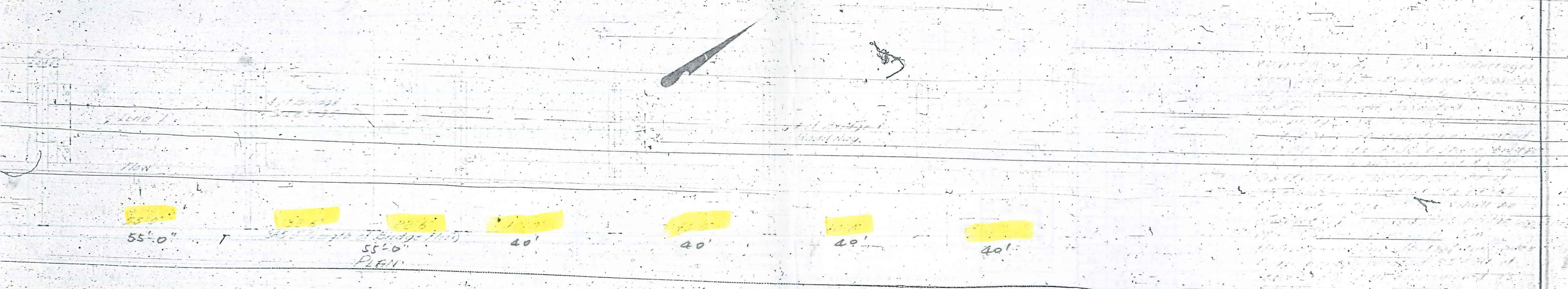
SPECIAL	DESIGNED BY	DATE
	DRAWN BY	DATE
	CHECKED BY	DATE

25-114-111-117-117-111

CAMBER DIAGRAM



ELEVATION ALONG & OF ROADWAY

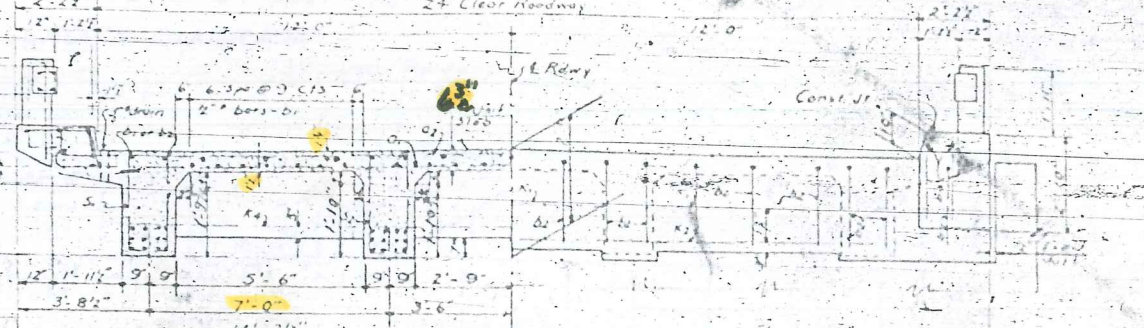


TOTAL BILL OF MATERIAL

Span	Length	Area	Volume	Weight
Span A	243.7	67766		
Span B	230.0	66887		
End Bent	9.6	2124		

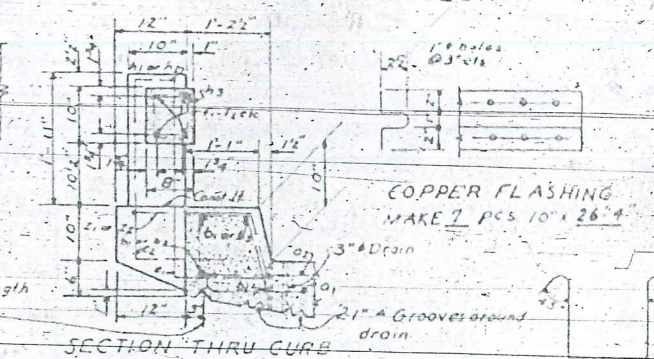
PROJECT NO 1503
 HARTFORD COUNTY
 STATION: 6935

CROWN DIAGRAM



HALF-TYPICAL SECTION

HALF-END VIEW



COPPER FLASHING
MAKE 1 PCS 10' x 26'

NOTE: For General Note, see sheet S-N

ELEVATION

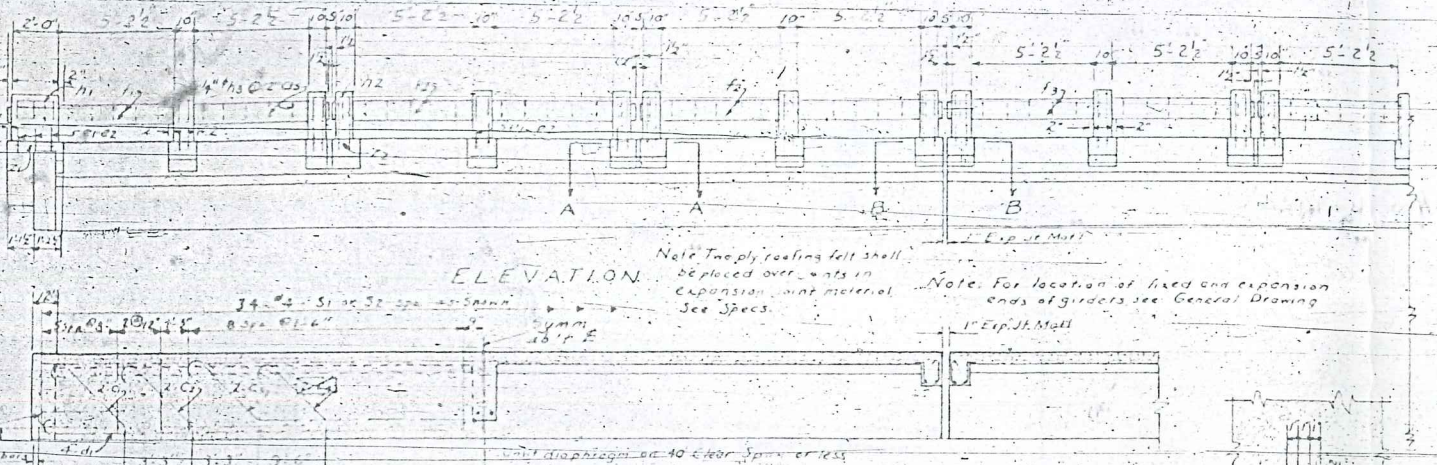
Note: Two ply roofing felt shall be placed over joints in expansion joint material. See Specs.

Note: For location of fixed and expansion ends of girders see General Drawing

SECTION C-C

SECTION A-A

SECTION B-B



74 #8 bars @ 6" Cts in top of slab

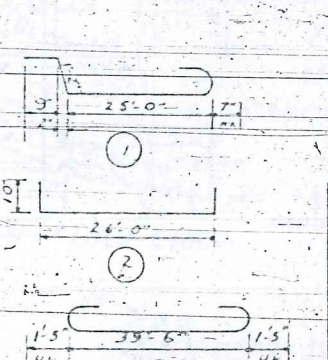
74 #8 bars @ 6" Cts in top of slab

73 #8 bars @ 6" Cts in bottom of slab (alternate ends of bars)

73 #8 bars @ 6" Cts in bottom of slab (alternate ends of bars)

1" Groove full length of bridge

SECTION THRU CURB



BILL OF MATERIAL FOR 5 SPANS

Bar No.	Size	Type	Length	Weight
01	3/8"	1	27'-6"	10533
02	3/8"	2	27'-8"	70535
03	1/2"	3	20'-0"	692
04	1/2"	4	22'-10"	680
05	1/2"	5	24'-3"	720
06	1/2"	6	47'-4"	14560
07	1/2"	7	47'-0"	961
08	1/2"	8	3'-10"	471
09	1/2"	9	3'-10"	471
10	1/2"	10	74'-7"	777
11	1/2"	11	72'-11"	276
12	1/2"	12	72'-11"	621
13	1/2"	13	3'-2"	8
14	1/2"	14	3'-2"	8
15	1/2"	15	11'-0"	39
16	1/2"	16	18'-1"	69
17	1/2"	17	12'-2"	725
18	1/2"	18	12'-2"	725
19	1/2"	19	6'-11"	1671
20	1/2"	20	6'-8"	1335
21	1/2"	21	8'-11"	1377
22	1/2"	22	7'-5"	80
23	1/2"	23	6'-3"	357

BAR TYPES

Dimensions in details are out to out of bars
Dimensions regarding placement of bars to center

PROJECT NO. 1-503

HERTFORD-NORTHAMPTON COUNTY

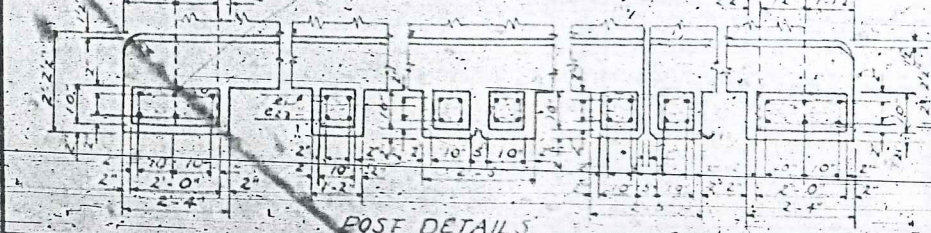
STATION: 63+35

SPANS A E F G H

STATE OF NORTH CAROLINA
STATE HIGHWAY AND
PUBLIC WORKS COMMISSION

STANDARD
REINFORCED CONCRETE
DECK GIRDER
FIVE SPANS @ 40'-0"
24' ROWY 12' CURBS
DEC 1955

Note: This bar to be shifted as necessary for granite Name Plate



POST DETAILS

DRIP BEAD DETAIL

DRAIN DETAIL

BOLT DETAIL

PLATE DETAILS

REQUIRED LIST

Req. Bearing Ra R (As per detail)
P (As per detail)
Bolts B (As per detail)

SPECIAL	DESIGNED BY SHAWN A. O'MARA	DATE	12-1-55
STANDARD	CHECKED BY [Signature]	DATE	12-1-55

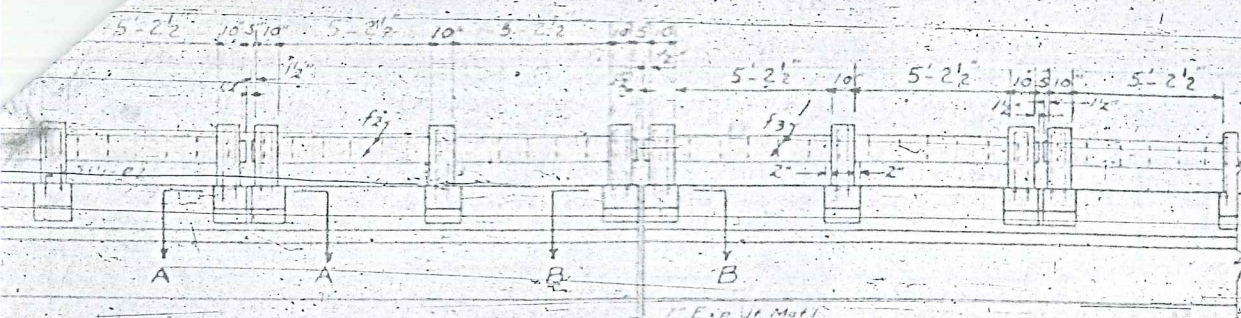
SECTION D-D

SECTION E-E

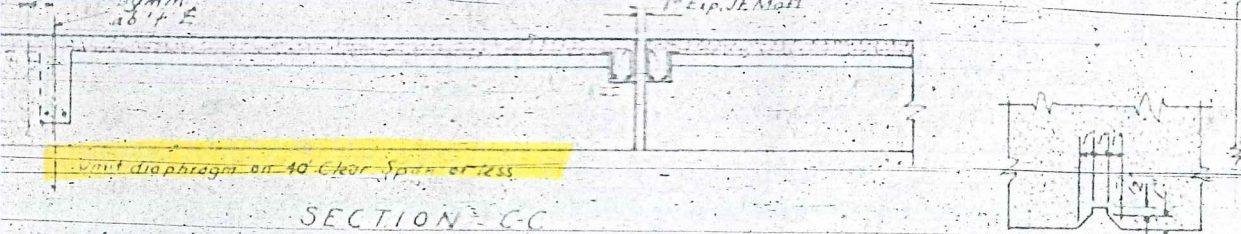
SECTION F-F

S-400-24' Rowy 12' Curbs - Heavy Rail

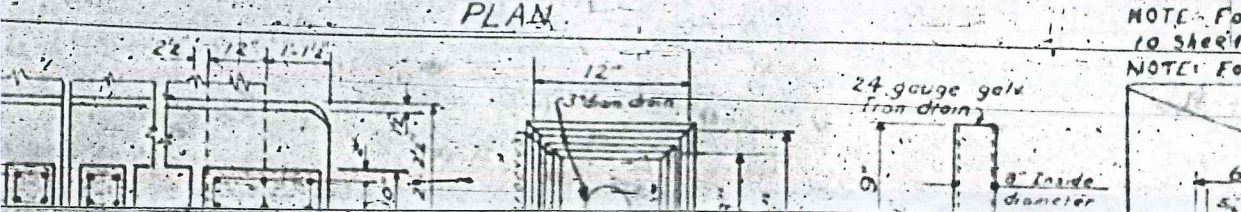
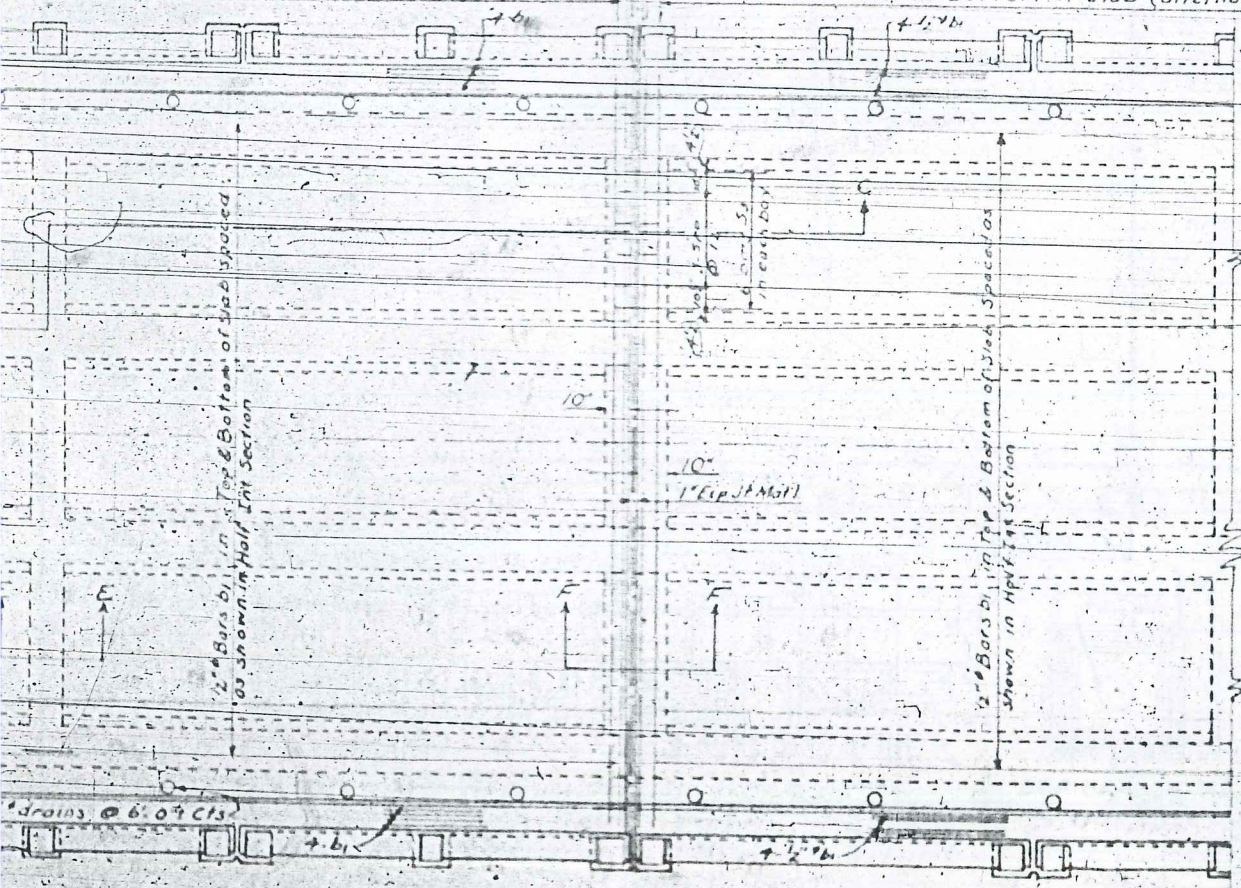
S-400-24' Rowy 12' Curbs - Heavy Rail



ELEVATION
 Note: Two ply roofing felt shall be placed over joints in expansion joint material. See Specs.
 Note: For location of fixed and expansion ends of girders see General Drawing.



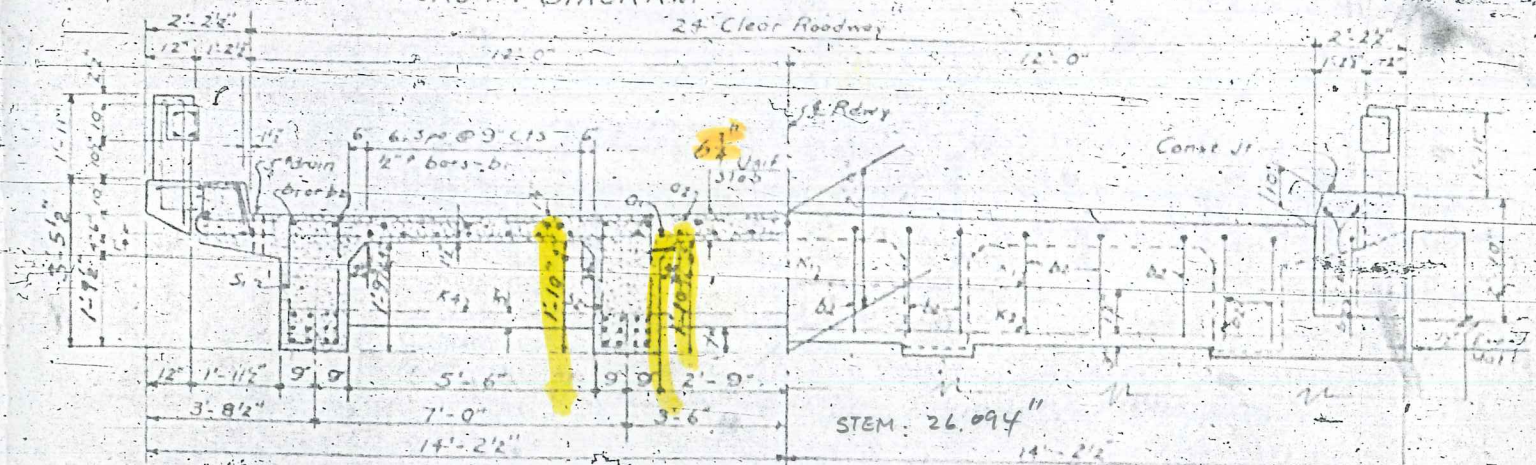
SECTION C-C
 40'-0" **SECTION A-A**
 SECTION B-B
 7/8" bars @ 6" Cts. in top of slab (alternate ends of bars)
 1" bars @ 6" Cts. in bottom of slab (alternate ends of bars)



NOTE: For sections D-D & F-F refer to Sheet No. 5-4
NOTE: For plate details refer to sheet NO. 5-4
 In planing cut of foot to be in this direction

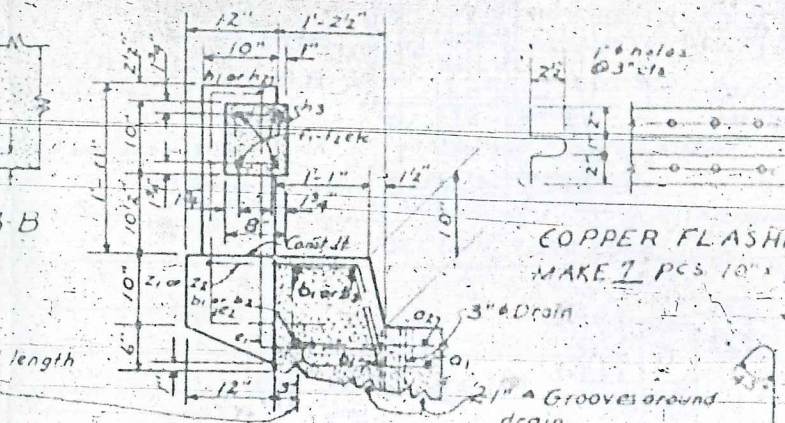


CROWN DIAGRAM



HALF TYPICAL SECTION

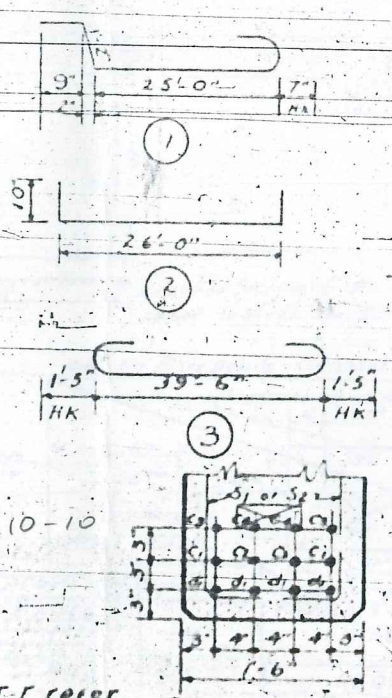
HALF END VIEW



SECTION THRU CURB

COPPER FLASHING
 MAKE 2 PCS 10" x 26" 4

NOTE: For General Note, see sheet 5-N



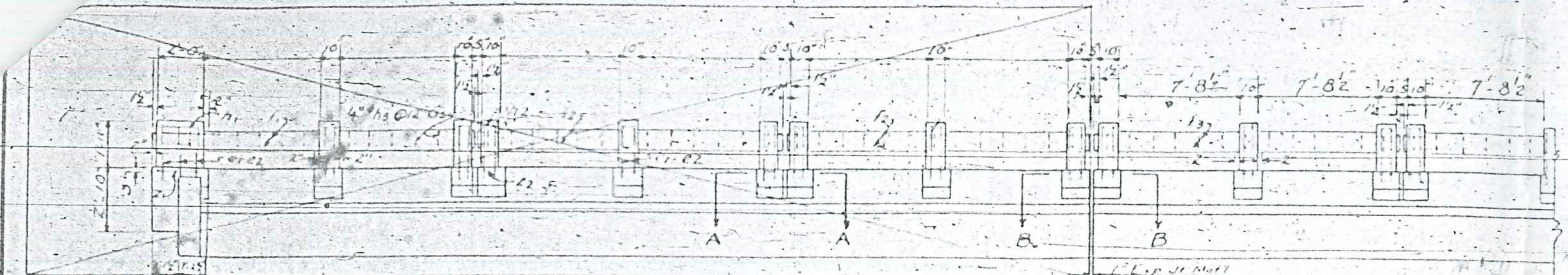
BILL OF MATERIAL FOR 5 SPANS

Bar No	Size	Type	Length	Weight
01	3/8"	1	27'-6"	10673
02	3/8"	2	27'-8"	10533
01	4/8"	3/4"	20'-0"	602
02	3/8"	9	22'-10"	680
03	3/8"	9	24'-3"	730
C1	1/2"	10	47'-1"	7071
C2	1/2"	10	34'-9"	5951
C3	1/2"	10	27'-4"	4705
C4	1/2"	10	47'-4"	14574
d1	3/8"	8	8'-0"	961
e1	1/2"	9	3'-10"	471
e2	1/2"	9	3'-10"	471
f1	1/2"	3/4"	74'-1"	737
f2	1/2"	3/4"	12'-11"	276
f3	1/2"	3/4"	18'-11"	621
h1	4"	4	3'-2"	8
h2	6"	4	2'-0"	47

BAR TYPES
 Dimensions in details or out to out of bars
 Dimensions regarding placement of bars to center

PROJECT NO. 1-503
HERTFORD-NORTHAMPTON COUNTY
STATION: 63+35

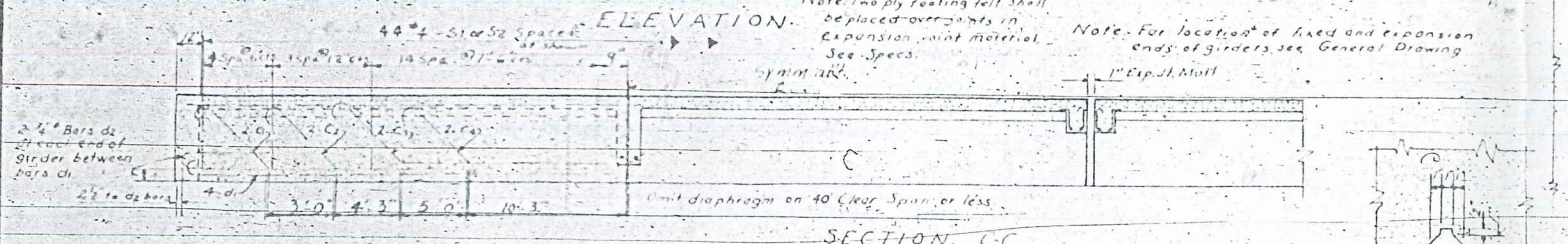
FA PROJ NO 5-551(4)



ELEVATION

Note: Two ply roofing felt shall be placed over joints in expansion joint material. See Specs.

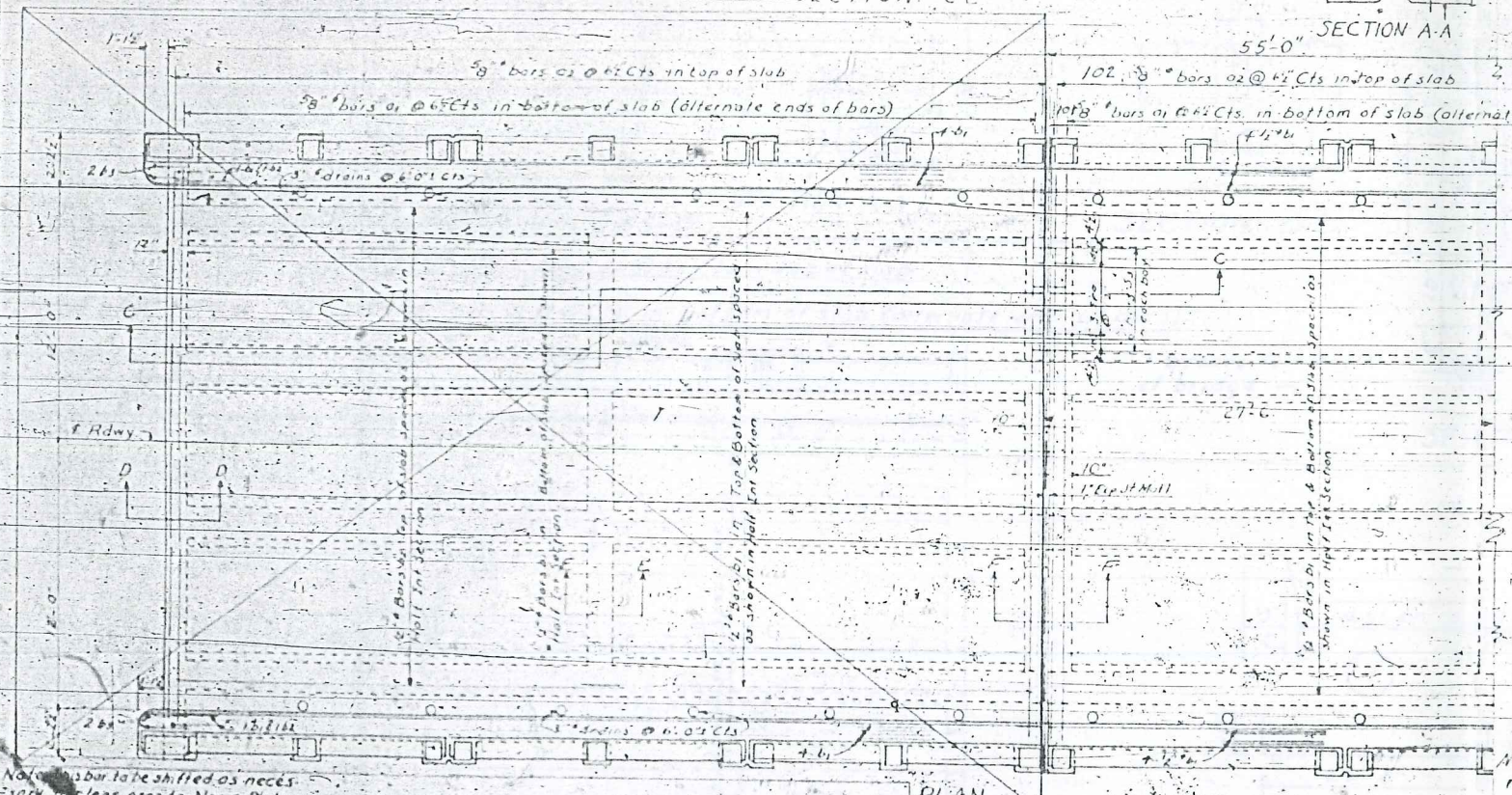
Note: For location of fixed and expansion ends of girders see General Drawing.



SECTION C-C

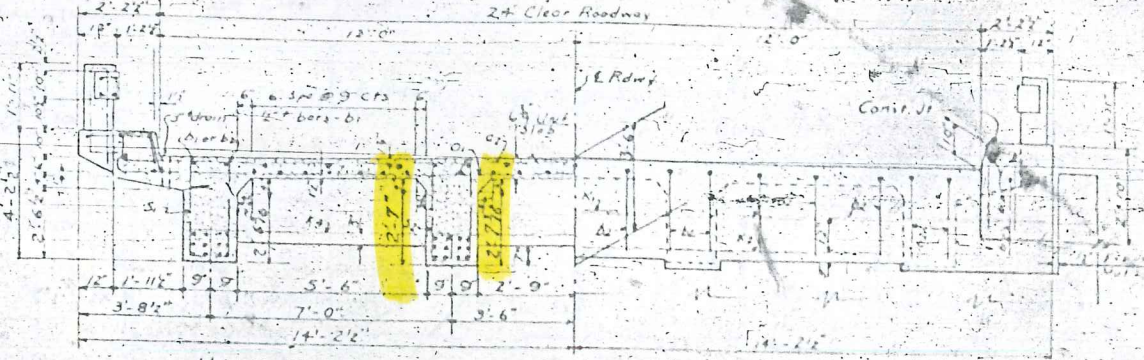
SECTION A-A

SECTION B-B



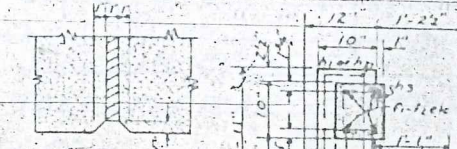
PLAN

CROWN DIAGRAM



HALF-TYPICAL SECTION

HALF-END VIEW



COPPER FLASHING MAKE PCS 10"

SECTION THRU CURB

NOTE: For General Note, see sheet 5-N

BILL OF MATERIAL FOR 3 SPANS

Bar No	Size	Type	Length	Weight
01	3/8"	1	27'-6"	8.777
02	3/8"	2	27'-0"	8.743
03	1/2"	3/11	19'-2"	5.301
04	1/2"	9		
05	1/2"	10		
06	1/2"	10		
07	1/2"	10		
08	1/2"	9		
09	1/2"	9		
10	1/2"	9		
11	1/2"	9		
12	1/2"	9		
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91	1/2"	9		
92	1/2"	9		
93	1/2"	9		
94	1/2"	9		
95	1/2"	9		
96	1/2"	9		
97	1/2"	9		
98	1/2"	9		
99	1/2"	9		
100	1/2"	9		

BAR TYPES

Dimensions in inches, or out to out of bars. Dimensions regarding placement of bars are to center.

PROJECT NO 1-503
HERTFORD-NORTHAMPTON COUNTY
STATION: 63+35

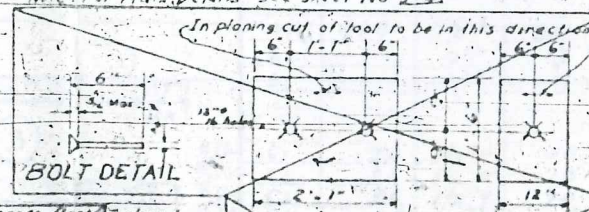
SPANS B, C, D

STATE OF NORTH CAROLINA
STATE HIGHWAY AND
PUBLIC WORKS COMMISSION

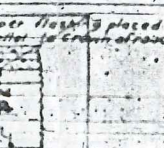
STANDARD
REINFORCED CONCRETE
DECK GIRDER
THREE SPANS @ 55'-0"
24' ROWS 12" CURBS

DEC 1955

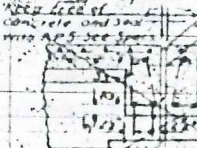
GIRDER DETAIL



BOLT DETAIL



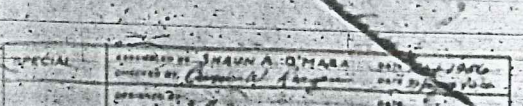
DRAIN DETAIL



D RIP BEAD DETAIL



POST DETAILS



SECTION D-D

SECTION E-E

SECTION F-F

REQUIRED LIST

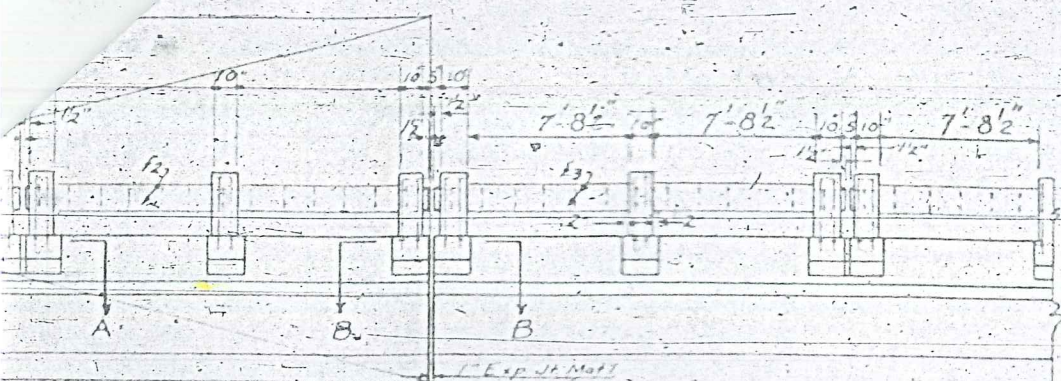
Req Bearing Ra (As per detail)
Ra (As per detail)
Bolts B (As per detail)

Reinforcing Steel - L-60	66017
Class A concrete - Co No	2300
Plugs & Bolts - L-60	

5-700-24' ROWS - 12" CURB - Heavy Roll

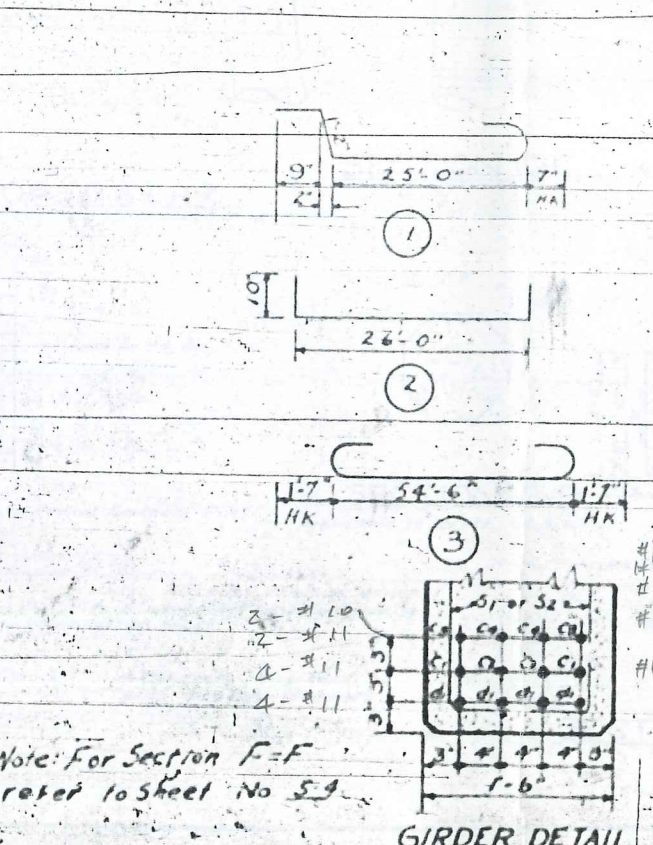
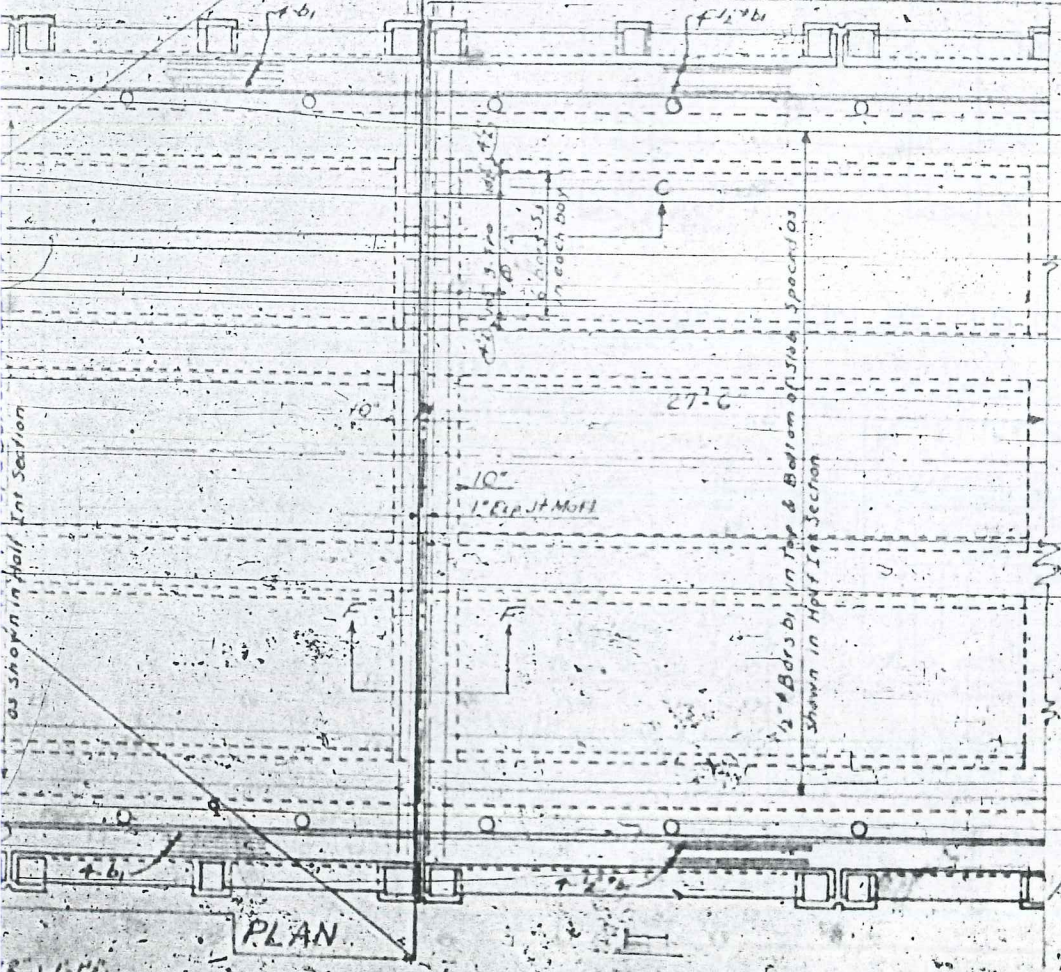
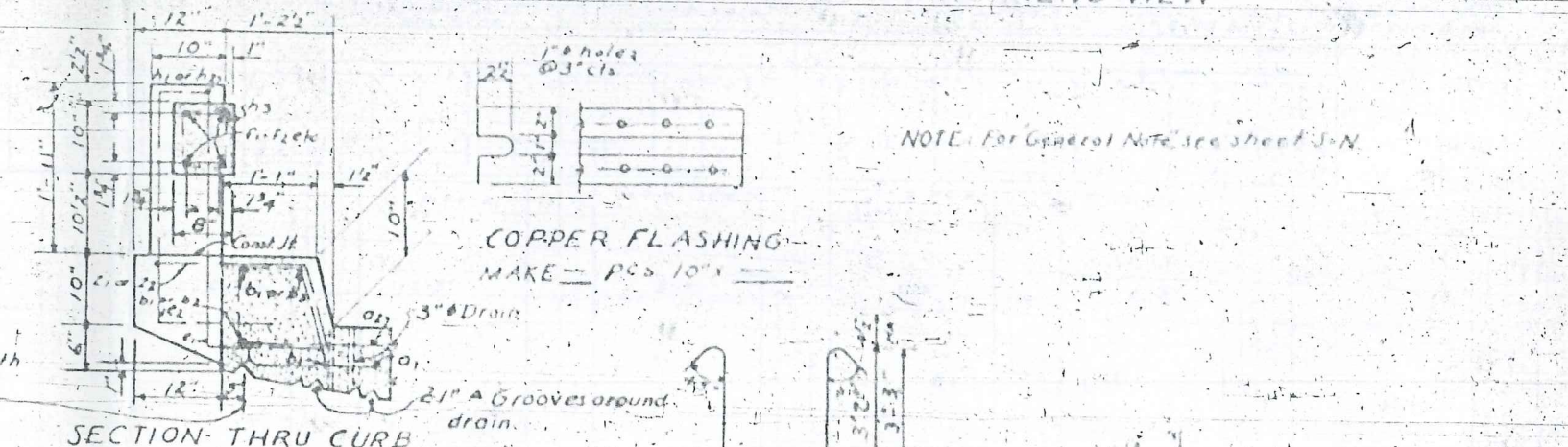
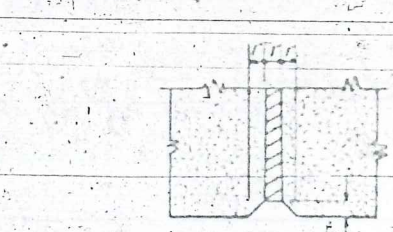
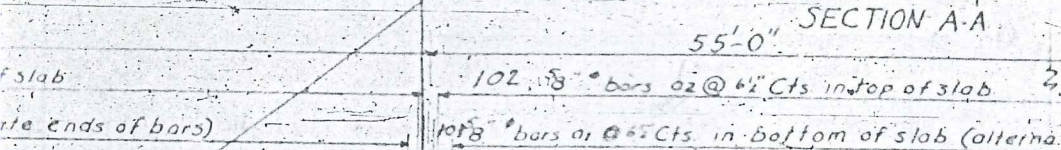
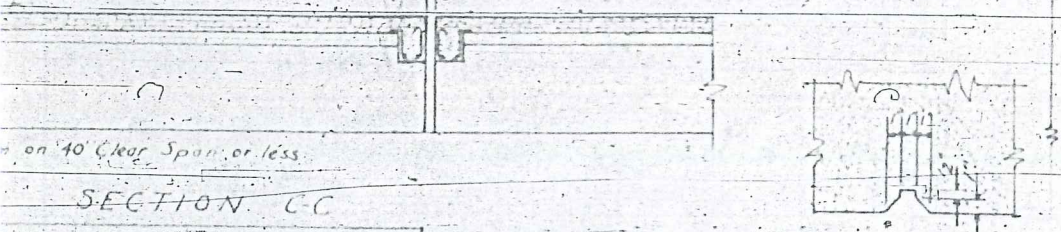
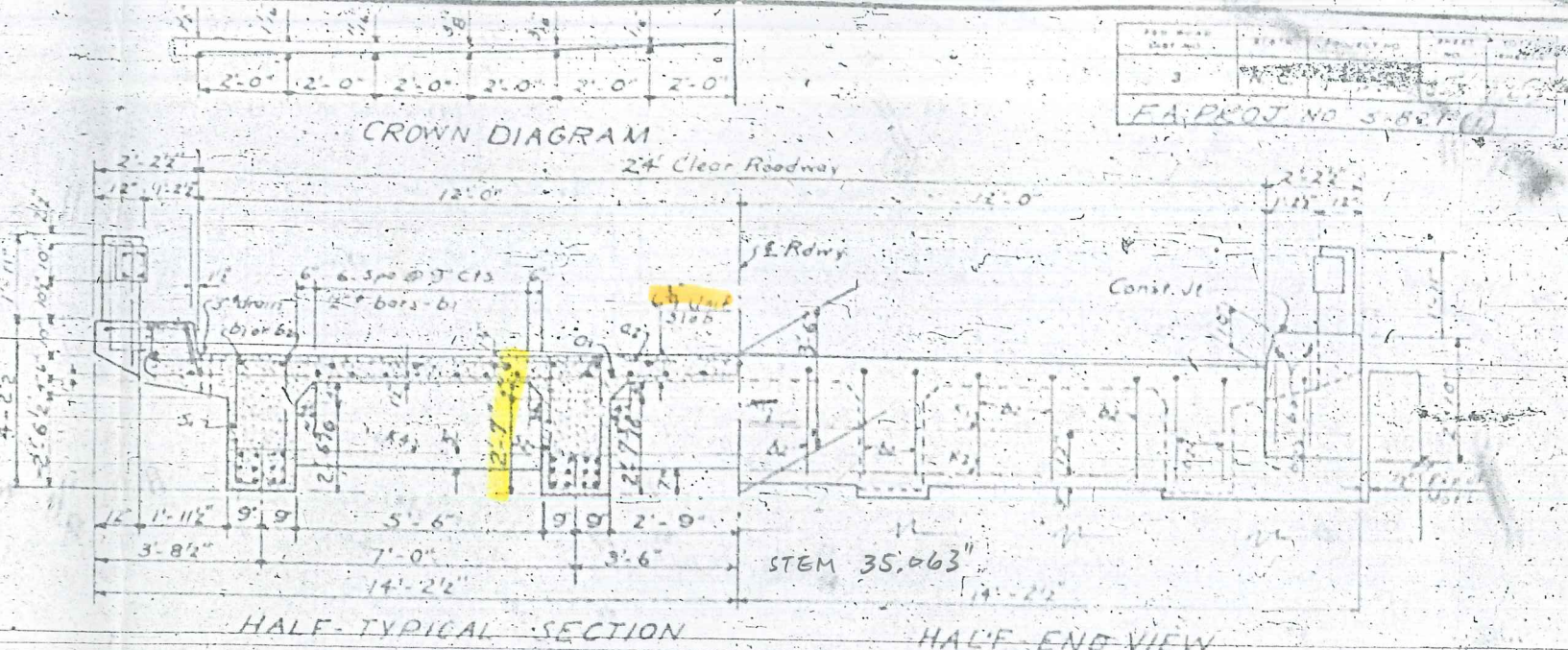
5-400-24' ROWS - 12" CURB - Heavy Roll

SPECIAL
DESIGNED BY SHAWN A. O'HARA
CHECKED BY
STANDARD
DESIGNED BY
CHECKED BY



Note: Two ply roofing felt shall be placed over joints in expansion joint material. See Specs. minimum.

Note: For location of fixed and expansion ends of girders see General Drawing.



BILL OF MATERIAL FOR 3 SPANS

Bar No	Size	Type	Length	Weight
a1	306	5/8"	27'-6"	8777
a2	303	5/8"	27'-0"	8743
b1	414	1/2"	19'-2"	5501
b2		1/2"	9	
b3		1/2"	9	
c1	24	1 1/2"	28'-0"	7216
c2	24	1 1/2"	28'-0"	7216
c3	24	1 1/2"	41'-0"	8281
c4	24	1 1/2"	31'-0"	5943
d1	48	1 1/2"	57'-0"	14706
d2	48	1 1/2"	8'-0"	577
e1	108	1/2"	3'-10"	277
e2	108	1/2"	3'-10"	277
f1		1/2"	31/2"	
f2		1/2"	31/2"	
f3	72	1/2"	17'-11"	860

BAR TYPES

Dimensions in details or out to out of bars. Dimensions regarding placement of bars are to center.

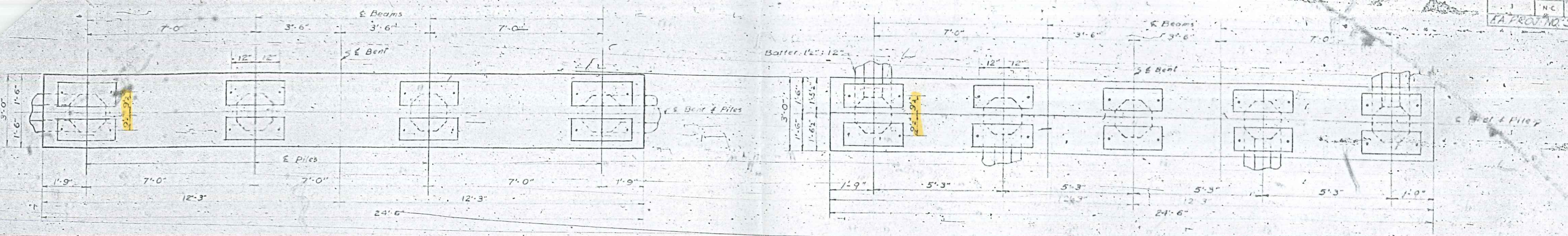
PROJECT NO. 1-503

HERTFORD-NORTHAMPTON COUNTY

STATION: 63+35

SPAN B C D

3 SPANS @ 55'-0"

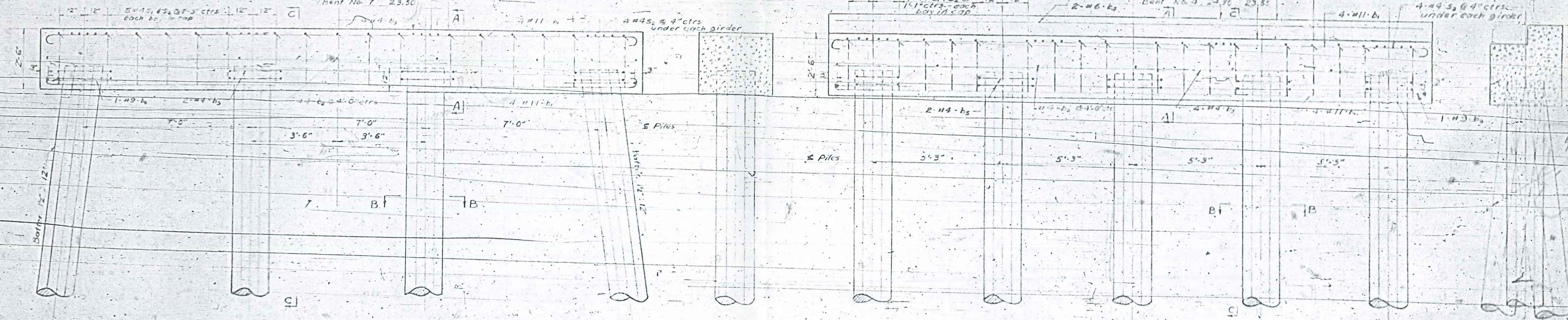


PLAN BENTS NOS 5, 6 OR 7

PLAN BENTS NOS 1 OR 4

Bridge Seat Elevations:
 Bent No. 5 24.16
 Bent No. 6 23.90
 Bent No. 7 23.50

Bridge Seat Elevations:
 Bent No. 1 23.50 22.7
 Bent No. 4 23.50 23.5



ELEVATION BENTS NOS 5, 6 OR 7

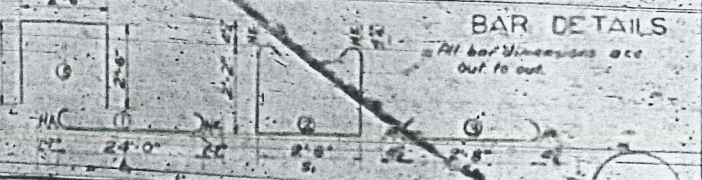
ELEVATION BENTS NOS 1 OR 4

BILL OF MATERIAL FOR ONE BENT - 3 REQUIRED

Bar	Number	Size	Type	Length	Weight
b ₁	8	#11	1	27'-2"	1151
b ₂	7	#4	Str	2'-6"	12
b ₃	4	#4	Str	24'-2"	65
b ₄	8	#4	4	8'-7"	46
s ₁	17	#4	2	7'-3"	66
s ₂	33	#4	3	3'-5"	75
s ₃	2	#3	5	3'-6"	11

Reinforcing Steel
 Class 'A' Concrete
 18" Precast Concrete Piles

LES 7497
 * C.Y.S. 74
 74 - 11 FT 140



SECTION A-A

SECTION B-B
 Applicable to Bents 1, 4, 5, 6, 7

18" Precast Concrete Piles

Note: All piles shall be driven to a minimum bearing capacity of 40 tons.

* Concrete displaced by piles has been deducted.

SECTION A-A

BILL OF MATERIAL FOR ONE BENT - 2 REQUIRED

Bar	Number	Size	Type	Length	Weight
b ₁	8	#11	1	27'-2"	1151
b ₂	7	#4	Str	2'-6"	12
b ₃	4	#4	Str	24'-2"	65
b ₄	2	#6	Str	24'-2"	73
s ₁	18	#4	2	7'-9"	93
s ₂	38	#4	3	3'-5"	73
s ₃	18	#4	4	5'-7"	67
s ₄	12	#3	5	4'-8"	37

Reinforcing Steel
 Class 'A' Concrete
 18" Precast Concrete Piles

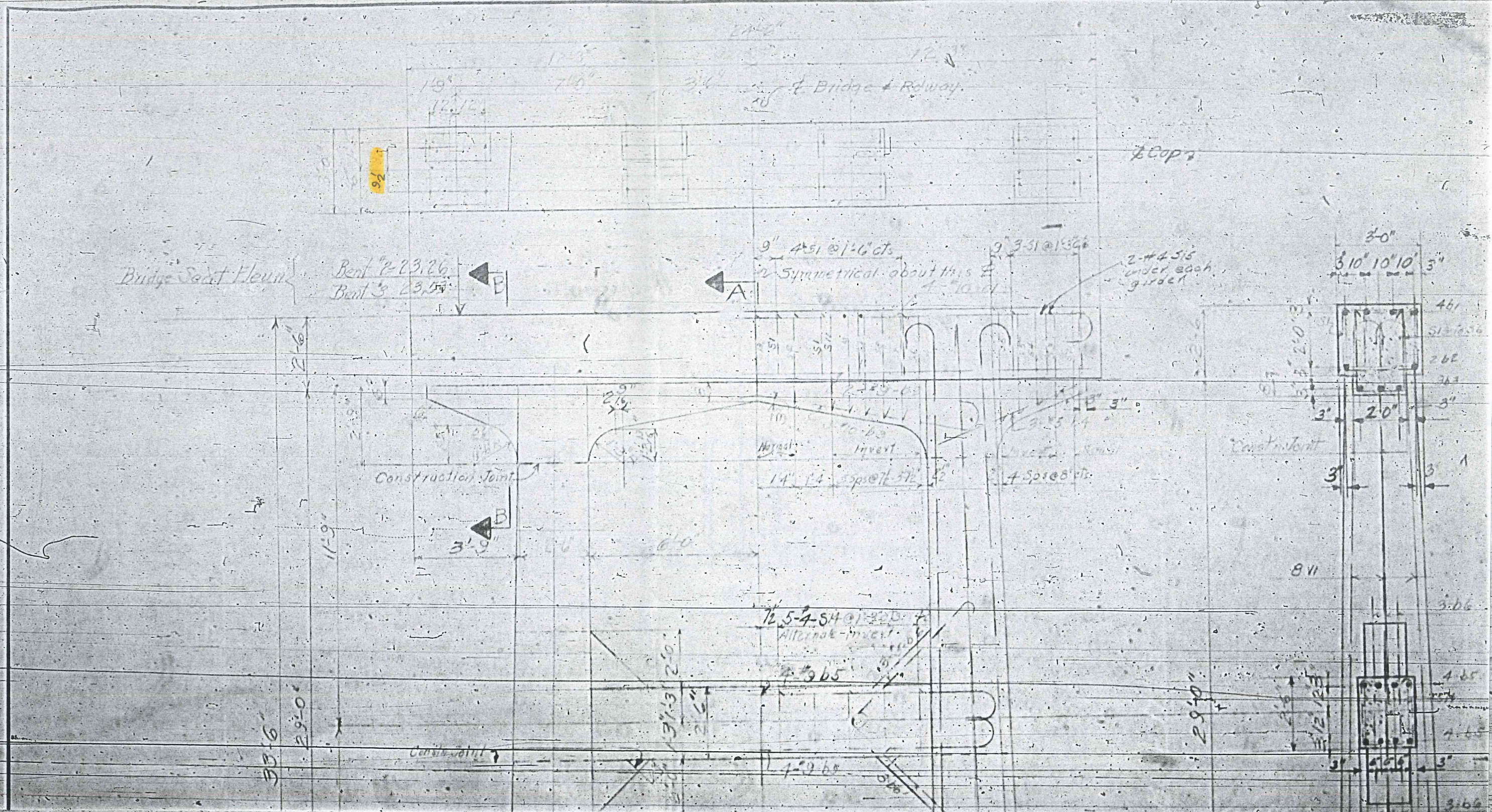
LES 1643
 * C.Y.S. 74
 164 - 11 FT 140

SECTION B-B

PROJECT NO. 1-503
 HERTFORD COUNTY
 NORTHAMPTON
 STATION 63+31
 BENTS 1, 4, 5, 6, 7

STATE OF NORTH CAROLINA
 STATE HIGHWAY AND
 PUBLIC WORKS COMMISSION
 SUBSTRUCTURE
 MAY, 1956

SPECIAL
 DESIGNED BY: [Signature]
 CHECKED BY: [Signature]



Bridge Sect Elev'n

Bent # 2 23.26
Bent 3 23.54

Bridge & Rdway

2 Cop's

9" 451 @ 16" cts

is Symmetrical about this

9" 331 @ 13 1/2"

2 #4515 under each girder

3'-0" 3'-10" 10'-10" 3'-0"

Construction Joint

14" 14" spool 5/16" 5/8"

4 Sp 18" cts

1/2 5-4-54 @ 1-200 ft
All ends - invert

4-3 1/2"

Construction

Construction

4-3 1/2"

55'-6"

29'-0"

2'-6"

11'-9"

3'-9"

3'-3"

2'-6"

29'-0"

8'11"

2'-10"

3'

2'-0"

3'

3'

461

512 1/2

262

263

3'

3'

3'

3'-0"

4'-6"

3'

3'-0"

3'-0"

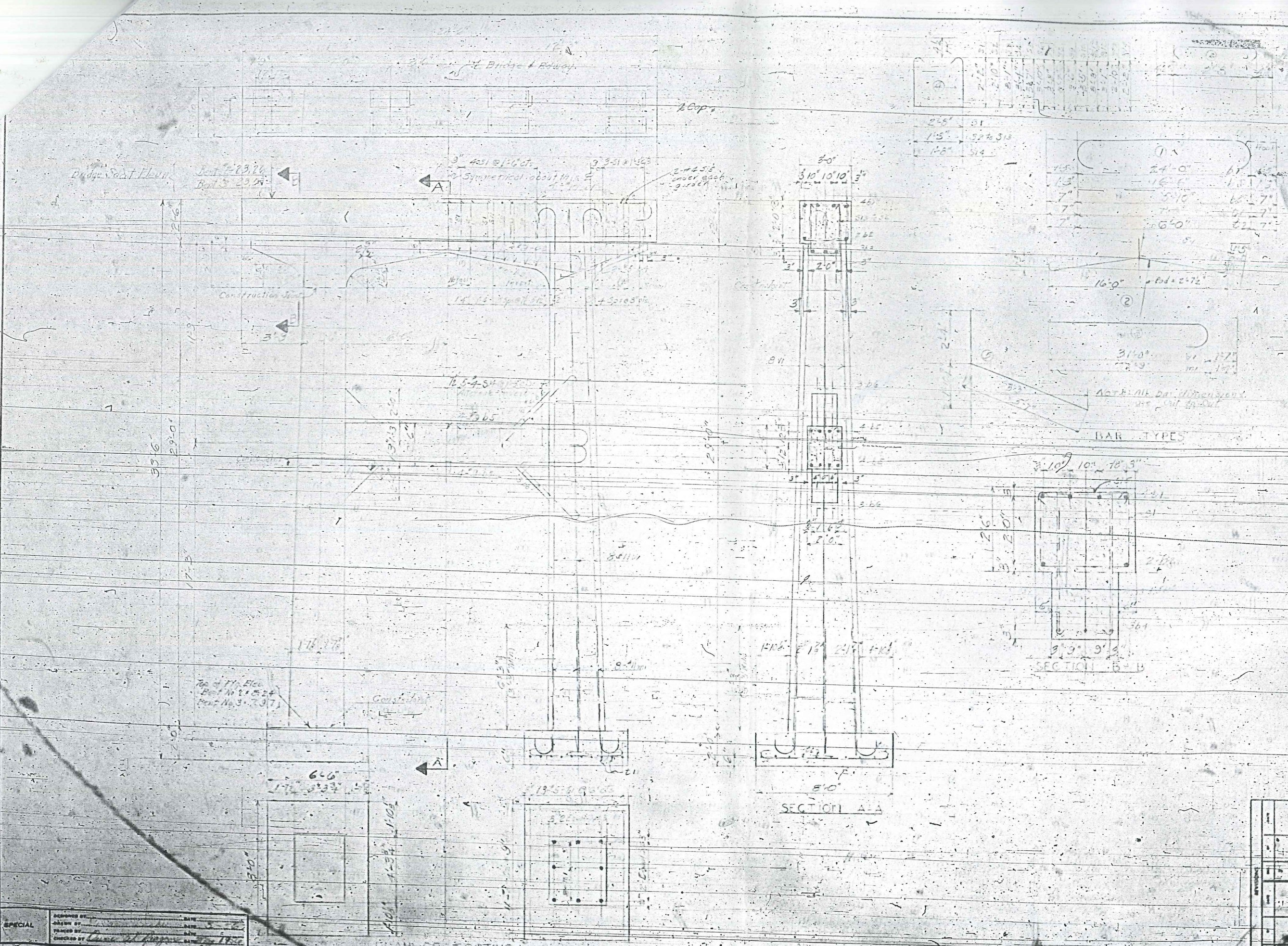
3'-0"

3'-0"

3'-0"

3'-0"

3'-0"



BILL OF MATERIAL

NO.	DESCRIPTION	QTY.	UNIT	AMOUNT
1	3" x 10" x 10" 3"	46		1.14
2	20"	51		1.63
3	16"	12		.50
4	7"	11		.45
5	7"	15		.68
6	31" x 10" x 18" 3"	2		.48
7	31"	2		.48
8	312	2		.48
9	313	2		.48
10	314	10		4.80
11	315	10		4.80
12	316	11		5.28
13	317	11		5.28
14	318	11		5.28
15	319	11		5.28
16	320	11		5.28
17	321	11		5.28
18	322	11		5.28
19	323	11		5.28
20	324	11		5.28
21	325	11		5.28
22	326	11		5.28
23	327	11		5.28
24	328	11		5.28
25	329	11		5.28
26	330	11		5.28
27	331	11		5.28
28	332	11		5.28
29	333	11		5.28
30	334	11		5.28
31	335	11		5.28
32	336	11		5.28
33	337	11		5.28
34	338	11		5.28
35	339	11		5.28
36	340	11		5.28
37	341	11		5.28
38	342	11		5.28
39	343	11		5.28
40	344	11		5.28
41	345	11		5.28
42	346	11		5.28
43	347	11		5.28
44	348	11		5.28
45	349	11		5.28
46	350	11		5.28
47	351	11		5.28
48	352	11		5.28
49	353	11		5.28
50	354	11		5.28
51	355	11		5.28
52	356	11		5.28
53	357	11		5.28
54	358	11		5.28
55	359	11		5.28
56	360	11		5.28
57	361	11		5.28
58	362	11		5.28
59	363	11		5.28
60	364	11		5.28
61	365	11		5.28
62	366	11		5.28
63	367	11		5.28
64	368	11		5.28
65	369	11		5.28
66	370	11		5.28
67	371	11		5.28
68	372	11		5.28
69	373	11		5.28
70	374	11		5.28
71	375	11		5.28
72	376	11		5.28
73	377	11		5.28
74	378	11		5.28
75	379	11		5.28
76	380	11		5.28
77	381	11		5.28
78	382	11		5.28
79	383	11		5.28
80	384	11		5.28
81	385	11		5.28
82	386	11		5.28
83	387	11		5.28
84	388	11		5.28
85	389	11		5.28
86	390	11		5.28
87	391	11		5.28
88	392	11		5.28
89	393	11		5.28
90	394	11		5.28
91	395	11		5.28
92	396	11		5.28
93	397	11		5.28
94	398	11		5.28
95	399	11		5.28
96	400	11		5.28
97	401	11		5.28
98	402	11		5.28
99	403	11		5.28
100	404	11		5.28

BAR TYPES

PROJECT NO. 1-503
 COUNTY
 STATION: 68+05
 MILES 10.243

STATE OF NORTH CAROLINA
 STATE HIGHWAY AND
 PUBLIC WORKS COMMISSION
 SUBSTRUCTURE
 1956

SPECIAL
 DESIGNED BY
 DRAWN BY
 CHECKED BY
 DATE

PLAN OF FOOTING