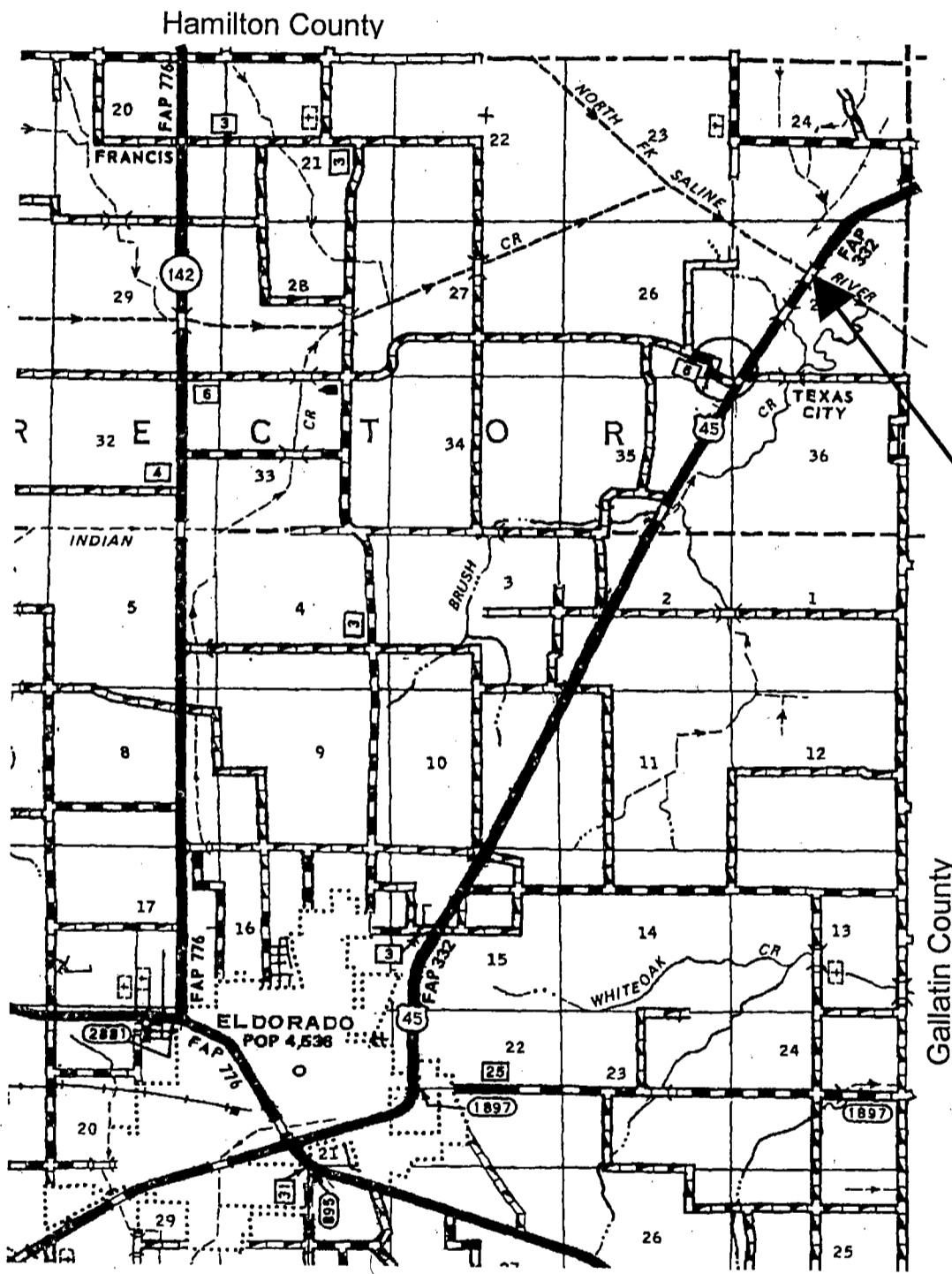


083-0001



Illinois Department of Transportation

DAY LABOR PROJECT 01F905



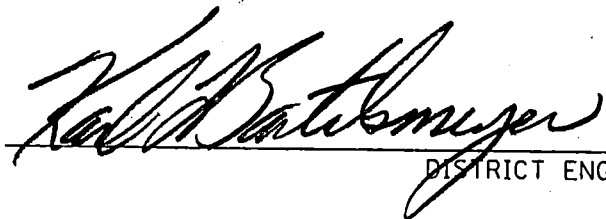
Improvement Location:
Structure 083-0001
US 45

JULIE 1-800-892-0123

01F905

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Sept 14 20 01


DISTRICT ENGINEER

PREPARED BY: 
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: 
DISTRICT PROGRAM DEVELOPMENT ENGINEER

EXAMINED BY: 
DISTRICT PROJECT IMPLEMENTATION ENGINEER

INDEX OF SHEETS

- 1 Cover Sheet
- 2 Signature Block
- 3 Index of Sheets
- 4 General Notes
- 5 Summary of Quantities
- 6 Existing Partial Plan
- 7 Deck Section
- 8 Existing Abutment Section
- 9 Proposed Partial Plan
- 10 Proposed Abutment Section A-A
- 11 Proposed Abutment Section B-B
- 12 Proposed Abutment Section C-C
- 13 Curb Section
- 14 Bill of Reinforcement
- 15 Bar Splicer Detail
- 16 Bar Splicer Notes
- 17 Steel Plate Armor Detail
- 18 Patching Plan
- 19 Patching Schedule
- 20 Guardrail Detail
- 21 Stages of Construction

Standards

509001
631026-02
701006-01
701301-01
701316-02
702001-02

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M 31, M 42 or M 53 Grade 60.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Hooks shall not be removed from the existing girder stirrups which extend into the removal area. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. The cost shall be included with Concrete Removal.

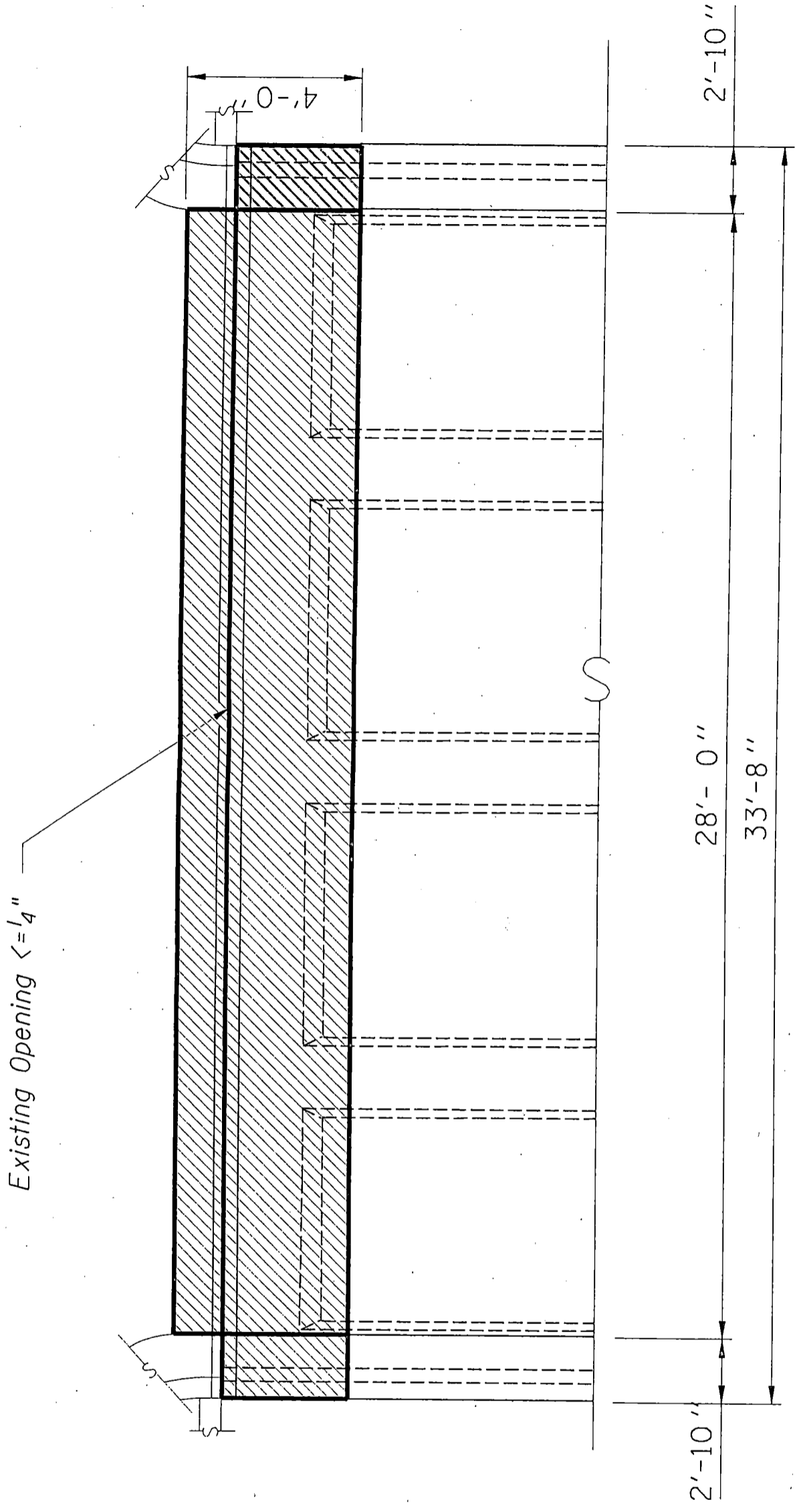
Reinforcement designated as 2 X 4 #6 etc. indicates 2 lines of 4 bars.

Thrie beam retrofit rail and terminal sections are available from the District Nine maintenance facility located on U.S. Rte. 51 near Dongola. Telephone: (618) 827-3552.

Any time that holes for expansion joints are open or holes for full depth patches are open, they shall be covered with metal plates capable of carrying the full weight of an errant vehicle. Plates shall be placed directly on the concrete deck. Projections above the roadway surface greater than 1" are not permitted except for heads of bolts. The metal plates shall be considered included in the cost of Traffic Control and Protection Standard 701316 and shall not be paid for separately.

SUMMARY OF QUANTITIES

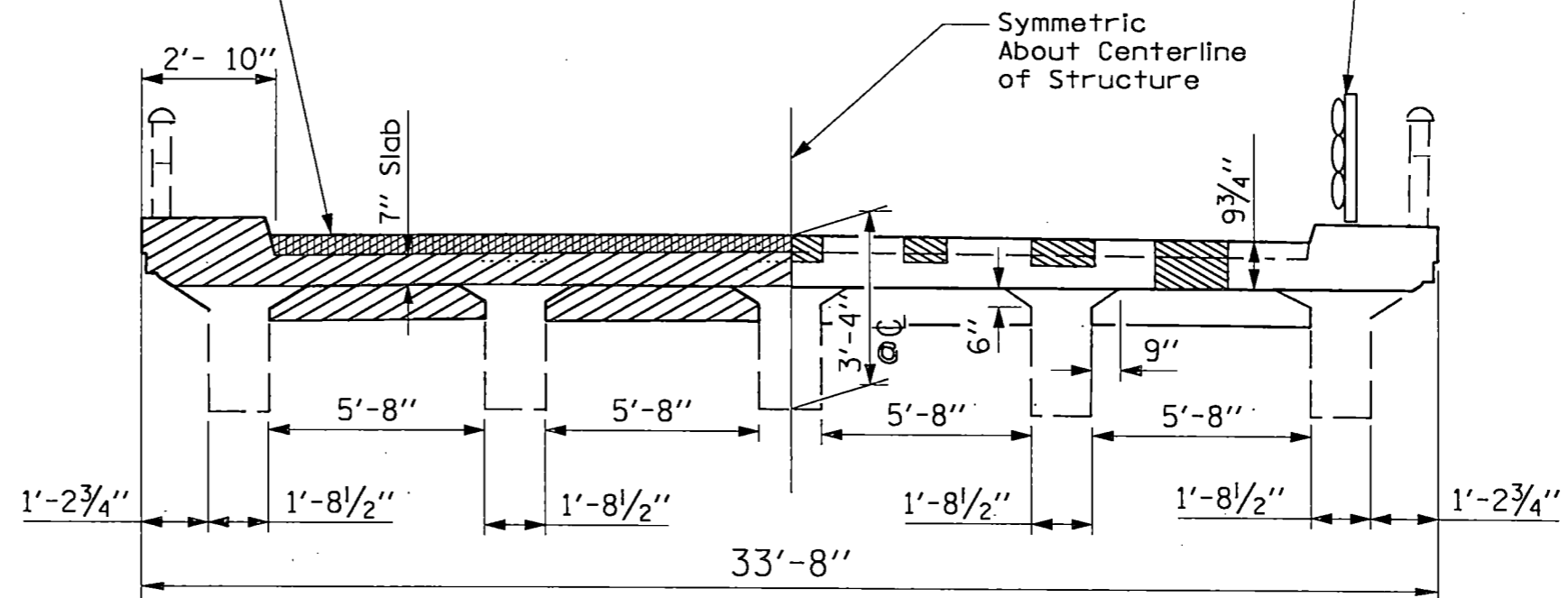
Code No.	Item	Unit	Total QYTS.
50102400	CONCRETE REMOVAL	CU YD	11.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	13.7
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1500
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,890
50901710	TUBULAR THRIE BEAM RETROFIT RAIL FOR BRIDGES (SPECIAL)	FOOT	450
63100325	TRAFFIC BARRIER TERMINAL, TYPE 5A (SALVAGED)	EACH	4
63301235	REMOVE AND RE-ERECT STEEL PLATE BEAM GUARD RAIL, ATS	FOOT	100
63304335	TERMINAL SECTION REMOVAL AND SALVAGE	EACH	4
67100100	MOBILIZATION	L SUM	1
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	1
Z0016002	DECK SLAB REPAIR (FULL DEPTH TYPE II)	SQ YD	6.3
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	19.2
Z0002600	BAR SPLICERS	EACH	24



EXISTING PARTIAL PLAN VIEW, TYPICAL
HATCHING SHOWS CONCRETE REMOVAL

Existing 2 $\frac{3}{4}$ " Bituminous Concrete Wearing Surface

Tubular Thrie Beam Retrofit Rail for Bridges (Special)

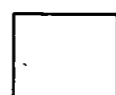


Symmetric About Centerline of Structure

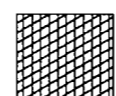
CONCRETE REMOVAL



CONCRETE SUPERSTRUCTURE



BITUMINOUS CONCRETE SURFACE REMOVAL (INCLUDED IN COST OF CONCRETE REMOVAL)

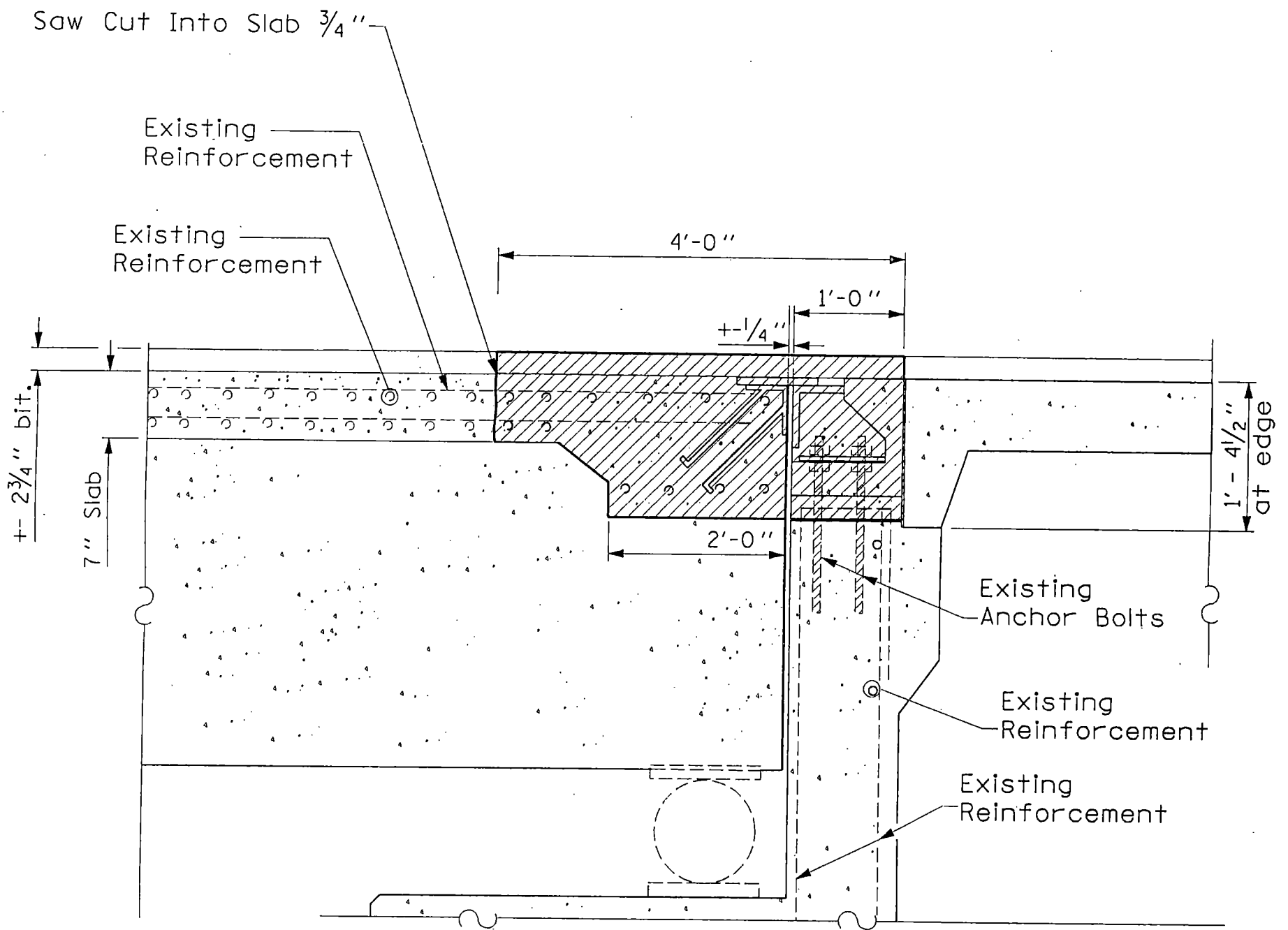


TYPICAL DECK SLAB REPAIR SEE SHEET 6.



Typical Section 083-0001

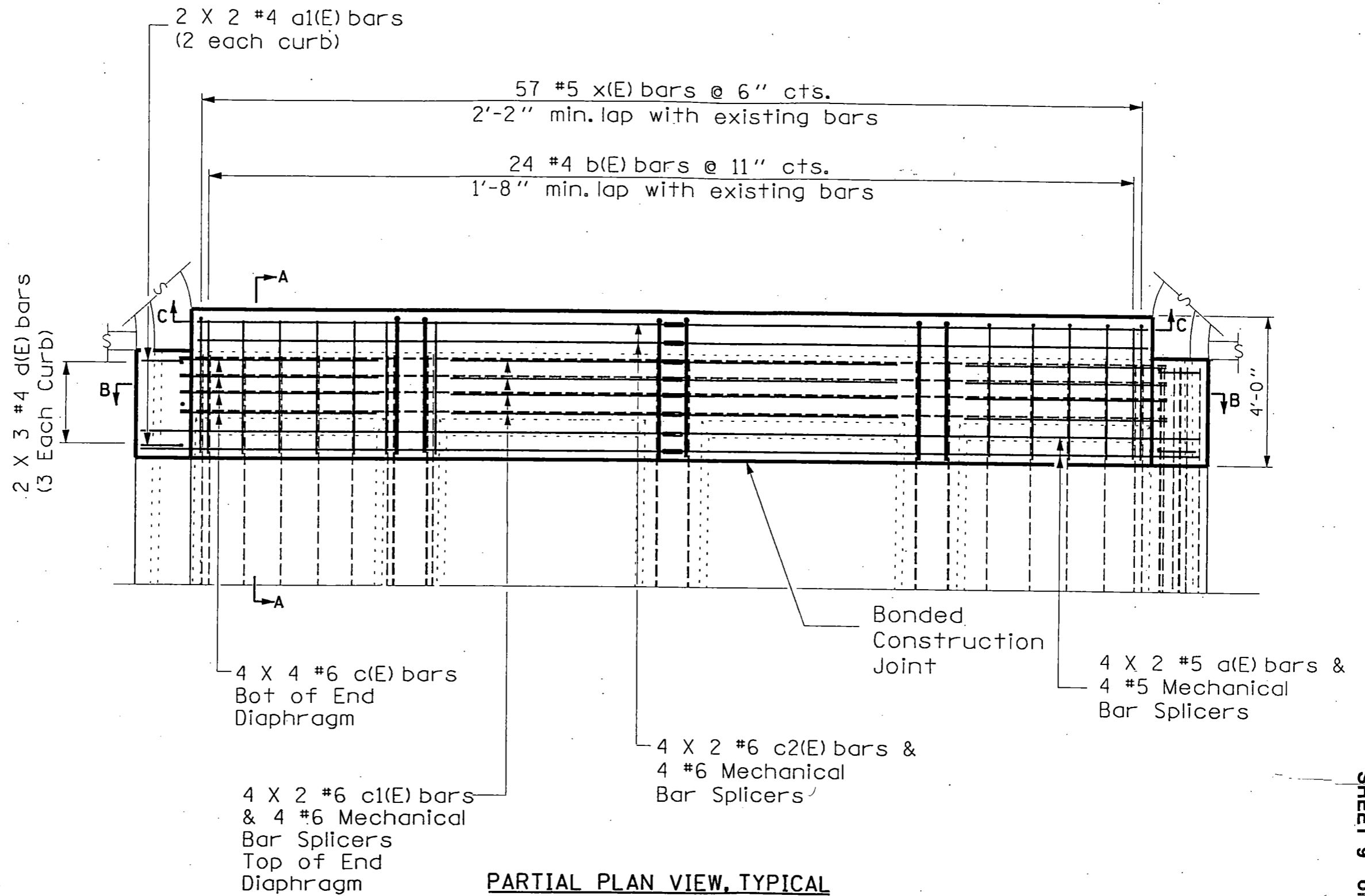
U.S. 45
 DAY LABOR 01F905
 SALINE COUNTY
 SHEET 7 OF 21
 REVISED 10/01/01 RKG



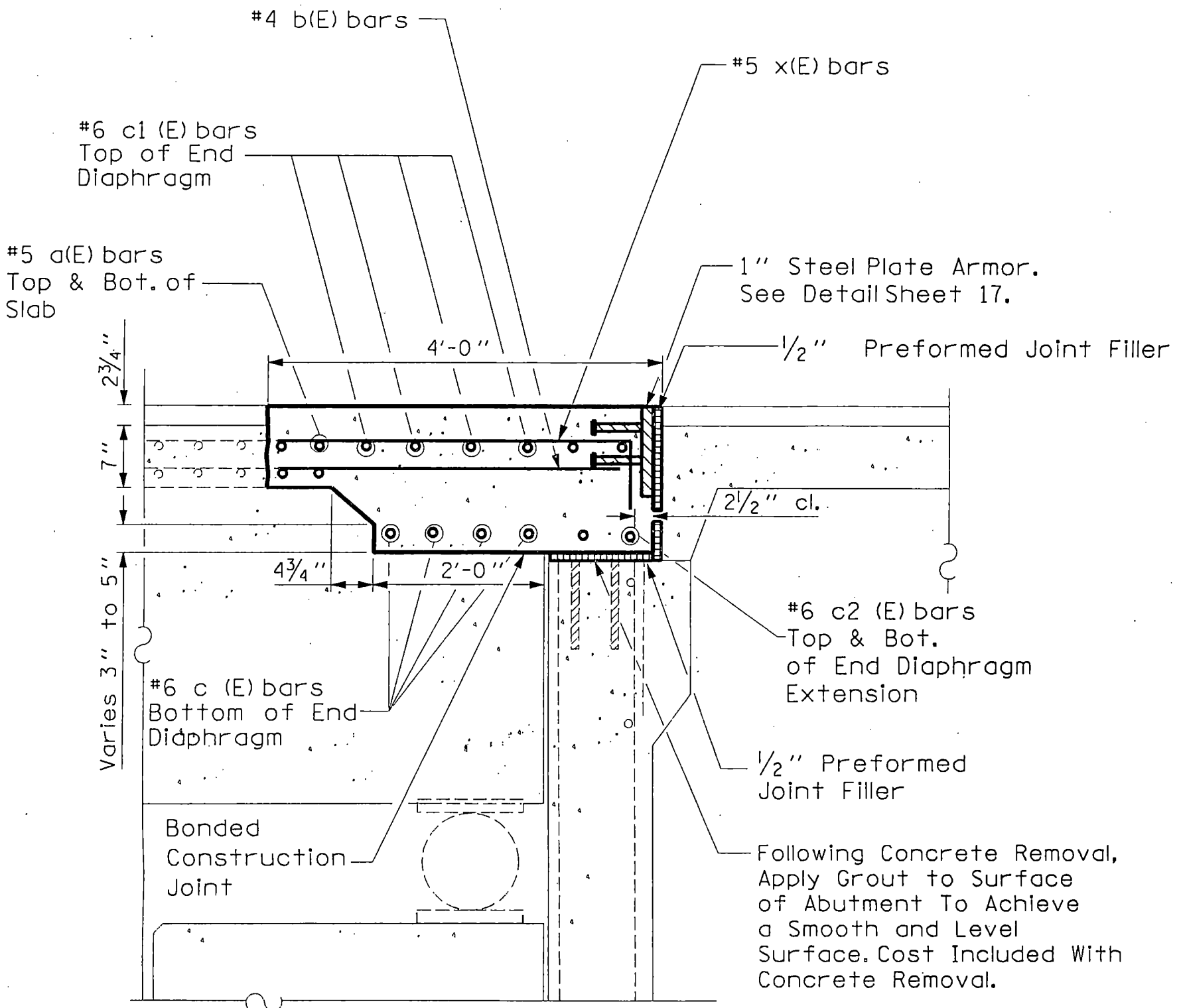
Note: Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolts smooth and seal with epoxy.

STRUCTURE 083-0001
EXISTING ABUTMENT

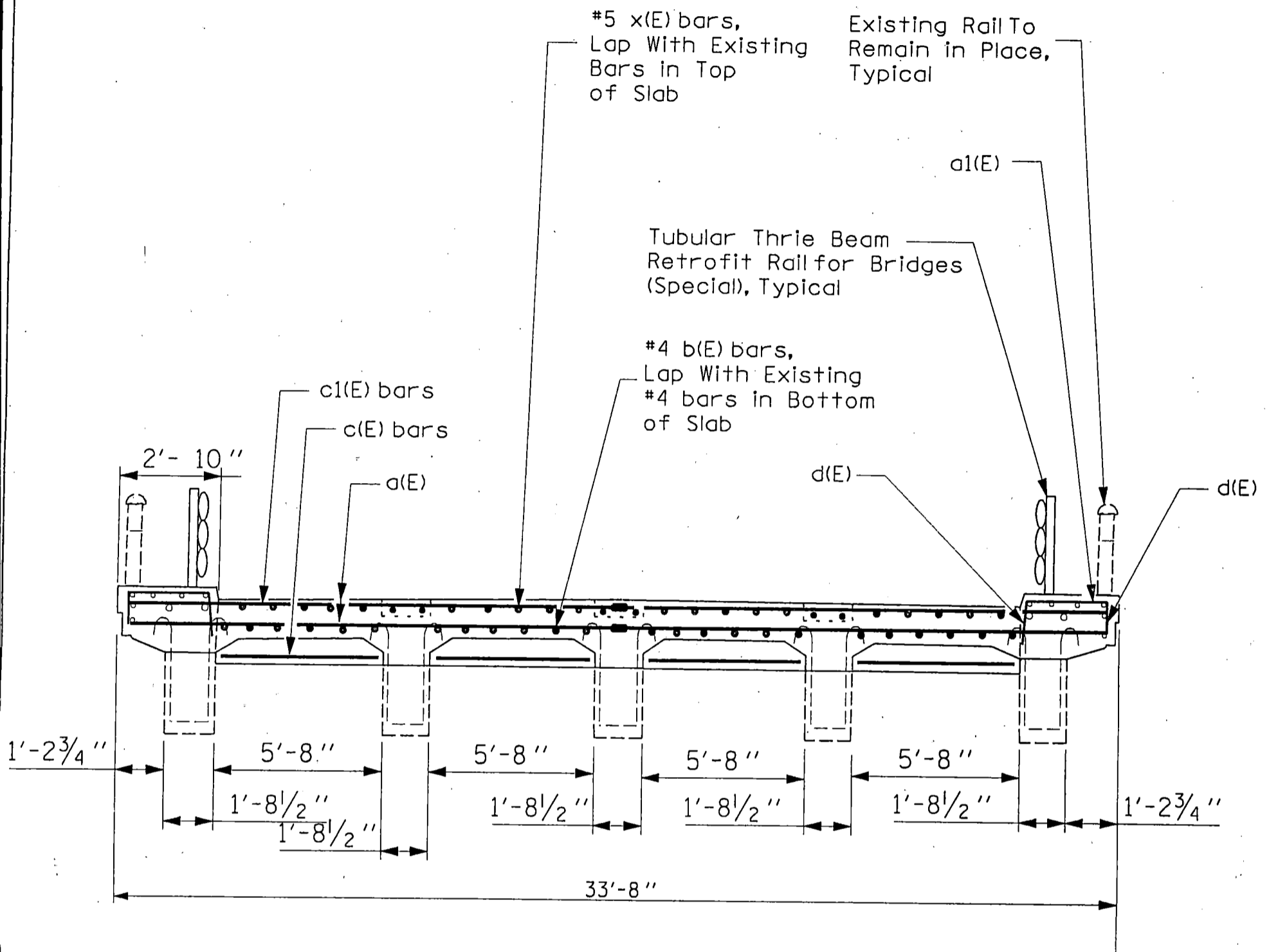
Hatching Shows Removal



PARTIAL PLAN VIEW, TYPICAL
SHOWING REINFORCEMENT

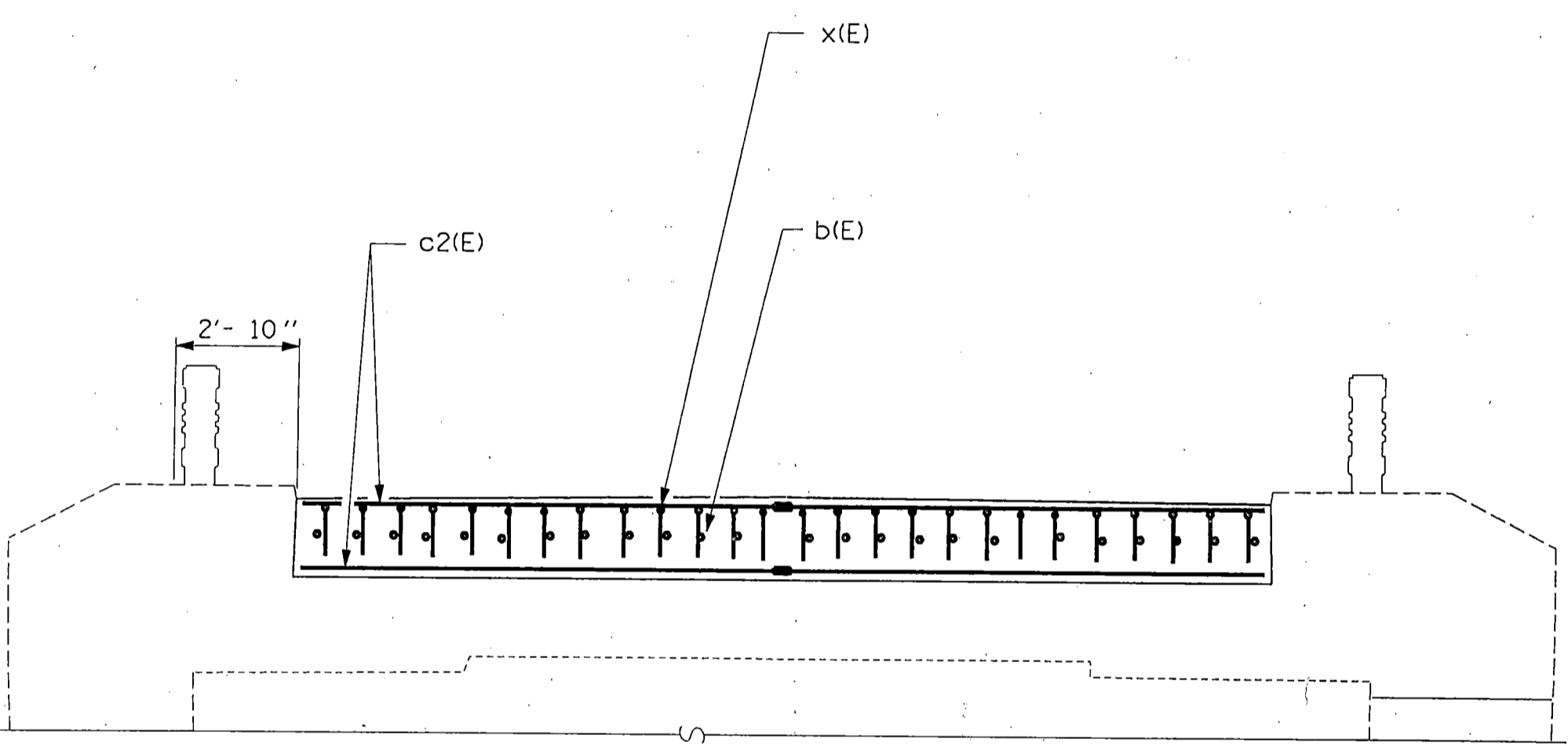


SECTION A-A
STRUCTURE 083-0001

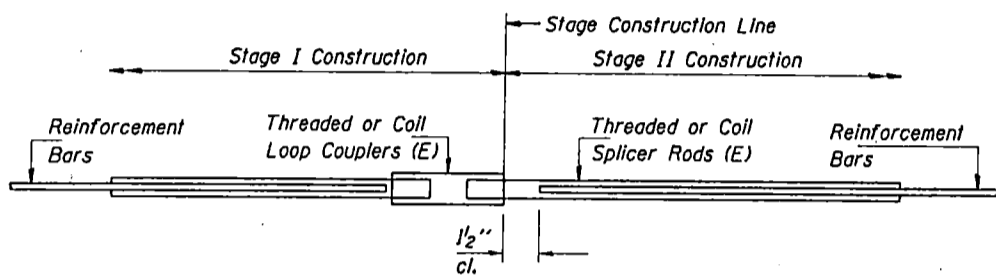


Note: For clarity, existing reinforcement in slab and end diaphragm is not shown.

SECTION B-B
STRUCTURE 083-0001



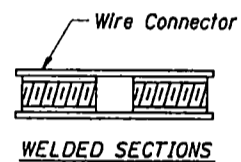
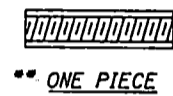
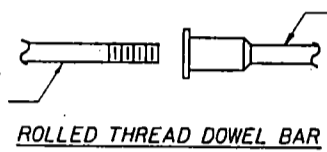
SECTION C-C
STRUCTURE 083-0001



SPLICER DETAIL

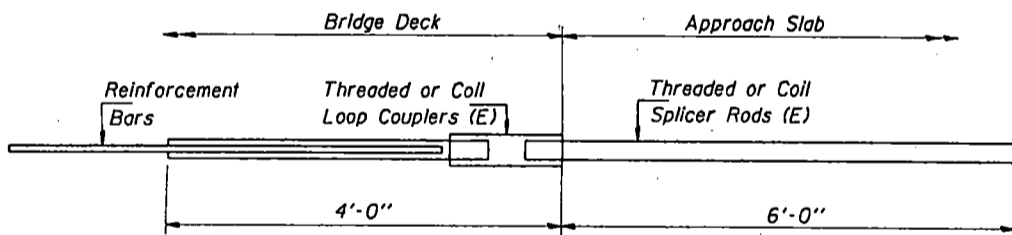
Bar Size	No. Assemblies Required	Location
#5	8	Stage Construction
#6	16	Stage Construction

The diameter of this part is the same as the diameter of the bar spliced.



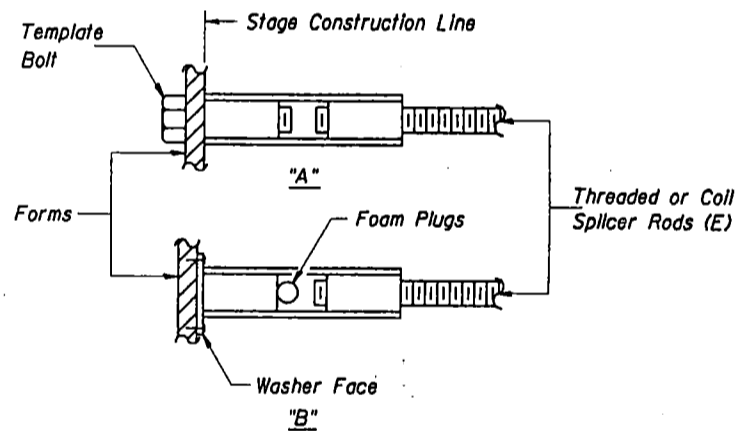
BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



**INTEGRAL ABUTMENT
 BAR SPLICER ASSEMBLY DETAIL
 FOR #5 BAR**

Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.

BAR SPLICER ASSEMBLY DETAILS

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity
 (Tension in kips) = $1.25 \times f_y \times A_t$
- ② Minimum *Pull-out Strength
 (Tension in kips) = $1.25 \times f_{s_{allow}} \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.

$f_{s_{allow}}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)

A_t = Tensile stress area of lapped reinforcement bars.

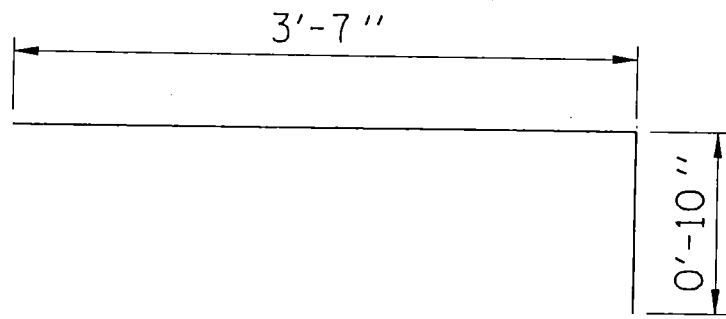
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

BAR SPLICER ASSEMBLY DETAILS

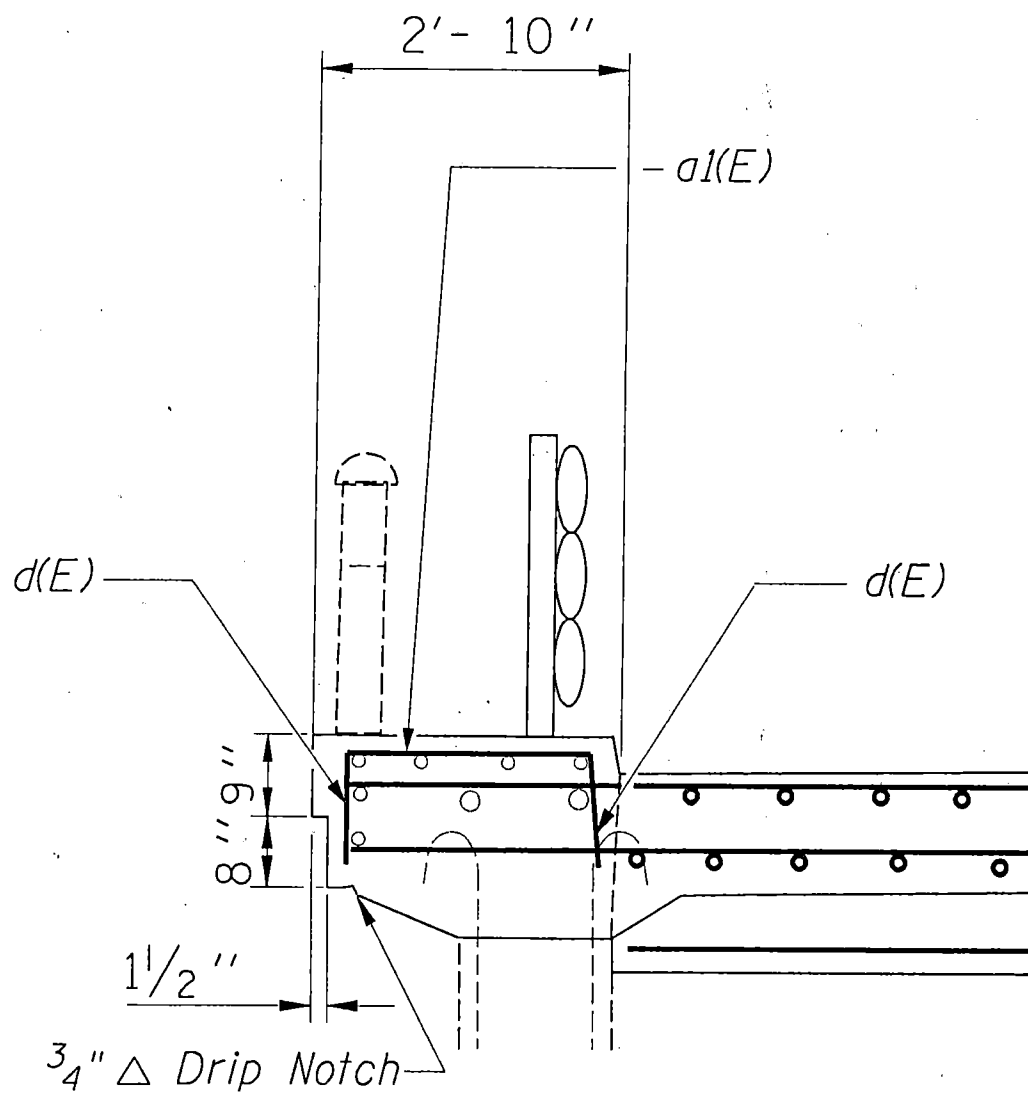
BSD-1 4-30-99



Bar x(E)

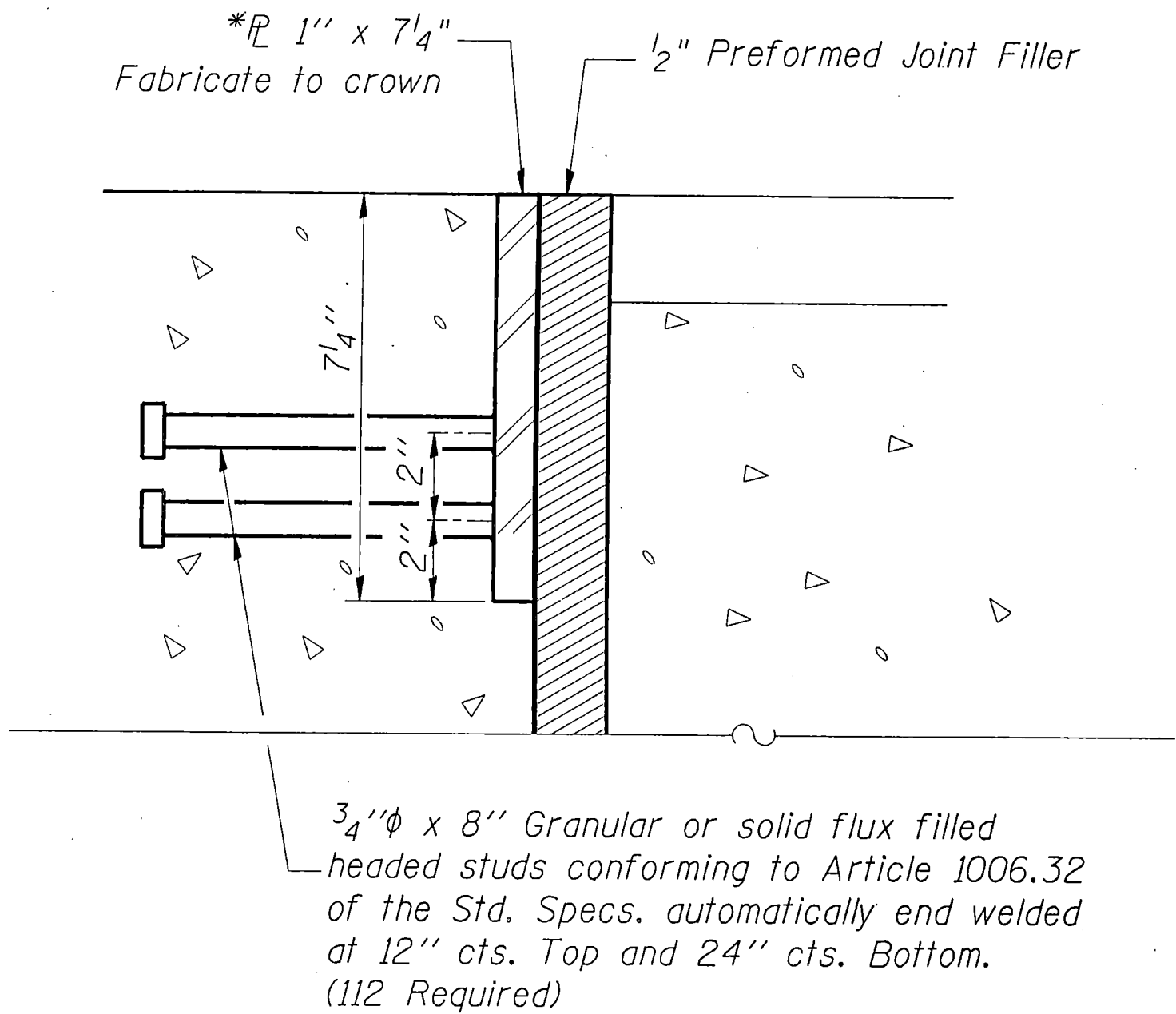
BILL OF REINFORCEMENT

Bar	Bar Size	No.	Length	Wt. Lbs.	Shape
a(E)	#5	16	16'-6"	275.2	—
a ₁ (E)	#4	8	2'-6"	13.6	—
b(E)	#4	48	3'-8"	120	—
c(E)	#6	32	5'-4"	256	—
c ₁ (E)	#6	16	15'-0"	360	—
c ₂ (E)	#6	16	13'-7"	326.4	—
d(E)	#4	12	1'-3"	9.6	—
x(E)	#5	114	4'-5"	525.2	└
Total Wt.				1,890	



CURB SECTION,
TYPICAL

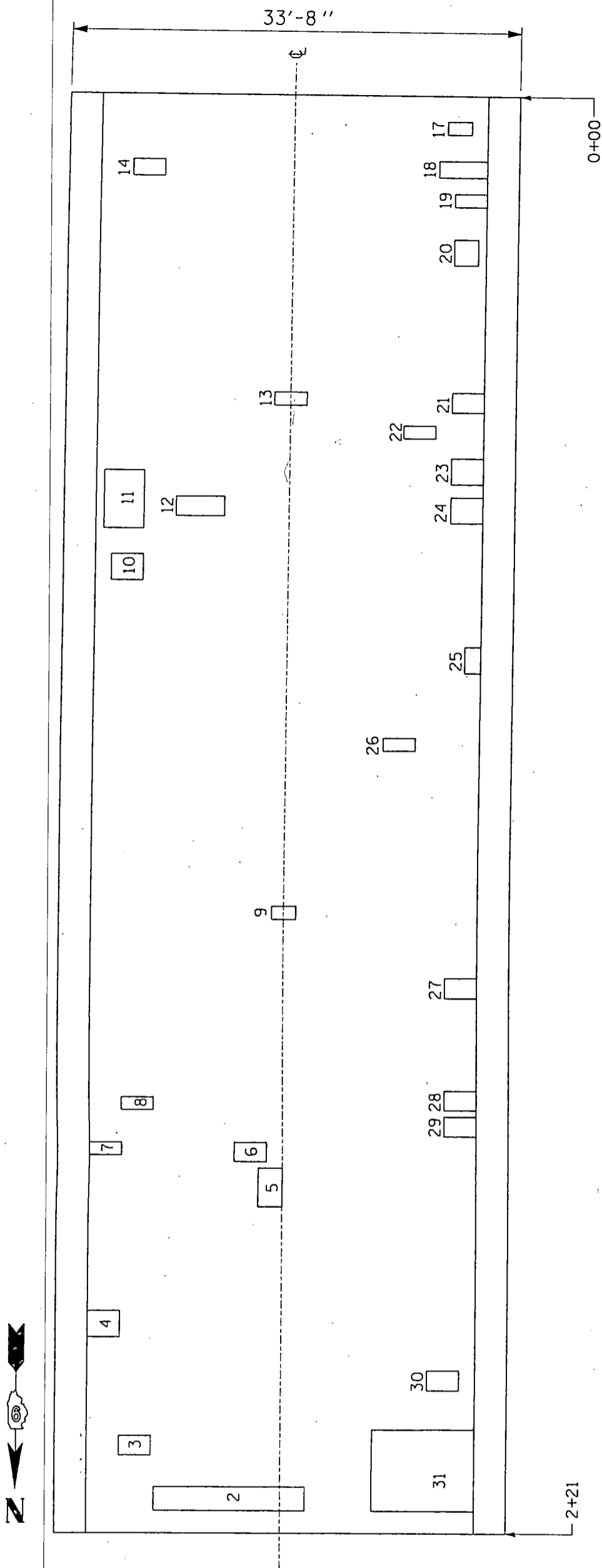
Note: For clarity, existing reinforcement in slab and end diaphragm is not shown. Dimensions are taken from existing plans and may vary from actual dimensions. Curb profile shall match existing.



*Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be $\frac{3}{16}$ ". Seal space with Silicone Sealant suitable for Structural Steel.

Note: All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO 300, Type 1. Cost included with Furnishing and Erecting Structural Steel.

STEEL PLATE ARMOR DETAIL



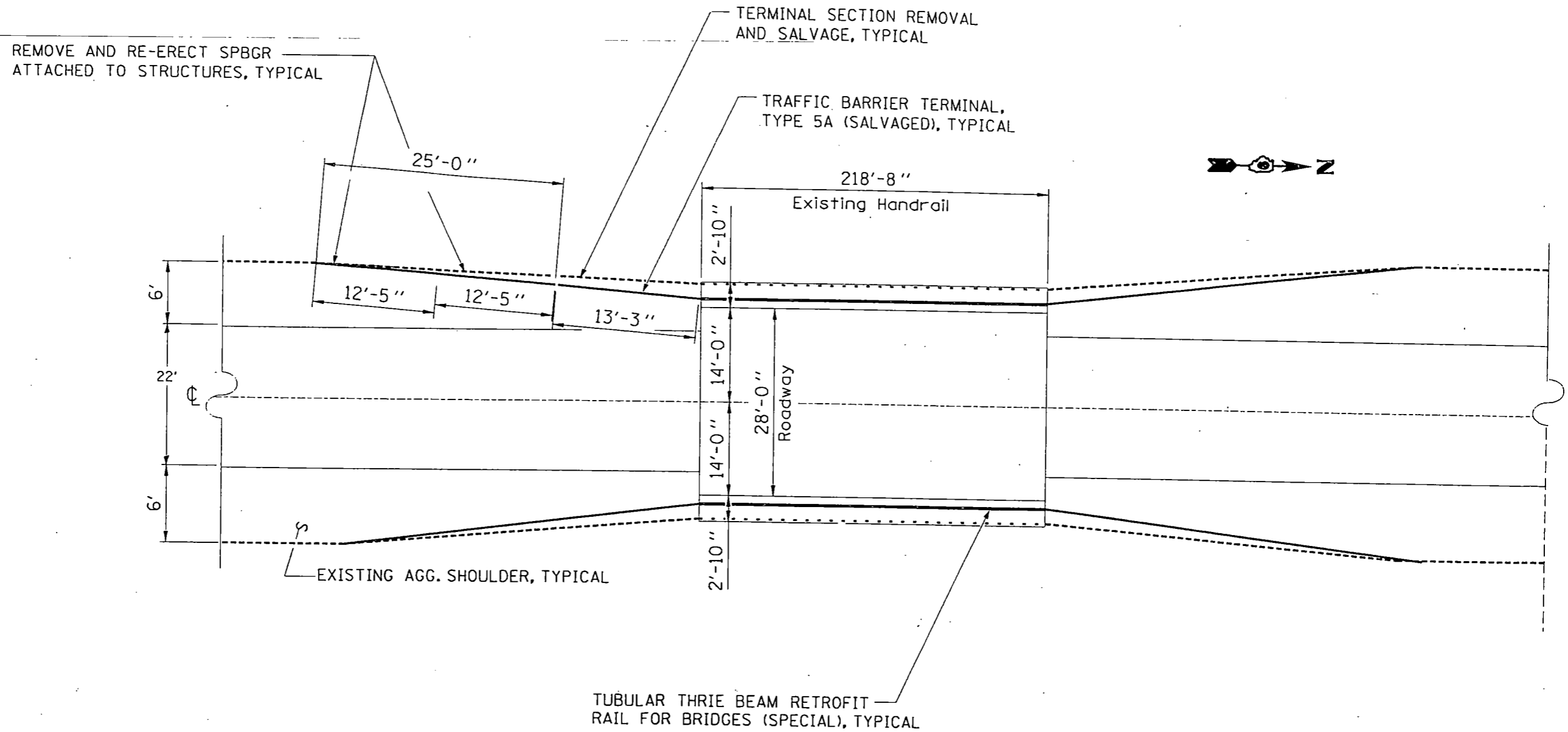
Notes:
Areas of deck repairs shown are estimated.
The engineer shall show actual locations of
deck repairs on the as-built plans.

See sheet 19 for patch details.

DECK SLAB REPAIR

BRIDGE DECK PATCHING

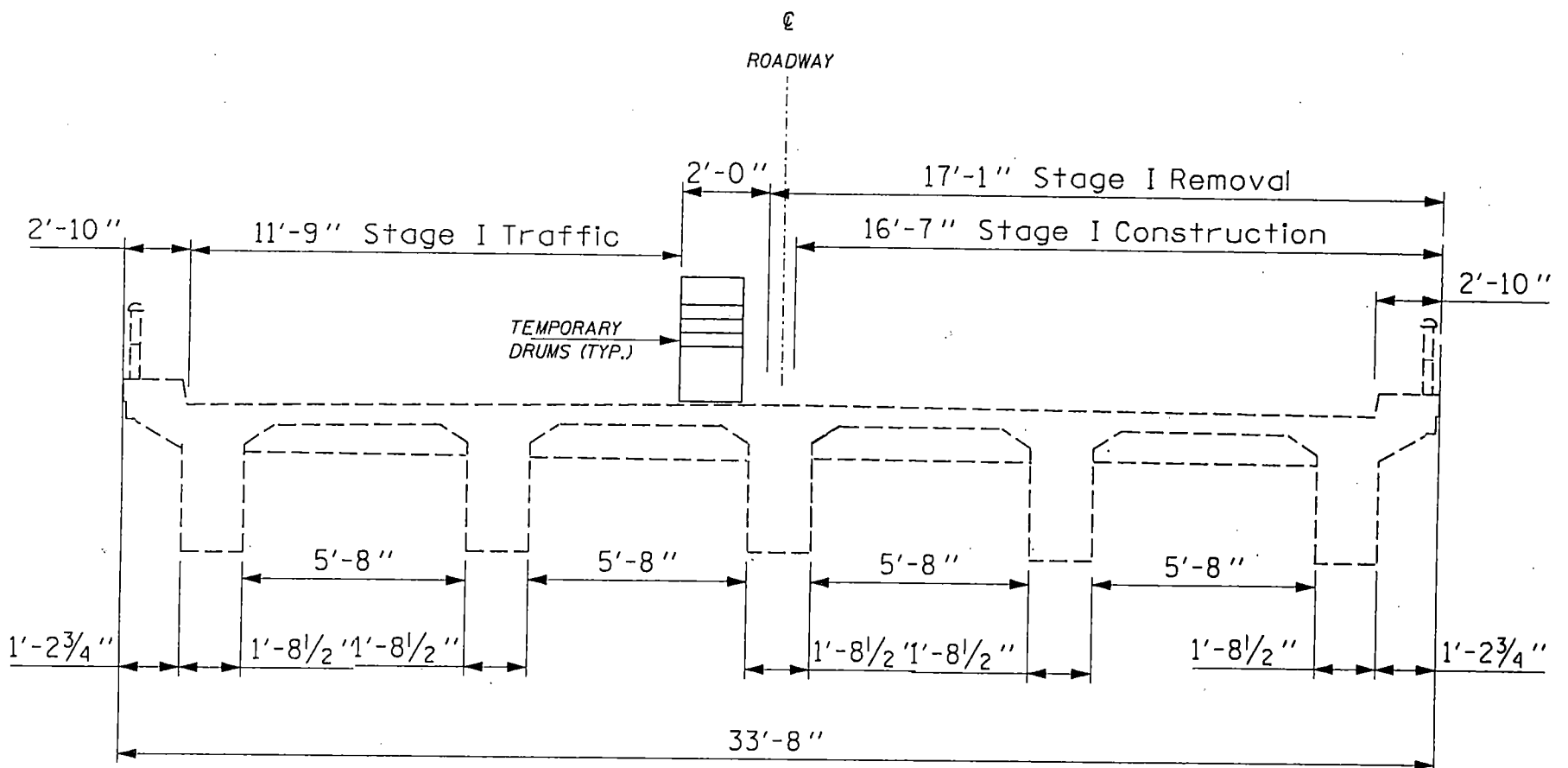
PATCH NUMBER	STATION (ASSUMED 0+00 AT S. DECK END)	CENTERLINE OFFSET (FT)	AREA (SQ YD)	
			Partial Depth	Full Depth
1	2+20	0	1.67	
2	2+14	2	0.67	
3	2+06	8	0.67	
4	1+87	10	0.89	
5	1+65	0	1.00	
6	1+61	1	0.67	
7	1+61	10	0.44	
8	1+54	8	0.44	
9	1+25	0	0.33	
10	0+71	9	0.89	
11	0+58	9	2.50	
12	0+62	4	1.00	
13	0+46	0	0.44	
14	0+10	8	0.56	
15	0+00	6	0.56	
16	0+00	0	1.00	
17	0+04	9.5	0.33	
18	0+10	9	0.83	
19	0+15	10	0.44	
20	0+22	10	0.67	
21	0+46	10	0.67	
22	0+51	7	0.44	
23	0+56	10	0.89	
24	0+62	10	0.89	
25	0+85	11	0.44	
26	0+99	6	0.44	
27	1+36	10	0.67	
28	1+53	10	0.67	
29	1+57	10	0.67	
30	1+96	9	0.67	
31	2+05	6	0.67	6.33
Total:			22.44	6.33



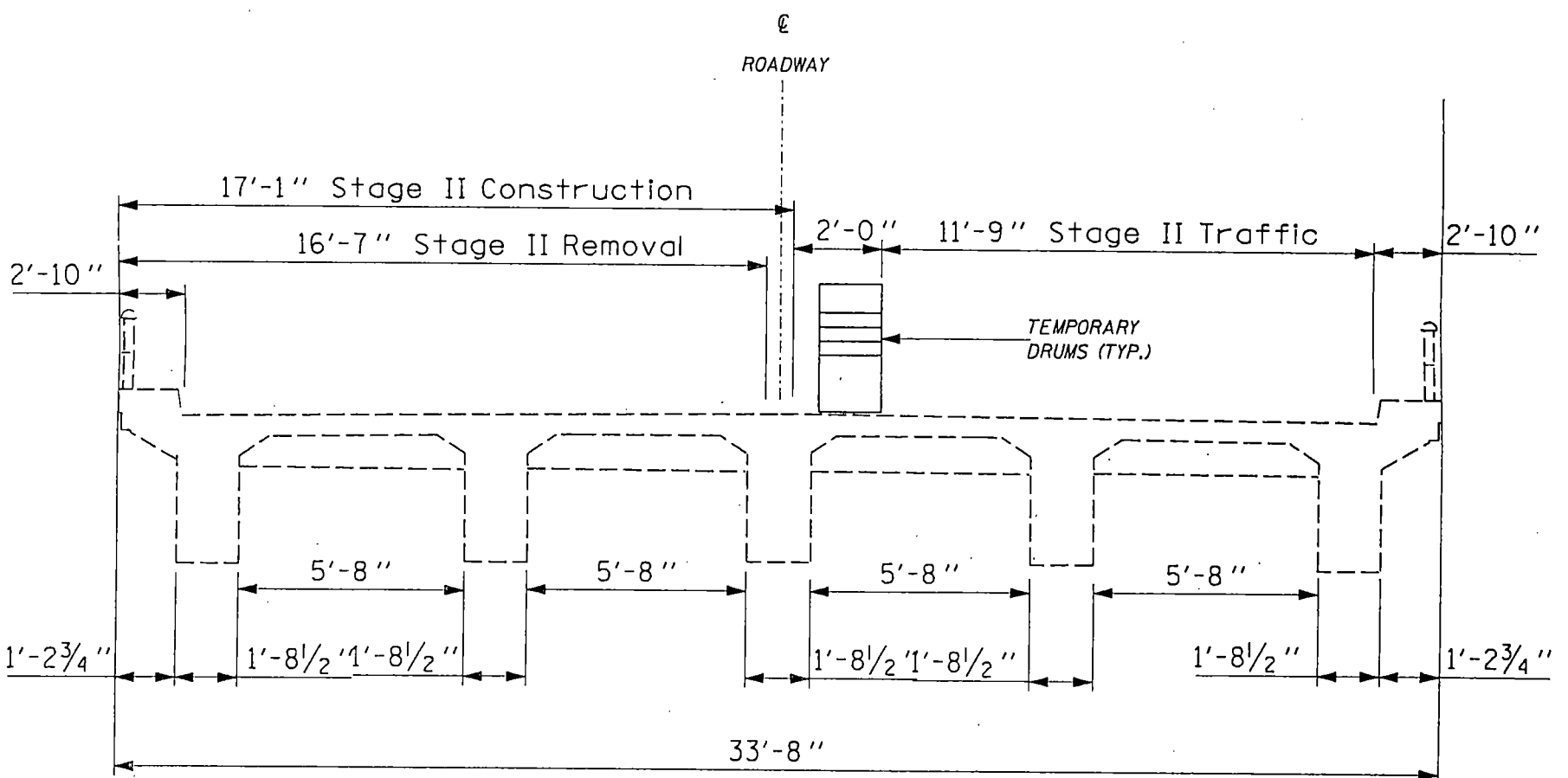
Note: Salvaged Traffic Barrier Terminal Type 5A and Tubular Thrie Beam Retrofit Rail elements and posts shall be furnished by the District. All hardware required for assembly and installation shall be supplied by the Contractor.

U.S. 45
 DAY LABOR 01905
 SALINE COUNTY
 SHEET 20 of 21

Bridge Rail and Guardrail



Stage I



Stage II

2. M. 2 Spikes in P. Pale 90° R.L. Sta. 727+29 Elev. 363.37
 Existing Bridge: 140' Steel Truss Rdwy. 19' R.C. Abutments.
 For removing of Existing Structure see Special Provisions.

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BUILDINGS
 DIVISION OF HIGHWAYS

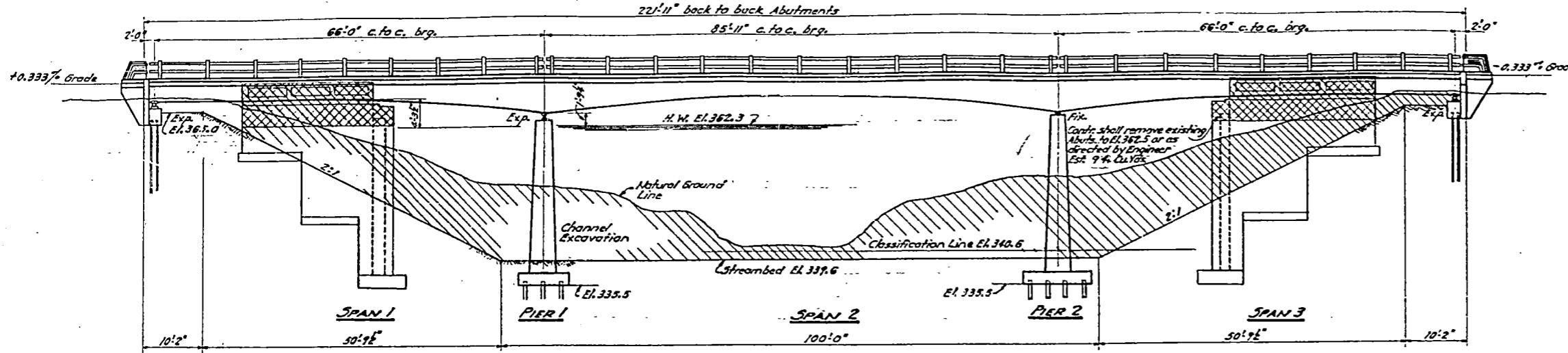
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
1	29-B-Y	Saline	37	22	3 SHEETS
PER ROAD DIST NO. 7					ILLINOIS PER AIR PROJECT F-103(14)

WATERWAY INFORMATION

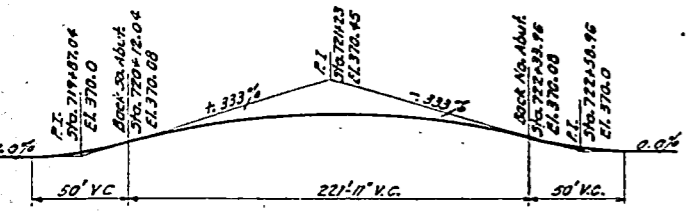
2 Br. Sta. 704+60.94 721+23
 Drainage Area (2 Br.) 178,000 ACRES
 Character Level Rolling, Wooded, Cultivated.
 Reg. of Opening 2 Br. 4000' (10 Year Flood)
 Present Opening Sta. 704+60.94 Sta. 721+23 Total 2 Bridges 4036'
 Proposed Opening 2270' 2802' 5072'

GENERAL NOTES

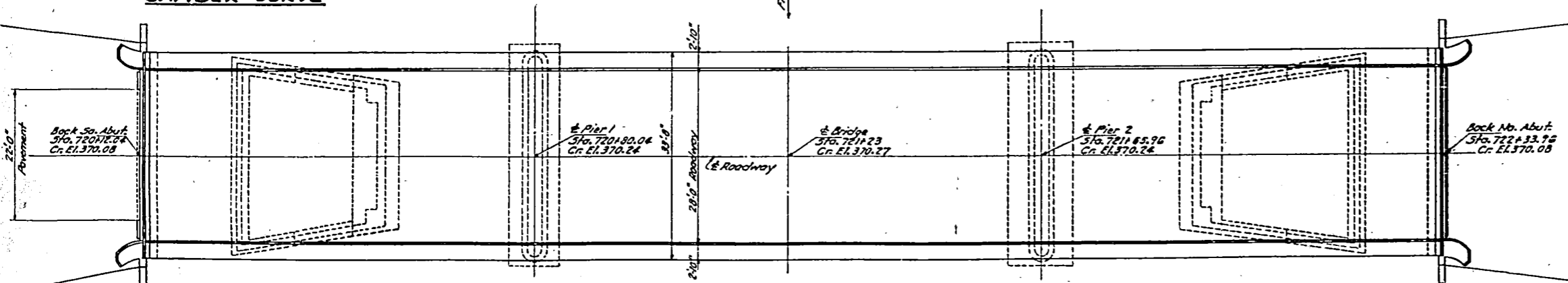
Class-X Concrete shall be used throughout except as noted.
 Class-A Concrete shall be used in Piers.
 Handrail Concrete shall be used Handrail Post.
 Concrete floor shall be finished in accordance with Art. 51.18(a) of the Standard Specifications. The concrete floor slab and girders shall be poured in one continuous operation.
 All rollers bearing plates and plates and anchor bolts shall be finished, painted and set in accordance with Art. 51.14 of the Standard Specifications and are included for payment as structural steel. Estimated at 1220 Lbs.
 Welding shall comply with Art. 53.41.3 of the Standard Specifications.
 Structural Steel shall receive one shop coat of red lead paint after inspection and two field coats of aluminum paint.
 All paint to be furnished and applied by the Contractor.
 Boring Data are shown only as a guide to the Contractor in estimating soil conditions which may be encountered in the work.
 The Contractor shall excavate the Channel as shown on the plans between right of way and shall dispose of excavated material as directed by the Engineer.
 Contractor shall drive two 18" P.C. test Piles and two untreated piles in a permanent location before ordering or casting Piles for Metal Handrail see Special Provisions.
 * All bars shall be round ASTM A305-49.
 The size number is the number at 8 inches in the nominal diameter.
 Structural Steel shall be inspected by the Illinois Division of Highways.



ELEVATION
 Scale: 3/32" = 1'-0"



CAMBER CURVE



PLAN
 Scale: 3/32" = 1'-0"

TOTAL BILL OF MATERIAL

ITEM	Super	Sub.	TOTAL
Class-X Concrete	Cu. Yds. 462.5	44.8	507.3
Class-A Concrete	Cu. Yds. -	264.2	264.2
Handrail Concrete	Cu. Yds. 1.6	-	1.6
Metal Handrail	Lin. Ft. 441.0	-	441.0
* Reinforcement Bars	Lbs. 116770	13620	130390
Structural Steel	Lbs. 13850	-	13850
Name Plates	Each 1	-	1
Untreated Timber Piles	Lin. Ft. -	1237	1237
Untreated Timber Test Piles	Each -	2	2
18" P.C. Piles	Lin. Ft. -	160	160
18" P.C. Test Piles	Each -	2	2
Removal of Existing Str. No. 2	Each 1	-	1
Pavement Removal	Sq. Yds. -	90.0	90.0
Class-A Exc. for Structures	Cu. Yds. -	97.0	97.0
Class-B Exc. for Structures	Cu. Yds. -	170.0	170.0
Channel Excavation	Cu. Yds. -	15700	15700
Trans. Exist. Struct. Steel Span No. 1	Each 1	-	1
Removal of Exist. Steel Span No. 2	Each 1	-	1

Transition Shoulder from 21'-0" to 19'-6" in 37'-6" on each side of Roadway.

STATION 721+23
 BUILT 1951 BY
 STATE OF ILLINOIS
 S.B.I. R.T. 1-SEC. 29-B-Y
 F.A. PROJ. F. 103(14)
 LOADINGS H20-S16

NAME PLATE
 See Standard 1321

Sta. 720+12 15' R.L.	Sta. 720+80 5' R.L.	Sta. 721+66 5' R.L.	Sta. 722+34 15' R.L.
368.3 Stiff Brown clay	353.0 Med. Brown Clay	353.0 Med. Brown Clay	353.0 Stiff to Med. Brown Clay (H11)
366.0 Med. to stiff Brown Clay	351.0 Soft Brown Silty Clay	351.0 Soft Brown Silty Clay	351.0 Med. Gray Clay or Silty Clay. Contains Organic Matter
364.0 Med. brown clay (H11)	348.0 Stiff clear brown Clay	348.0 Med. Gray Clay	348.0 Med. clear Brown Clay
362.0 Stiff clear brown Clay slightly mottled	346.0 Very stiff clear brown Clay slightly mottled	346.0 Med. Gray Clay	346.0 Med. to stiff clear Brown Clay slightly mottled
360.0 Stiff to very stiff clear Light Gray Clay	344.0 Stiff to very stiff Gray Clay	344.0 Stiff to very stiff Gray Clay with thin lenses of fine Gray Sand	344.0 Stiff to very stiff clear mottled Clay
358.0 Stiff to very stiff Gray Clay with a few thin Sand lenses	342.0 Stiff to very stiff Gray Clay with thin lenses of fine Gray Sand	342.0 Stiff to very stiff clear light Gray Clay	342.0 Stiff to very stiff clear light Gray Clay
356.0 Stiff to very stiff Gray Clay with a few thin Sand lenses	340.0 Stiff to very stiff Gray Clay with thin lenses of fine Gray Sand	340.0 Stiff to very stiff clear light Gray Clay	340.0 Stiff to very stiff clear light Gray Clay

BORING DATA

1/2 20000 #4 Reinf.
 1/4 1400 #4 Super
 1/4 800 #4 Sub.
 10

Pavement Removal
 Sta. 720+07 to Sta. 720+25.25
 Sta. 722+14.75 to Sta. 722+39

GENERAL PLAN & ELEVATION
PROJECT F-103(14)
NORTH FORK SALINE RIVER DRAINAGE DITCH
S.B.I. R.T. 1-SEC. 29-B-Y
SALINE COUNTY
STA. 721+23

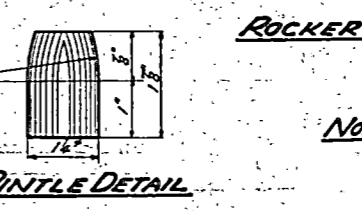
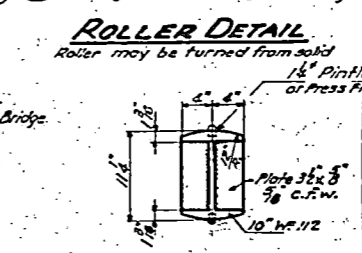
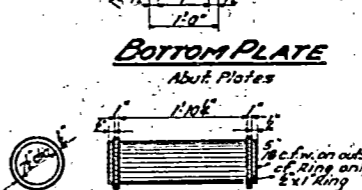
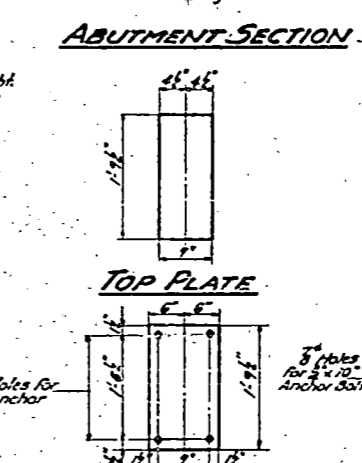
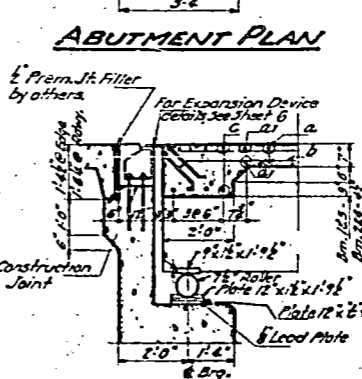
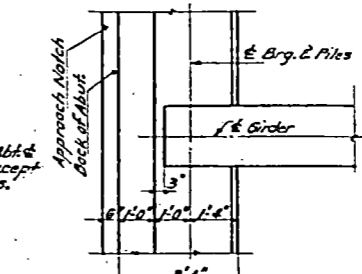
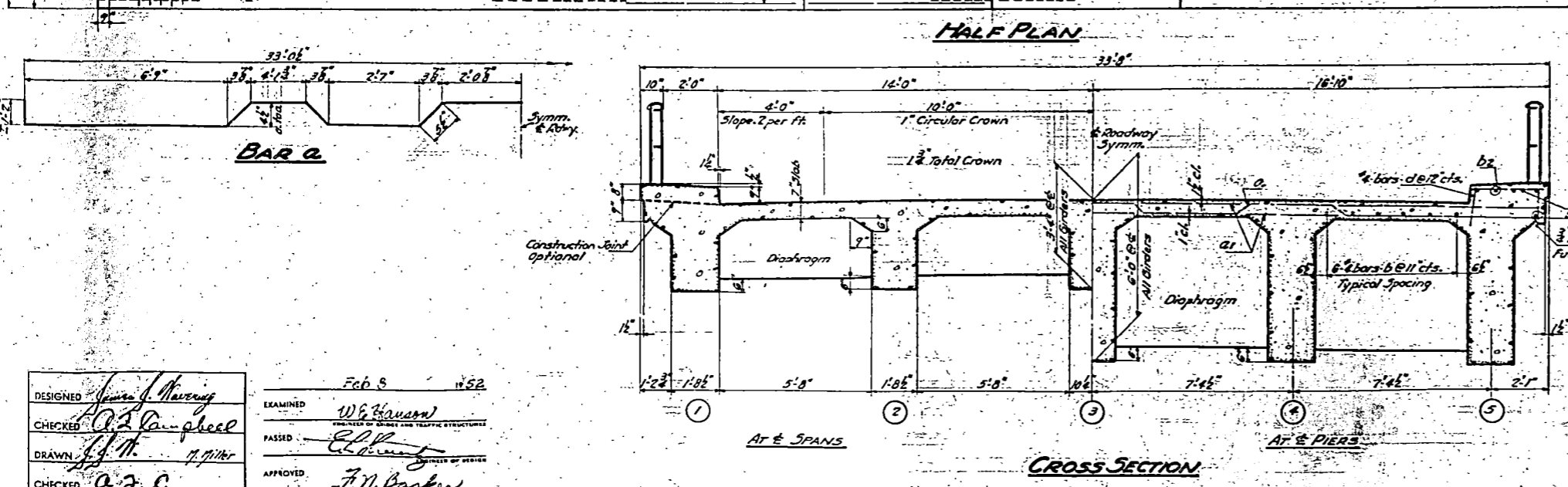
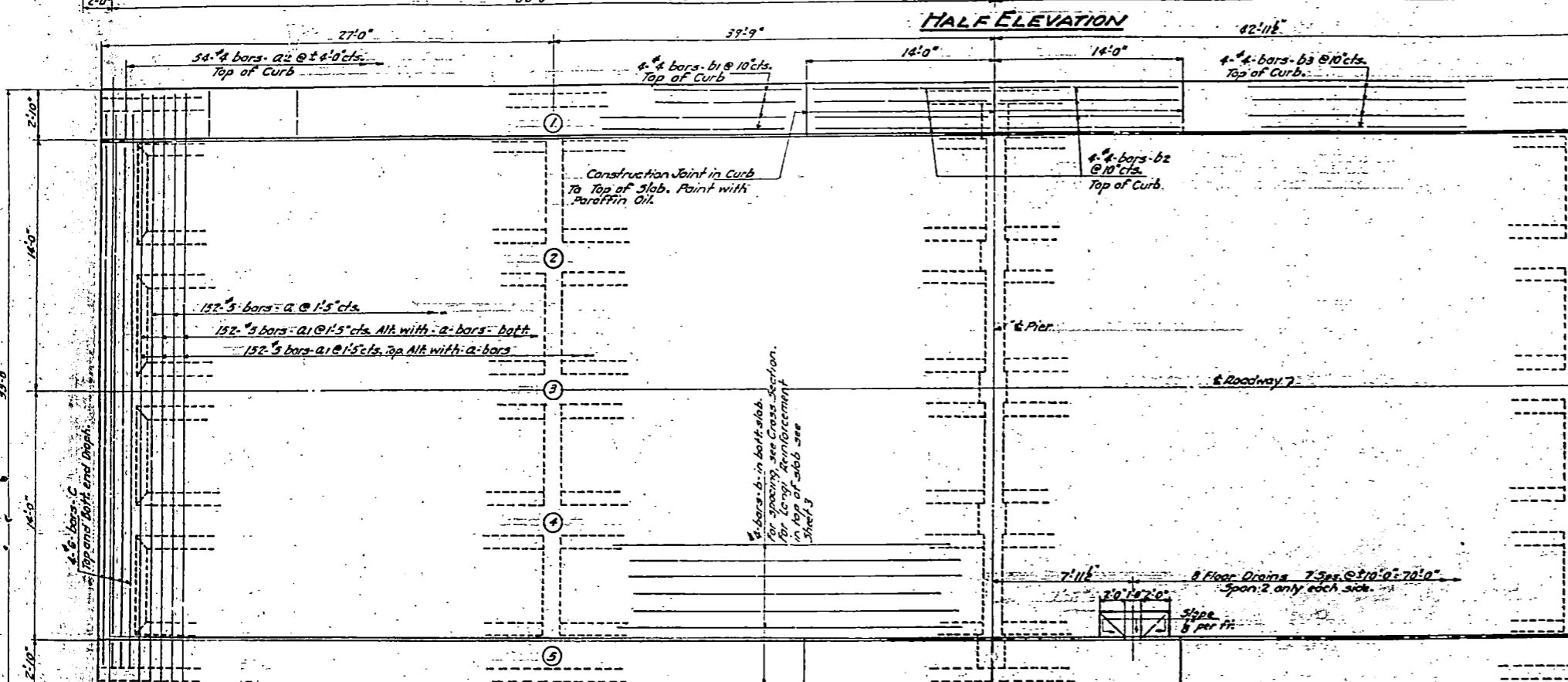
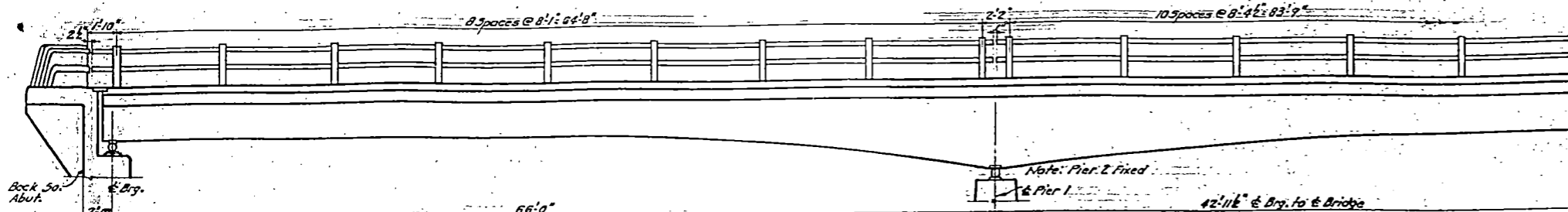
REEL
 9-1

DESIGNED	James J. Manning	EXAMINED	W. E. Houston
CHECKED	A. J. Campbell	PASSED	E. H. Hunt
DRAWN	J. M. Miller	APPROVED	F. N. Barber
CHECKED	A. J. C.		

083-0001

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1	2987	Saline	37	23
SHEETS				



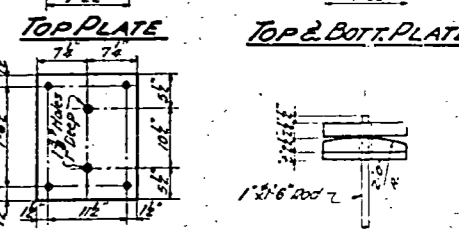
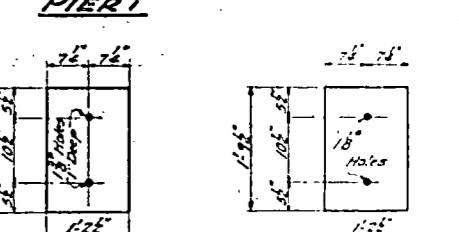
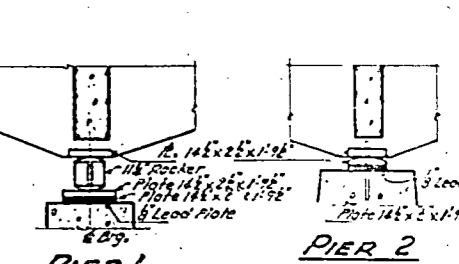
BAR LIST - SLAB

BAR	NO.	SIZE	LENGTH	WEIGHT
a	152	#3	36'-3"	116.620
a1	304	#3	33'-3"	113.520
a2	108	#4	2'-6"	1.500
b	203	#4	28'-3"	116.620
b1	32	#4	28'-9"	116.620
b2	32	#4	13'-6"	116.620
b3	16	#4	29'-6"	116.620
c	16	#6	30'-0"	116.620
d	440	#4	1'-5"	116.620

BILL OF MATERIAL

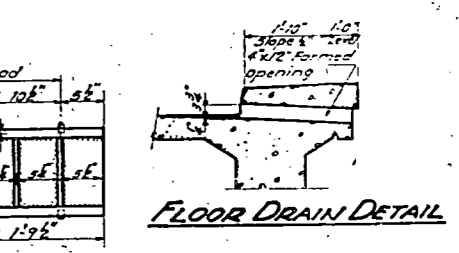
Class II Concrete	Cu. Yds. 462.5
Reinforcement Bars	Lbs. 116620
Structural Steel	Lbs. 113520

X Does not include Structural Steel of Expansion Device.



6" DIMENSIONS

BEAM	16.5	22.4	3
ABUT.	0"	0"	2"
PIER 1	0"	0"	2"
PIER 2	0"	0"	2"



DESIGNED: James J. Manning
CHECKED: J. J. Campbell
DRAWN: J. J. Campbell
CHECKED: A. J. C.

EXAMINED: W. E. Hanson
PASSED: E. J. ...
APPROVED: J. M. Barker

Feb 8 1952

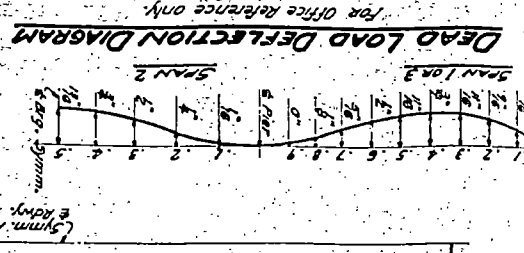
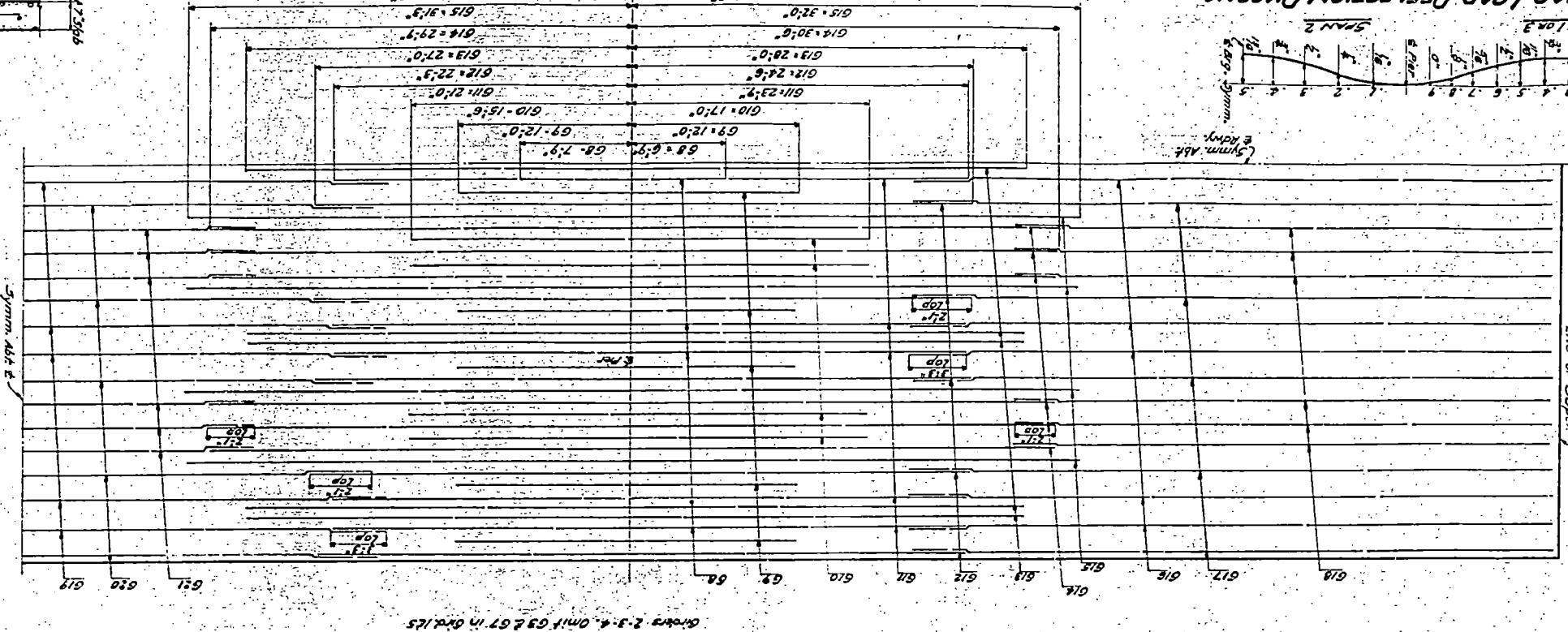
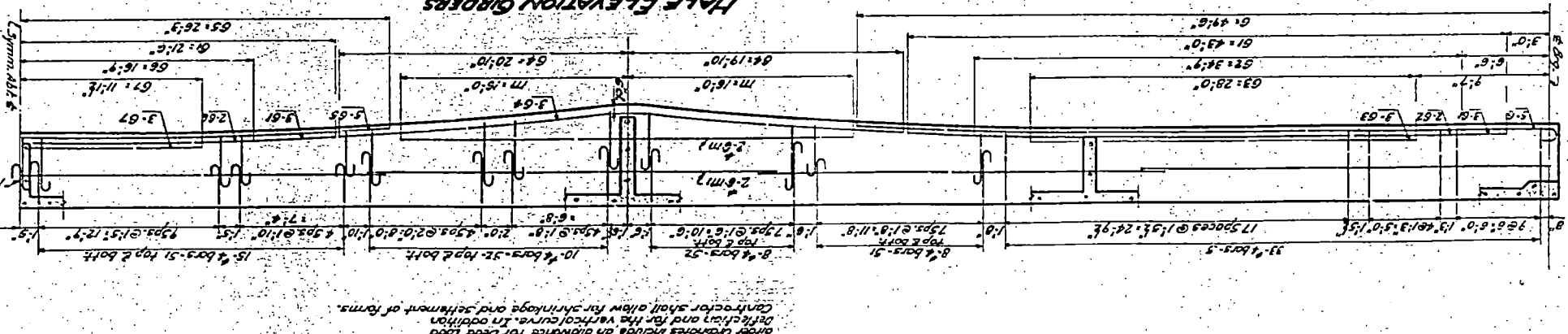
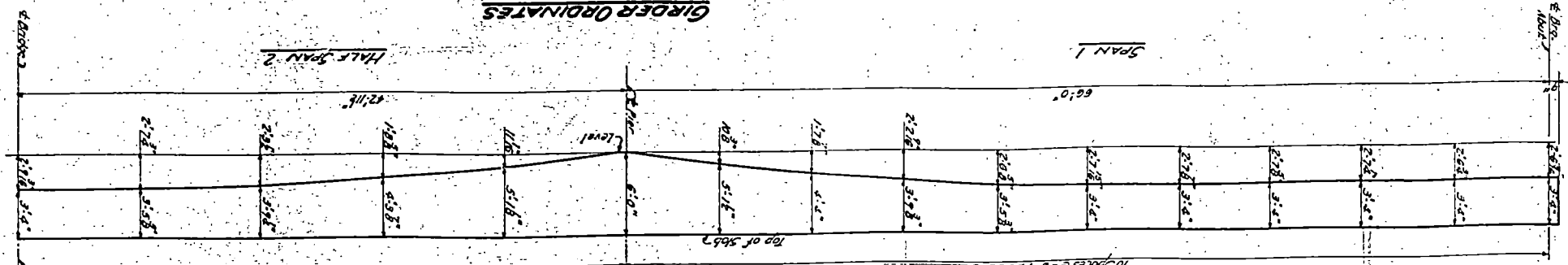
SUPERSTRUCTURE
PROJECT F-103(4)
NORTH FORK SALINE RIVER DRAINAGE DITCH
S. B. I. RTE. 1-SEC. 29-B-Y
SALINE COUNTY
STA. 721+23

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

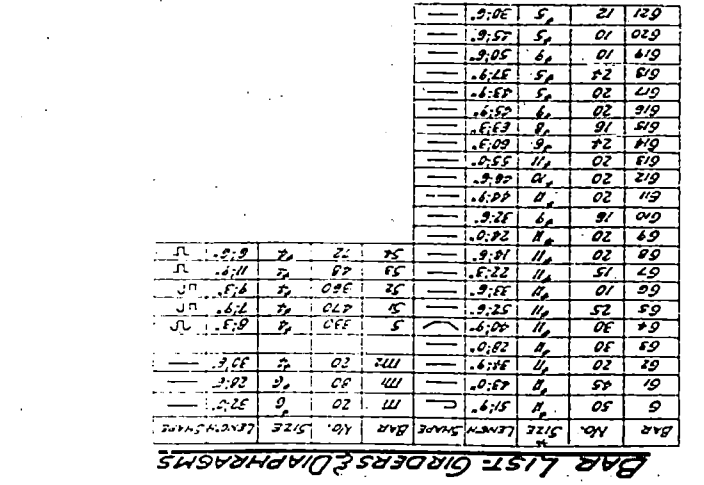
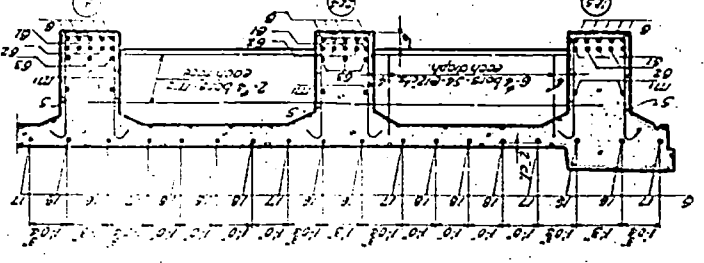
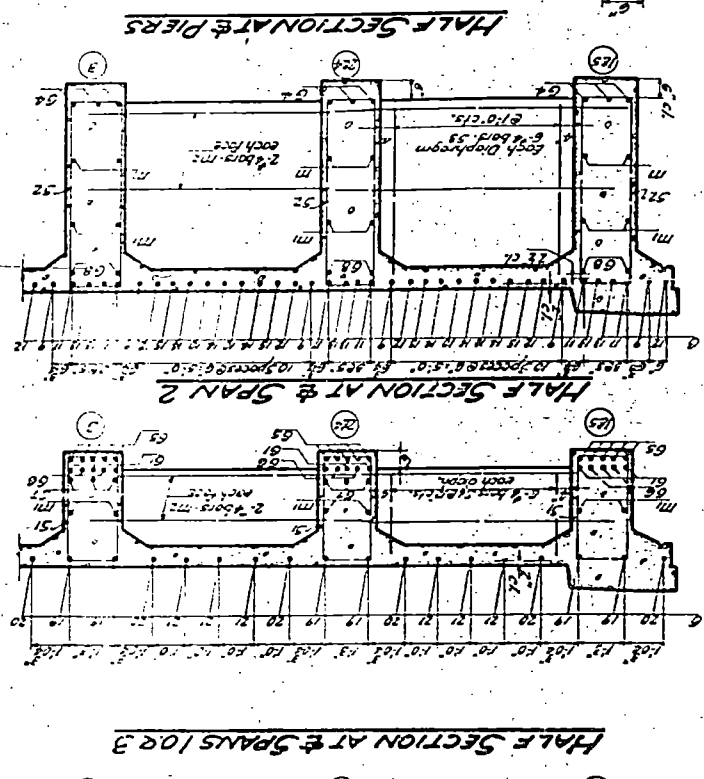
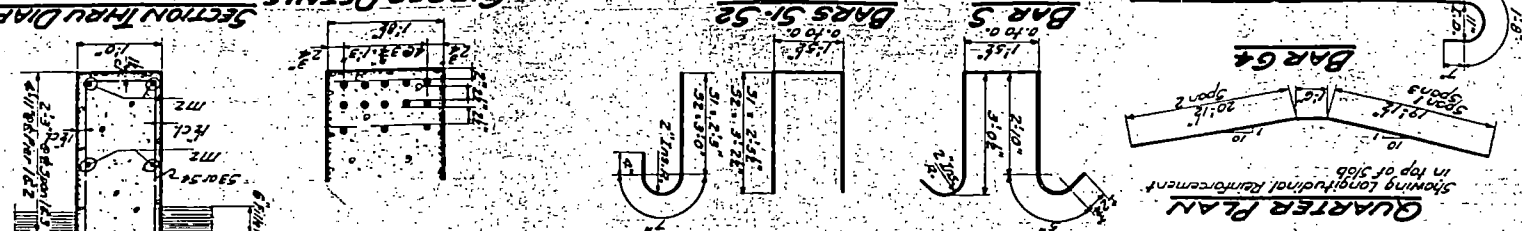
PROJECT NO.	12984	SALINE	37	24
SECTION				
DATE				
NO. 3				

BAR LIST - GIRDERS & DIAPHRAGMS

BAR NO.	SIZE	LENGTH	SHAPE	YO.	SIZE	LENGTH	SHAPE	YO.
G 50	H	51'-9"	M	20	G	37'-5"	M	20
G 51	H	43'-0"	M	30	G	28'-6"	M	30
G 52	H	28'-0"	M	20	G	33'-6"	M	20
G 53	H	28'-0"	M	20	G	33'-6"	M	20
G 54	H	40'-9"	M	30	G	44'-9"	M	30
G 55	H	33'-0"	M	20	G	37'-5"	M	20
G 56	H	47'-9"	M	30	G	51'-9"	M	30
G 57	H	33'-6"	M	30	G	37'-5"	M	30
G 58	H	22'-3"	M	20	G	28'-0"	M	20
G 59	H	22'-3"	M	20	G	28'-0"	M	20
G 60	H	22'-3"	M	20	G	28'-0"	M	20
G 61	H	22'-3"	M	20	G	28'-0"	M	20
G 62	H	22'-3"	M	20	G	28'-0"	M	20
G 63	H	22'-3"	M	20	G	28'-0"	M	20
G 64	H	22'-3"	M	20	G	28'-0"	M	20
G 65	H	22'-3"	M	20	G	28'-0"	M	20
G 66	H	22'-3"	M	20	G	28'-0"	M	20
G 67	H	22'-3"	M	20	G	28'-0"	M	20
G 68	H	22'-3"	M	20	G	28'-0"	M	20
G 69	H	22'-3"	M	20	G	28'-0"	M	20
G 70	H	22'-3"	M	20	G	28'-0"	M	20
G 71	H	22'-3"	M	20	G	28'-0"	M	20
G 72	H	22'-3"	M	20	G	28'-0"	M	20
G 73	H	22'-3"	M	20	G	28'-0"	M	20
G 74	H	22'-3"	M	20	G	28'-0"	M	20
G 75	H	22'-3"	M	20	G	28'-0"	M	20
G 76	H	22'-3"	M	20	G	28'-0"	M	20
G 77	H	22'-3"	M	20	G	28'-0"	M	20
G 78	H	22'-3"	M	20	G	28'-0"	M	20
G 79	H	22'-3"	M	20	G	28'-0"	M	20
G 80	H	22'-3"	M	20	G	28'-0"	M	20
G 81	H	22'-3"	M	20	G	28'-0"	M	20
G 82	H	22'-3"	M	20	G	28'-0"	M	20
G 83	H	22'-3"	M	20	G	28'-0"	M	20
G 84	H	22'-3"	M	20	G	28'-0"	M	20
G 85	H	22'-3"	M	20	G	28'-0"	M	20
G 86	H	22'-3"	M	20	G	28'-0"	M	20
G 87	H	22'-3"	M	20	G	28'-0"	M	20
G 88	H	22'-3"	M	20	G	28'-0"	M	20
G 89	H	22'-3"	M	20	G	28'-0"	M	20
G 90	H	22'-3"	M	20	G	28'-0"	M	20
G 91	H	22'-3"	M	20	G	28'-0"	M	20
G 92	H	22'-3"	M	20	G	28'-0"	M	20
G 93	H	22'-3"	M	20	G	28'-0"	M	20
G 94	H	22'-3"	M	20	G	28'-0"	M	20
G 95	H	22'-3"	M	20	G	28'-0"	M	20
G 96	H	22'-3"	M	20	G	28'-0"	M	20
G 97	H	22'-3"	M	20	G	28'-0"	M	20
G 98	H	22'-3"	M	20	G	28'-0"	M	20
G 99	H	22'-3"	M	20	G	28'-0"	M	20
G 100	H	22'-3"	M	20	G	28'-0"	M	20

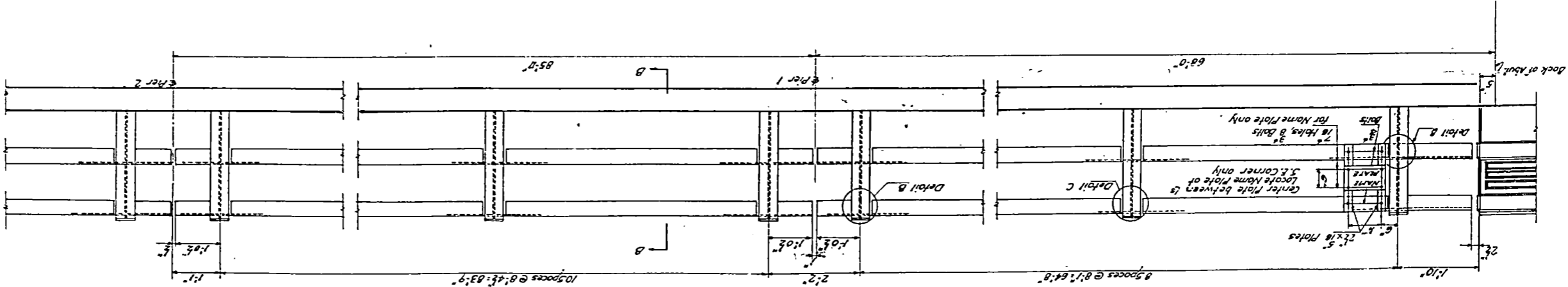


CHECKED	0.3.8
DESIGNED	W. E. Slattery
EXAMINED	W. E. Slattery
PASSED	W. E. Slattery
APPROVED	J. M. Barber
DATE	Feb 9 1952

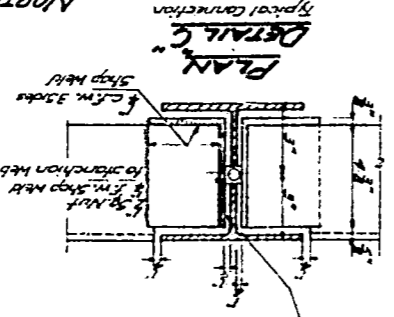
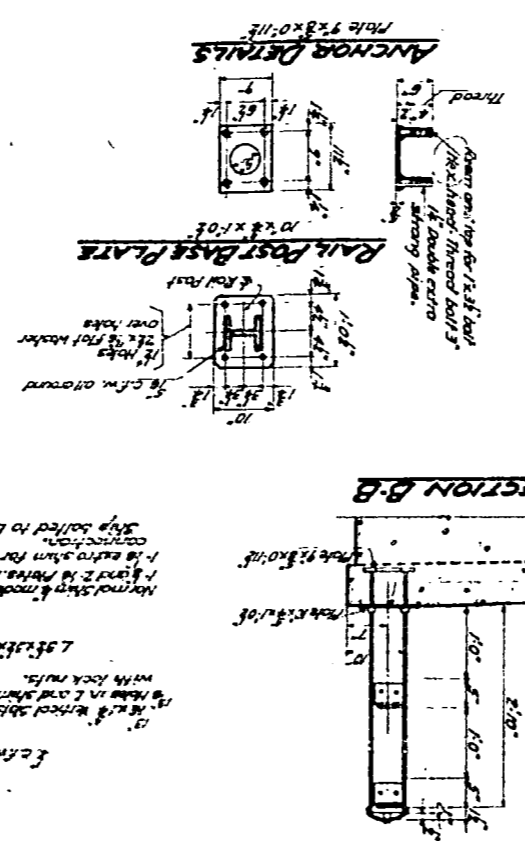
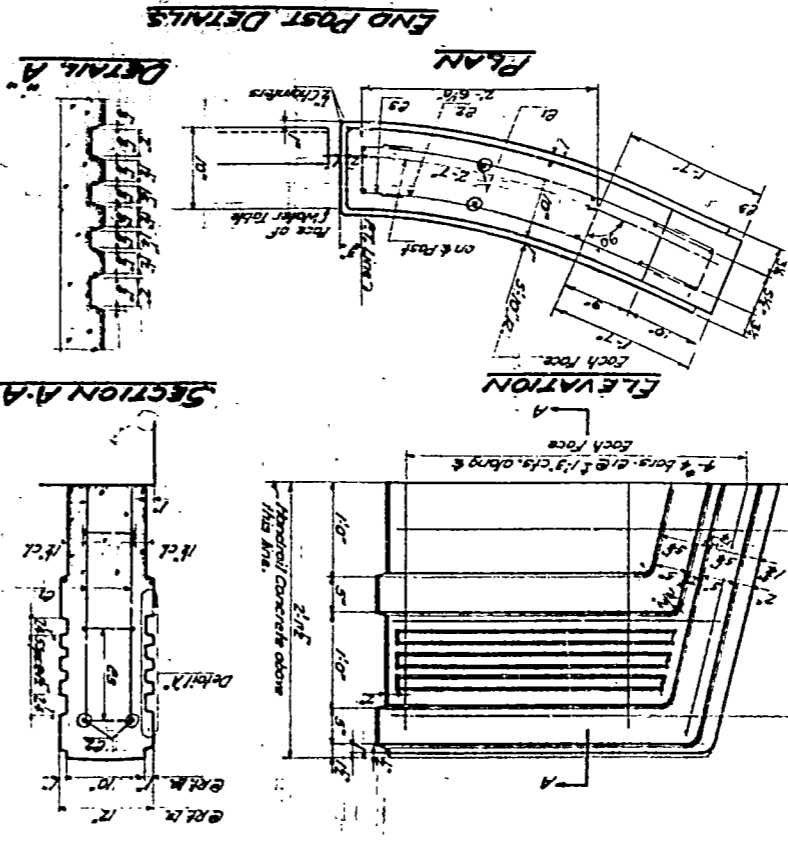
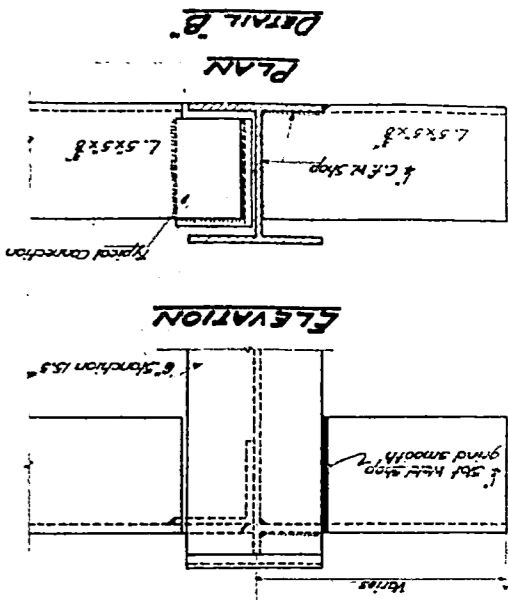


GIRDER
PROJECT F103(2)
NORTH FORK SALINE RIVER DRAINAGE DITCH
S. B. RTE. 1-SEC. 29-B-1
SALINE COUNTY
STA. 721+23

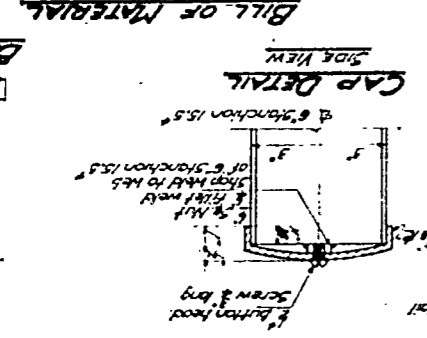
PROJECT NO.	1284	SOLING	37	25	8 SHEETS
DESIGN NO.					
DATE					
PROJECT NAME: PROJECT F-103 (A)					



HALF ELEVATION - WEST RAIL

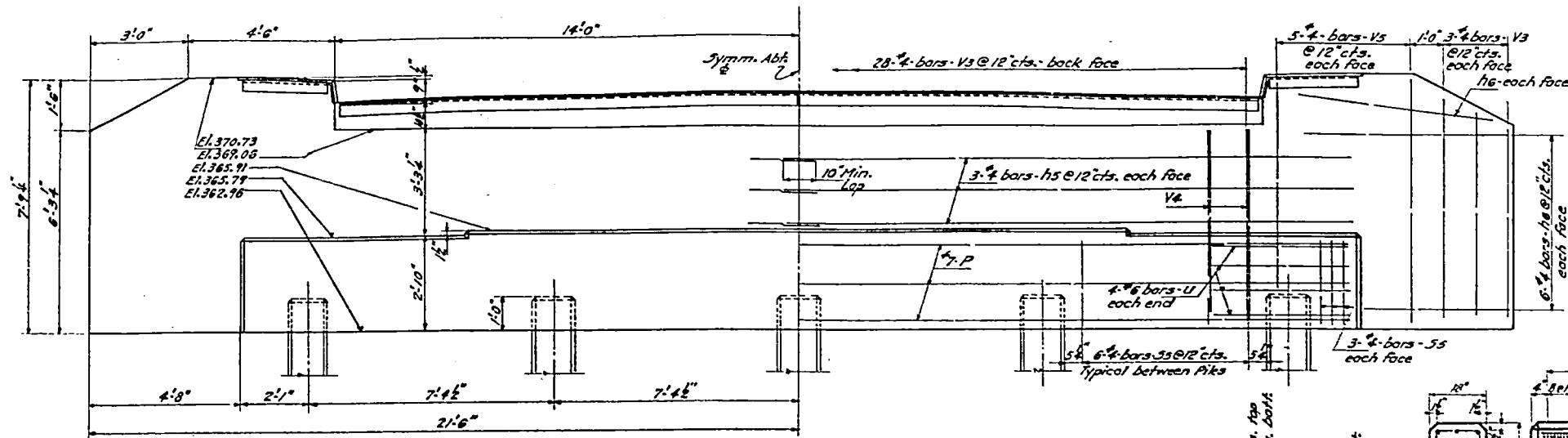


Bar	No.	Size	Length	Shape
1	2	2.5"	4'	—
2	4	3.5"	4'	—
3	2	2.5"	4'	—
4	2	2.5"	4'	—
5	2	2.5"	4'	—
6	2	2.5"	4'	—
7	2	2.5"	4'	—
8	2	2.5"	4'	—
9	2	2.5"	4'	—
10	2	2.5"	4'	—
11	2	2.5"	4'	—
12	2	2.5"	4'	—
13	2	2.5"	4'	—
14	2	2.5"	4'	—
15	2	2.5"	4'	—
16	2	2.5"	4'	—
17	2	2.5"	4'	—
18	2	2.5"	4'	—
19	2	2.5"	4'	—
20	2	2.5"	4'	—
21	2	2.5"	4'	—
22	2	2.5"	4'	—
23	2	2.5"	4'	—
24	2	2.5"	4'	—
25	2	2.5"	4'	—
26	2	2.5"	4'	—
27	2	2.5"	4'	—
28	2	2.5"	4'	—
29	2	2.5"	4'	—
30	2	2.5"	4'	—
31	2	2.5"	4'	—
32	2	2.5"	4'	—
33	2	2.5"	4'	—
34	2	2.5"	4'	—
35	2	2.5"	4'	—
36	2	2.5"	4'	—
37	2	2.5"	4'	—
38	2	2.5"	4'	—
39	2	2.5"	4'	—
40	2	2.5"	4'	—
41	2	2.5"	4'	—
42	2	2.5"	4'	—
43	2	2.5"	4'	—
44	2	2.5"	4'	—
45	2	2.5"	4'	—
46	2	2.5"	4'	—
47	2	2.5"	4'	—
48	2	2.5"	4'	—
49	2	2.5"	4'	—
50	2	2.5"	4'	—
51	2	2.5"	4'	—
52	2	2.5"	4'	—
53	2	2.5"	4'	—
54	2	2.5"	4'	—
55	2	2.5"	4'	—
56	2	2.5"	4'	—
57	2	2.5"	4'	—
58	2	2.5"	4'	—
59	2	2.5"	4'	—
60	2	2.5"	4'	—
61	2	2.5"	4'	—
62	2	2.5"	4'	—
63	2	2.5"	4'	—
64	2	2.5"	4'	—
65	2	2.5"	4'	—
66	2	2.5"	4'	—
67	2	2.5"	4'	—
68	2	2.5"	4'	—
69	2	2.5"	4'	—
70	2	2.5"	4'	—
71	2	2.5"	4'	—
72	2	2.5"	4'	—
73	2	2.5"	4'	—
74	2	2.5"	4'	—
75	2	2.5"	4'	—
76	2	2.5"	4'	—
77	2	2.5"	4'	—
78	2	2.5"	4'	—
79	2	2.5"	4'	—
80	2	2.5"	4'	—
81	2	2.5"	4'	—
82	2	2.5"	4'	—
83	2	2.5"	4'	—
84	2	2.5"	4'	—
85	2	2.5"	4'	—
86	2	2.5"	4'	—
87	2	2.5"	4'	—
88	2	2.5"	4'	—
89	2	2.5"	4'	—
90	2	2.5"	4'	—
91	2	2.5"	4'	—
92	2	2.5"	4'	—
93	2	2.5"	4'	—
94	2	2.5"	4'	—
95	2	2.5"	4'	—
96	2	2.5"	4'	—
97	2	2.5"	4'	—
98	2	2.5"	4'	—
99	2	2.5"	4'	—
100	2	2.5"	4'	—

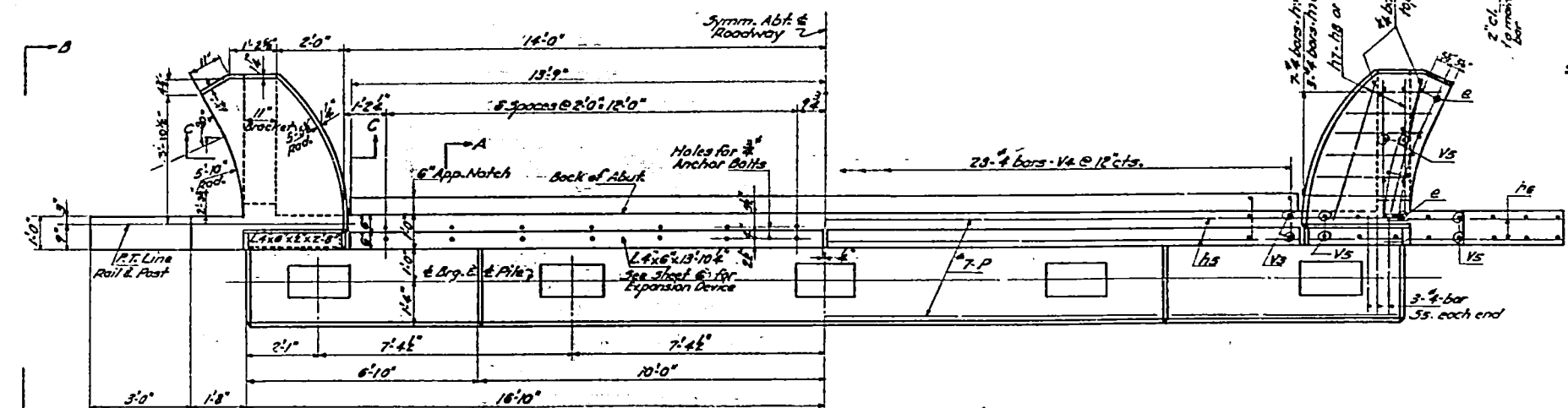


HANDRAIL
PROJECT F-103 (A)
NORTH FORK SALINE RIVER DRAINAGE DITCH
S.E. 1 RPT. SEC. 29-B-1
S.W. 1/4 INE COUNTY
S.A. 721+23

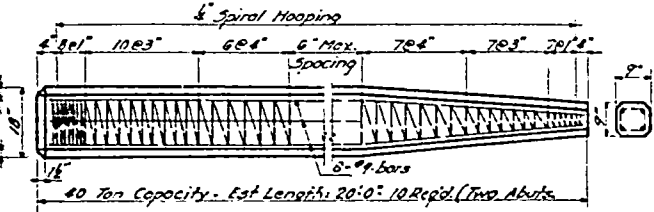
DESIGNED: James J. ...
CHECKED: A. A. Campbell
PASSED: W. G. ...
APPROVED: F. M. ...
Feb. 8 '52



ELEVATION



PLAN



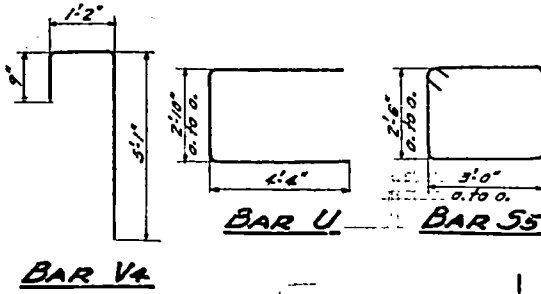
DETAIL OF PRECAST CONCRETE PILES

Spiral Hooping may be Structural Grade Reinforcement

BILL OF MATERIAL-2 ABUTS.

BAR	NO.	SIZE	LENGTH	SHAPE
e	16	4	4'-0"	U
h5	24	4	17'-0"	—
h6	56	4	6'-0"	—
h7	40	4	2'-6"	—
h8	32	4	10'-0"	—
h9	8	4	5'-6"	U
P	12	7	33'-0"	—
S5	60	4	11'-6"	U
U	16	16	11'-6"	U
V3	80	4	5'-9"	—
V4	56	4	7'-0"	—
V5	64	4	7'-9"	—

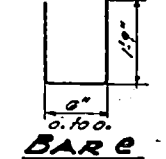
Class-X Concrete Cu Yds. 44.8
Reinforcement Bars Lbs. 3090
18" Precast Conc. Piles Lin. Ft. 180
18" P.C. Test Pile Each 2
Class-A Exc. for Struct. Cu Yds. 97



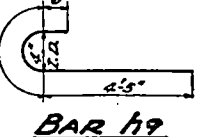
BAR V4

BAR U

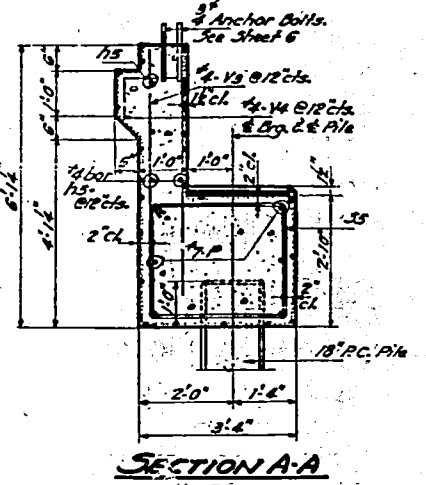
BAR S5



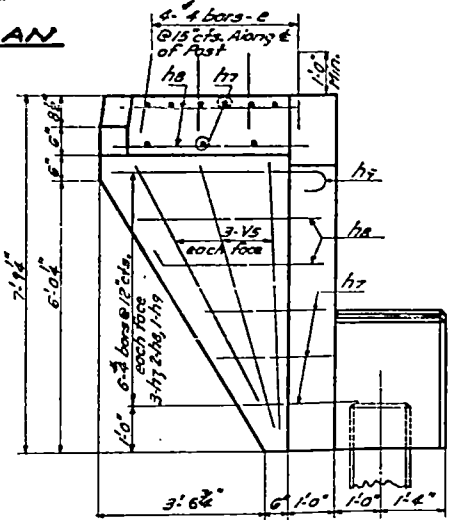
BAR e



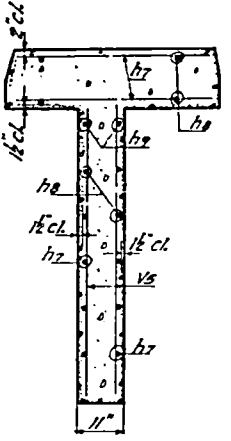
BAR h9



SECTION A-A



SECTION B-B



SECTION C-C

DESIGNED *James J. Haverling*
CHECKED *A. J. Lamshell*
DRAWN *J. H. H.*
CHECKED *a.s.c.*

EXAMINED *W. E. Hanson*
PASSED *E. H. Hanson*
APPROVED *J. N. Parker*

Feb 8 1952

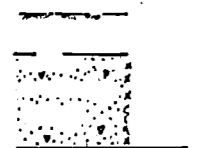
**NORTH & SOUTH ABUTMENT
PROJECT F-103(17)
NORTH FORK SALINE RIVER DRAINAGE DITCH
S.B.I. RTE. 1 SEC. 29-B-Y
SALINE COUNTY
STA. 721+23**

BOND ISSUE ROUTE NO.	COUNTY	SEC.	TOTAL SHEETS	SHEET NO.
1	SALINE	29B	35	35

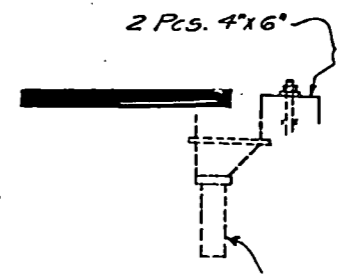
2

1

1
35



12"



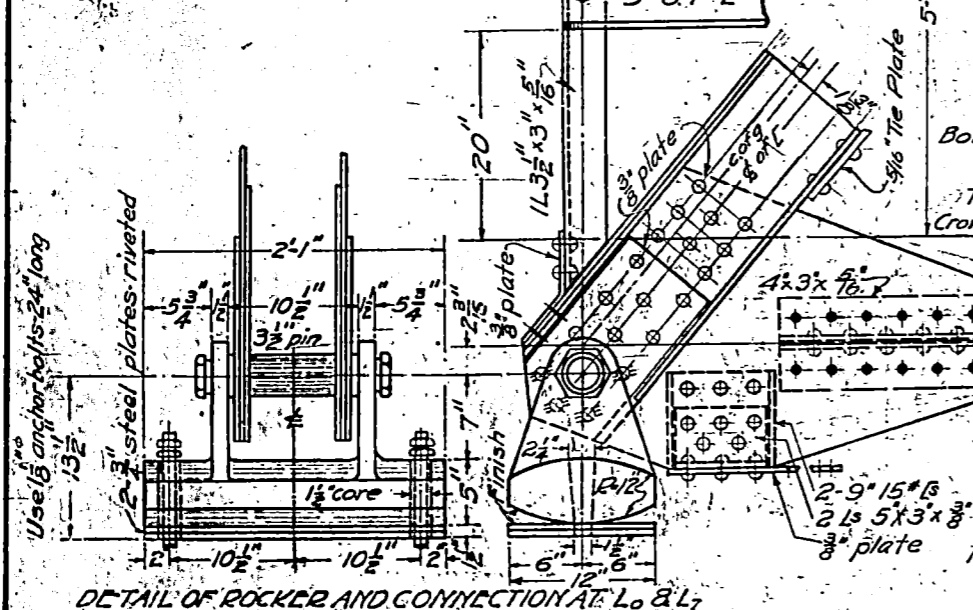
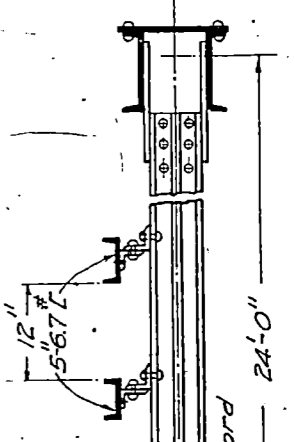
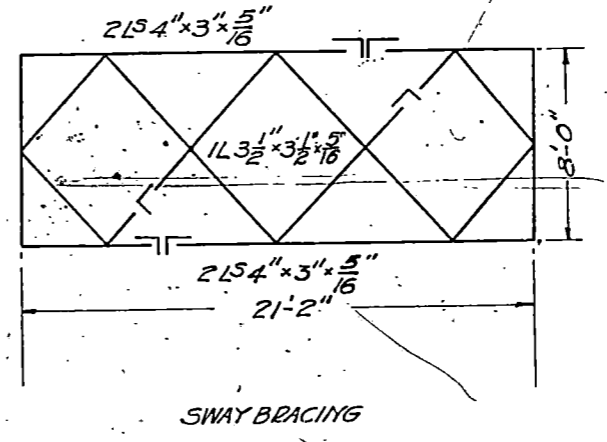
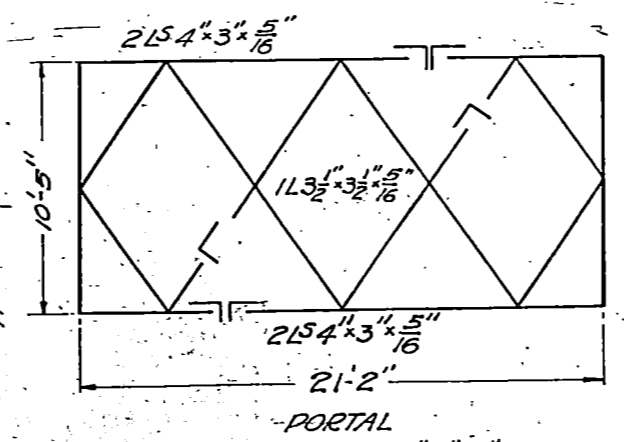
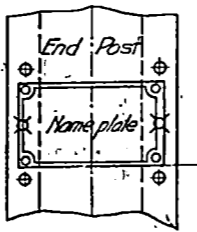
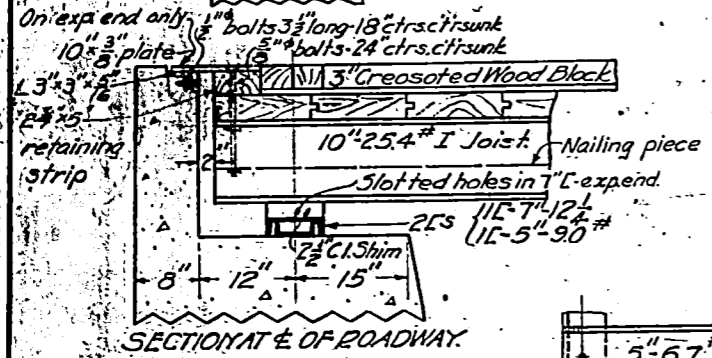
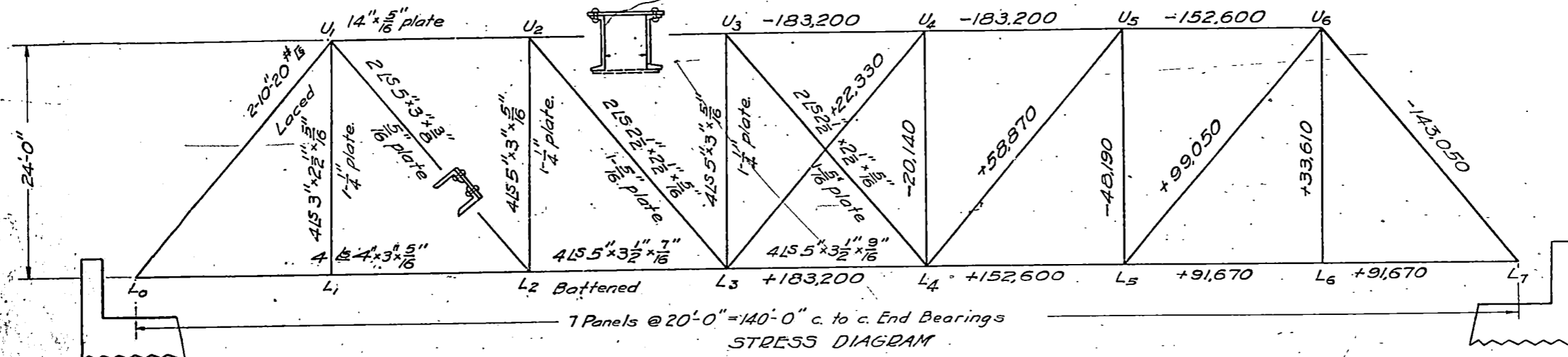
5 1/8"

Std. Gutter Box
No. 663.

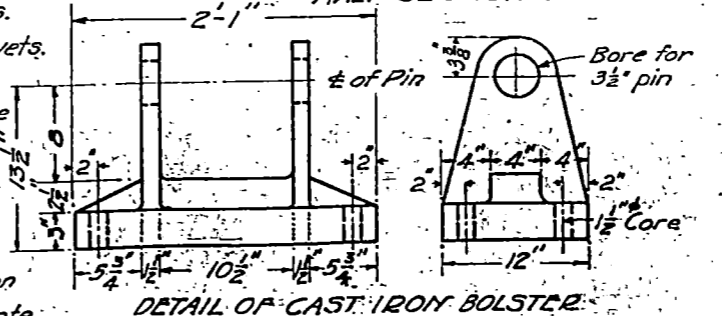
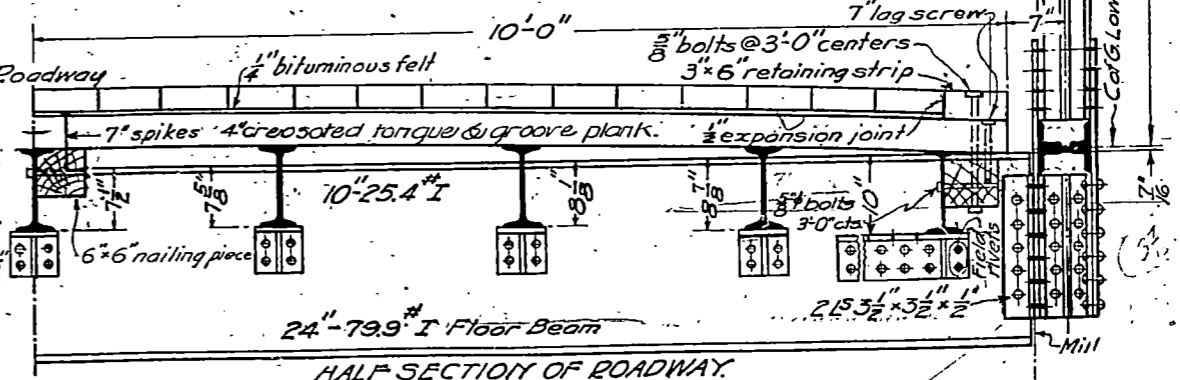
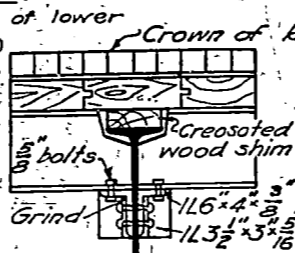
STA. 721+20
STATE BOND ISSUE ROUTE 1
SECTION 29B SALINE COUNTY.

May 22, 22
H. F. Burch
H. Brown
C. Alder

Wm. Schryver
H. B. Graham



- Panel 1: 1x4x3x5/16
- Panel 2: 1x3x2x5/16
- Panels 3 & 4: 1x2x2x5/16
- Bottom Laterals: 1x2x2x5/16
- Top Laterals: 1x2x2x5/16
- Crown of Roadway

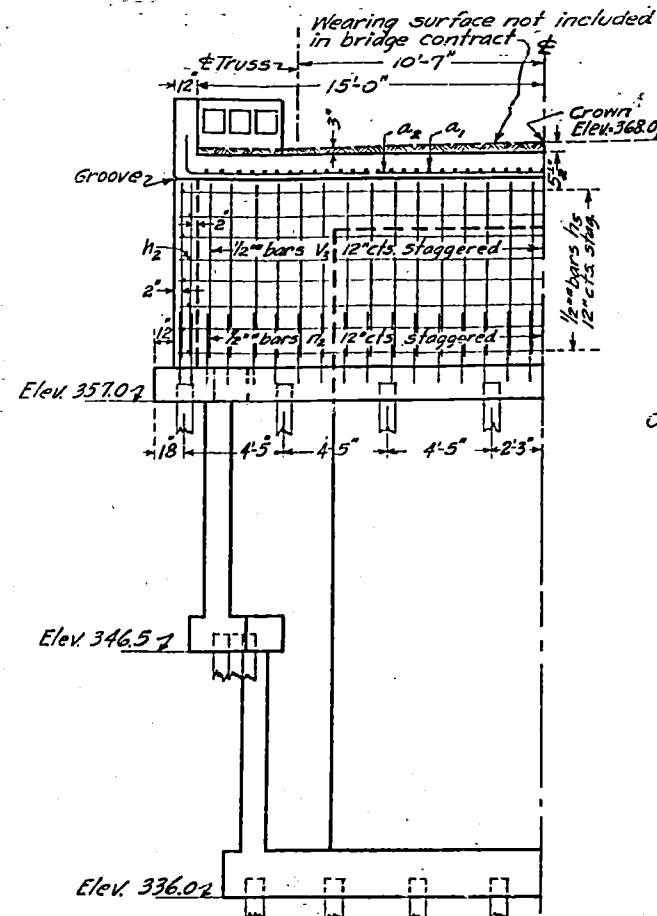


Note:
Rivets 3/8" except in 2 1/2" legs of angles.
Max. pitch is 5" for 3/8" and 4 1/2" for 5/8" rivets.
Parapet walls are to be built of Class X Concrete by superstructure contractor. Proportions 1:2:3 1/2.
Provide cast iron or steel plate shims between joists and joist spacers to provide proper crown.
All wood surfaces cut during erection to be painted with two coats of creosote.

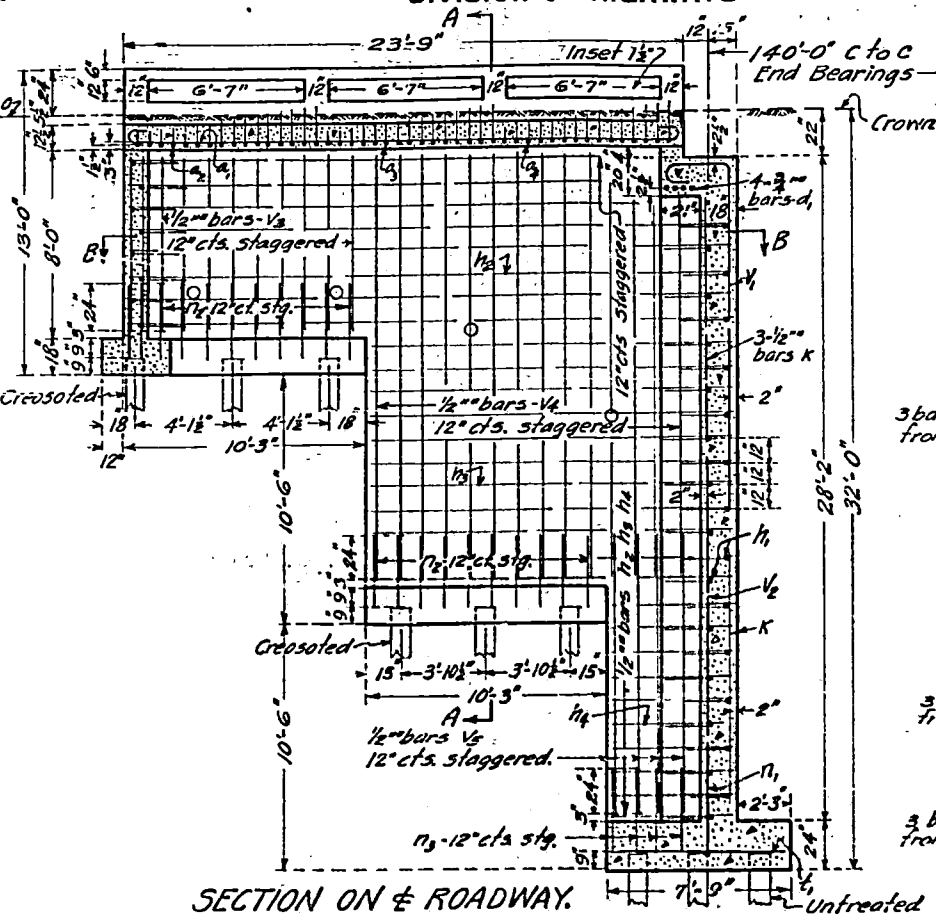
COMPILED BY	W. J. Wilson	DRAWN BY	W. J. Wilson
CHECKED BY	S. E. Hunt	APPROVED BY	W. J. Wilson
DATE	5-10-1921	SCALE	AS SHOWN

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

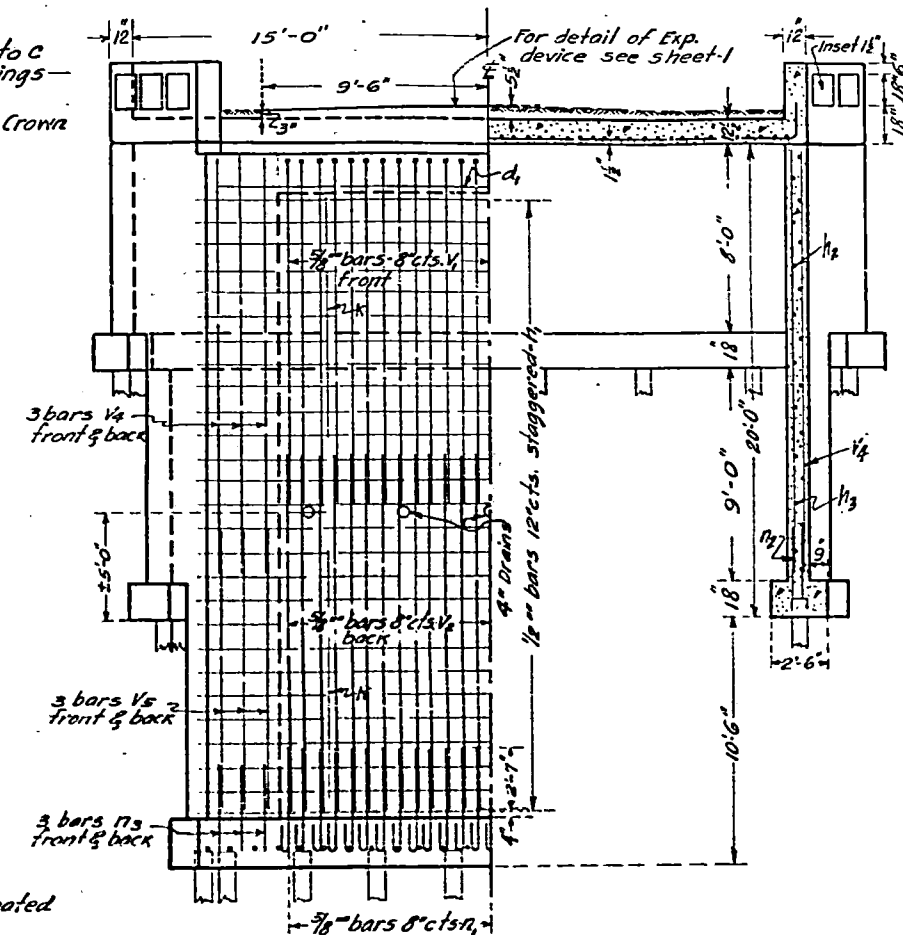
BOND ISSUE ROUTE	COUNTY	SEC.	TOTAL SHEETS	SHEET NO.	Sheet No. 2
1	SALINE	27	38	36	2 Sheets



HALF REAR VIEW



SECTION ON & ROADWAY.

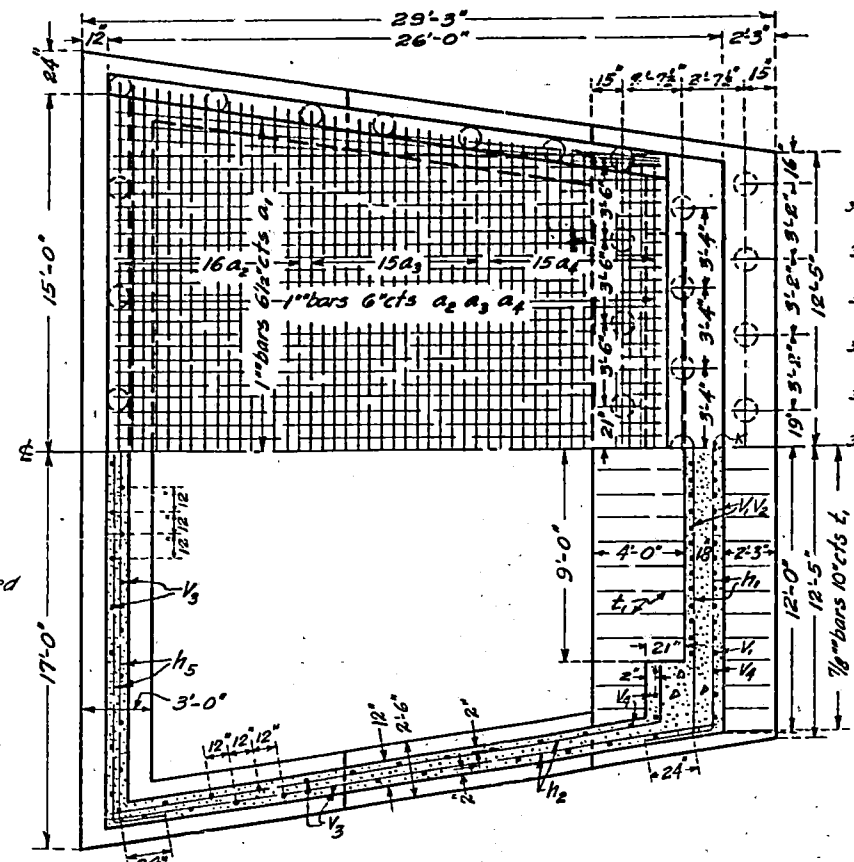
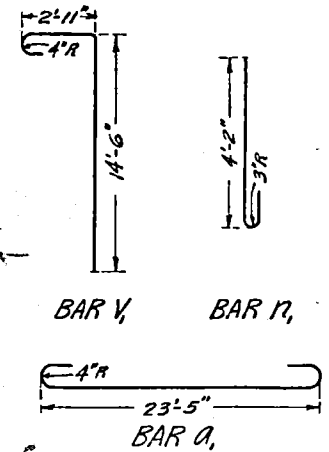


HALF FRONT VIEW HALF SECTION AA

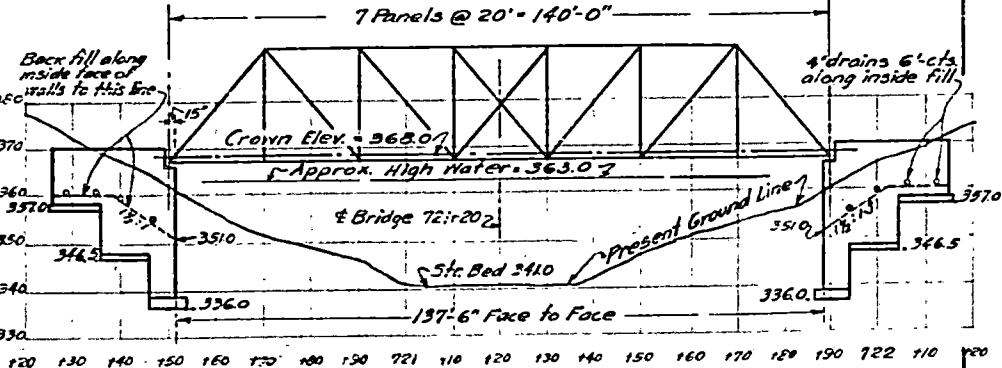
BILL OF MATERIAL

Bar	No.	Size	Length
a ₁	106	1"	25'-9"
a ₂	32	1"	32'-0"
a ₃	30	1"	29'-6"
a ₄	30	1"	27'-0"
v ₁	54	3/8"	18'-0"
v ₂	54	3/8"	15'-0"
v ₃	96	1/2"	7'-6"
v ₄	80	1/2"	18'-0"
v ₅	40	1/2"	12'-0"
n ₁	54	3/8"	5'-6"
n ₂	136	1/2"	3'-0"
n ₃	140	1/2"	3'-6"
n ₄	108	1/2"	7'-6"
n ₅	64	1/2"	14'-0"
n ₆	44	1/2"	15'-6"
n ₇	40	1/2"	5'-3"
n ₈	32	1/2"	19'-0"
k	12	1/2"	11'-0"
t	60	7/8"	7'-6"
d ₁	8	3/4"	23'-0"

Reinforcing Steel-lbs. 29060
Concrete Cu. Yds. 280.6
Creosoted Piles 36
Untreated Piles 46



HALF PLAN AND HALF SECTION BB



GENERAL ELEVATION AND PROFILE OF STREAM BED
Scale 1 inch = 20 feet.

BARS a₂, a₃, a₄

Bar	L	Bar	L	Bar	L
a ₂	31'-2"	a ₃	28'-6"	a ₄	26'-0"
	31'-0"		28'-4"		25'-10"
	30'-10"		28'-2"		25'-8"
	30'-8"		28'-0"		25'-6"
	30'-6"		27'-10"		25'-4"
	30'-4"		27'-8"		25'-2"
	30'-2"		27'-6"		25'-0"
	30'-0"		27'-4"		24'-10"
	29'-10"		27'-2"		24'-8"
	29'-8"		27'-0"		24'-6"
	29'-6"		26'-10"		24'-4"
	29'-4"		26'-8"		24'-2"
	29'-2"		26'-6"		24'-0"
	29'-0"		26'-4"		23'-10"
	28'-10"		26'-2"		23'-8"
	28'-8"				

STA. 721+20
STATE BOND ISSUE ROUTE 1
SECTION 29B SALINE COUNTY.

COMPUTED - *W. Schneider*
CHECKED - *A.H. Graham*
DRAWN - *W.M.S.*
CHECKED - *A.S.B.*
ASSEMBLED -
CHECKED -
EXAMINED - *May 22, 1922*
H. J. D. BRIDGE ENGINEER
PASSED
Robinson ENGINEER OF DESIGN
APPROVED
E. Older CHIEF HIGHWAY ENGINEER

Class A concrete to be used throughout. Proportions 1:2 1/2:4
All piles to have a bearing capacity of 15 Tons as determined by the Engineering News formula. Size of piles 12" butt 10" tip.