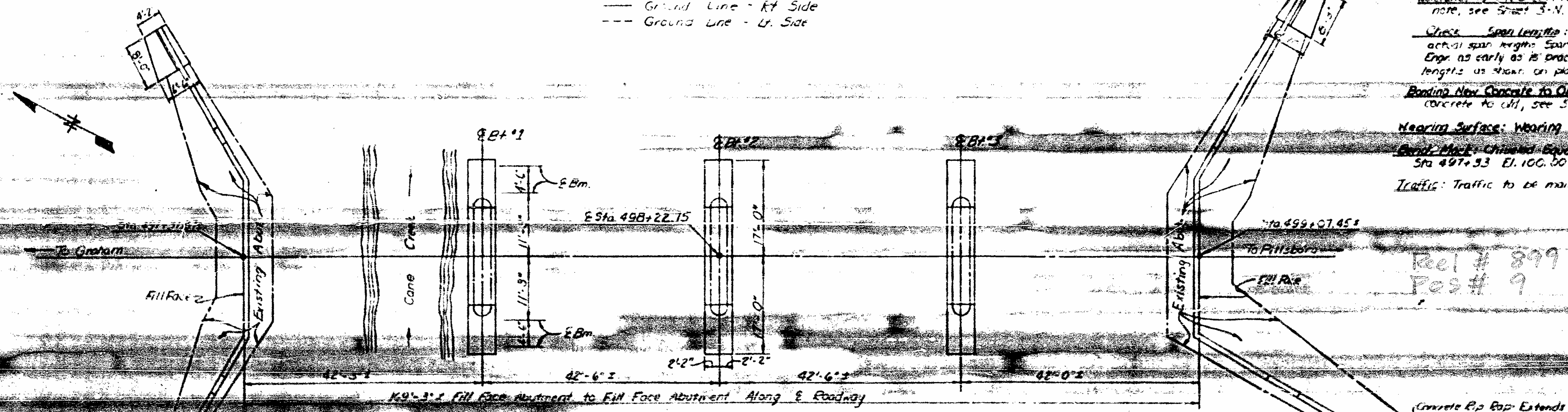


ELEVATION

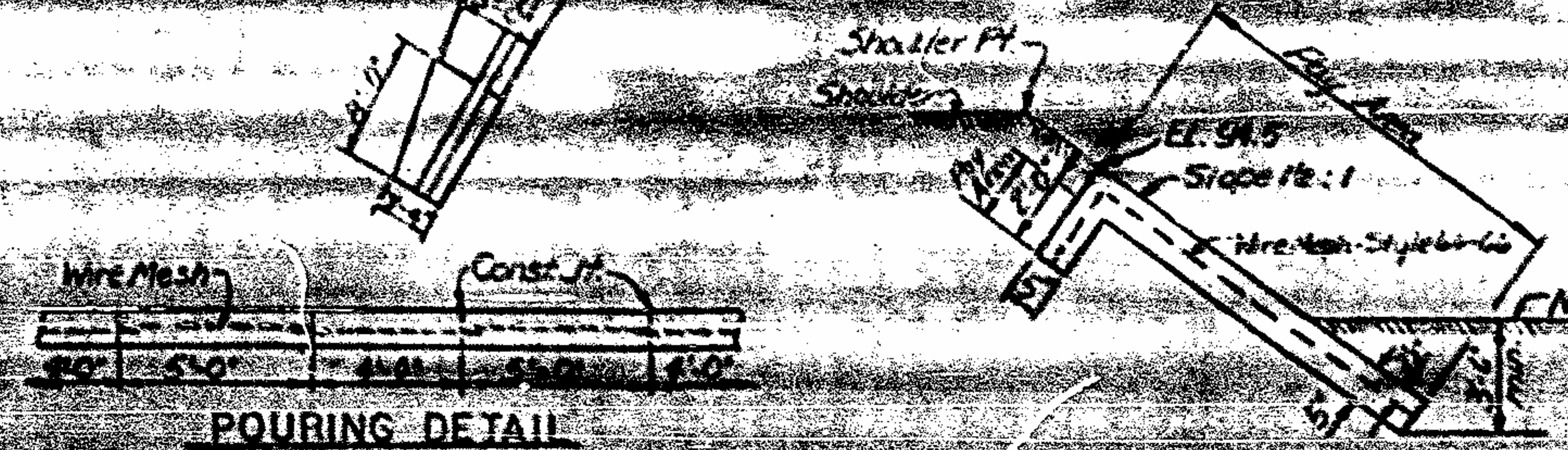
— Ground Line - Rt Side
 --- Ground Line - Lt Side

NOTES

- Assumed Live Load: HS 20 or Alternate Loading
- Reference to S-N Sheet for other design and general note, see Sheet S-N.
- Check: Span lengths: I-beam lengths are subject to change to fit actual span lengths. Span lengths shall be checked by the Resident Engineer as early as is practical in order to determine whether I-beam lengths as shown on plans are correct.
- Bonding New Concrete to Old: For note regarding bonding new concrete to old, see Sheet S-N.
- Wearing Surface: Wearing surface to be placed by others.
- Grade: Place: Chisel Square on top of wing wall 11" Et. Sta 497+53 El. 100.00 Assumed.
- Traffic: Traffic to be maintained.



PLAN



SECTION C-C

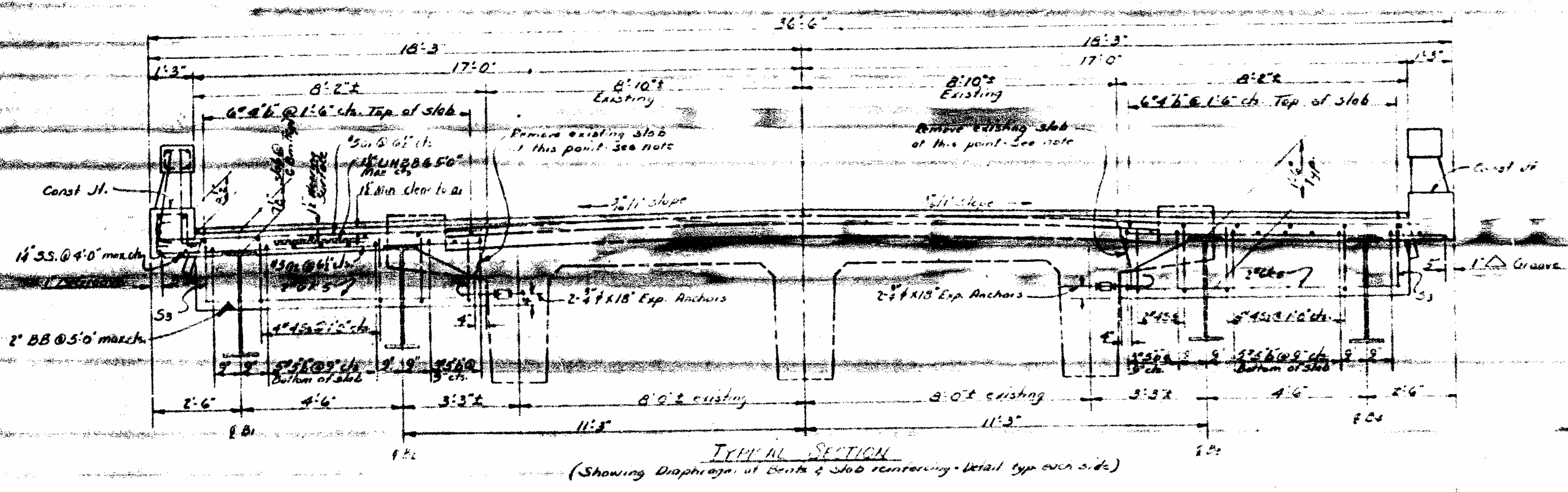
TOTAL BILL OF MATERIAL							
	Class "A" Concrete Cu. Yds.	Class "AA" Concrete Cu. Yds.	Reinforcing Steel Lbs.	Structural Steel (Incor.) Lbs.	Excavation cu. Yds.	Conc. Hard 5" Concrete Rip Rap Sq. Yds.	Concrete Rip Rap Sq. Yds.
Superstructure		103.6	20,539	86,300			
Abutment A	14.8		1,948				
Bent 1	15.9		2,418				
Bent 2	15.9		2,418				
Bent 3	15.9		2,418				
Abutment B	28.5		3,170				
Totals	91.0	103.6	32,411	86,300	36	3,225	420

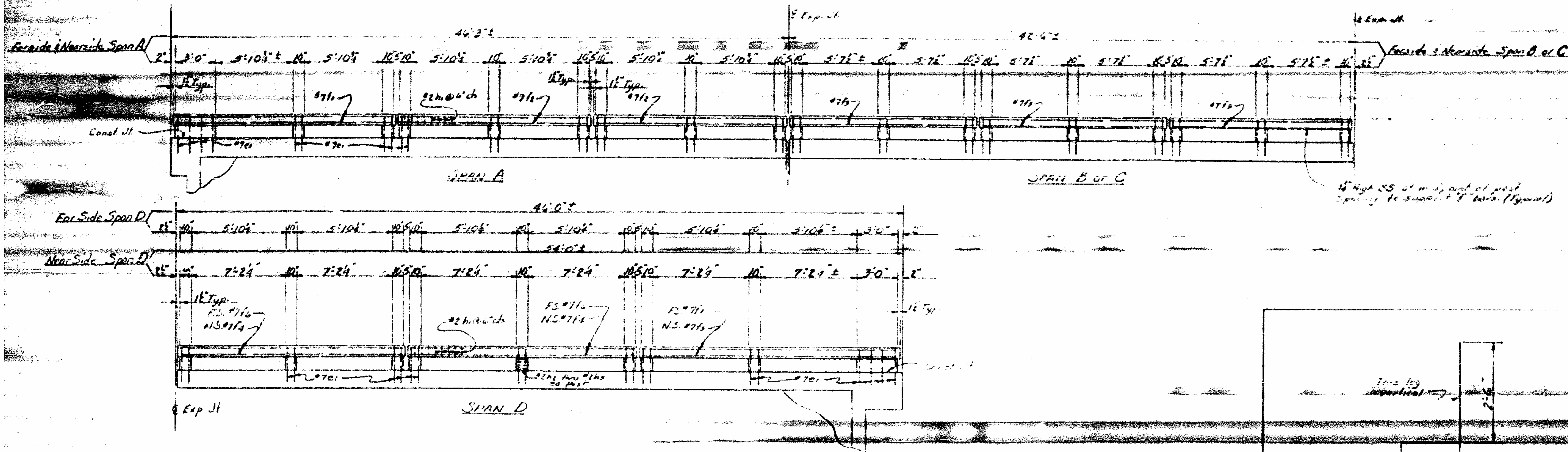
RIP RAP DETAILS

PROJECT No. 6.4710049
 ALAMANCE COUNTY
 STATION 498+22.75

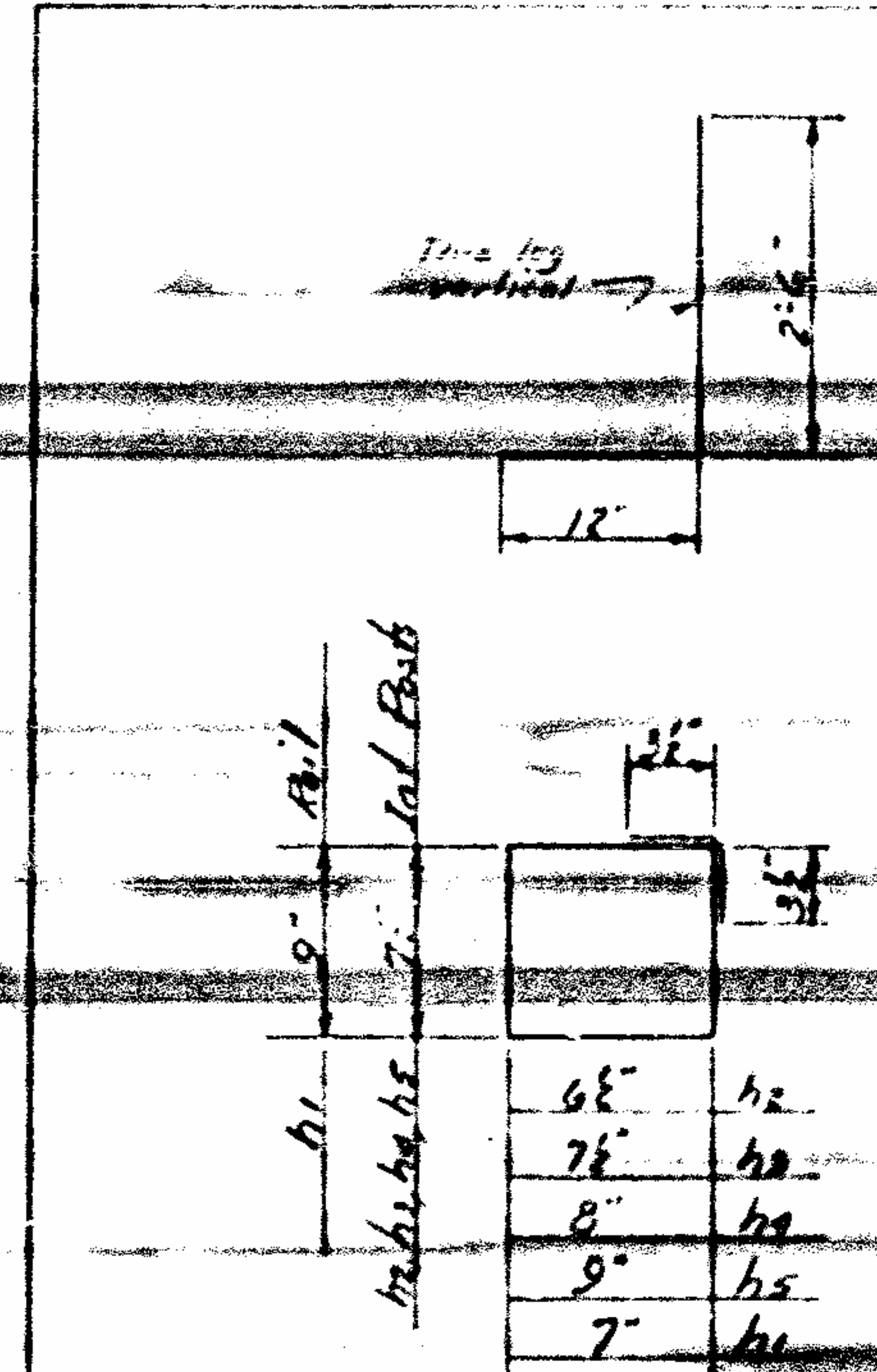
STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
 GENERAL DRAWING FOR WIDENING
 BRIDGE OVER CANE CREEK ON
 NC 87 BETWEEN GRAHAM AND
 PITTSBORO

REVISIONS					
NO.	DATE	BY	REASON	NO.	DATE
1					





POST & RAIL ELEVATION



BAR TYPES
 Dimensions are out to out
 * These quantities not included in Bill of Material for Superstructure.

BILL OF MATERIAL

For Post & Rail

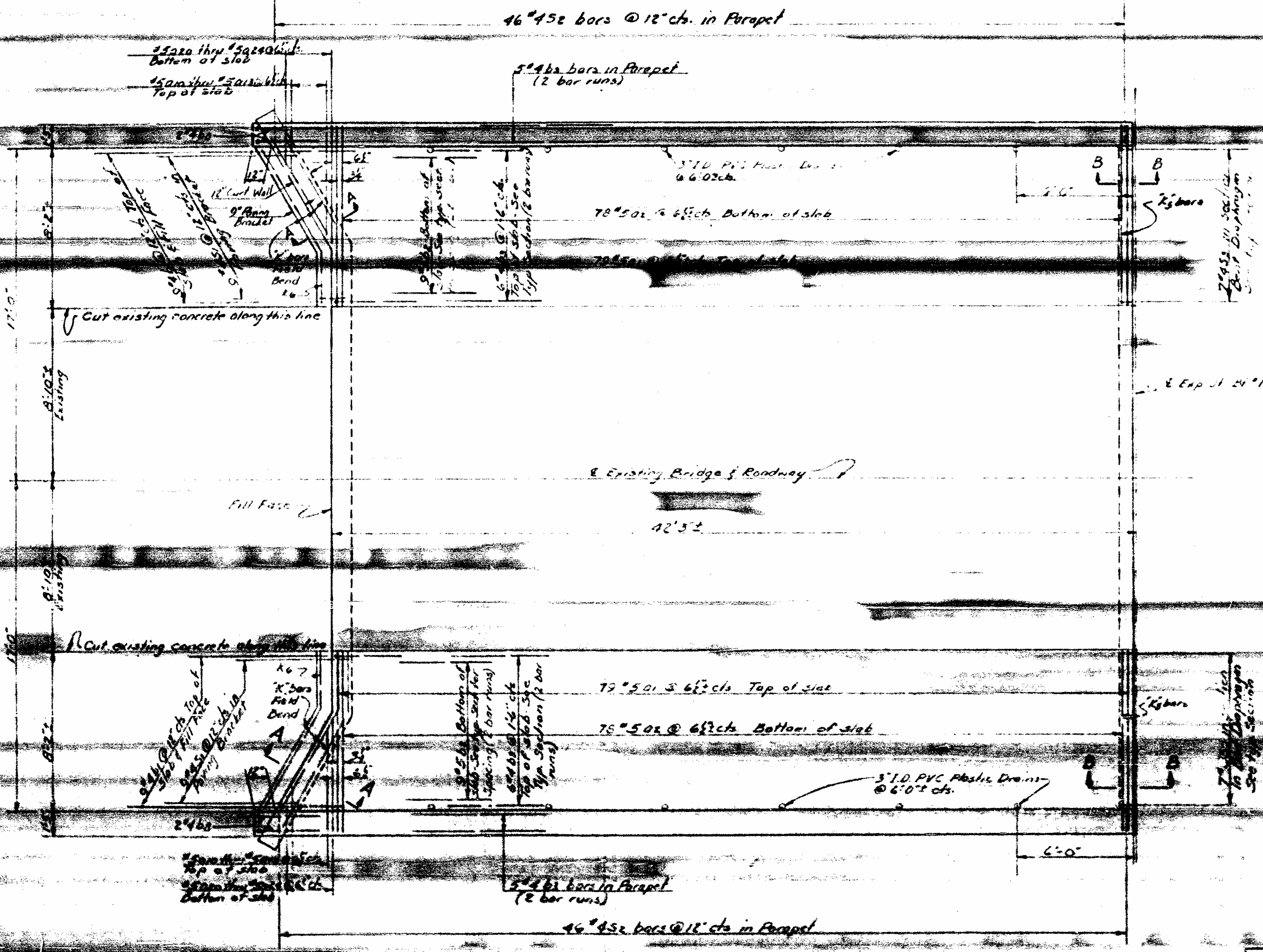
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
SL	132	#7	1	5'-6"	16.40
F1	12	#7	56	16'-4"	4.01
F2	14	#7	56	16'-2"	4.63
F3	28	#7	56	13'-5"	6.82
F4	8	#7	56	16'-10"	2.22
F5	9	#7	56	19'-0"	1.50
F6	8	#7	56	16'-2"	2.22
F7	24	#7	2	3'-3"	4.01
F8	50	#7	2	2'-11"	2.22
F9	50	#7	2	3'-1"	2.22
F10	50	#7	2	3'-2"	2.22
F11	50	#7	2	3'-4"	2.22

Reinforcing Steel - 60,000 psi
 Concrete - 4,000 psi

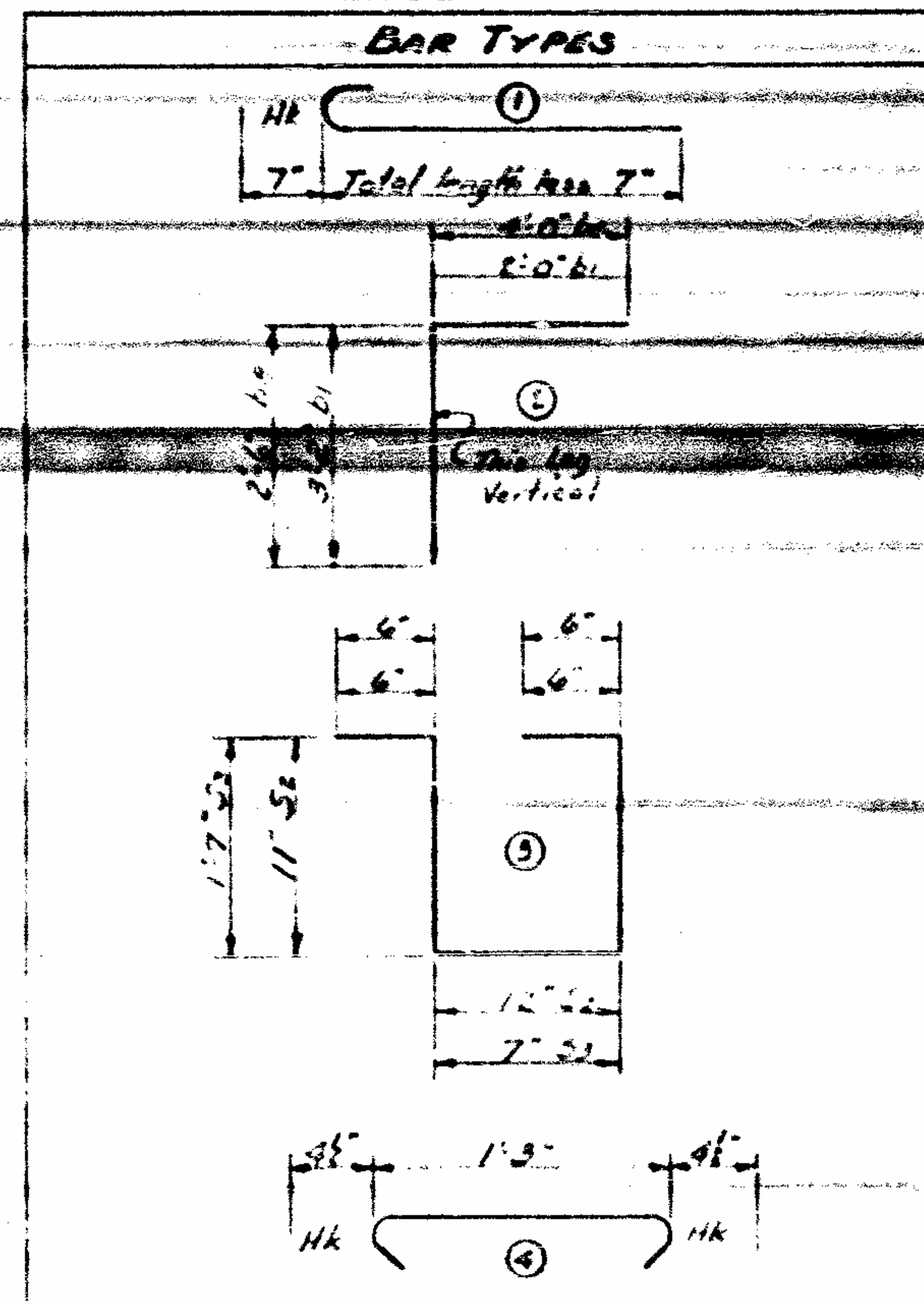
CONCRETE BY FOURS	
SPAN A	3.0 Cu Yds.
SPAN B	2.4 Cu Yds.
SPAN C	2.6 Cu Yds.
SPAN D	3.1 Cu Yds.
TOTAL	11.3 Cu Yds.

PROJECT No. 64710009
 ALABAMA COUNTY
 STATION 498+22.75

STATE OF NORTH CAROLINA	
STATE HIGHWAY COMMISSION	
SUPERSTRUCTURE	
POST & RAIL ELEVATIONS	
December	1967
REVISIONS	DATE
1	12/1/67
2	12/1/67
3	12/1/67
4	12/1/67
5	12/1/67
6	12/1/67
7	12/1/67
8	12/1/67
9	12/1/67
10	12/1/67
11	12/1/67
12	12/1/67
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94	12/1/67
95	12/1/67
96	12/1/67
97	12/1/67
98	12/1/67
99	12/1/67
100	12/1/67



PLAN
Post & Rail not shown



Bar	No.	Size	Type	Length	Weight
Q1	6	#5	1	8'10"	6.32
Q2	6	#5	2	8'10"	6.32
Q3	2	#5	1	6'0"	1.9
Q4	2	#5	1	5'7"	1.8
Q5	2	#5	1	5'7"	1.8
Q6	2	#5	1	5'7"	1.8
Q7	2	#5	1	5'7"	1.8
Q8	2	#5	1	5'7"	1.8
Q9	2	#5	1	5'7"	1.8
Q10	2	#5	1	5'7"	1.8
Q11	2	#5	1	5'7"	1.8
Q12	2	#5	1	5'7"	1.8
Q13	2	#5	1	5'7"	1.8
Q14	2	#5	1	5'7"	1.8
Q15	2	#5	1	5'7"	1.8
Q16	2	#5	1	5'7"	1.8
Q17	2	#5	1	5'7"	1.8
Q18	2	#5	1	5'7"	1.8
Q19	2	#5	1	5'7"	1.8
Q20	2	#5	1	5'7"	1.8
Q21	2	#5	1	5'7"	1.8
Q22	2	#5	1	5'7"	1.8
Q23	2	#5	1	5'7"	1.8
Q24	2	#5	1	5'7"	1.8
Q25	2	#5	1	5'7"	1.8
Q26	2	#5	1	5'7"	1.8
Q27	2	#5	1	5'7"	1.8
Q28	2	#5	1	5'7"	1.8
Q29	2	#5	1	5'7"	1.8
Q30	2	#5	1	5'7"	1.8
Q31	2	#5	1	5'7"	1.8
Q32	2	#5	1	5'7"	1.8
Q33	2	#5	1	5'7"	1.8
Q34	2	#5	1	5'7"	1.8
Q35	2	#5	1	5'7"	1.8
Q36	2	#5	1	5'7"	1.8
Q37	2	#5	1	5'7"	1.8
Q38	2	#5	1	5'7"	1.8
Q39	2	#5	1	5'7"	1.8
Q40	2	#5	1	5'7"	1.8
Q41	2	#5	1	5'7"	1.8
Q42	2	#5	1	5'7"	1.8
Q43	2	#5	1	5'7"	1.8
Q44	2	#5	1	5'7"	1.8
Q45	2	#5	1	5'7"	1.8
Q46	2	#5	1	5'7"	1.8
Q47	2	#5	1	5'7"	1.8
Q48	2	#5	1	5'7"	1.8
Q49	2	#5	1	5'7"	1.8
Q50	2	#5	1	5'7"	1.8
Q51	2	#5	1	5'7"	1.8
Q52	2	#5	1	5'7"	1.8
Q53	2	#5	1	5'7"	1.8
Q54	2	#5	1	5'7"	1.8
Q55	2	#5	1	5'7"	1.8
Q56	2	#5	1	5'7"	1.8
Q57	2	#5	1	5'7"	1.8
Q58	2	#5	1	5'7"	1.8
Q59	2	#5	1	5'7"	1.8
Q60	2	#5	1	5'7"	1.8
Q61	2	#5	1	5'7"	1.8
Q62	2	#5	1	5'7"	1.8
Q63	2	#5	1	5'7"	1.8
Q64	2	#5	1	5'7"	1.8
Q65	2	#5	1	5'7"	1.8
Q66	2	#5	1	5'7"	1.8
Q67	2	#5	1	5'7"	1.8
Q68	2	#5	1	5'7"	1.8
Q69	2	#5	1	5'7"	1.8
Q70	2	#5	1	5'7"	1.8
Q71	2	#5	1	5'7"	1.8
Q72	2	#5	1	5'7"	1.8
Q73	2	#5	1	5'7"	1.8
Q74	2	#5	1	5'7"	1.8
Q75	2	#5	1	5'7"	1.8
Q76	2	#5	1	5'7"	1.8
Q77	2	#5	1	5'7"	1.8
Q78	2	#5	1	5'7"	1.8
Q79	2	#5	1	5'7"	1.8
Q80	2	#5	1	5'7"	1.8
Q81	2	#5	1	5'7"	1.8
Q82	2	#5	1	5'7"	1.8
Q83	2	#5	1	5'7"	1.8
Q84	2	#5	1	5'7"	1.8
Q85	2	#5	1	5'7"	1.8
Q86	2	#5	1	5'7"	1.8
Q87	2	#5	1	5'7"	1.8
Q88	2	#5	1	5'7"	1.8
Q89	2	#5	1	5'7"	1.8
Q90	2	#5	1	5'7"	1.8
Q91	2	#5	1	5'7"	1.8
Q92	2	#5	1	5'7"	1.8
Q93	2	#5	1	5'7"	1.8
Q94	2	#5	1	5'7"	1.8
Q95	2	#5	1	5'7"	1.8
Q96	2	#5	1	5'7"	1.8
Q97	2	#5	1	5'7"	1.8
Q98	2	#5	1	5'7"	1.8
Q99	2	#5	1	5'7"	1.8
Q100	2	#5	1	5'7"	1.8

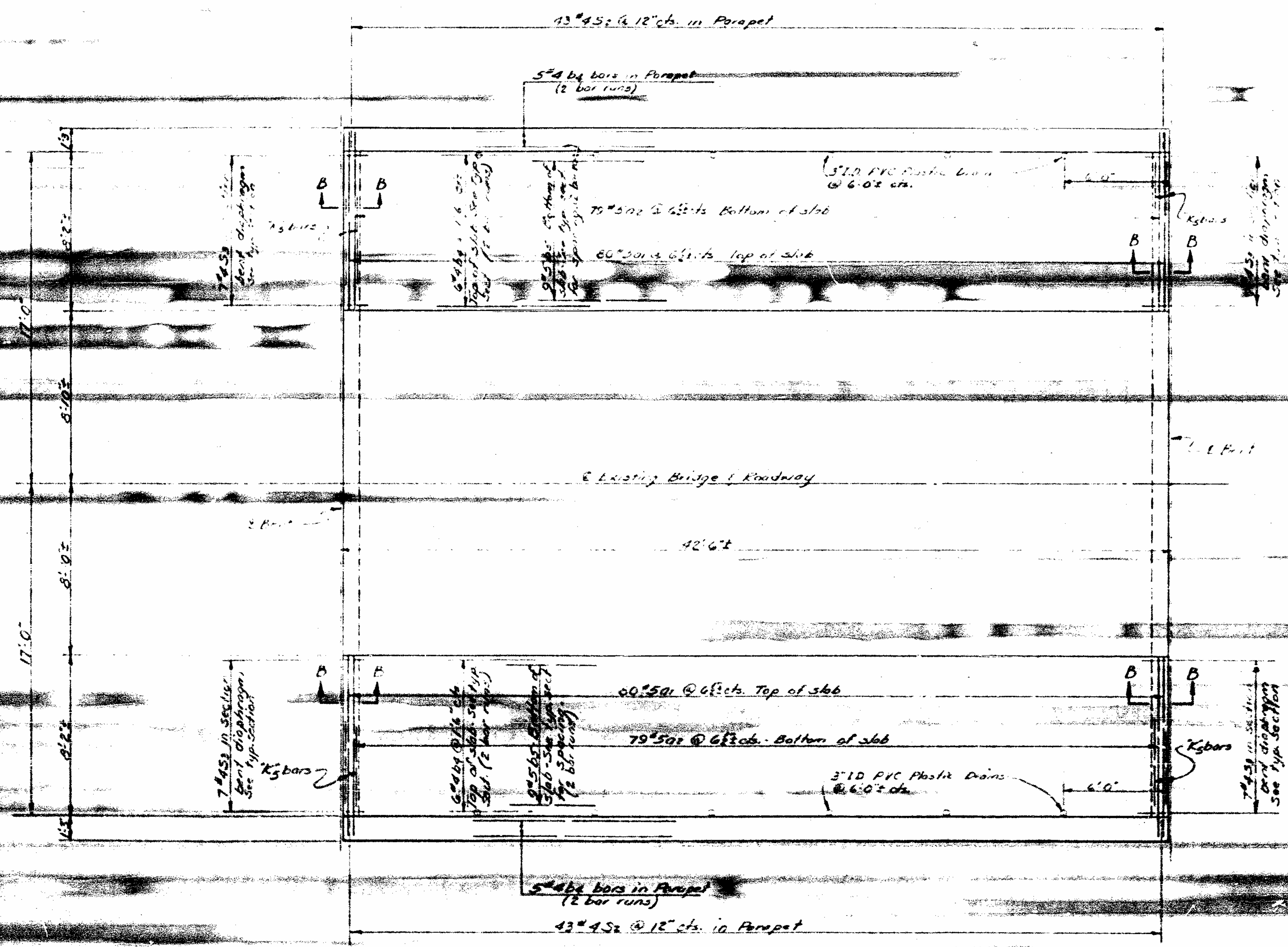
All dimensions are out to out.
Concrete & Reinforcing steel quantities for Post & Rail not included in Bill of Material

Span	Cu Yds.
Span A	26.8
Span B	24.1
Span C	24.1
Span D	20.6
TOTAL	103.6

PROJECT NO. 6-4710029
ALAMANCE COUNTY
STATION 498+22.75

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
DIVISION
SUPERSTRUCTURE
PLAN - SPAN A
& BILL OF MATERIAL

December 1961

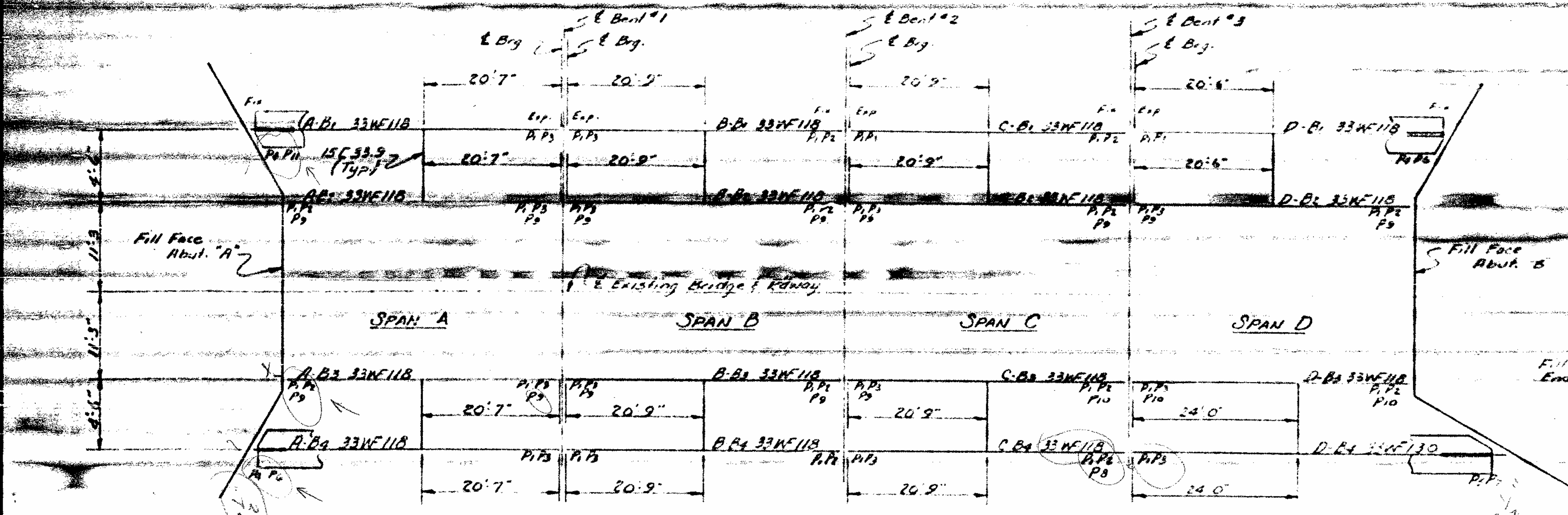


PLAN
Post & Rail not shown

PROJECT NO. 6-4710049
ALBEMARLE COUNTY
STATION 498+22.75

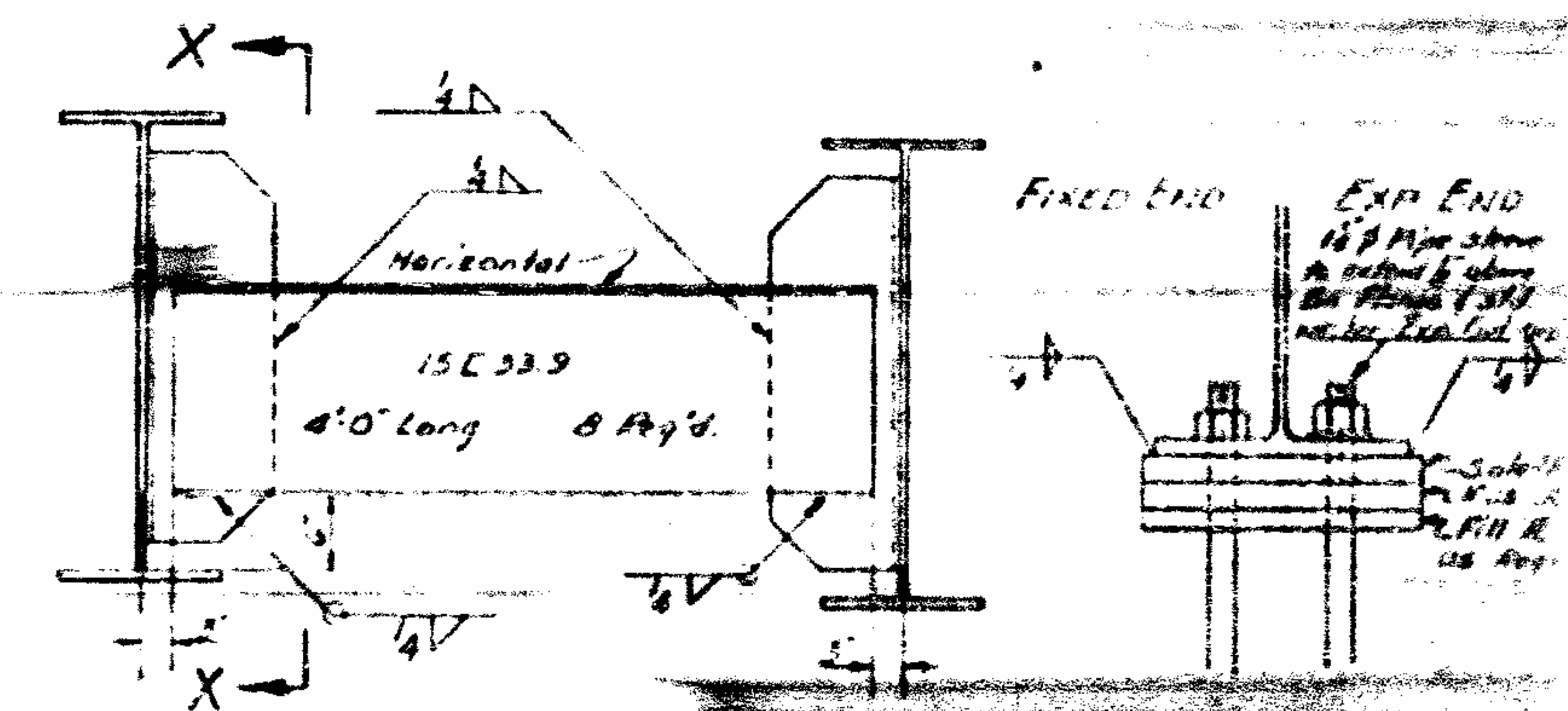
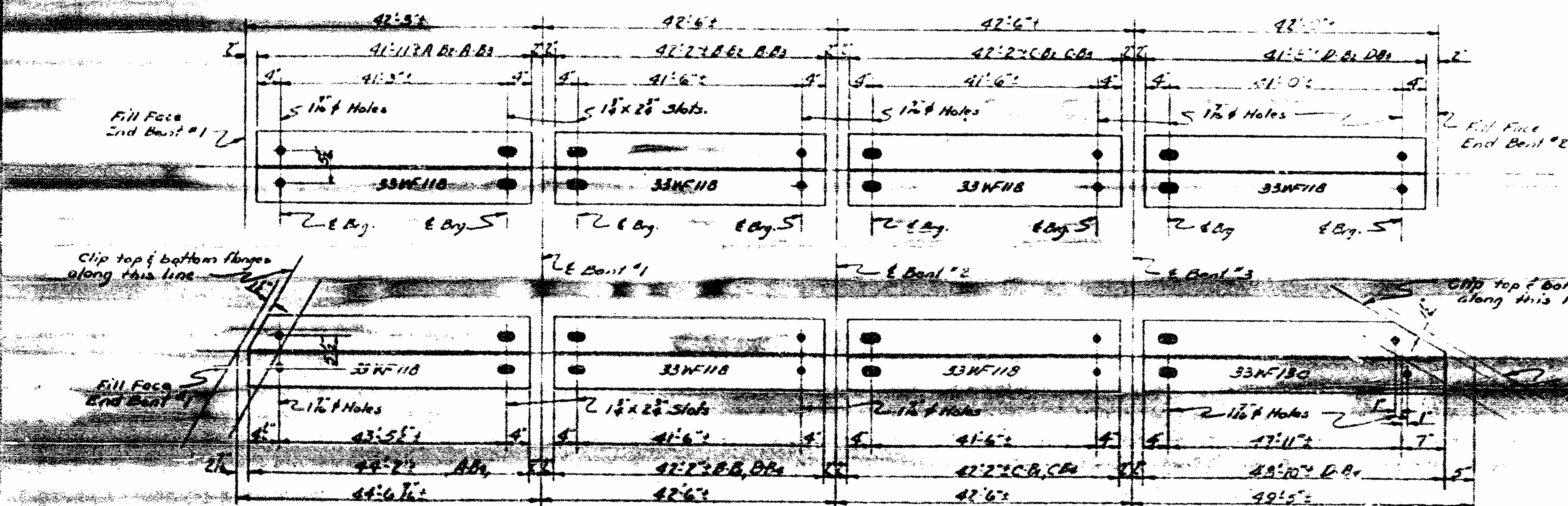
STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
SUPERSTRUCTURE
PLAN SPAN B OR C

December 1967						1967
REVISIONS						DATE
NO.	BY	DATE	NO.	BY	DATE	
1			2			3/16
3			4			5/16

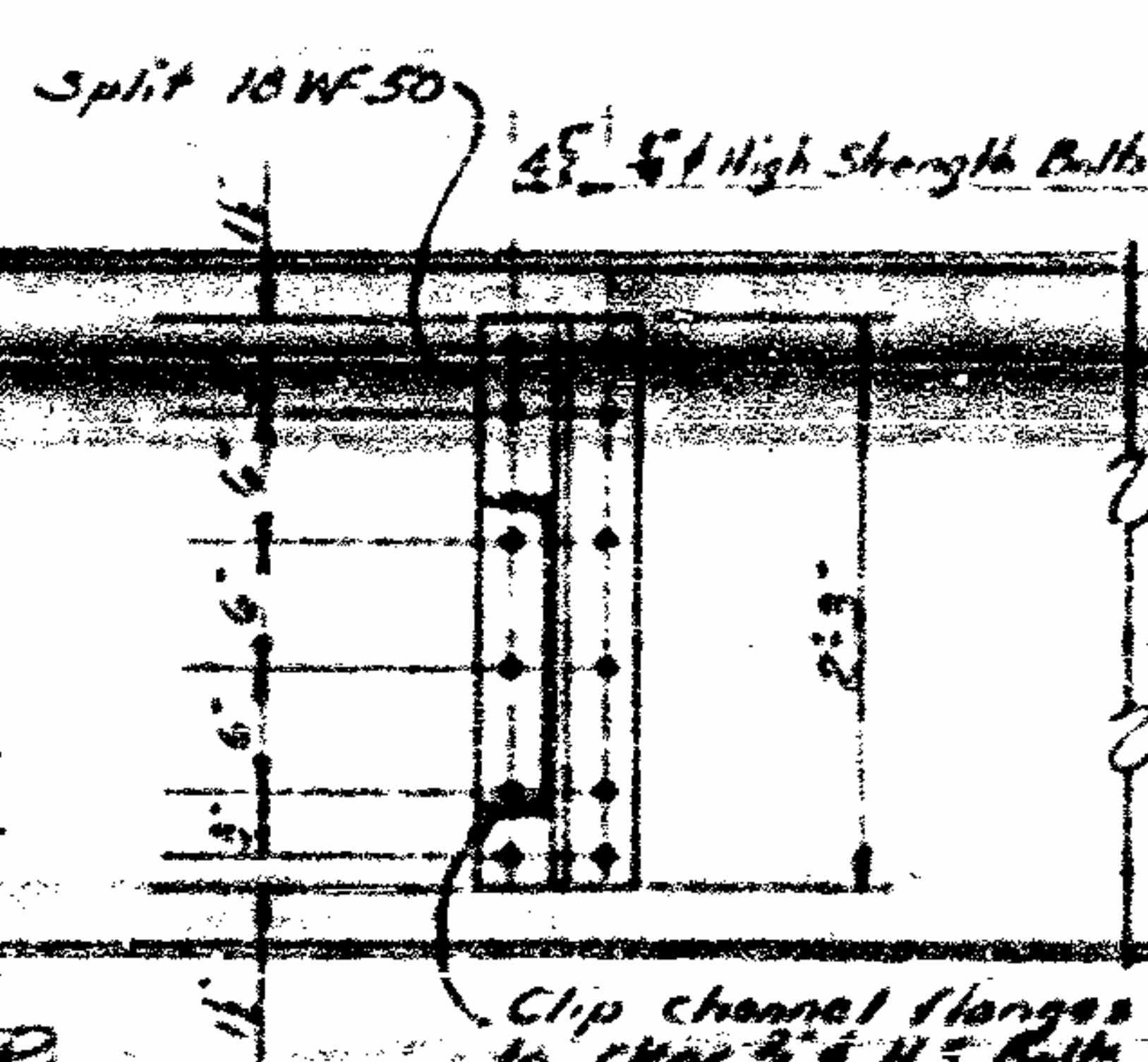
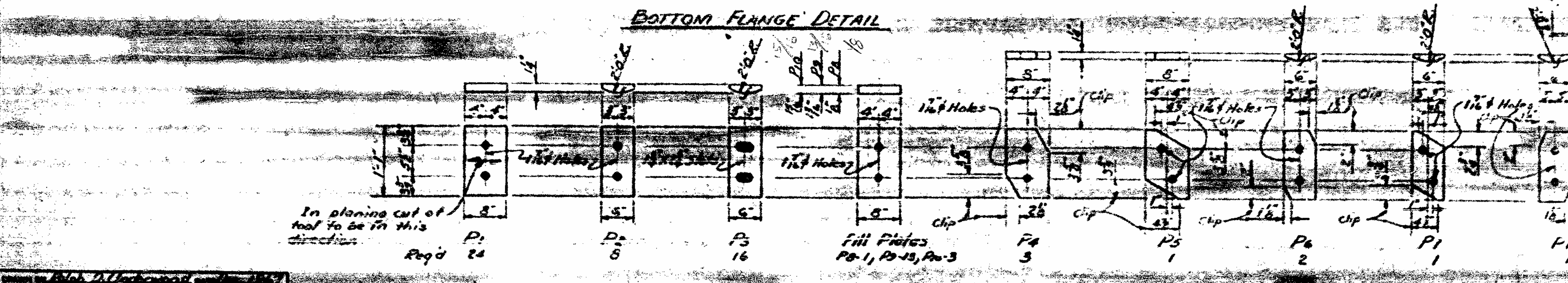


-NOTES-
 All beams to be of ASTM A36 grade structural steel.
 See 3-N Steel.
 Field connections of beams to diaphragms shall be bolted using 3/4" high strength bolts in accordance with the specifications.

BEAM DIAPHRAGM & PLATE LAYOUT
 (Dimensions are from back of channel.
 All diaphragms are 15E33.9.)



INTERIOR DIAPHRAGM
 SECTION THROUGH BEAM



SECTION X-X

DEAD LOAD DEFLECTIONS

Span	Due to Beam	Due to Diaphragm	Due to Deck	Due to Filler	Due to Total
A	0.00	0.00	0.00	0.00	0.00
B	0.00	0.00	0.00	0.00	0.00
C	0.00	0.00	0.00	0.00	0.00
D	0.00	0.00	0.00	0.00	0.00

* No Camber other than that required.
 * No Camber other than that required.

PROJECT NO. 6-4710349
 STATION 498+22.75

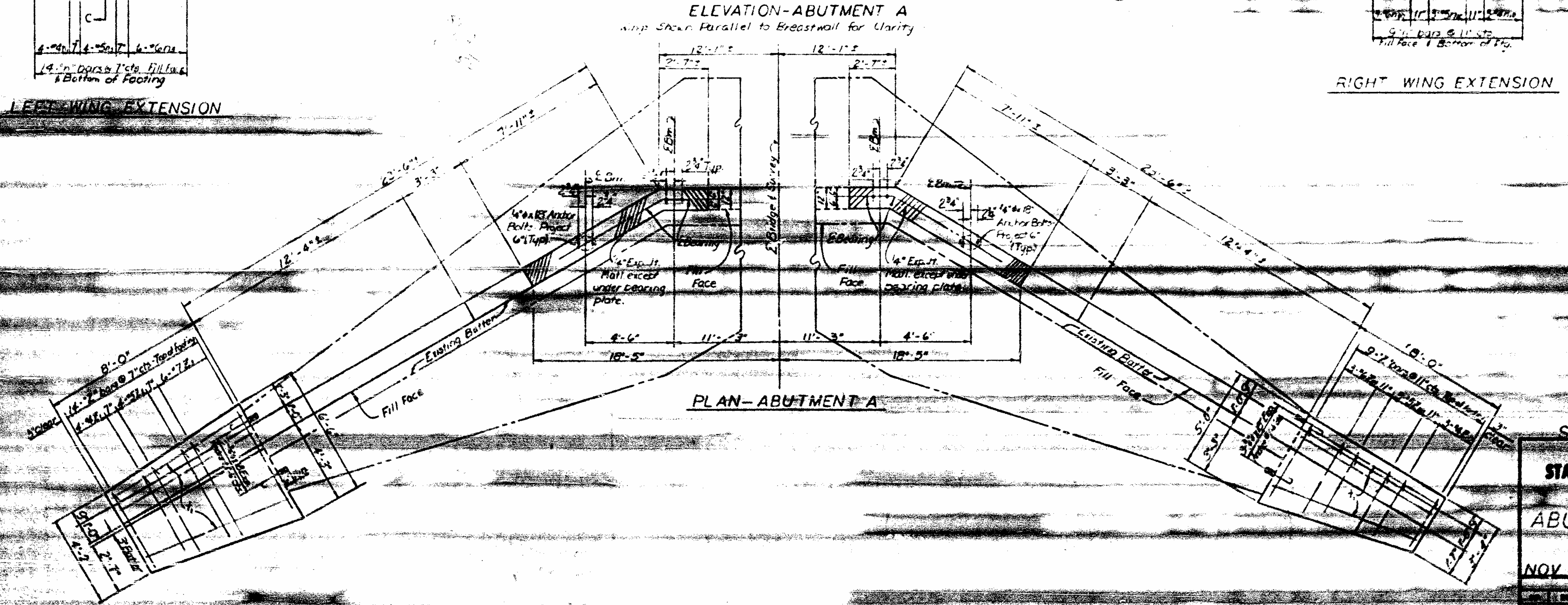
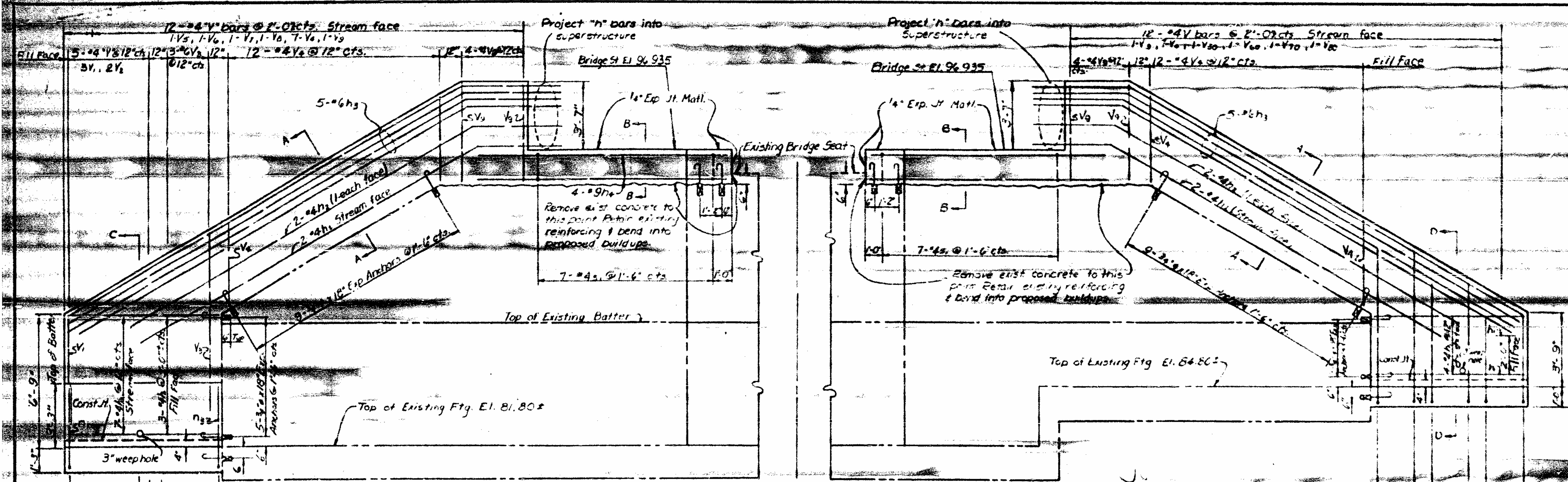
STATE HIGHWAY COMMISSION
 SUPERSTRUCTURE
 STRUCTURAL STEEL
 DETAILS

December 1967

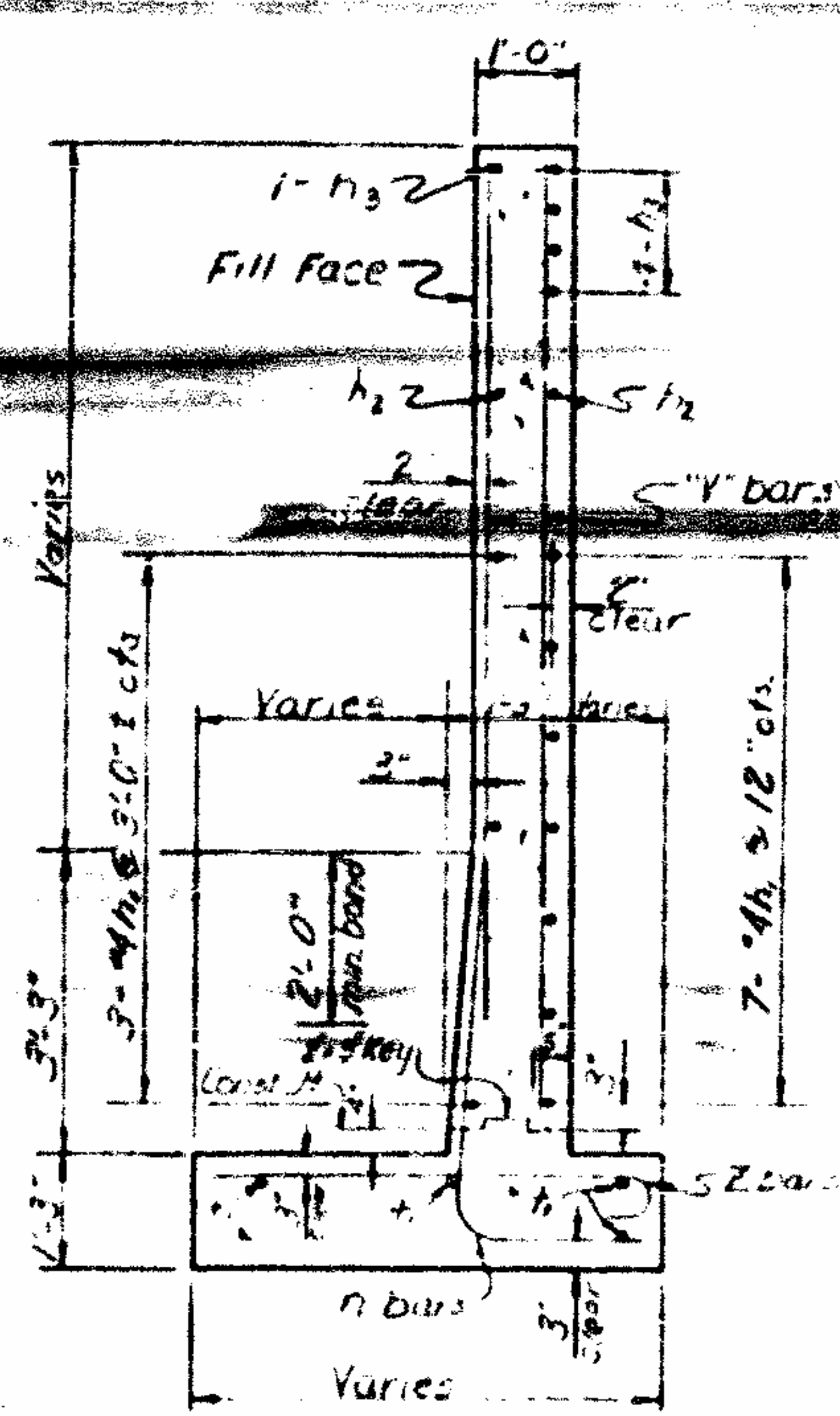
Rev.	Description	Date
1	As shown	12/1/67

DRAWN BY: J. L. HARRIS
 CHECKED BY: J. L. HARRIS
 DATE: 12/1/67

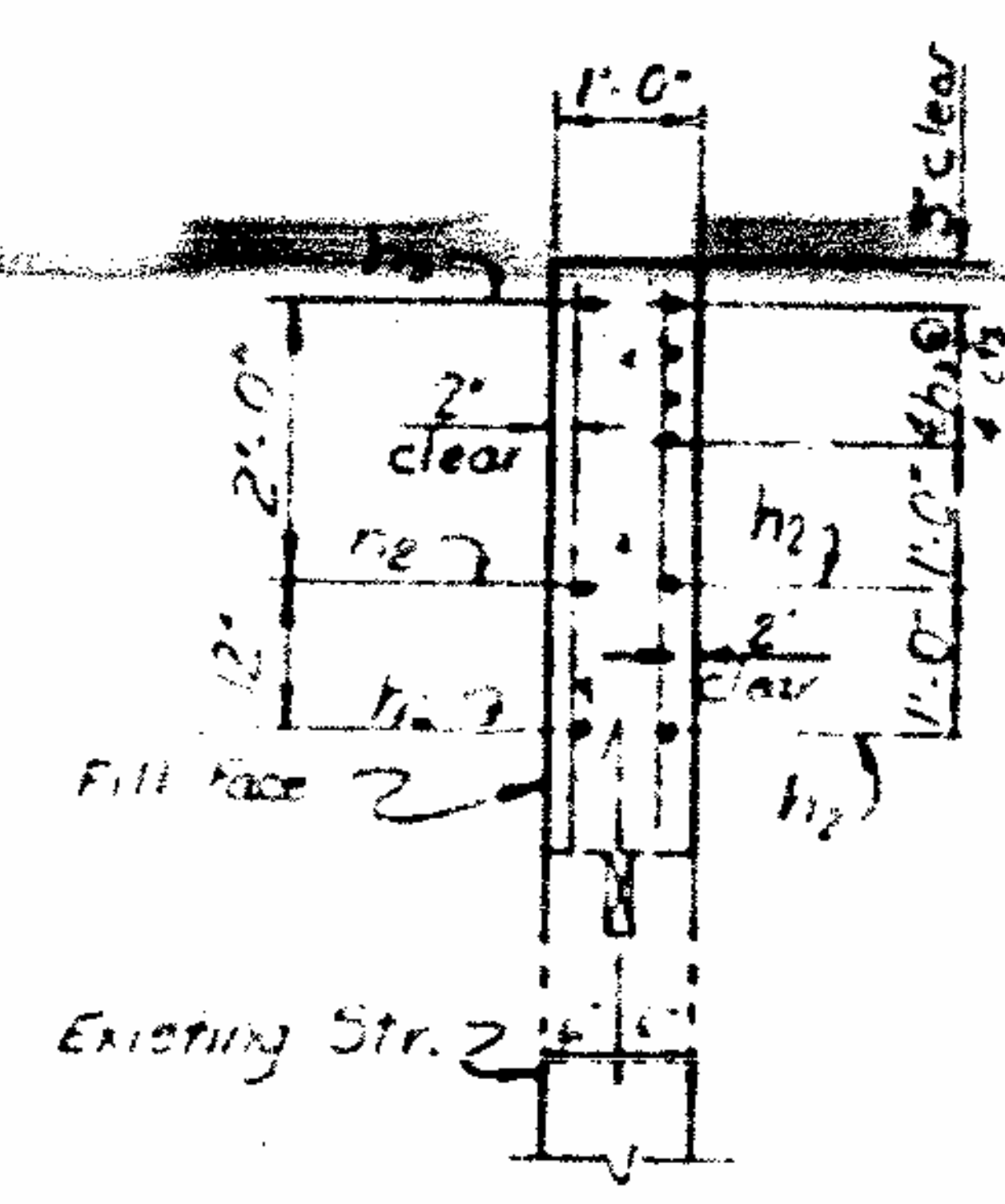
BEARING PLATE DETAILS



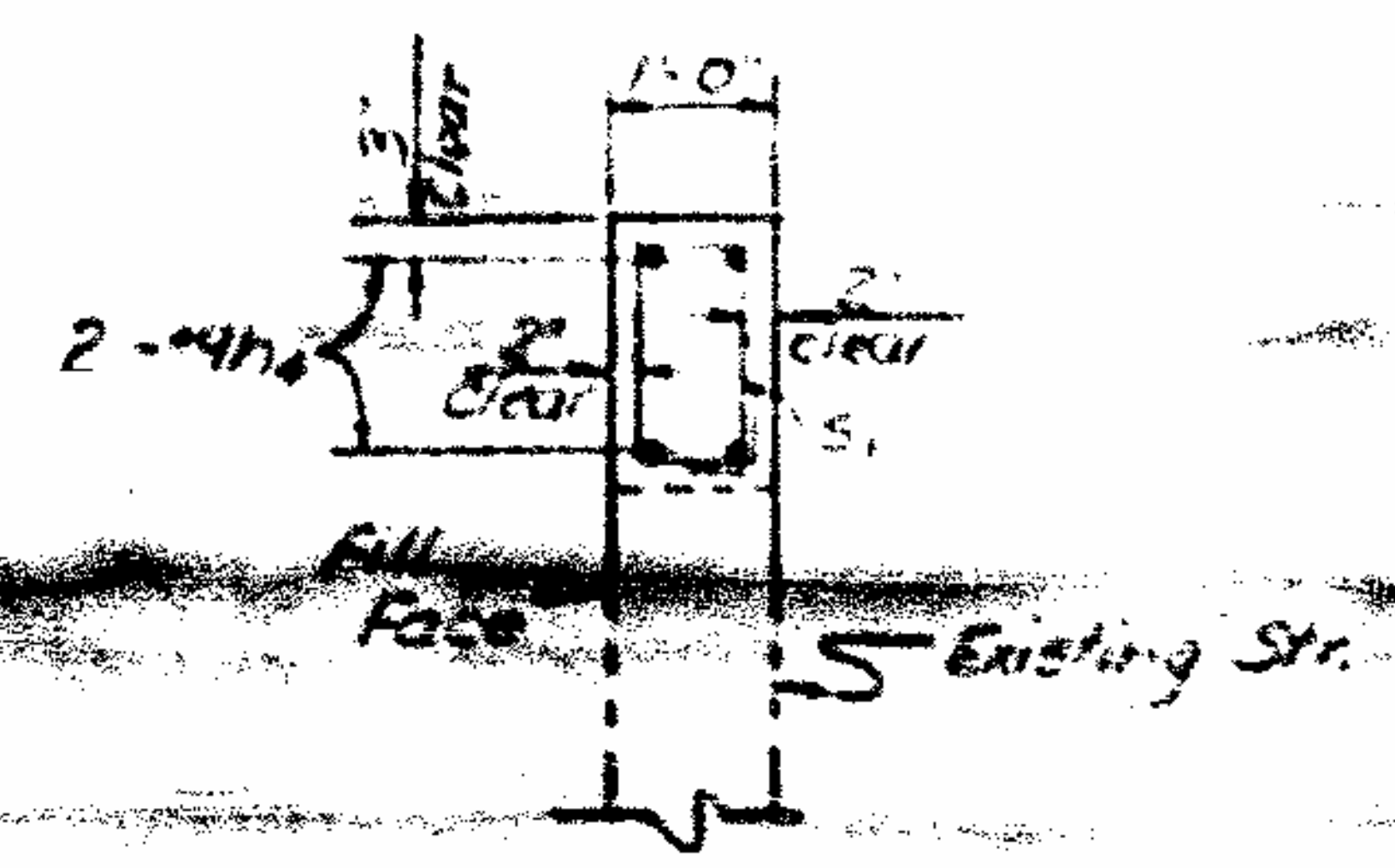
Project No. 6.471004C
 ALAMANCE CORP.
 STATION 498+22.75
 SHEET 1 OF 2
 STATE HIGHWAY COMMISSION
 ABUTMENT "A"
 NOV 1971



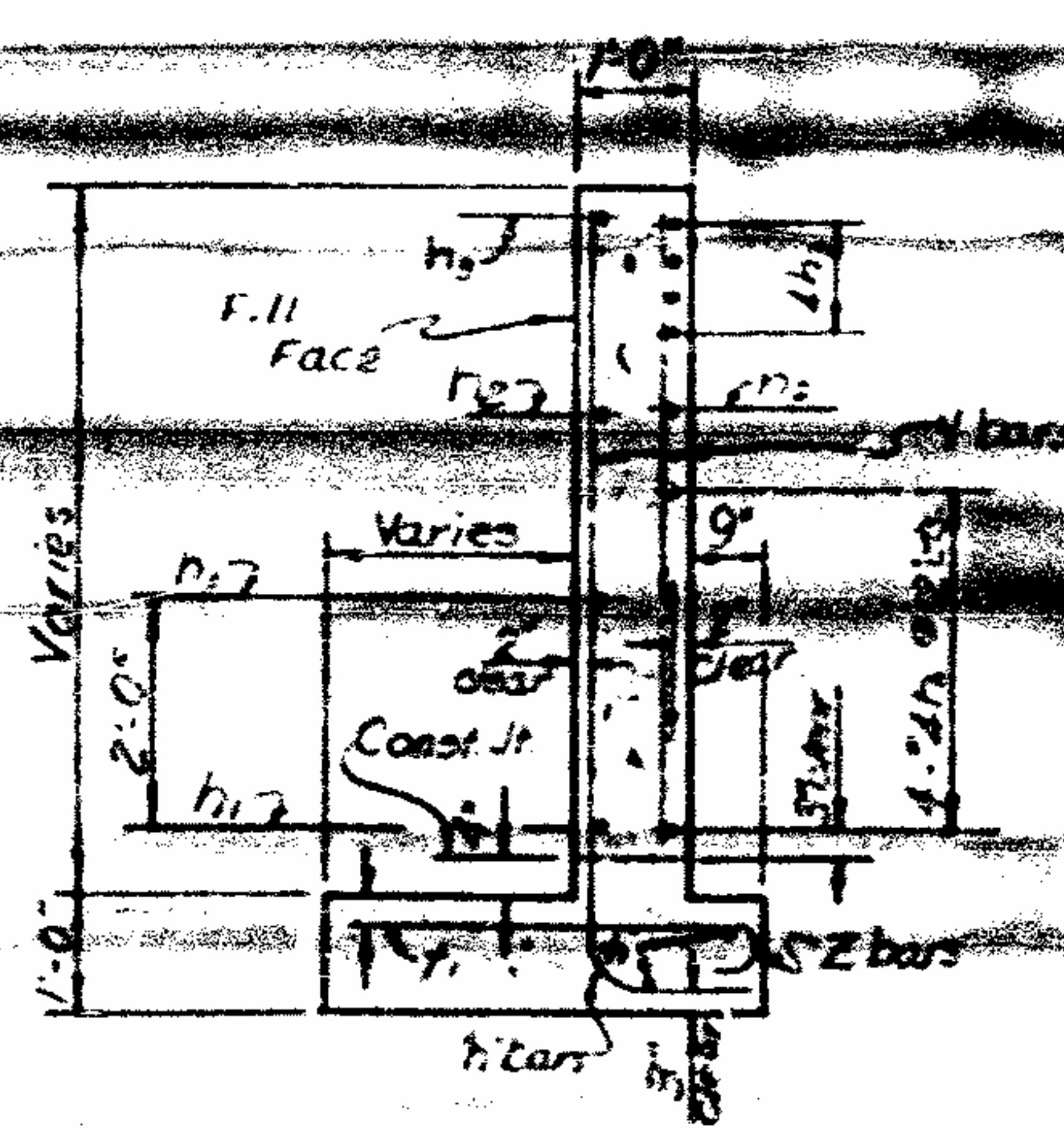
SECTION C-C



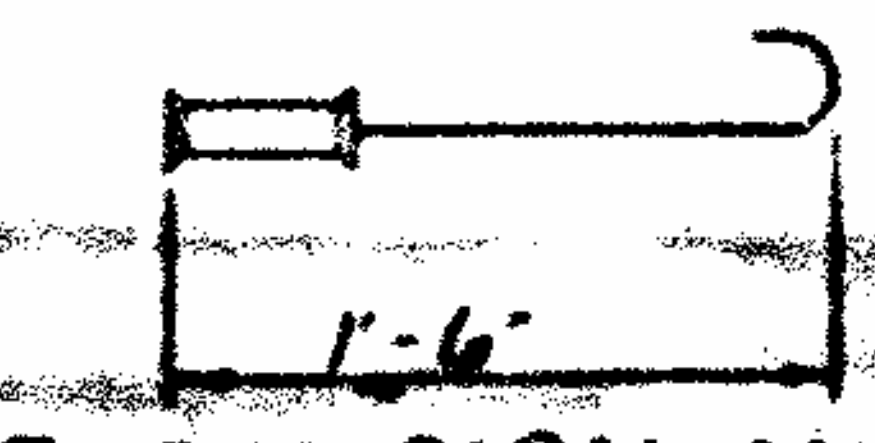
SECTION A-A



SECTION B-B

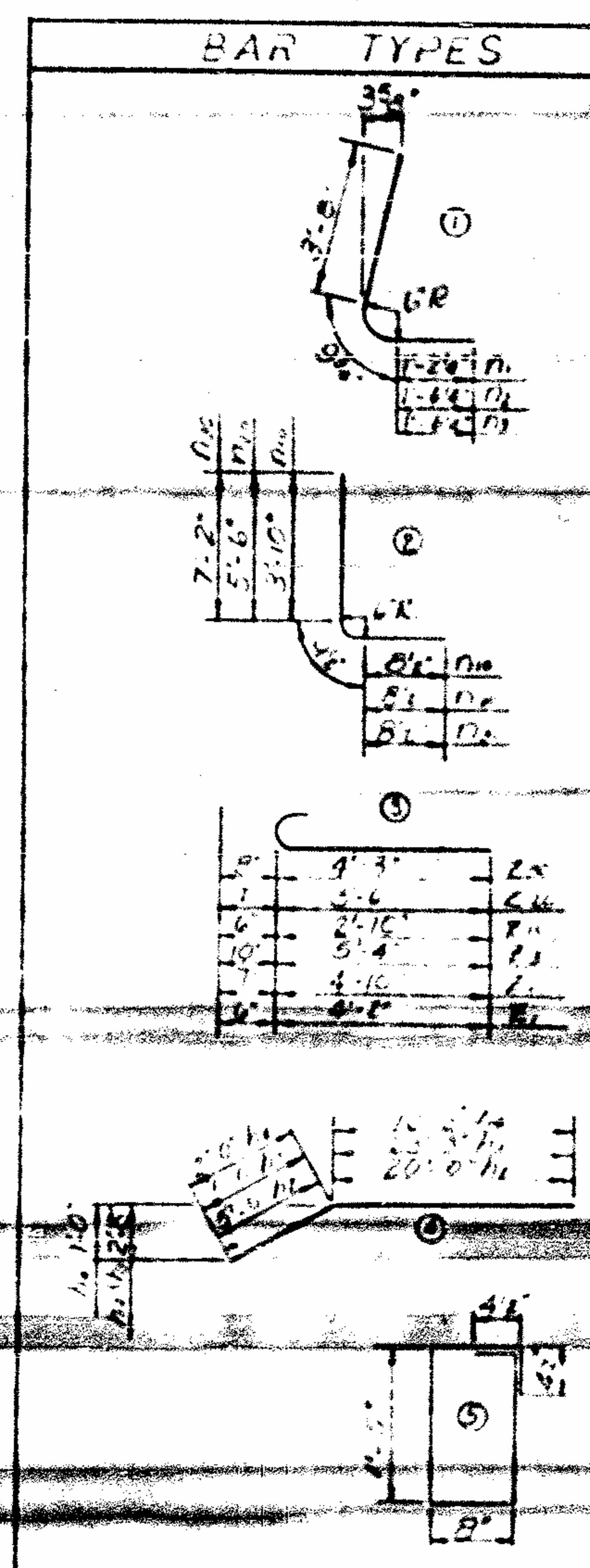


SECTION D-D



EXPANSION ANCHOR
DETAIL

Note: For expansion anchor requirements,
See Sheet 5-N.

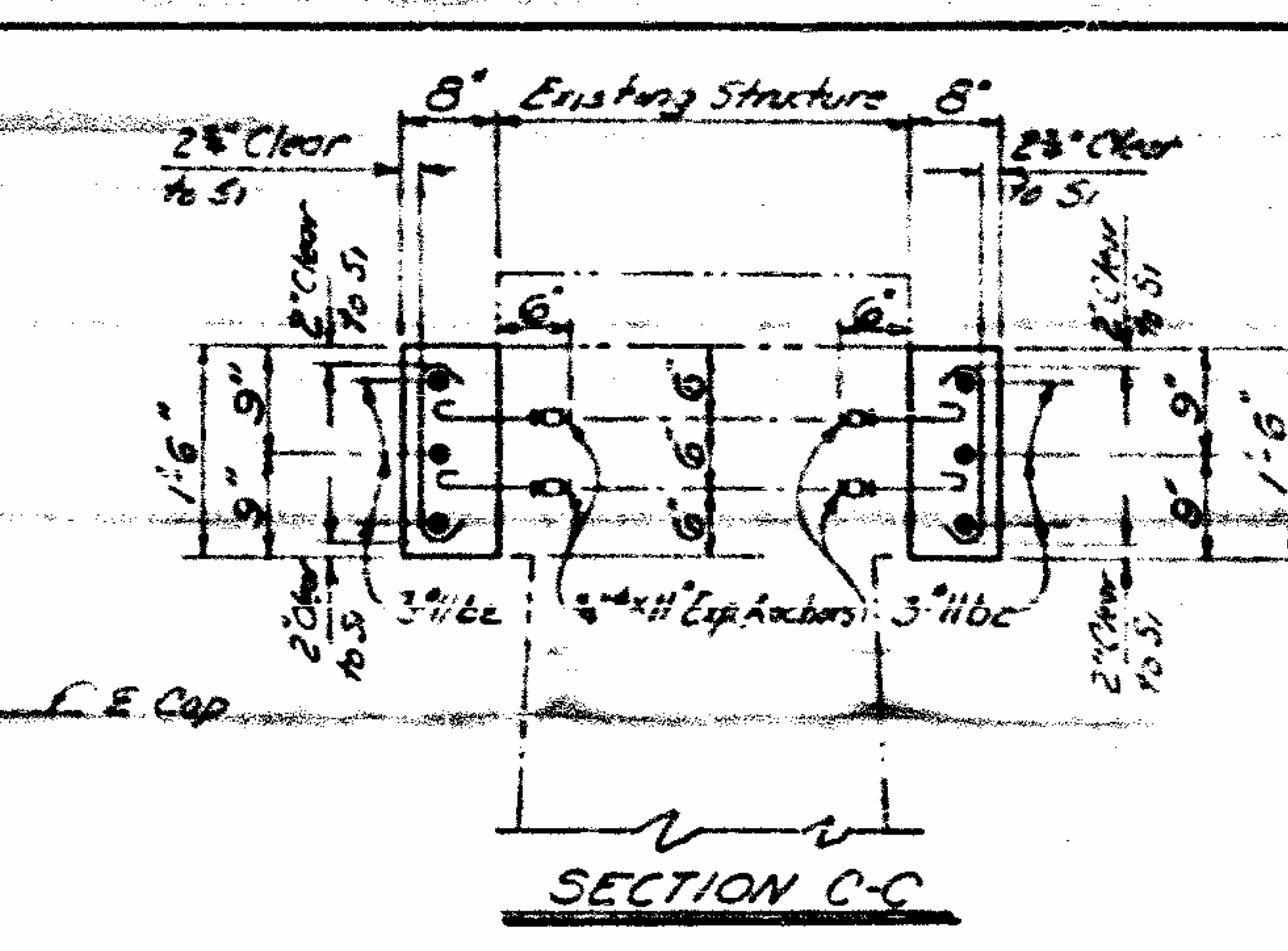
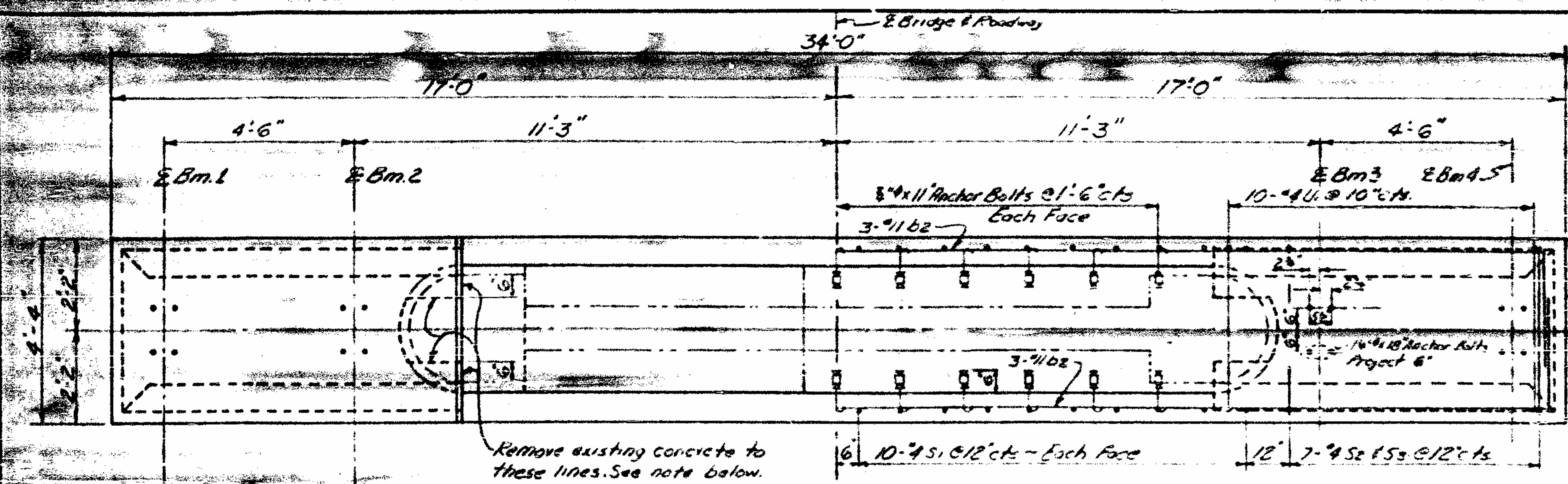


BILL OF MATERIAL FOR ABUTMENT A					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
1	4	#4	1	5'-8"	15
2	4	#5	1	5'-10"	22
3	4	#6	1	6'-0"	35
4	3	#4	2	5'-8"	11
5	3	#5	2	7'-0"	22
6	3	#6	2	8'-0"	32
7	4	#4	3	4'-8"	12
8	4	#5	3	5'-9"	23
9	4	#6	3	6'-0"	35
10	3	#4	3	5'-4"	7
11	3	#5	3	4'-1"	13
12	3	#6	3	4'-11"	22
13	3	#4	str.	5'-8"	12
14	2	#4	str.	7'-0"	9
15	3	#6	str.	9'-0"	41
16	30	#4	str.	4'-8"	108
17	1	#4	str.	6'-0"	5
18	1	#4	str.	8'-0"	5
19	1	#4	str.	9'-0"	6
20	1	#4	str.	10'-0"	7
21	10	#4	str.	4'-8"	32
22	1	#4	str.	7'-0"	5
23	1	#4	str.	4'-8"	4
24	1	#4	str.	9'-0"	6
25	1	#4	str.	4'-8"	5
26	1	#4	str.	4'-8"	5
27	1	#4	str.	4'-8"	5
28	1	#4	str.	4'-8"	5
29	1	#4	str.	4'-8"	5
30	1	#4	str.	4'-8"	5
31	1	#4	str.	4'-8"	5
32	1	#4	str.	4'-8"	5
33	1	#4	str.	4'-8"	5
34	1	#4	str.	4'-8"	5
35	1	#4	str.	4'-8"	5
36	1	#4	str.	4'-8"	5
37	1	#4	str.	4'-8"	5
38	1	#4	str.	4'-8"	5
39	1	#4	str.	4'-8"	5
40	1	#4	str.	4'-8"	5
41	1	#4	str.	4'-8"	5
42	1	#4	str.	4'-8"	5
43	1	#4	str.	4'-8"	5
44	1	#4	str.	4'-8"	5
45	1	#4	str.	4'-8"	5
46	1	#4	str.	4'-8"	5
47	1	#4	str.	4'-8"	5
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49	1	#4	str.	4'-8"	5
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52	1	#4	str.	4'-8"	5
53	1	#4	str.	4'-8"	5
54	1	#4	str.	4'-8"	5
55	1	#4	str.	4'-8"	5
56	1	#4	str.	4'-8"	5
57	1	#4	str.	4'-8"	5
58	1	#4	str.	4'-8"	5
59	1	#4	str.	4'-8"	5
60	1	#4	str.	4'-8"	5
61	1	#4	str.	4'-8"	5
62	1	#4	str.	4'-8"	5
63	1	#4	str.	4'-8"	5
64	1	#4	str.	4'-8"	5
65	1	#4	str.	4'-8"	5
66	1	#4	str.	4'-8"	5
67	1	#4	str.	4'-8"	5
68	1	#4	str.	4'-8"	5
69	1	#4	str.	4'-8"	5
70	1	#4	str.	4'-8"	5
71	1	#4	str.	4'-8"	5
72	1	#4	str.	4'-8"	5
73	1	#4	str.	4'-8"	5
74	1	#4	str.	4'-8"	5
75	1	#4	str.	4'-8"	5
76	1	#4	str.	4'-8"	5
77	1	#4	str.	4'-8"	5
78	1	#4	str.	4'-8"	5
79	1	#4	str.	4'-8"	5
80	1	#4	str.	4'-8"	5
81	1	#4	str.	4'-8"	5
82	1	#4	str.	4'-8"	5
83	1	#4	str.	4'-8"	5
84	1	#4	str.	4'-8"	5
85	1	#4	str.	4'-8"	5
86	1	#4	str.	4'-8"	5
87	1	#4	str.	4'-8"	5
88	1	#4	str.	4'-8"	5
89	1	#4	str.	4'-8"	5
90	1	#4	str.	4'-8"	5
91	1	#4	str.	4'-8"	5
92	1	#4	str.	4'-8"	5
93	1	#4	str.	4'-8"	5
94	1	#4	str.	4'-8"	5
95	1	#4	str.	4'-8"	5
96	1	#4	str.	4'-8"	5
97	1	#4	str.	4'-8"	5
98	1	#4	str.	4'-8"	5
99	1	#4	str.	4'-8"	5
100	1	#4	str.	4'-8"	5

Project No. 6.4710049
ALAMANCE COUNTY
STATION 498+22.75
SHEET 2 OF 2

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
ABUTMENT A

DEC	1987
REVISION	
NO.	
DATE	
BY	
CHECKED	
DATE	
BY	



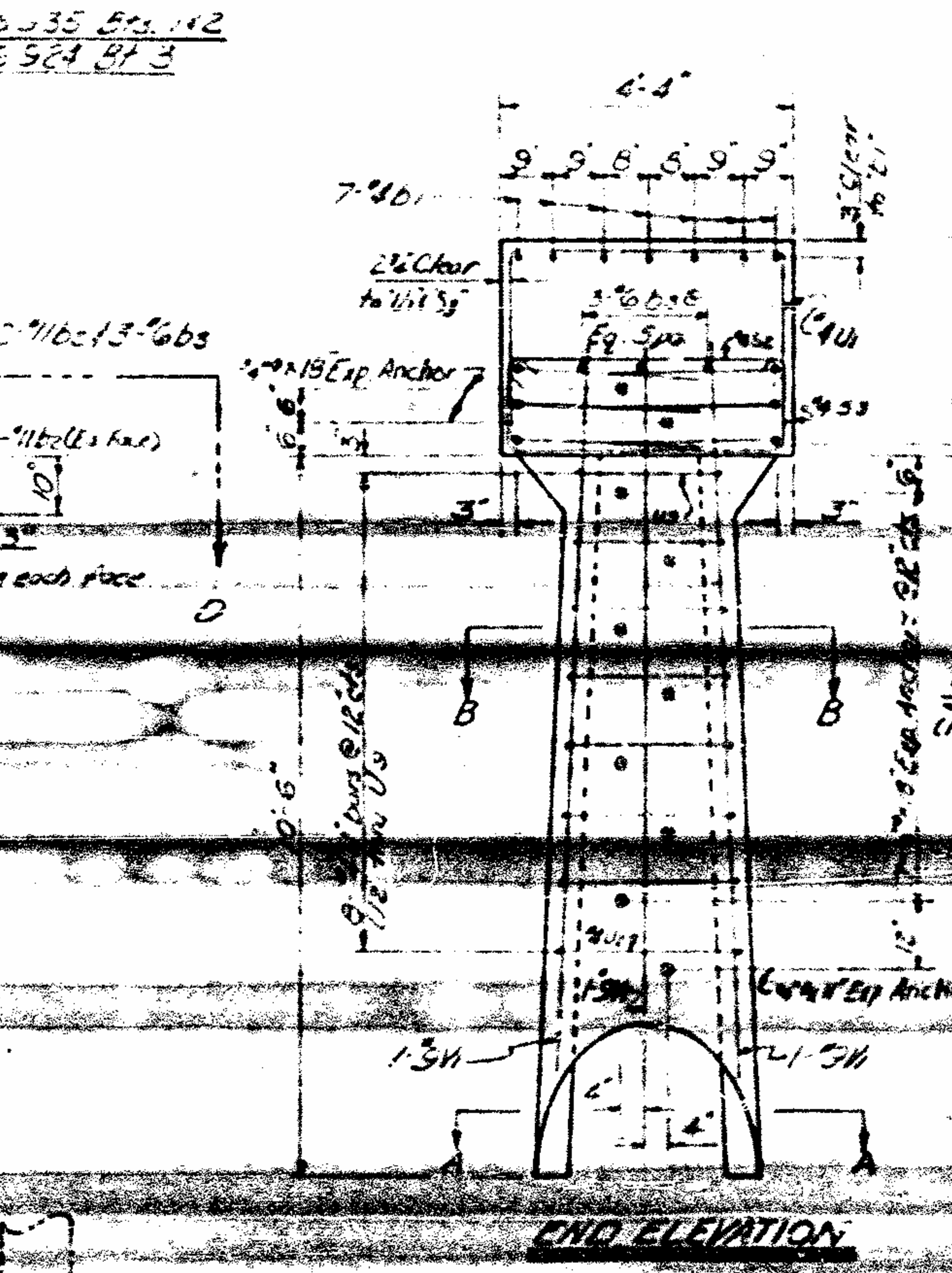
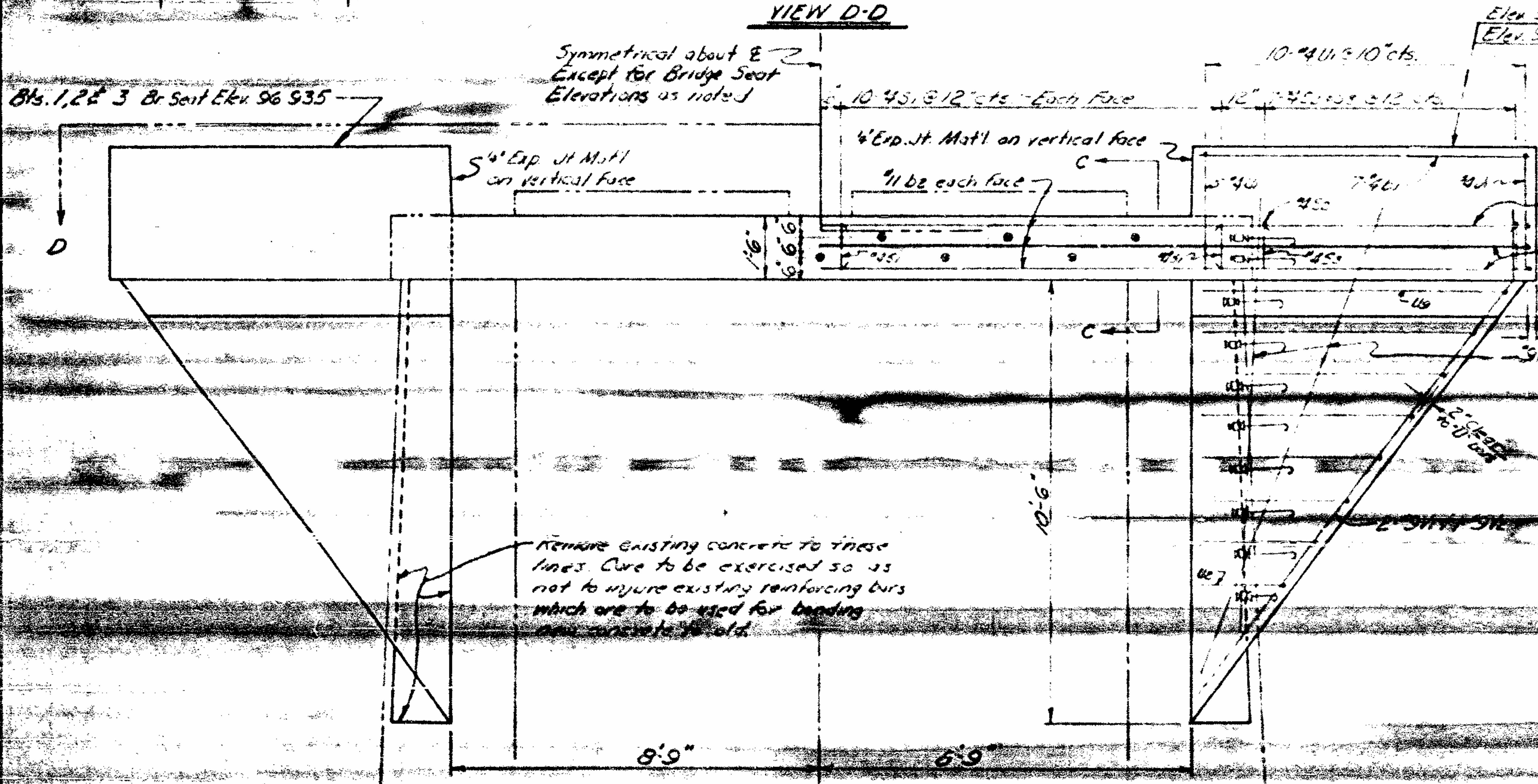
BAR TYPES

BILL OF MATERIAL

For One Bent - 3 Reqs.

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	12	#4	S	7'-9"	7
B2	6	#4	S	10'-10"	13
B3	6	#4	S	6'-9"	8
B4	40	#4	S	1'-11"	9
B5	18	#4	S	4'-7"	6
B6	18	#4	S	6'-0"	6
B7	20	#4	S	7'-10"	10
B8	2	#4	S	6'-8"	5
B9	2	#4	S	8'-0"	5
B10	2	#4	S	9'-5"	11
B11	2	#4	S	10'-10"	14
B12	2	#4	S	12'-3"	16
B13	2	#4	S	13'-5"	18
B14	2	#4	S	15'-1"	20
B15	2	#4	S	16'-5"	22
B16	4	#5	S	14'-0"	29
B17	2	#5	S	12'-0"	16
B18	8	#5	S	12'-0"	32

All bar dimensions are out to out.



DETAIL #4 EXPANSION ANCHORS
(For Expansion Anchor requirements, see sheet S-10)

Approximate Steel
Class "A" Concrete 15.9 cu ft
2-#11 Expansion Anchors No. 2
2-#11 Expansion Anchors No. 1

Note: No excavation allowed for bents 1, 2, & 3. The cost of any excavation to be included in the unit price bid for Class "A" concrete.

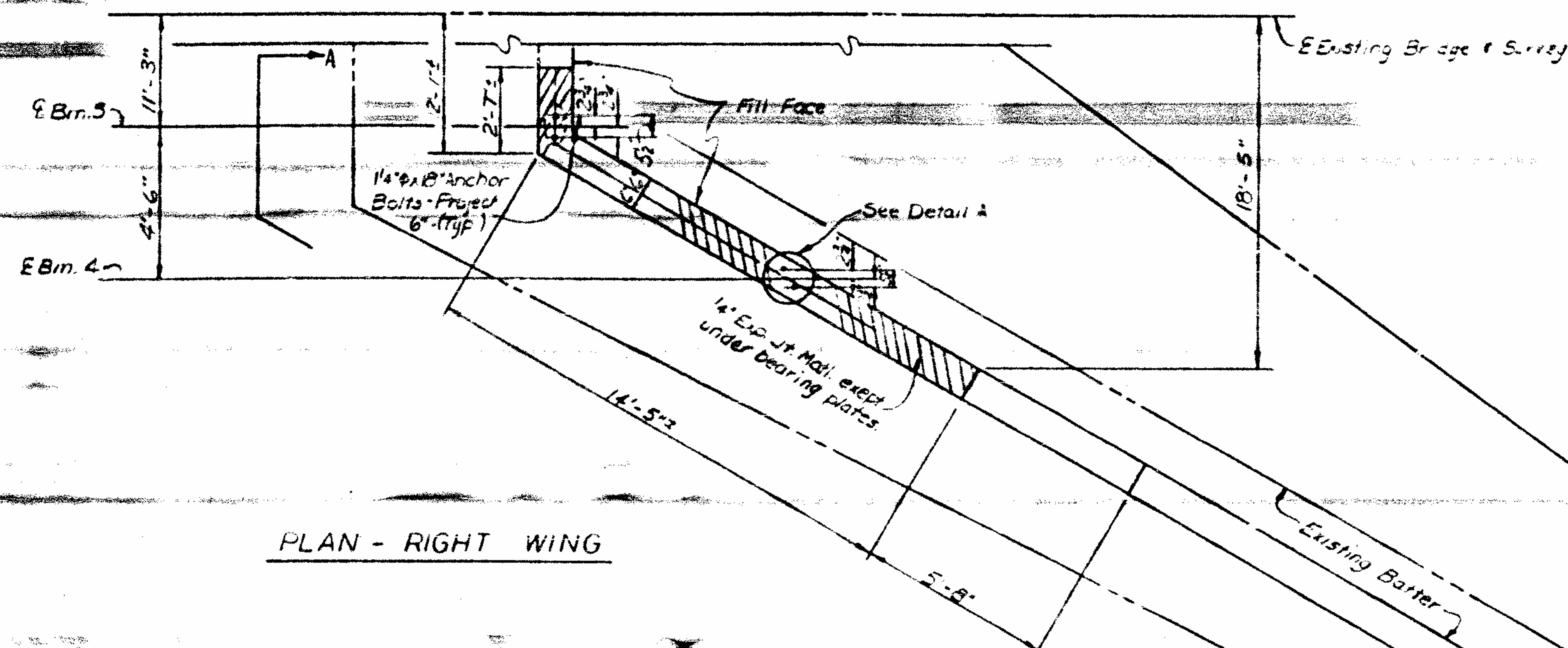
PROJECT No. 64710049
ALAMANCE COUNTY
STATION 498+22.75

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
SUBSTRUCTURE
BENTS 1, 2, & 3

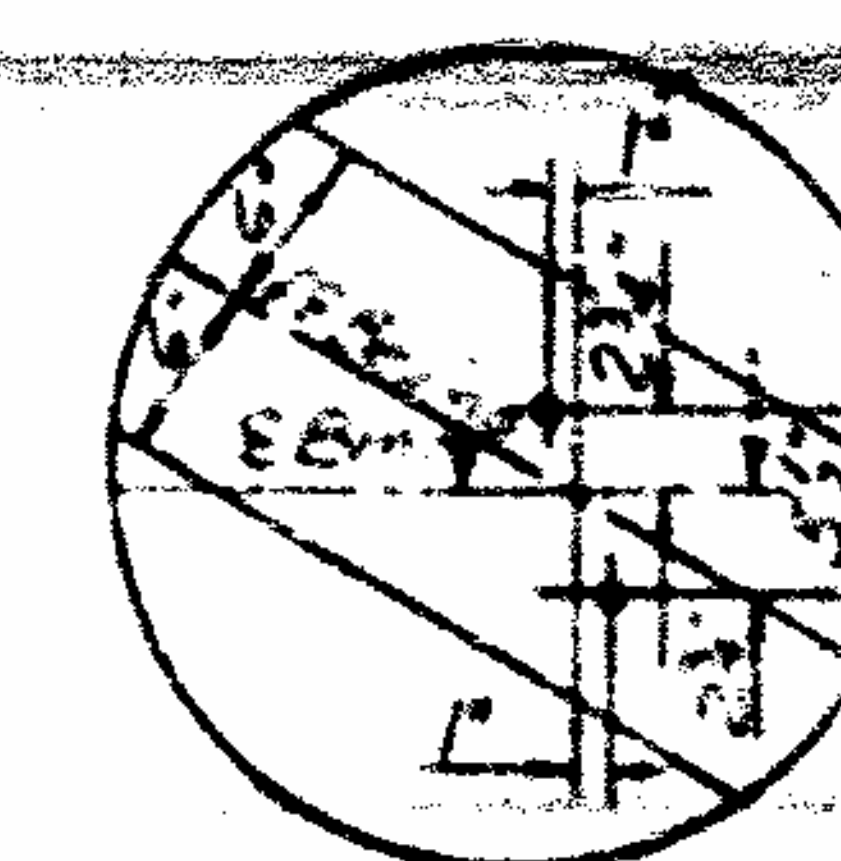
DEC 1967

REV	BY	DATE	REVISION
1	W	11-1-67	1
2	W	11-1-67	2
3	W	11-1-67	3

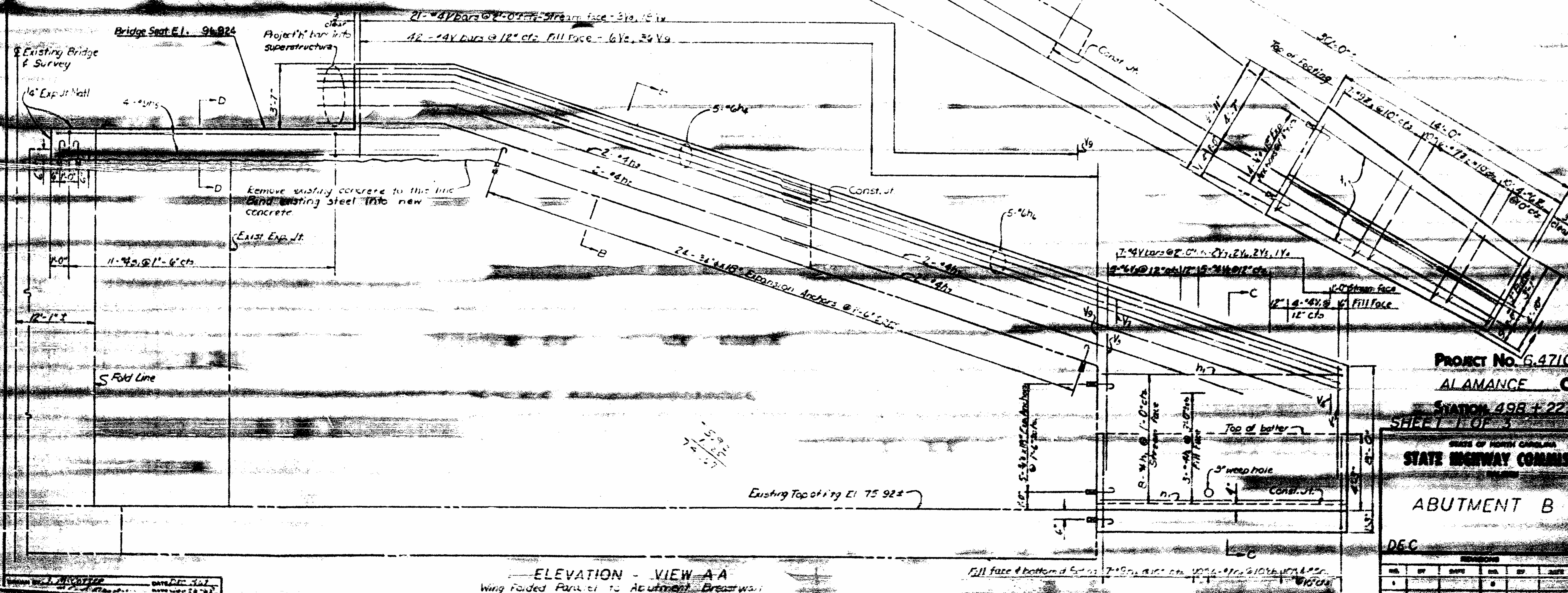
FILE NO. 44-38861	DATE	FILE NO.
1	10-10-68	44-38861
P. A. PHELPS		



PLAN - RIGHT WING



DETAIL A



~~ELEVATION - VIEW A-A~~
Wing Folded Parallel to Acromion Process

PROJECT No. 6.471004

ALAMANCE **Cou**

STATION 498 + 22.75

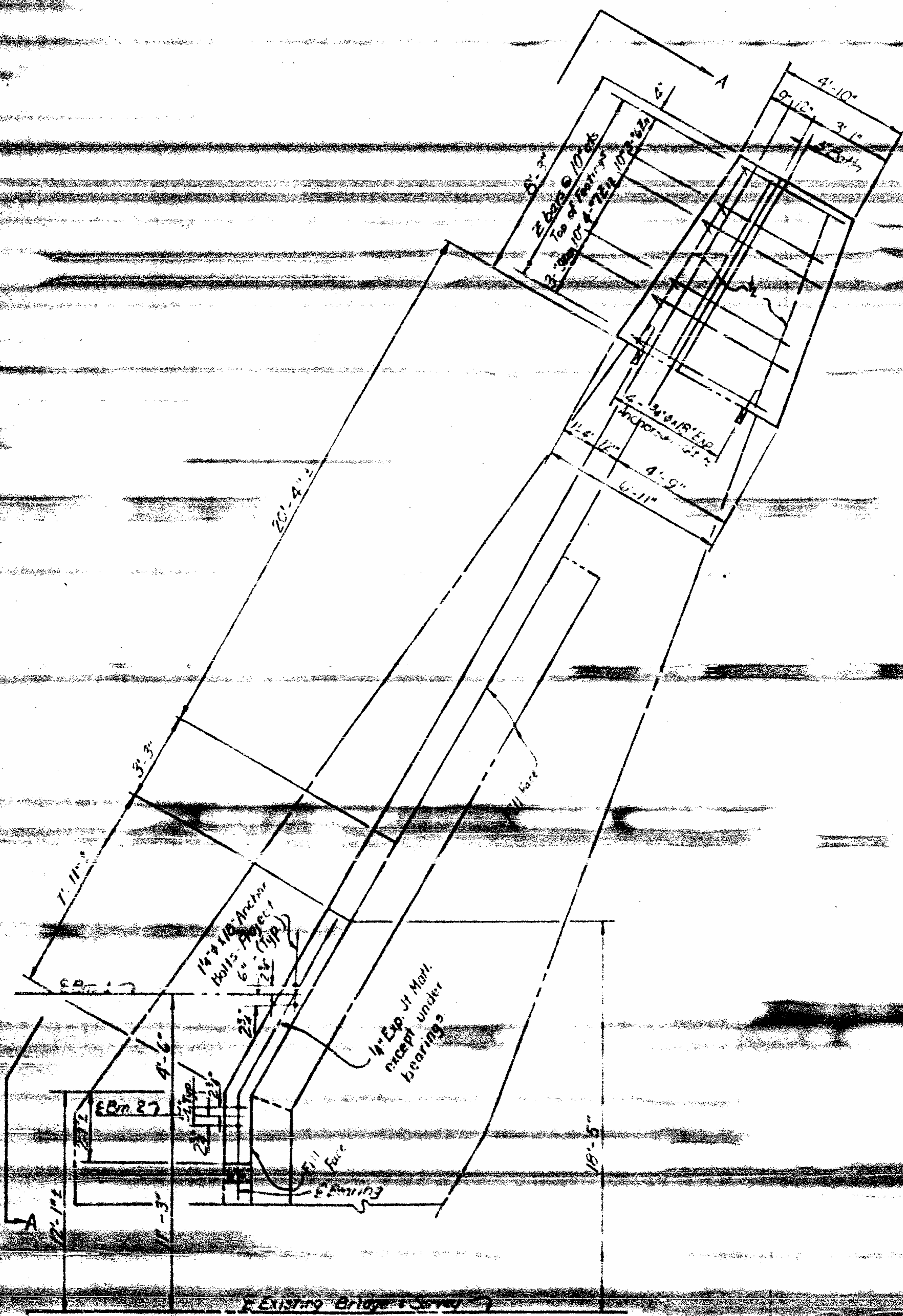
SHEET 1 OF 1

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION

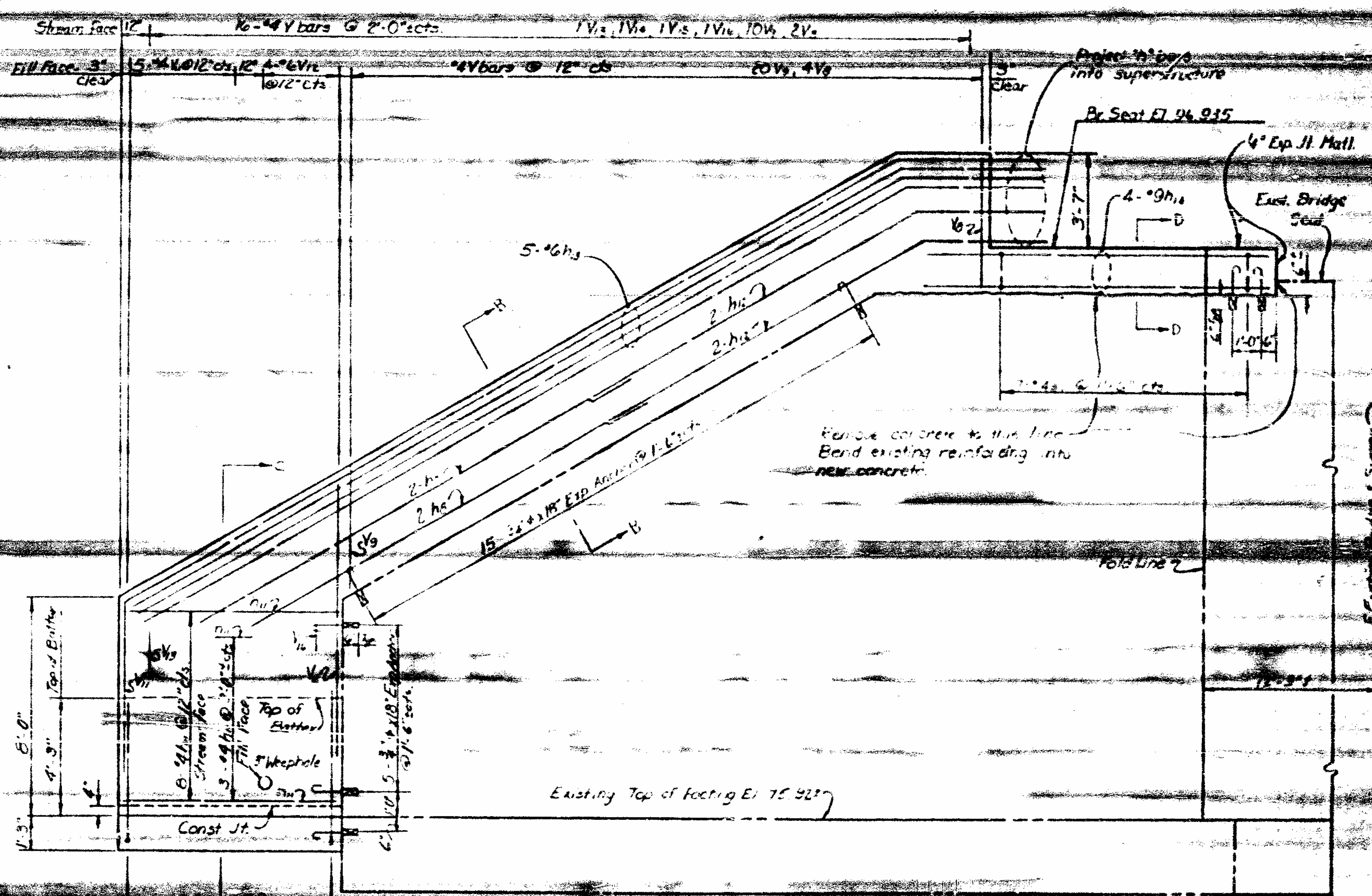
ABUTMENT B

DEC

MEMORANDUM					
NO.	BY	DATE	NO.	BY	DATE
1			1		
2			2		



PLAN - LEFT WING

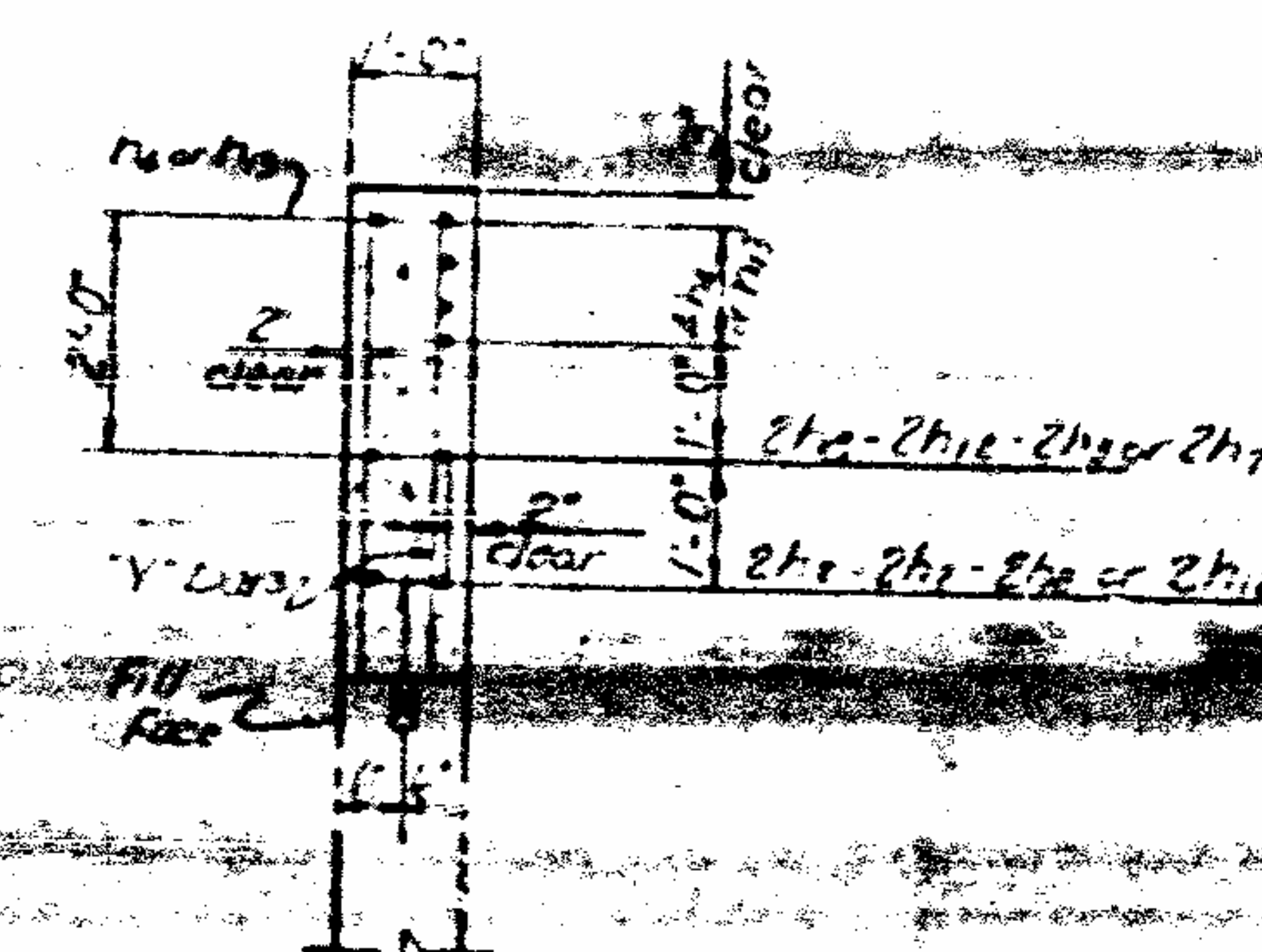
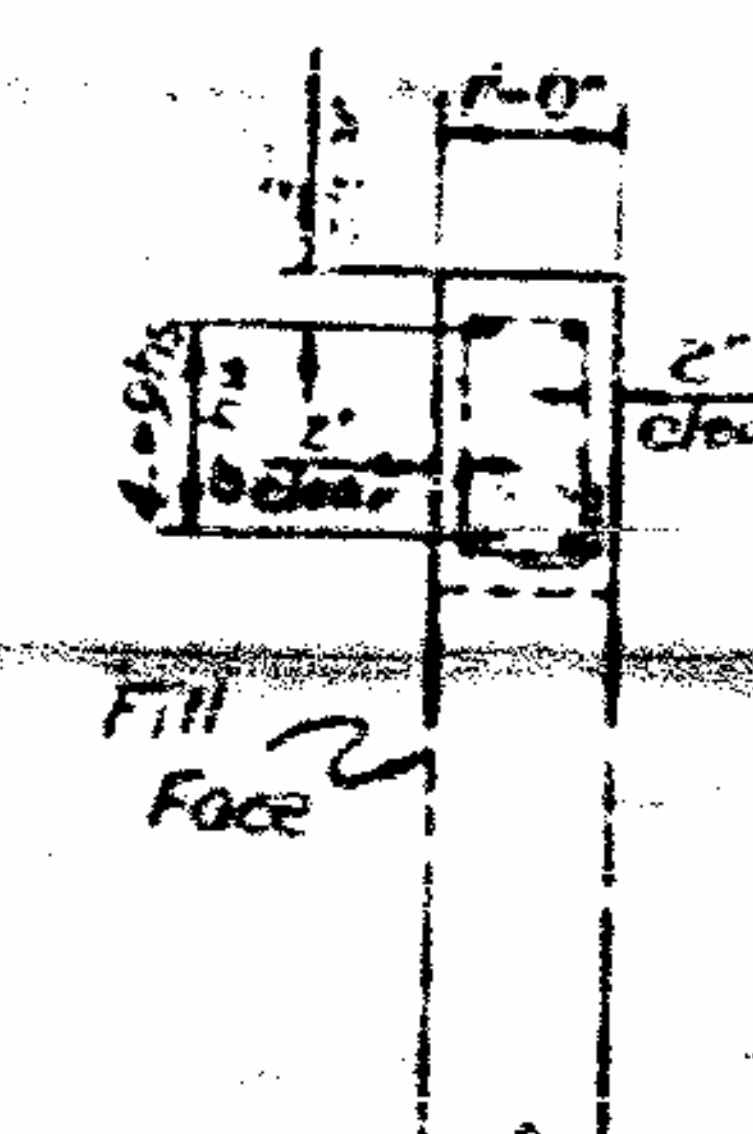
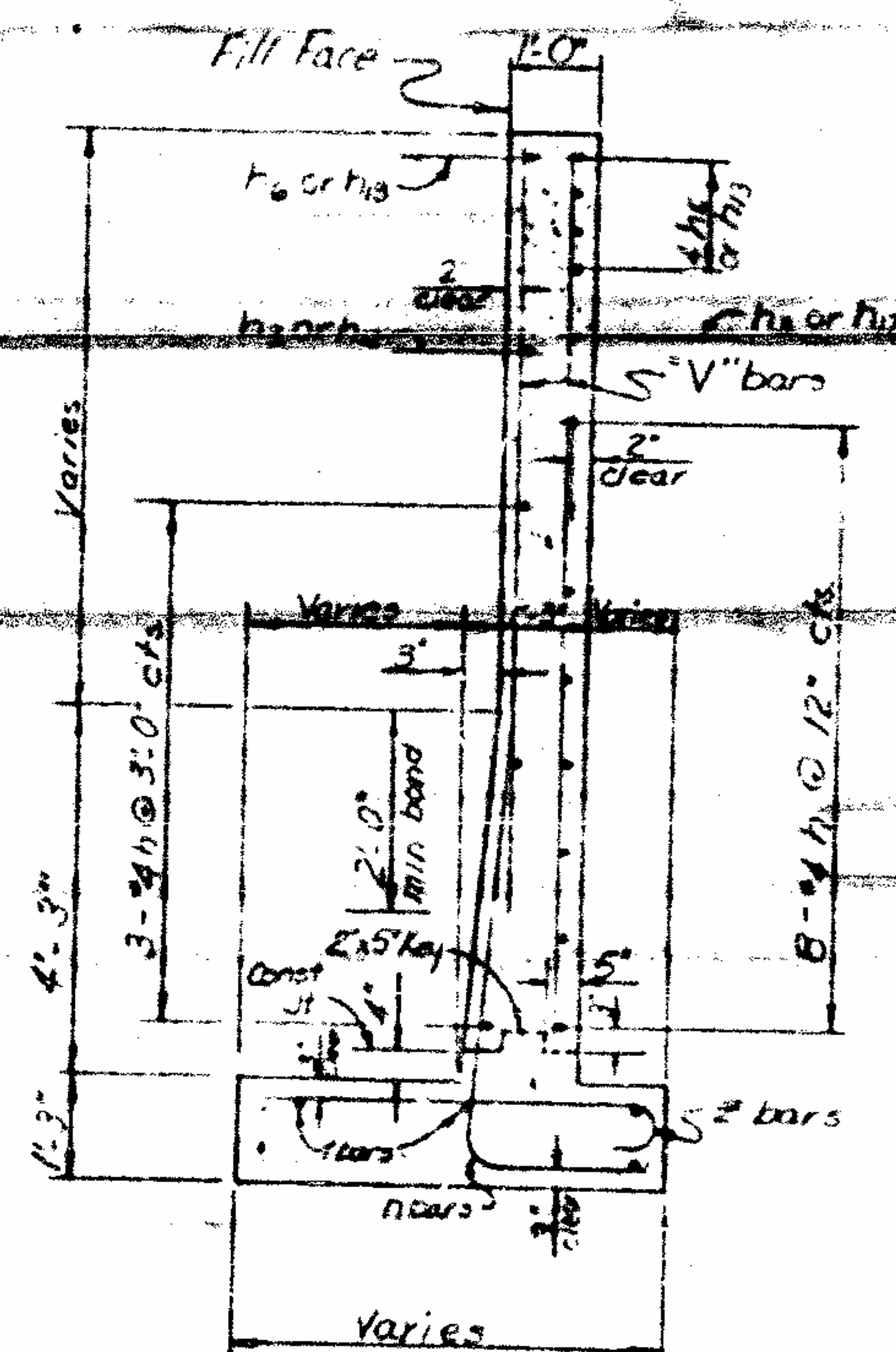


ELEVATION - VIEW A-A

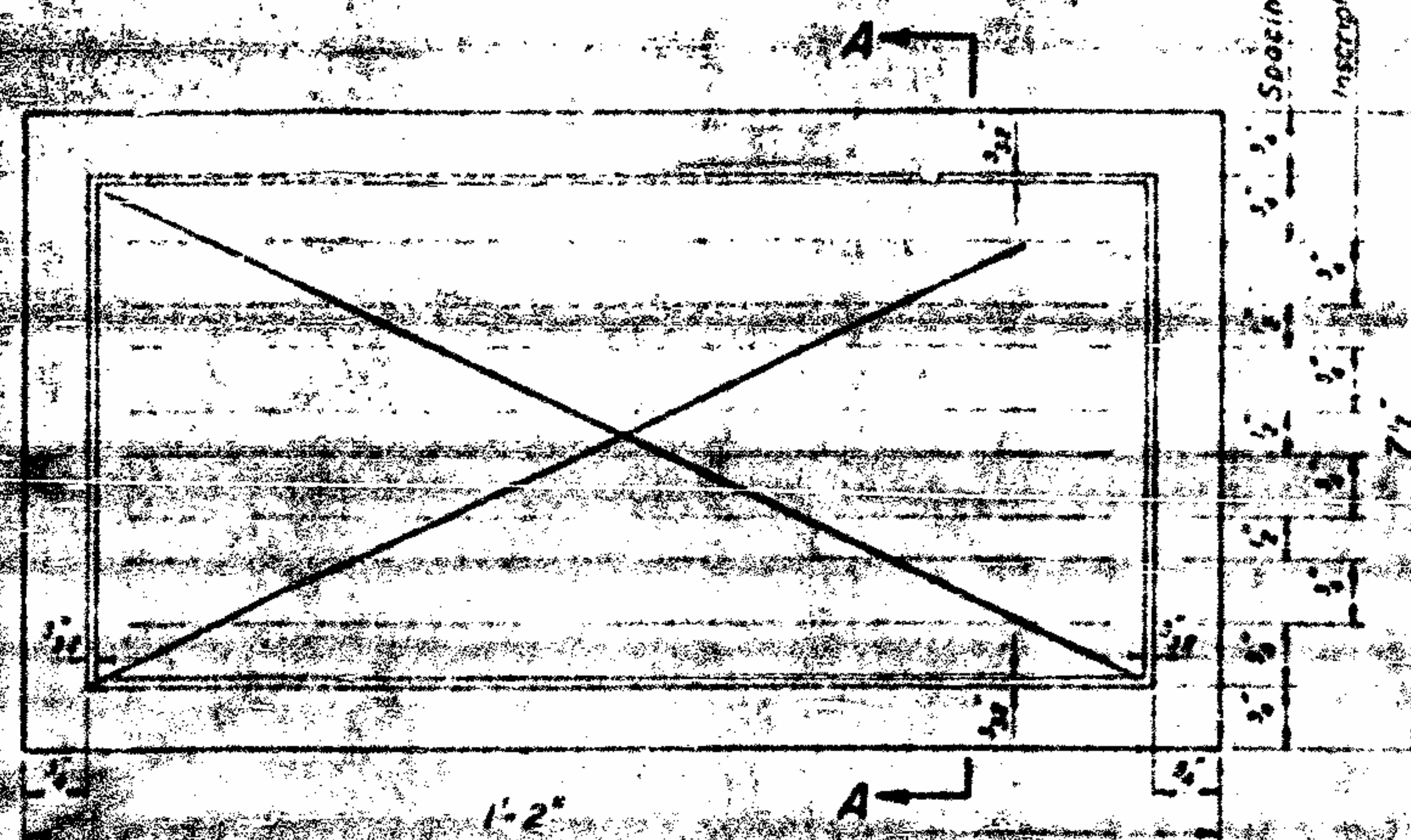
PROJECT No. 64710049
 ALAMANCE COUNTY
 STATION 49B+22.75
 SHEET 2 OF 3

STATE OF NORTH CAROLINA					
STATE HIGHWAY COMMISSION					
RALEIGH					
ABUTMENT B					
DEC 1967					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			2		
3			4		

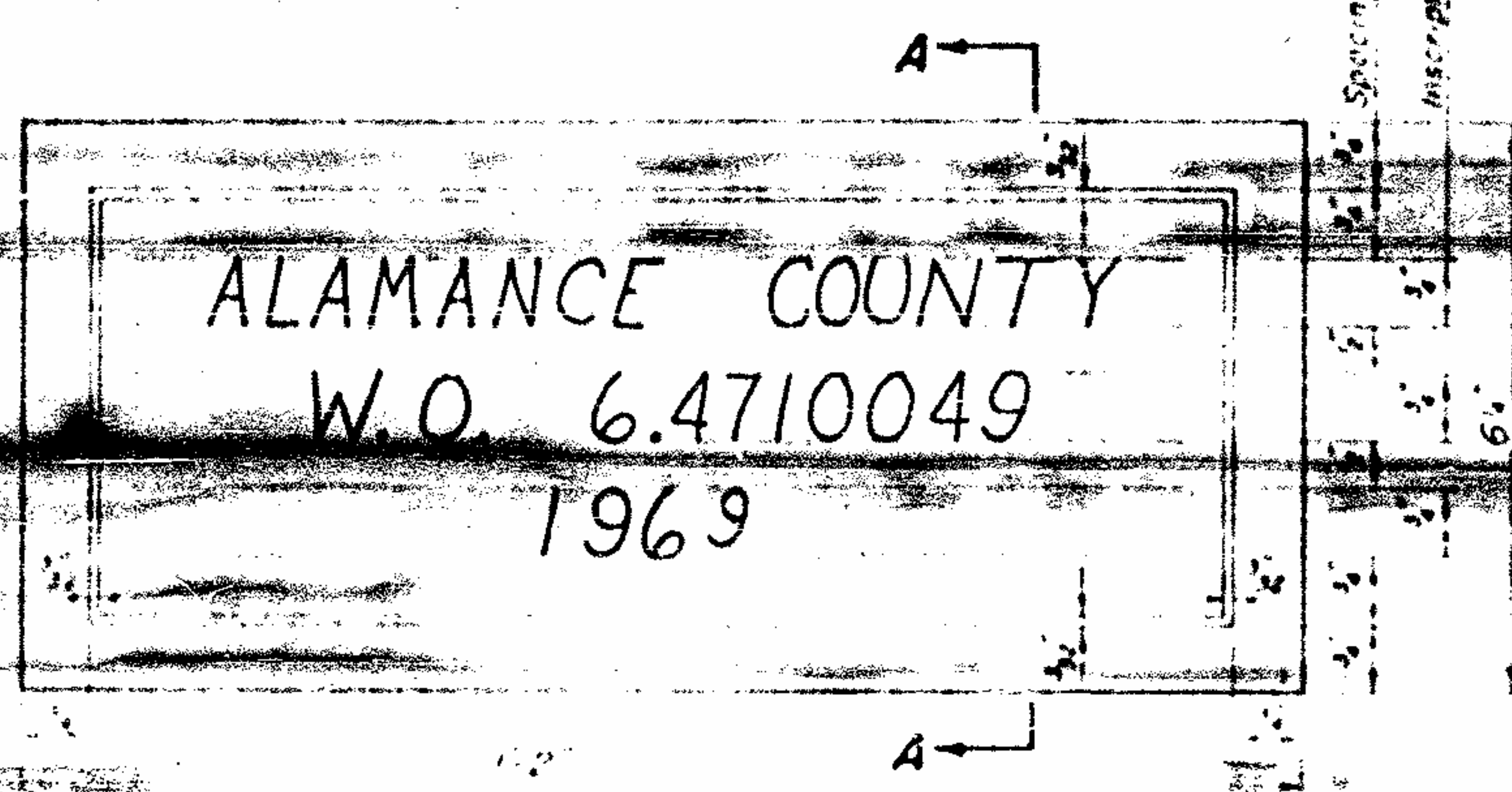
DATE: 12/1/67
 BY: C. L. FIDELITY

[illegible]

ABUTMENT P



ELEVATION SHOWING CORRECT WORDING
NAME PLATE USING FOUR LINES



ELEVATION SHOWING CORRECT WORDING
NAME PLATE USING THREE LINES

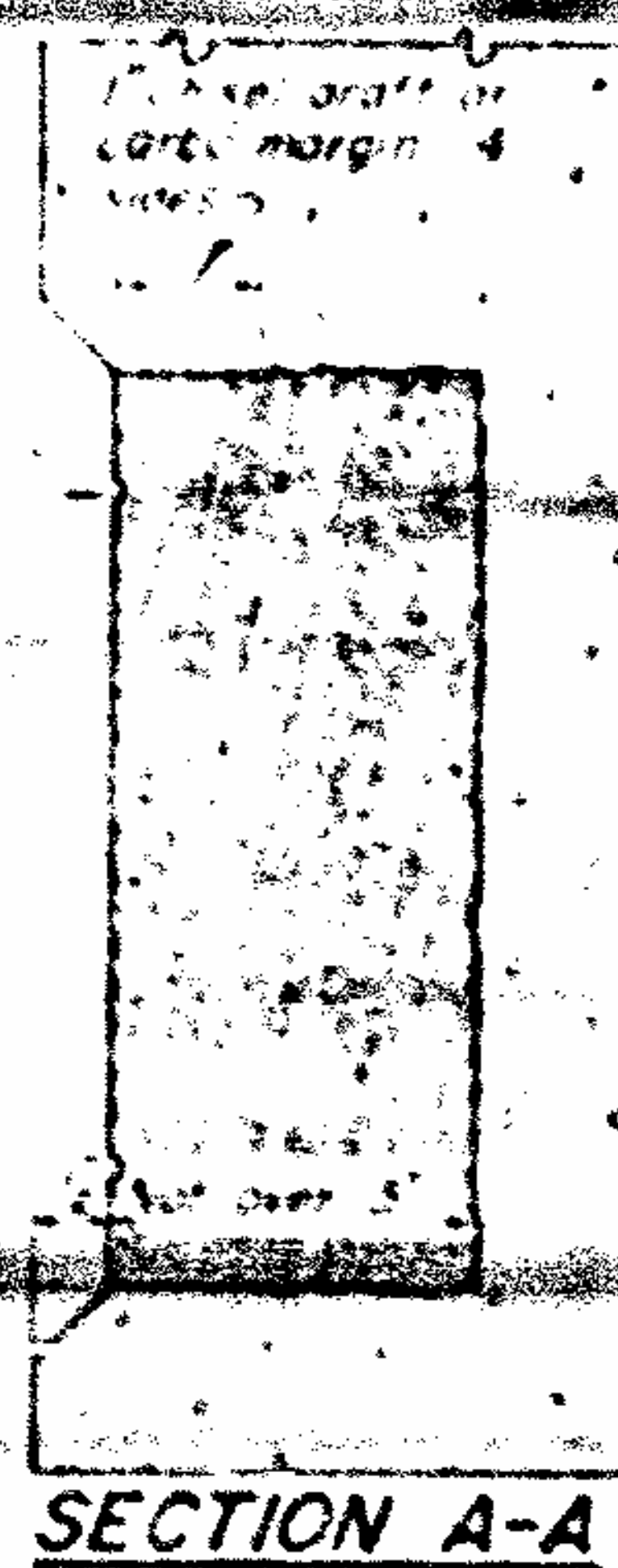
GENERAL NOTES

For bridges on which there will be two way traffic, two name plates are required for each bridge. For bridges on which there will be one way traffic, one name plate is required for each bridge. Name plate to be placed at the right hand end post approaching the bridge, as shown on End Post or Parapet. See "LOCATION DETAIL".

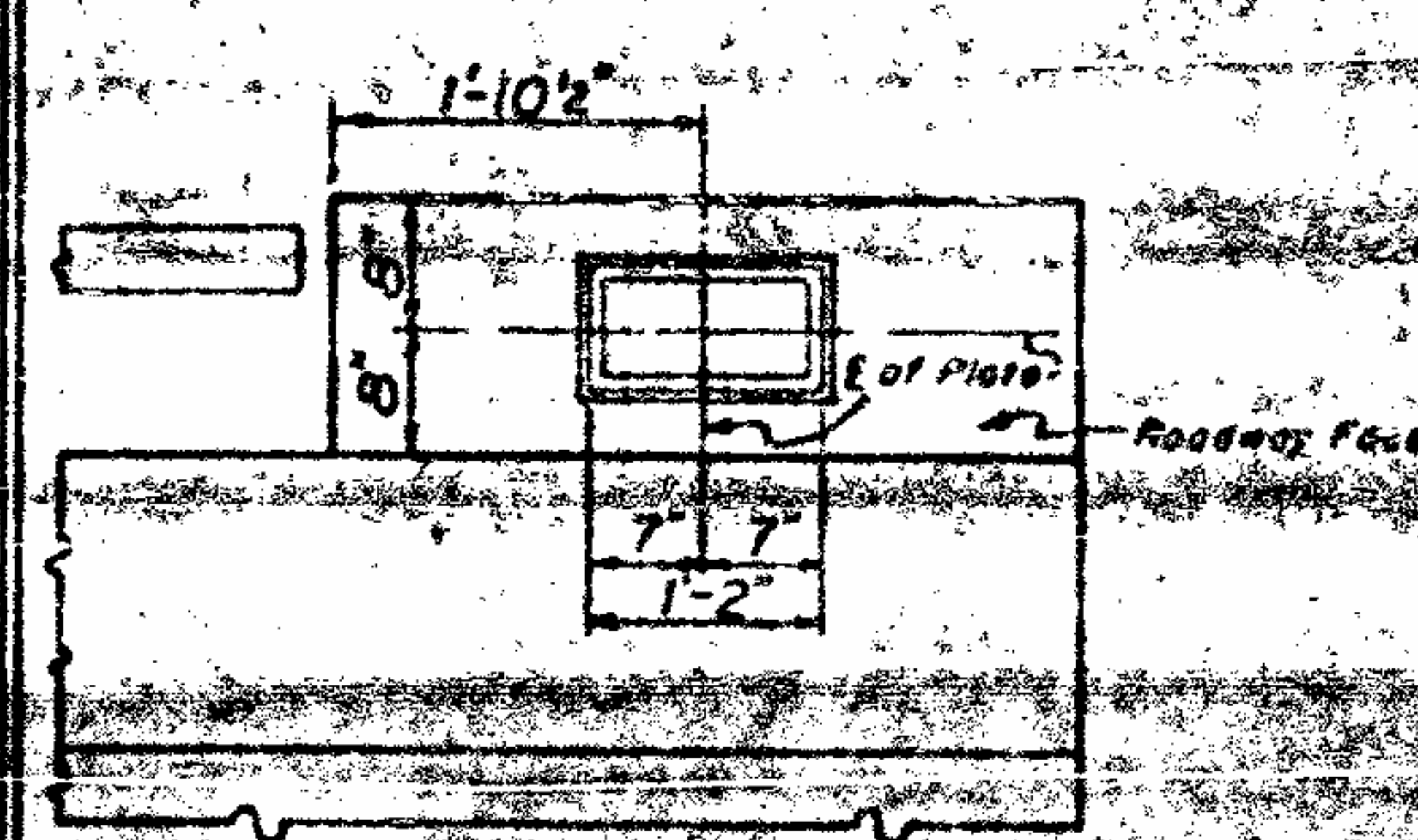
The name plates are to be made of granite. Granite shall be light gray, fine or medium grained, sound in quality and free from defects that would mar its appearance. Exposed face of plates to have a fine rubbed finish.

Lettering shall be sandblast sunk, 1/4" high, vertical, Modern Roman-style. The wording shall be as shown in the "ELEVATION SHOWING CORRECT WORDING".

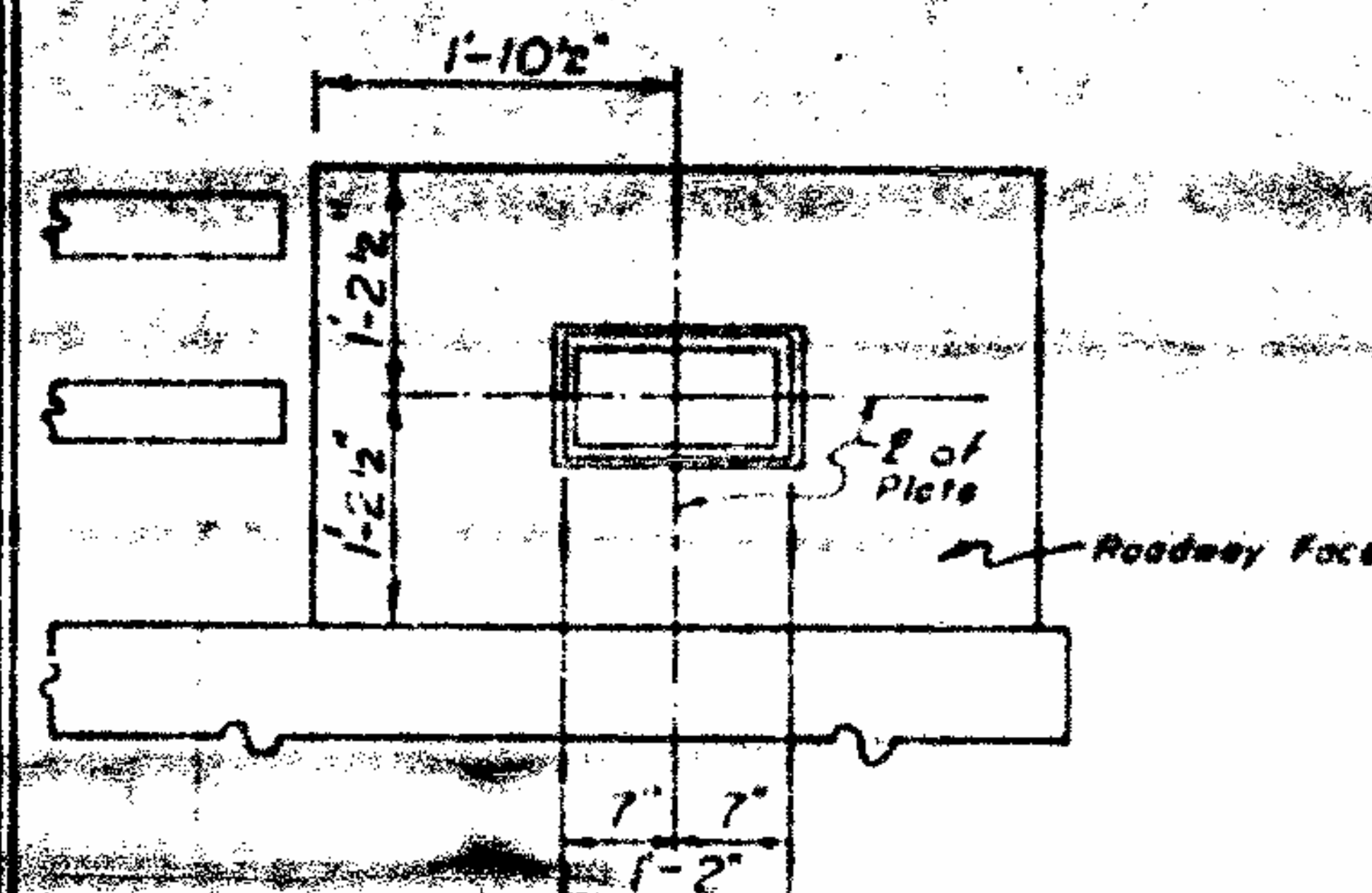
The entire cost of the name plates, complete in place, shall be included in the contract price bid for class A Concrete.



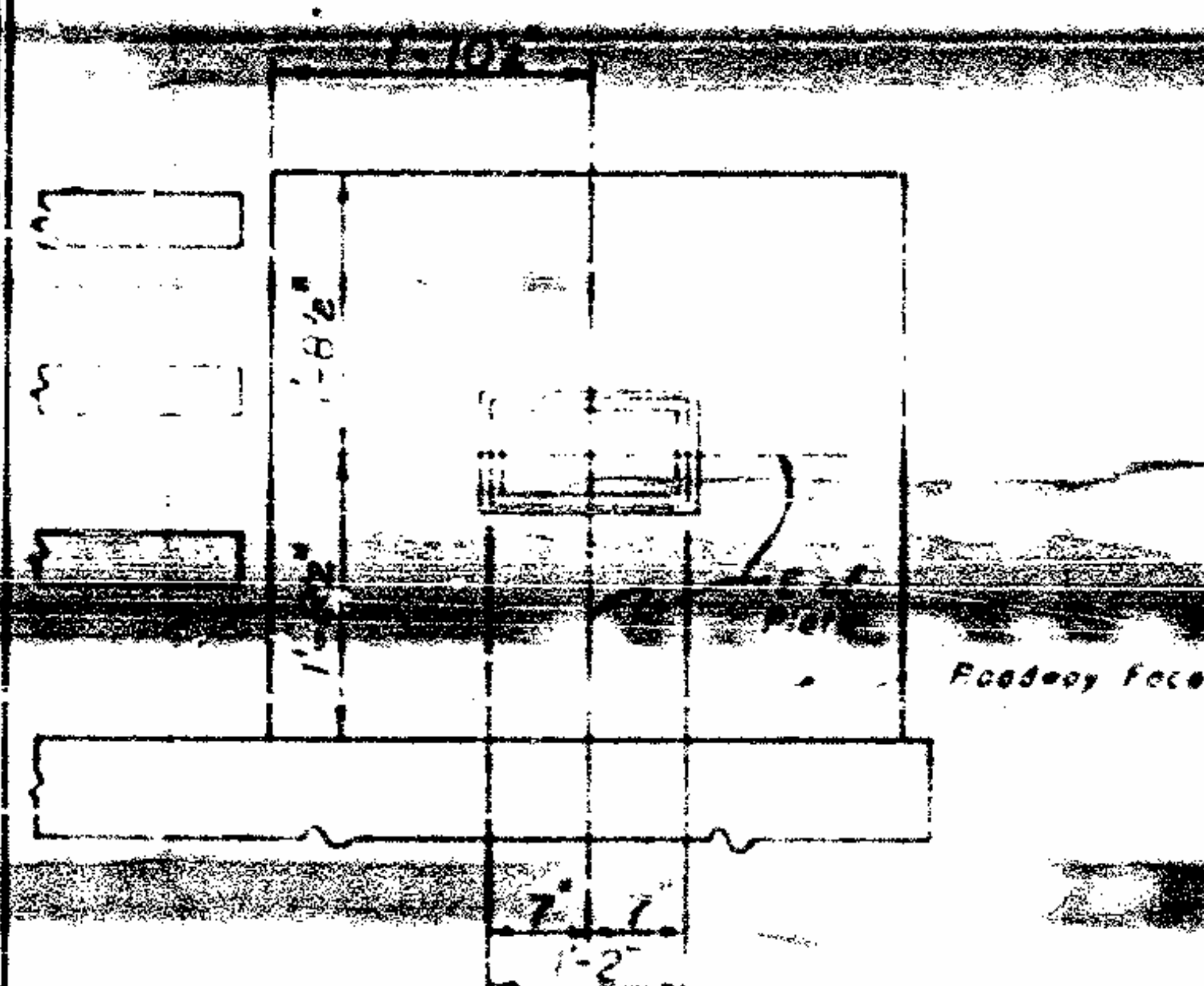
SECTION A-A



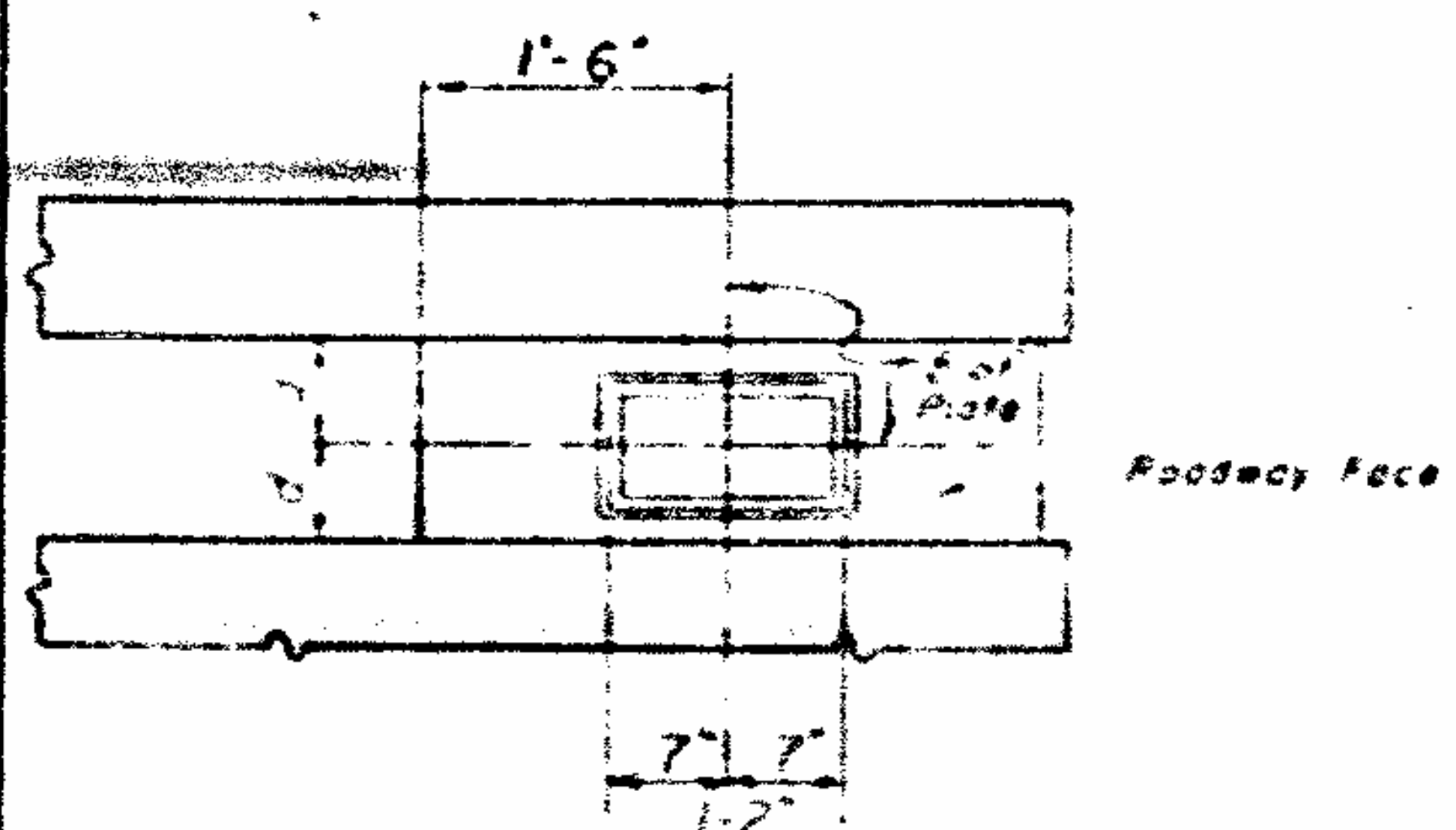
FOR ONE BAR METAL RAIL



FOR TWO BAR METAL RAIL

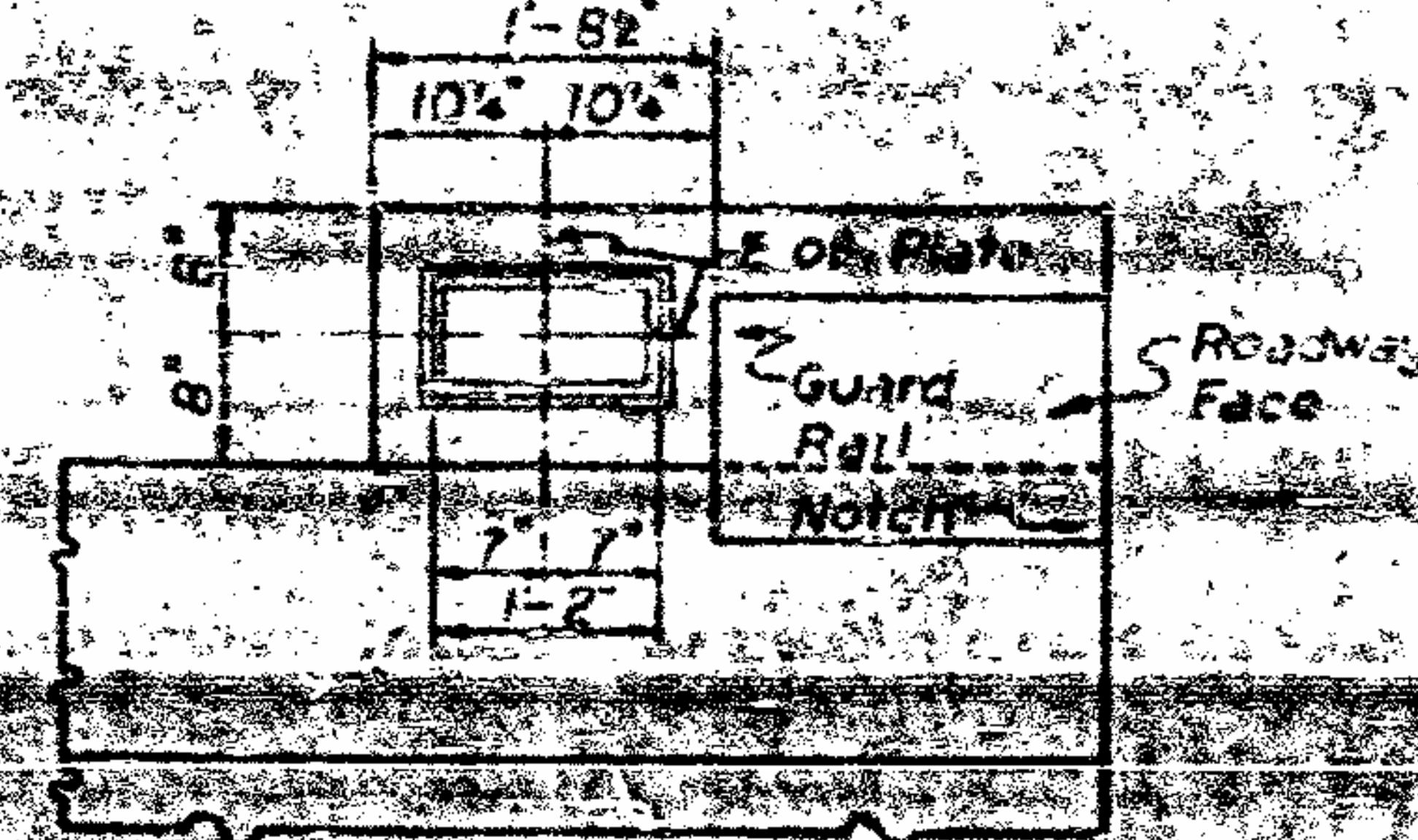


FOR THREE BAR METAL RAIL

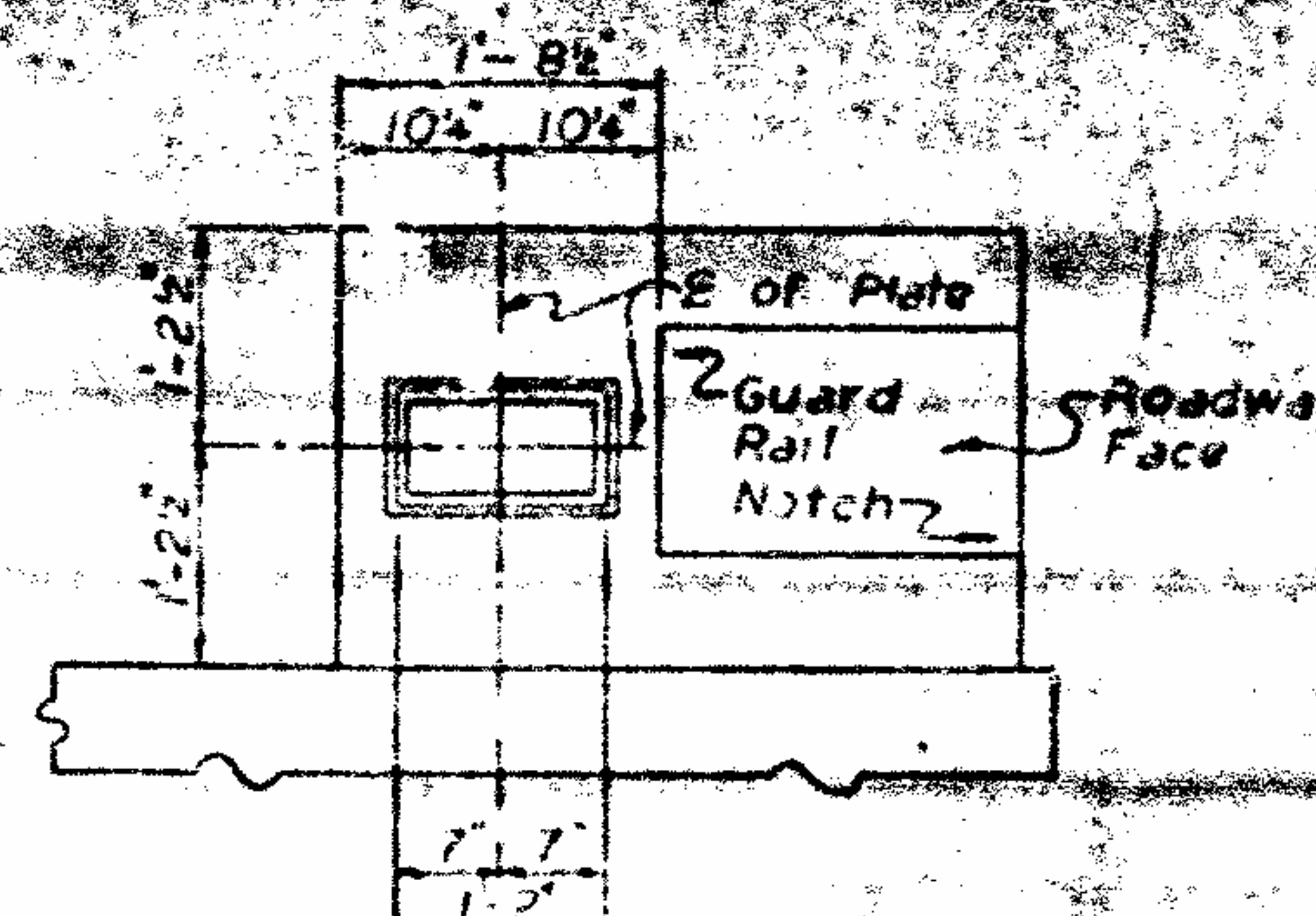


FOR CONCRETE BAR TYPE RAIL

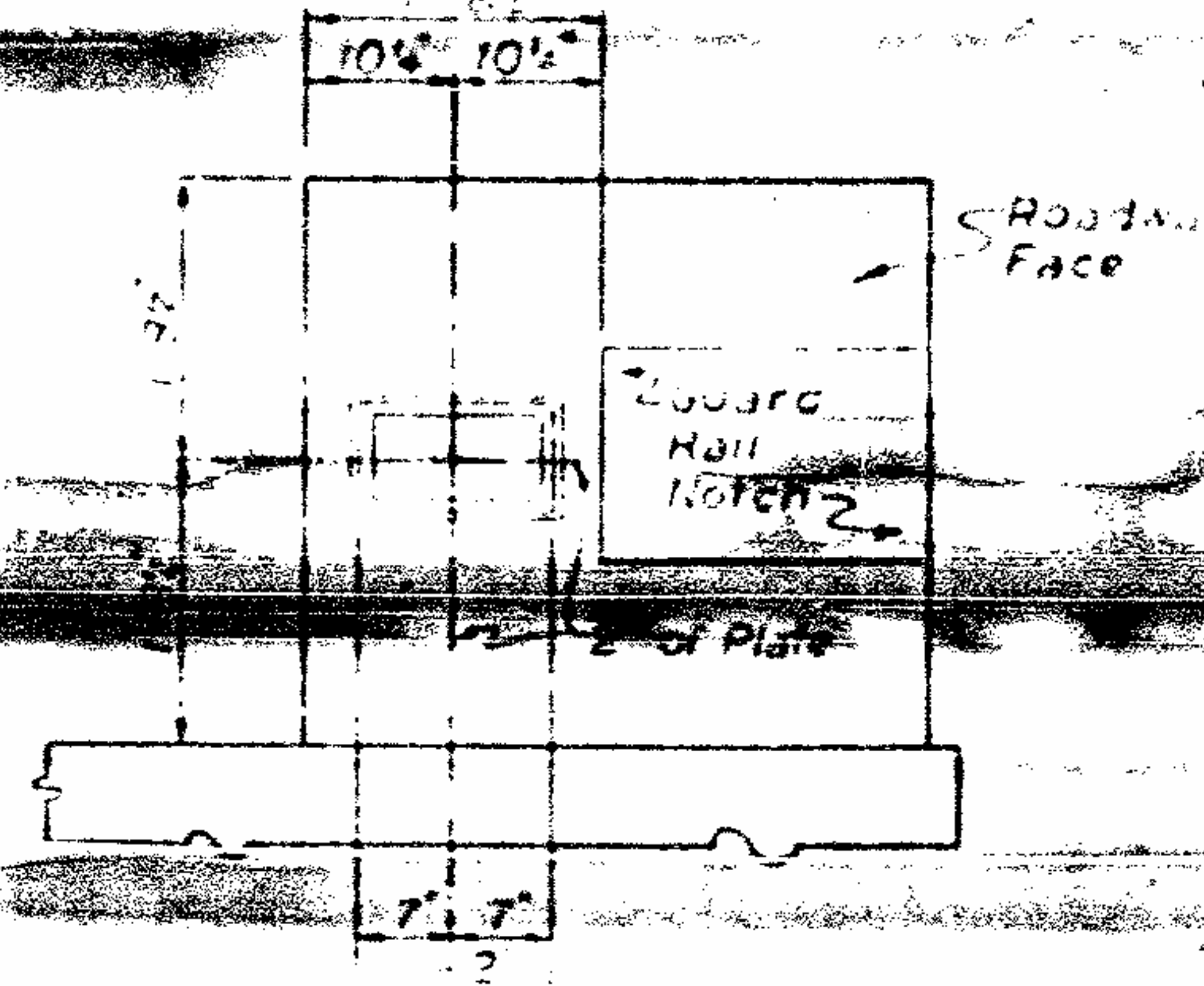
WITHOUT GUARD RAIL NOTCH



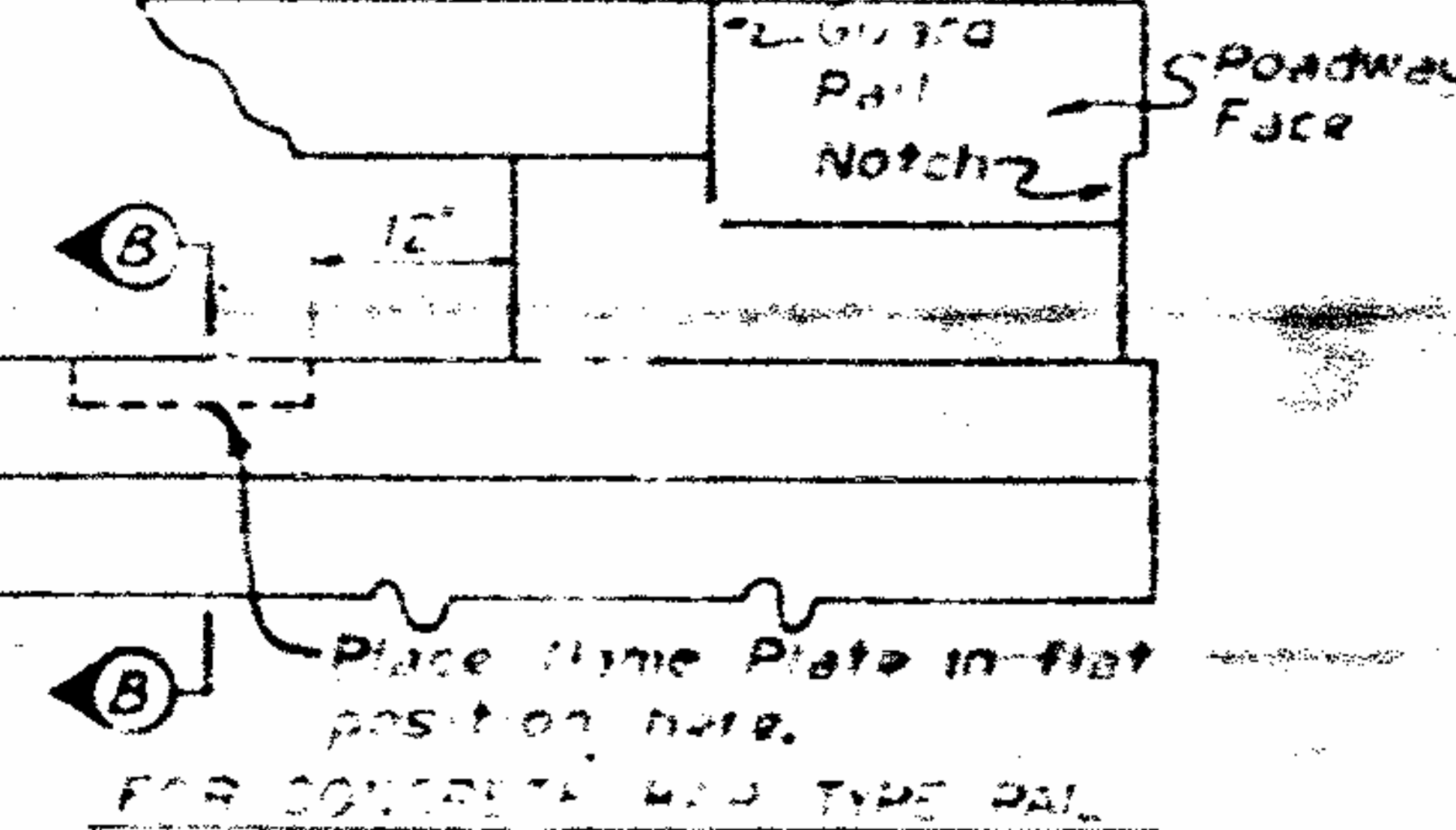
FOR ONE BAR METAL RAIL



FOR TWO BAR METAL RAIL



FOR THREE BAR METAL RAIL



FOR CONCRETE BAR TYPE RAIL

WITH GUARD RAIL NOTCH

PROJECT NO. 64710049

ALAMANCE COUNTY

STATION: 498 + 22.75

STATE HIGHWAY COMMISSION
STANDARD
NAME PLATES

MAY 1967

