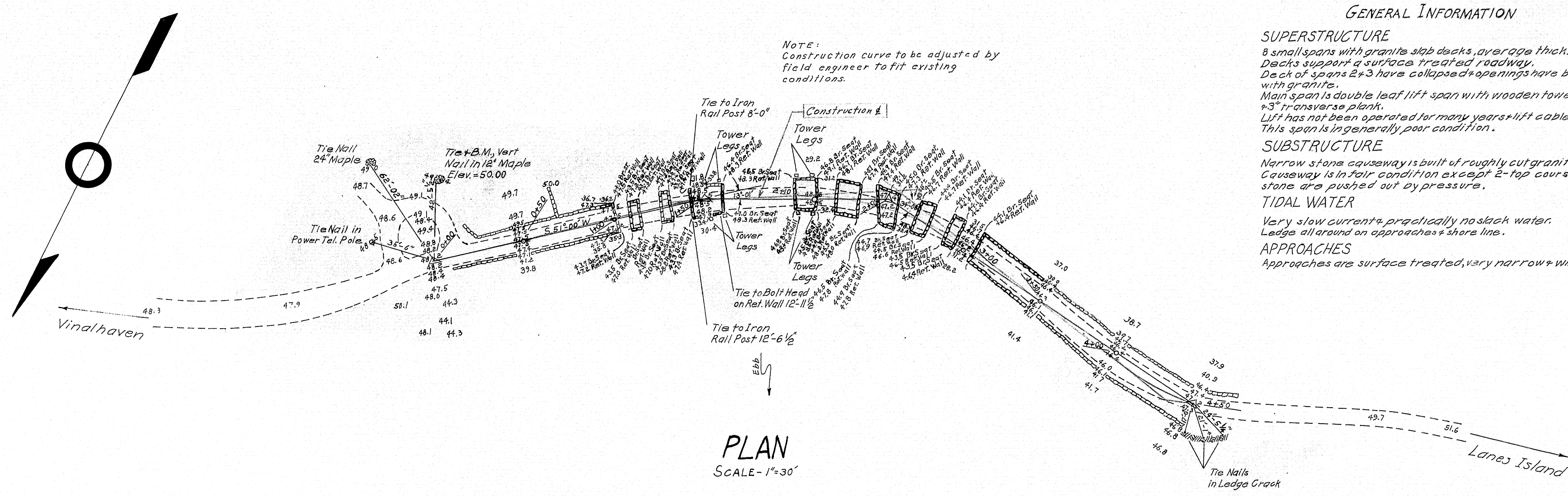




PLAN
SCALE - 1"=30'

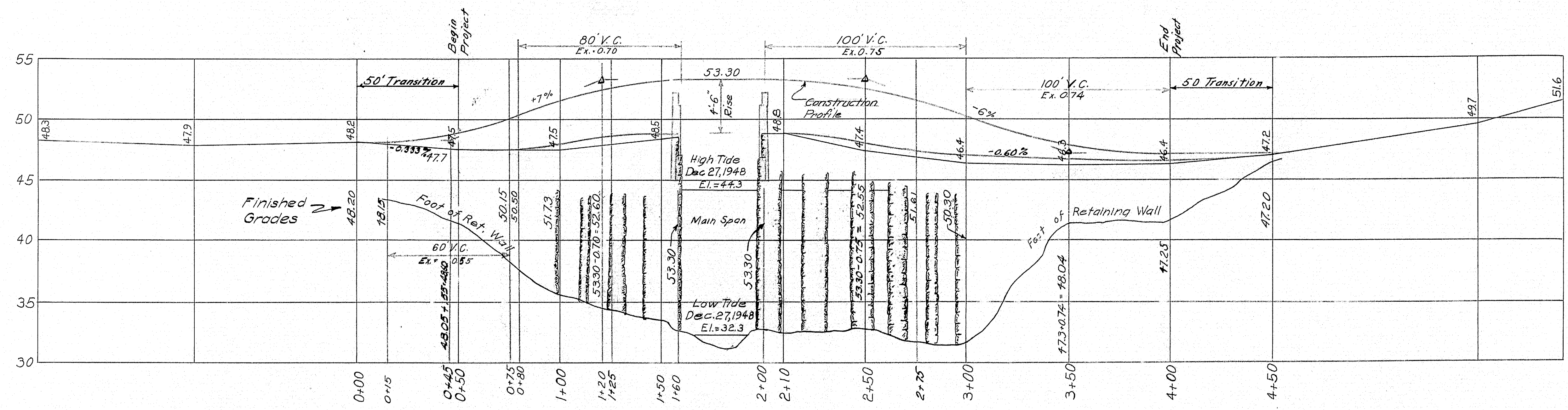
GENERAL INFORMATION

SUPERSTRUCTURE
8 small spans with granite slab decks, average thickness = 12". Decks support a surface treated roadway. Deck of spans 2+3 have collapsed & openings have been partially filled with granite. Main span is double leaf lift span with wooden towers & wood stringers & 3" transverse plank. Lift has not been operated for many years & lift cables have been removed. This span is in generally poor condition.

SUBSTRUCTURE
Narrow stone causeway is built of roughly cut granite laid up dry. Causeway is in fair condition except 2-top courses of retaining wall stone are pushed out by pressure.

TIDAL WATER
Very slow current & practically no slack water. Ledge all around on approach & shore line.

APPROACHES
Approaches are surface treated, very narrow & winding



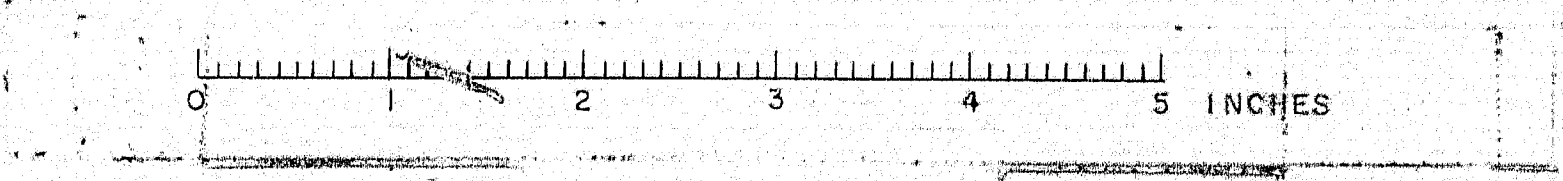
PROFILE
SCALE - Hor. 1"=30', Ver. 1"=5'

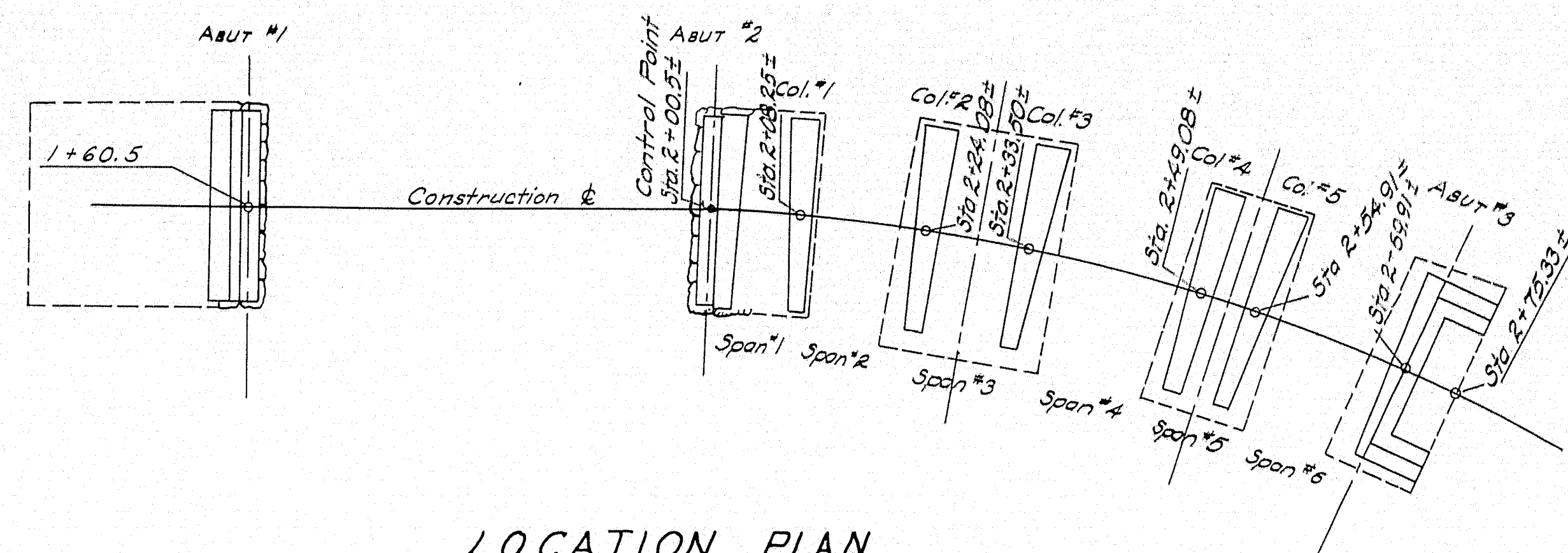
Note: The three openings west of the main span are to be preserved. See Sheet No. 4 for layout and details of structure.

Revised 1951

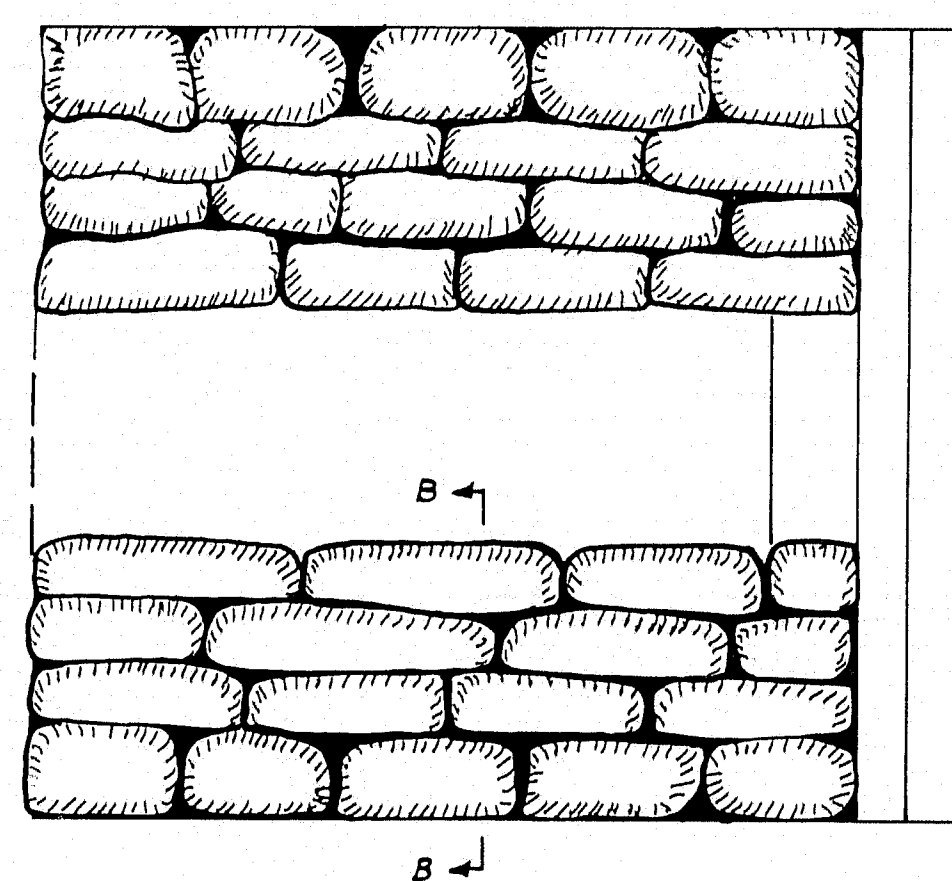
SURVEY - FERGUSON		BRIDGE - 5270
PLOT & TRACE - BAKER		
STATE HIGHWAY COMMISSION		
BRIDGE DIVISION		
LANES ISLAND BRIDGE		
OVER		
CARVERS HARBOR		
IN THE TOWN OF		
VINALHAVEN		
KNOX COUNTY		
SURVEY		
SHEET 1 OF 2 AUGUSTA MAINE JAN. 20, 1948		

55-145

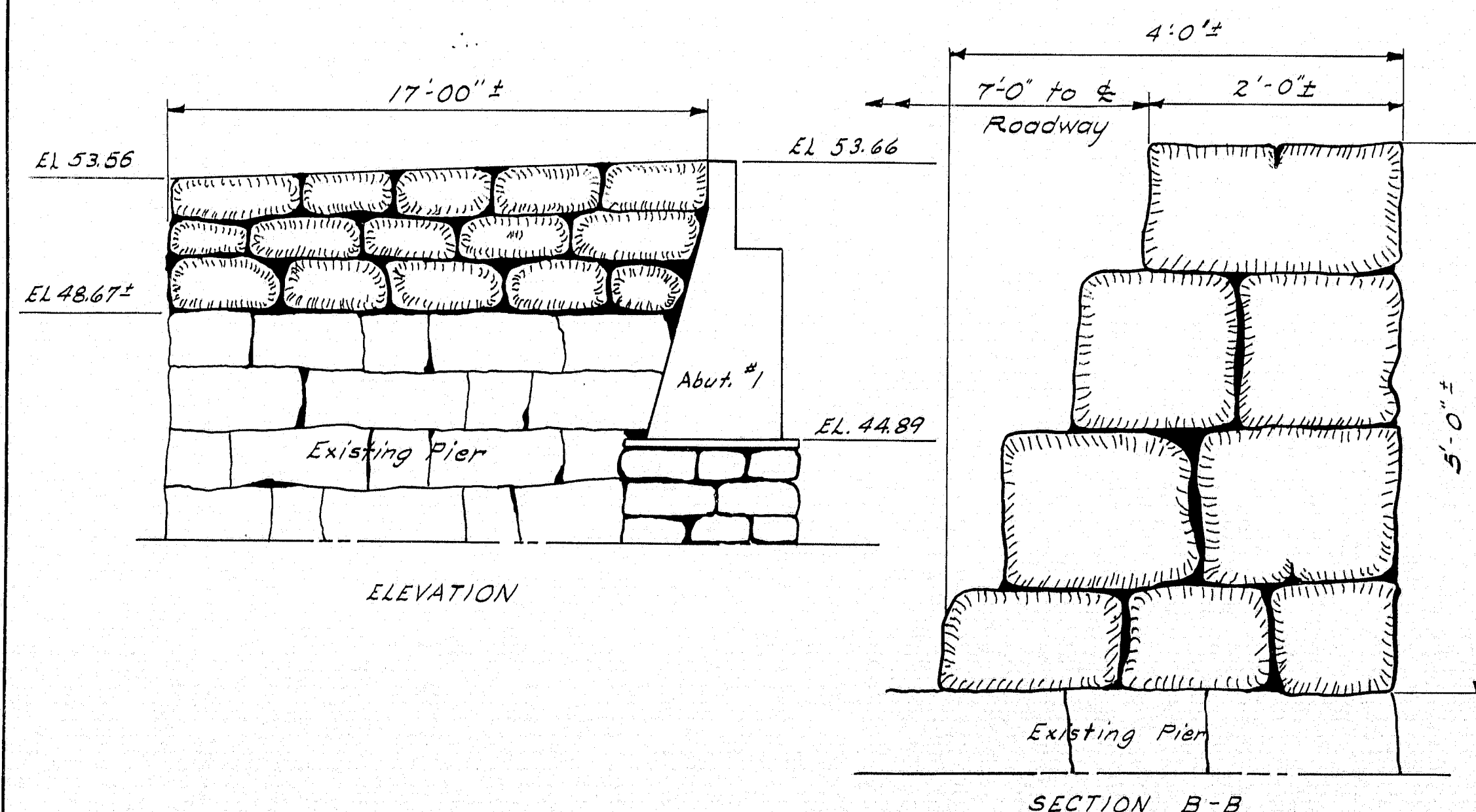




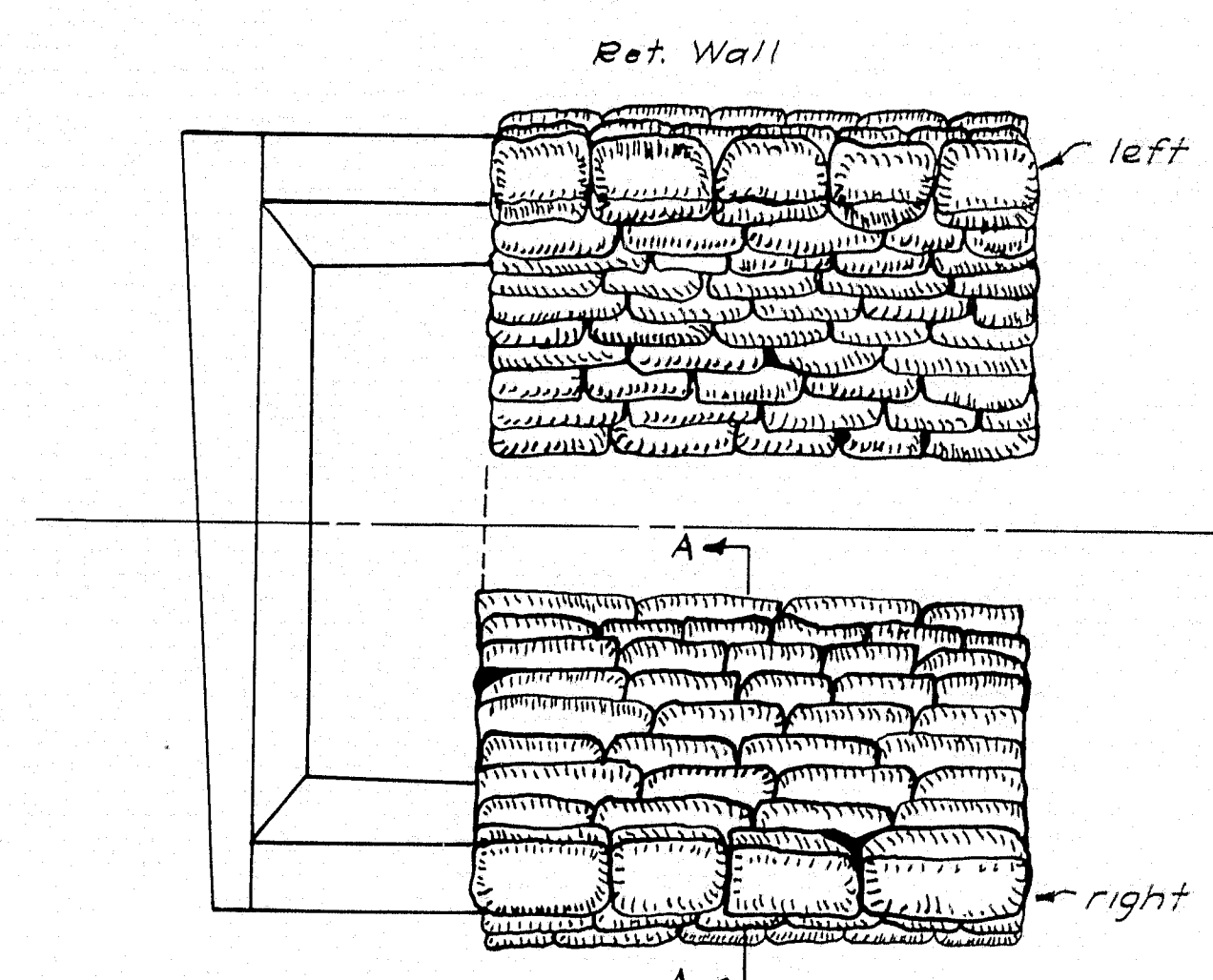
LOCATION PLAN
See Sheet #4 for Line Layout



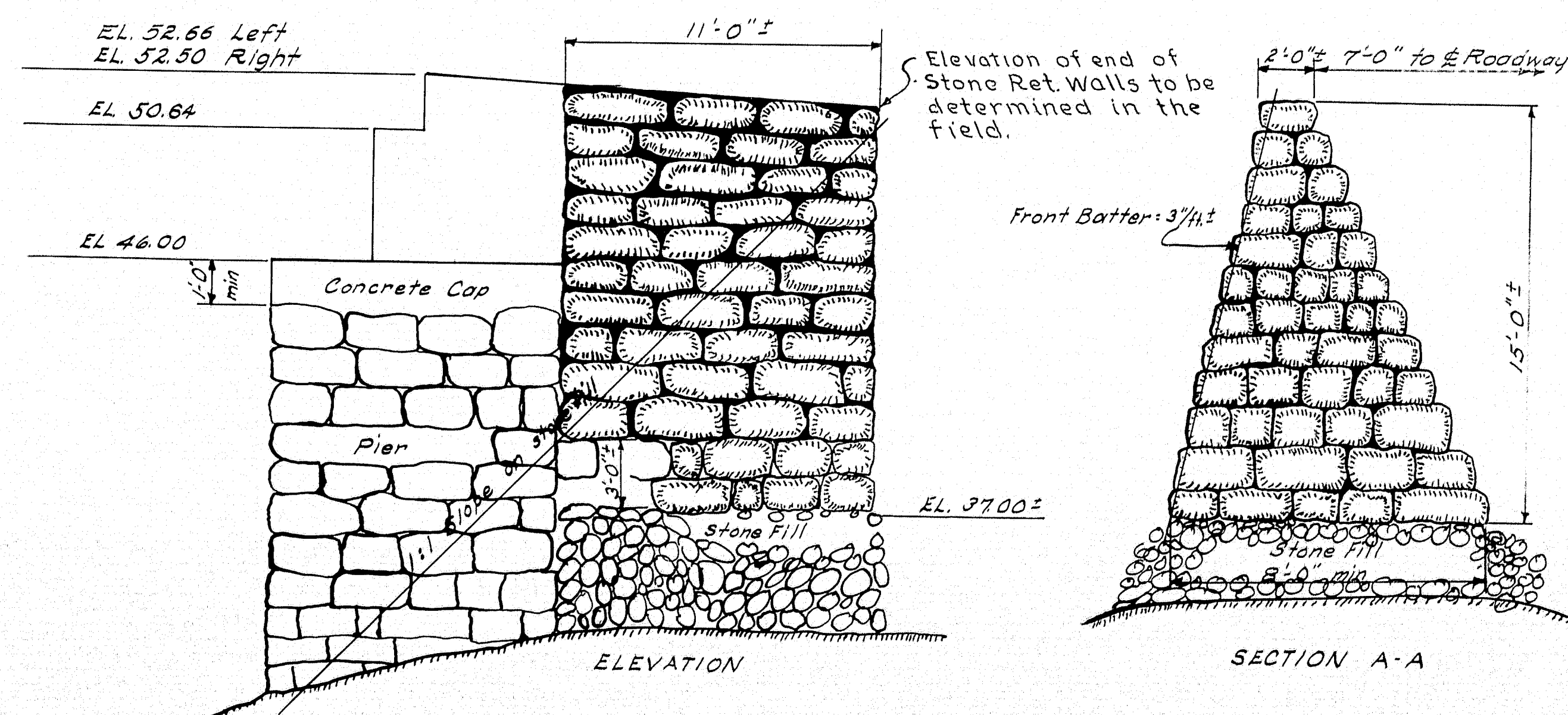
PLAN



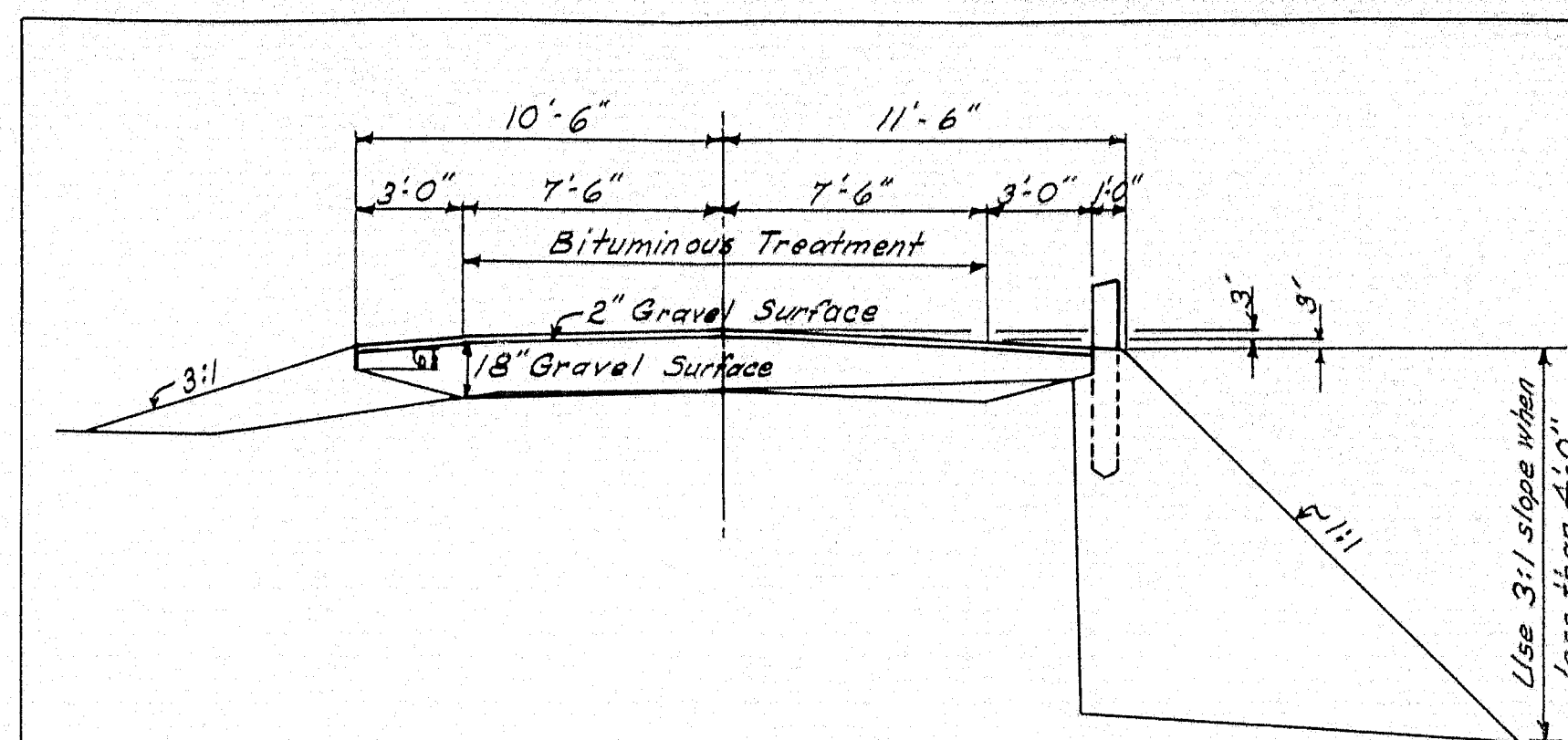
RETAINING WALLS @ ABUT. #1



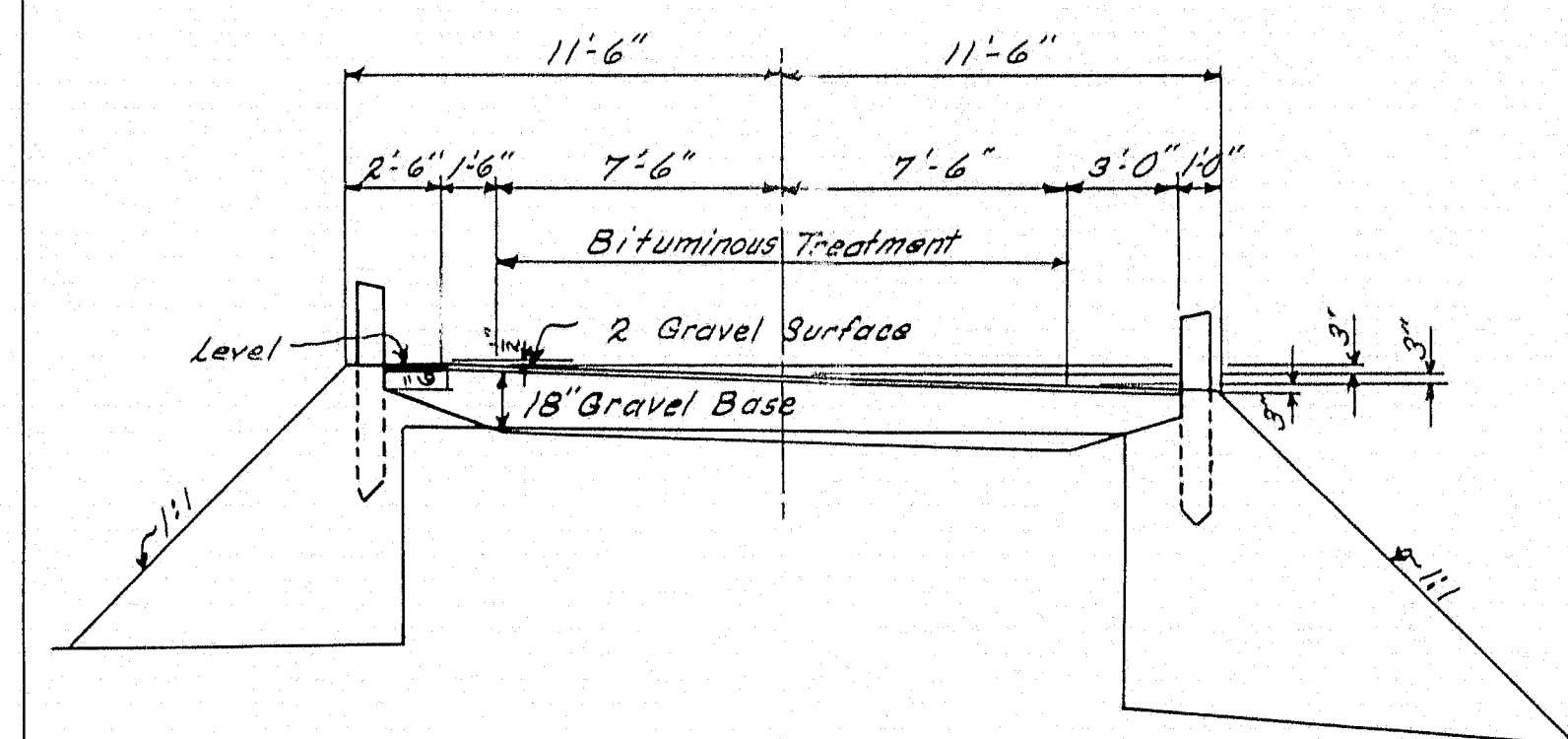
PLAN



RETAINING WALLS @ ABUT. #3



TYPICAL APPROACH SECTION

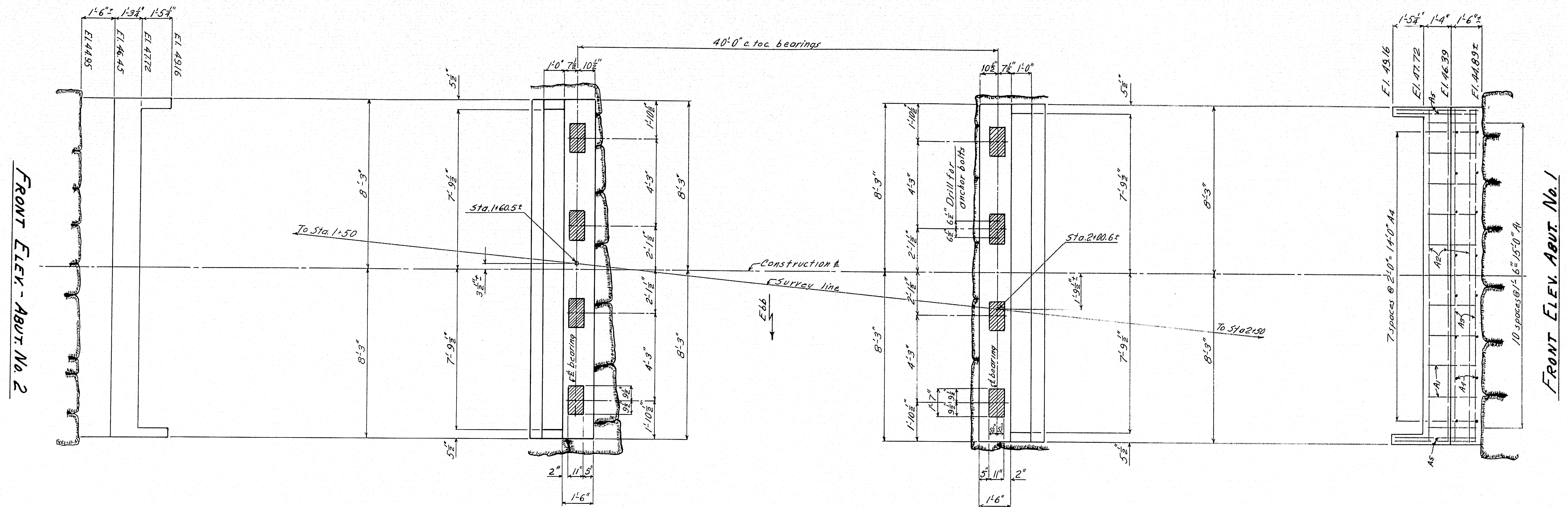


SUPERELEVATED SECTION

NOTE: All embankments to be stone fill consisting of quarry grout except where 3:1 slopes are used. The embankments having 3:1 slopes shall be gravel.

Do not excavate the present roadway for gravel base if existing material is suitable. Excavated material other than stone, shall be used as fill at locations where it cannot be affected by tidal action.

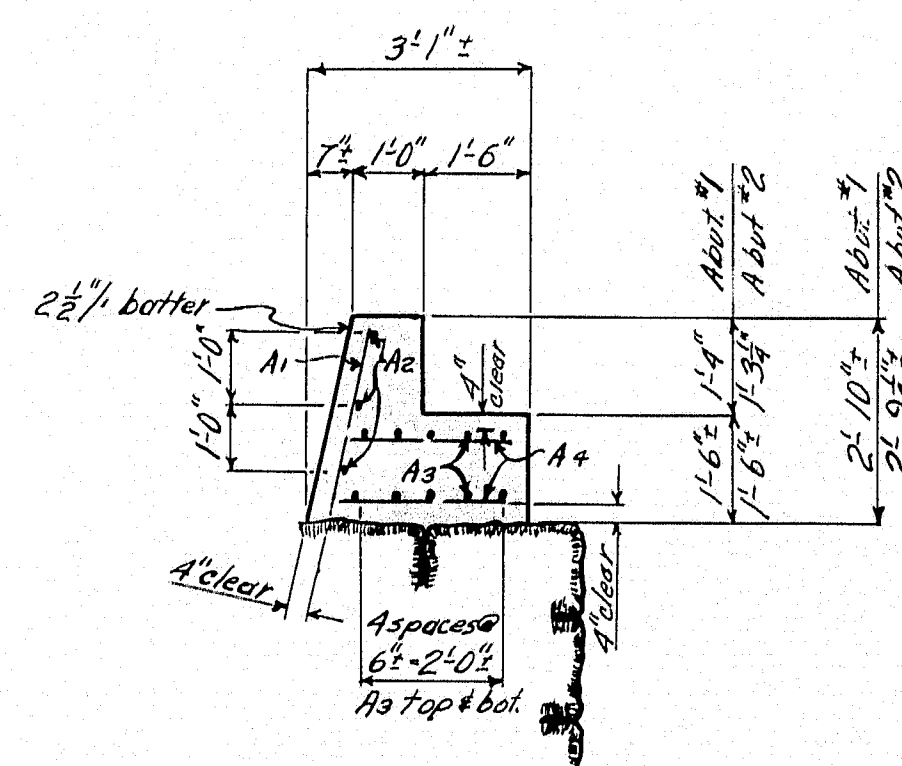
PLAN - VIOLETTE	BRIDGE - 5270
TRACE - GRAY	
CHECK - <i>[Signature]</i>	
STATE HIGHWAY COMMISSION	
BRIDGE DIVISION	
LANES ISLAND BRIDGE	
OVER	
CARVERS HARBOR	
IN THE TOWN OF	
VINALHAVEN	
KNOX COUNTY	
RETAINING WALLS	
SHEET 2 OF 9	AUGUSTA, ME. MAY, 1951



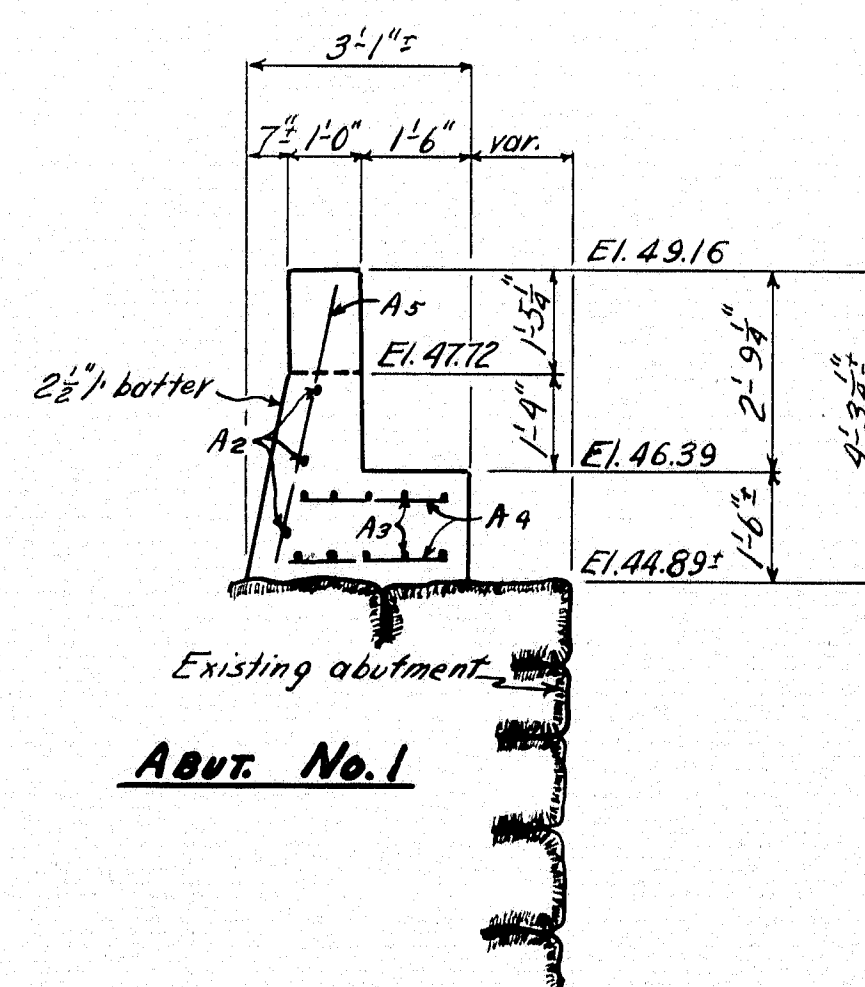
PLAN - ABUT. No. 1
Exp.

PLAN - ABUT. No. 2
Fix.

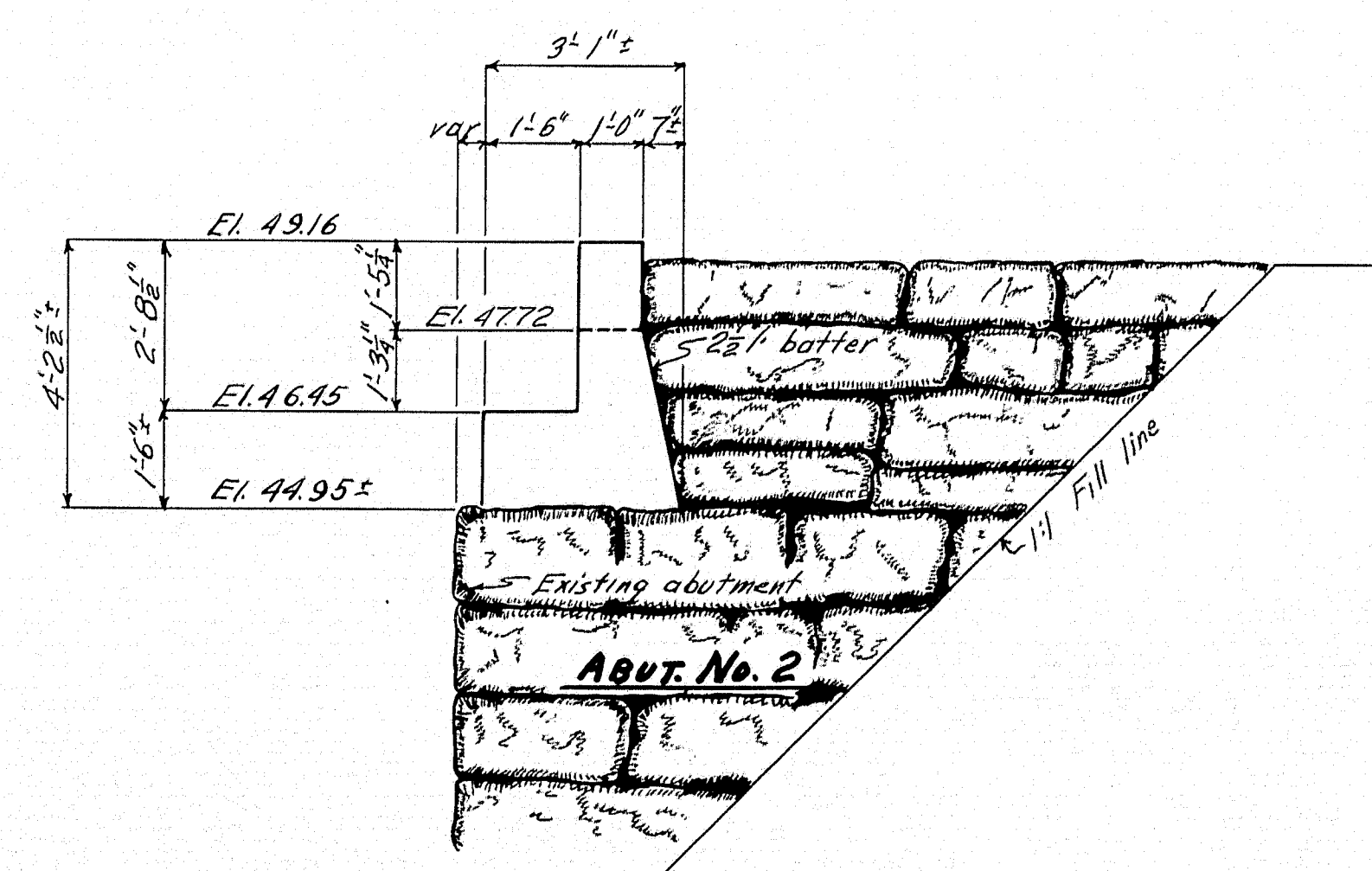
NOTE: Dress shaded areas (one inch larger all around than bearing plates) to exact elevations shown. Reinforcing steel for Abut. No. 2 same as for Abut. No. 1



ABUT. SECTION
Typical details



ABUT. No. 2



ABUT. No. 2

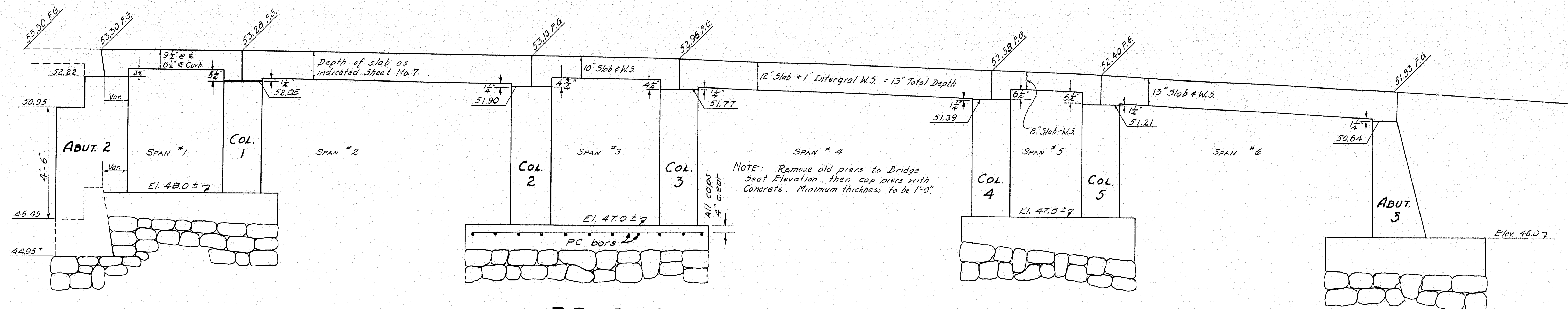
NOTE: See Sheet No. 6 for note about covering 1/2 slots between parapets and superstructure. Backfill for abutments shall be paid for as gravel base.

END ELEV. - ABUTS.

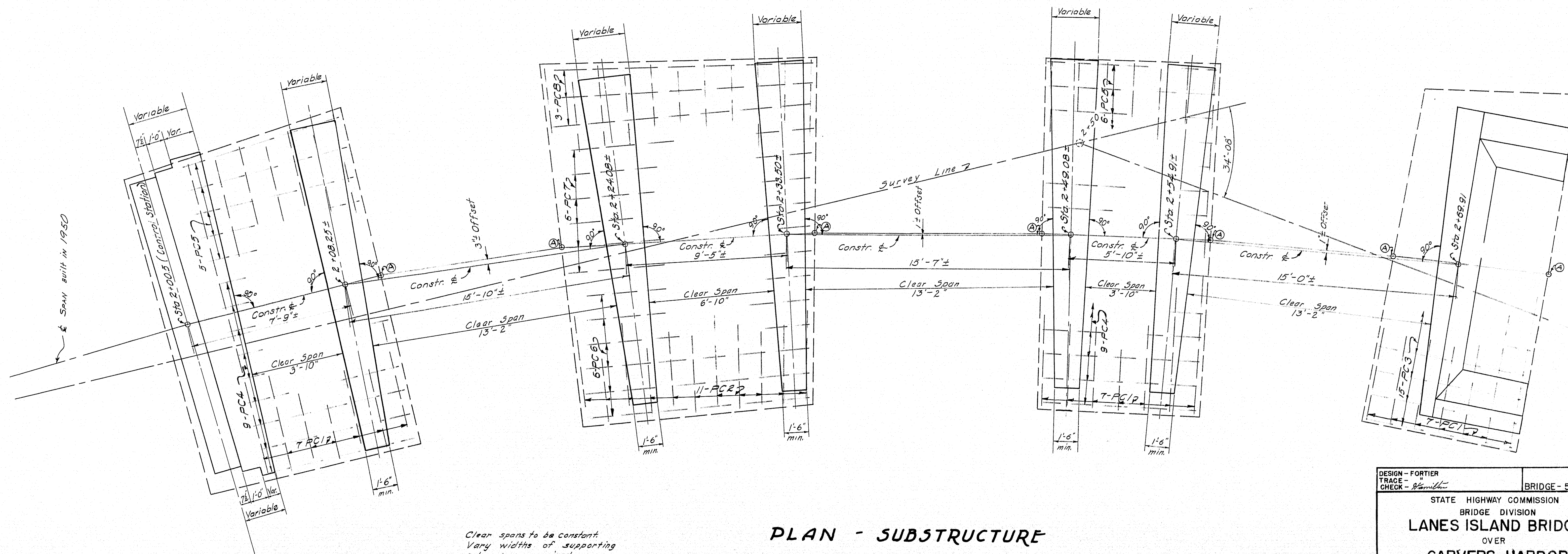
This substructure built in 1950

DESIGN - RISSEL	BRIDGE - 5270
TRACE - "	
CHECK - HARRIS	
STATE HIGHWAY COMMISSION	
BRIDGE DIVISION	
LANES ISLAND BRIDGE	
OVER	
CARVERS HARBOR	
IN THE TOWN OF	
VINALHAVEN	
KNOX COUNTY	
SUBSTRUCTURE - 1950	
SHEET 3 OF 9	AUGUSTA, MAINE DEC., 1949

55-147



PROFILE ALONG CONSTRUCTION &



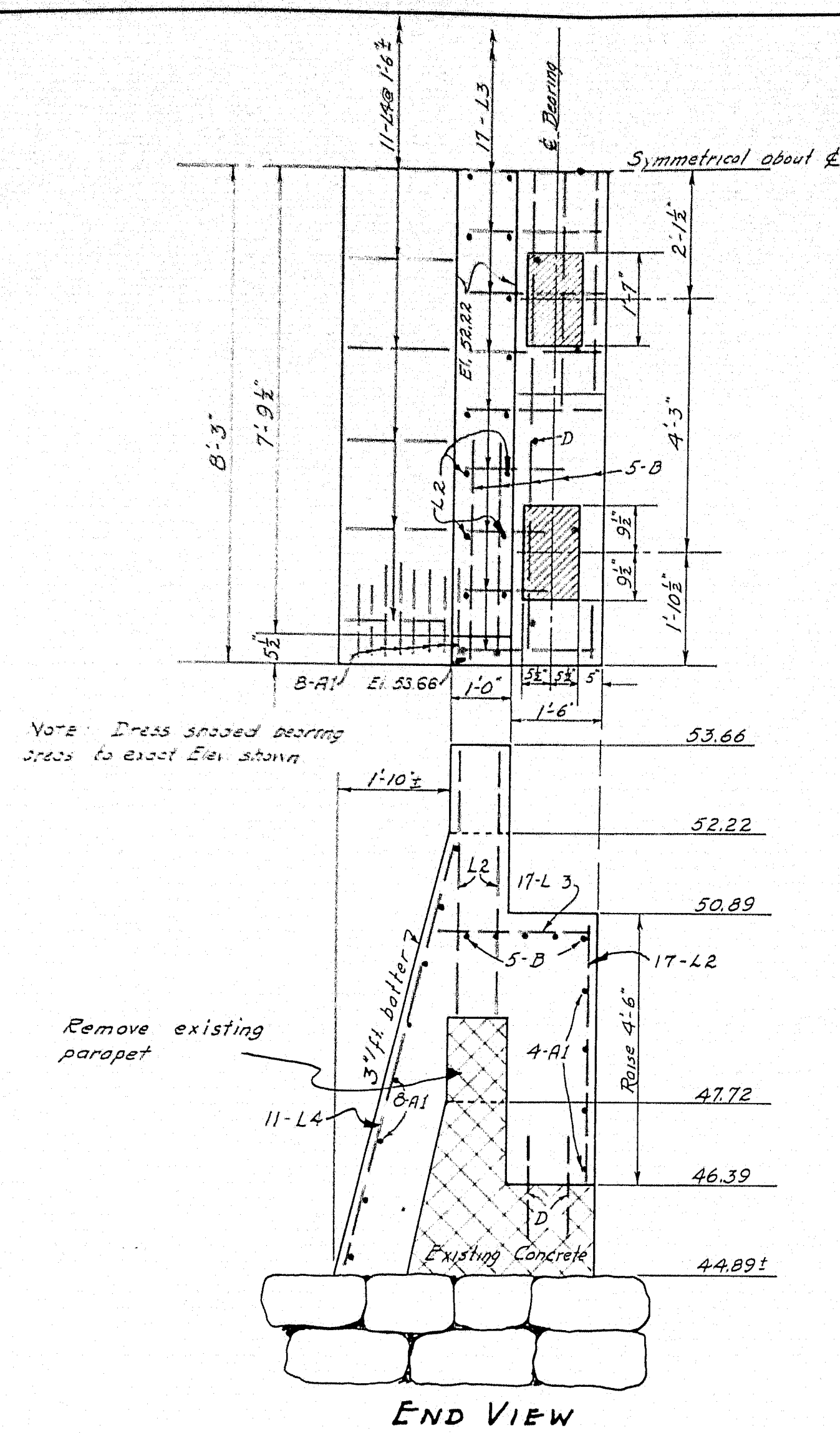
PLAN - SUBSTRUCTURE

Clear spans to be constant.
Vary widths of supporting
columns as required.
Points marked (A) are midpoints
on faces of existing piers

NOTE: Cut, bend or stagger bars PC to fit
pier caps as required.

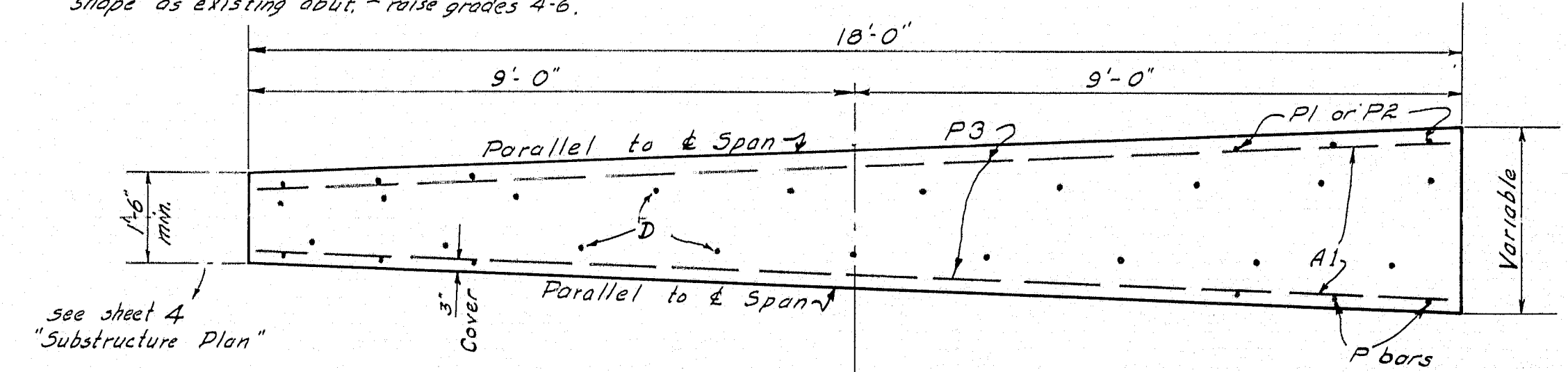
DESIGN - FORTIER	BRIDGE - 5270
TRACE -	
CHECK -	
STATE HIGHWAY COMMISSION	
BRIDGE DIVISION	
LANES ISLAND BRIDGE	
OVER	
CARVERS HARBOR	
IN THE TOWN OF	
VINALHAVEN	
KNOX COUNTY	
SUBSTRUCTURE 1951	
SHEET 4 OF 9	AUGUSTA, ME. MAY, 1951

55-148

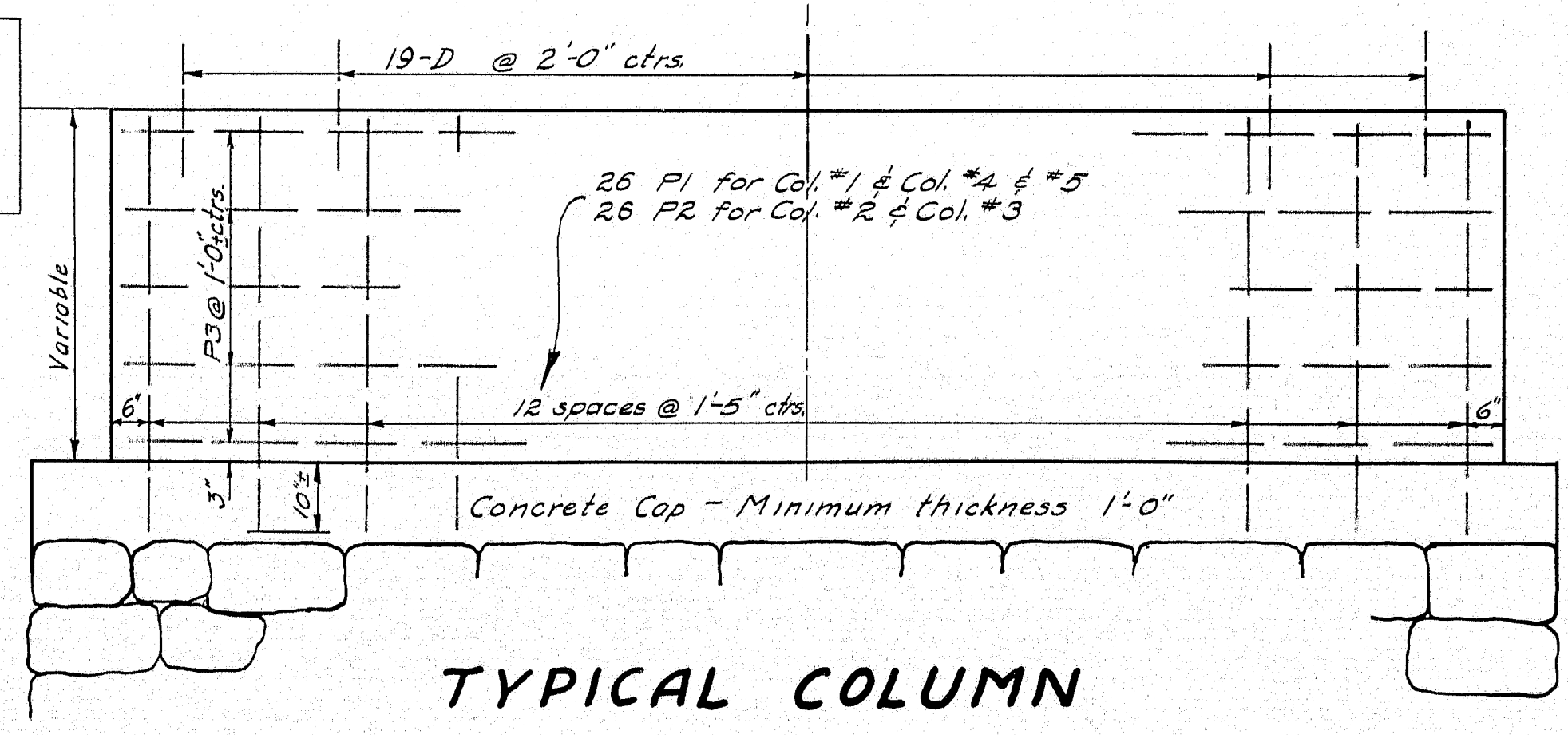


ABUT. #1
Scale 1/2" = 1'

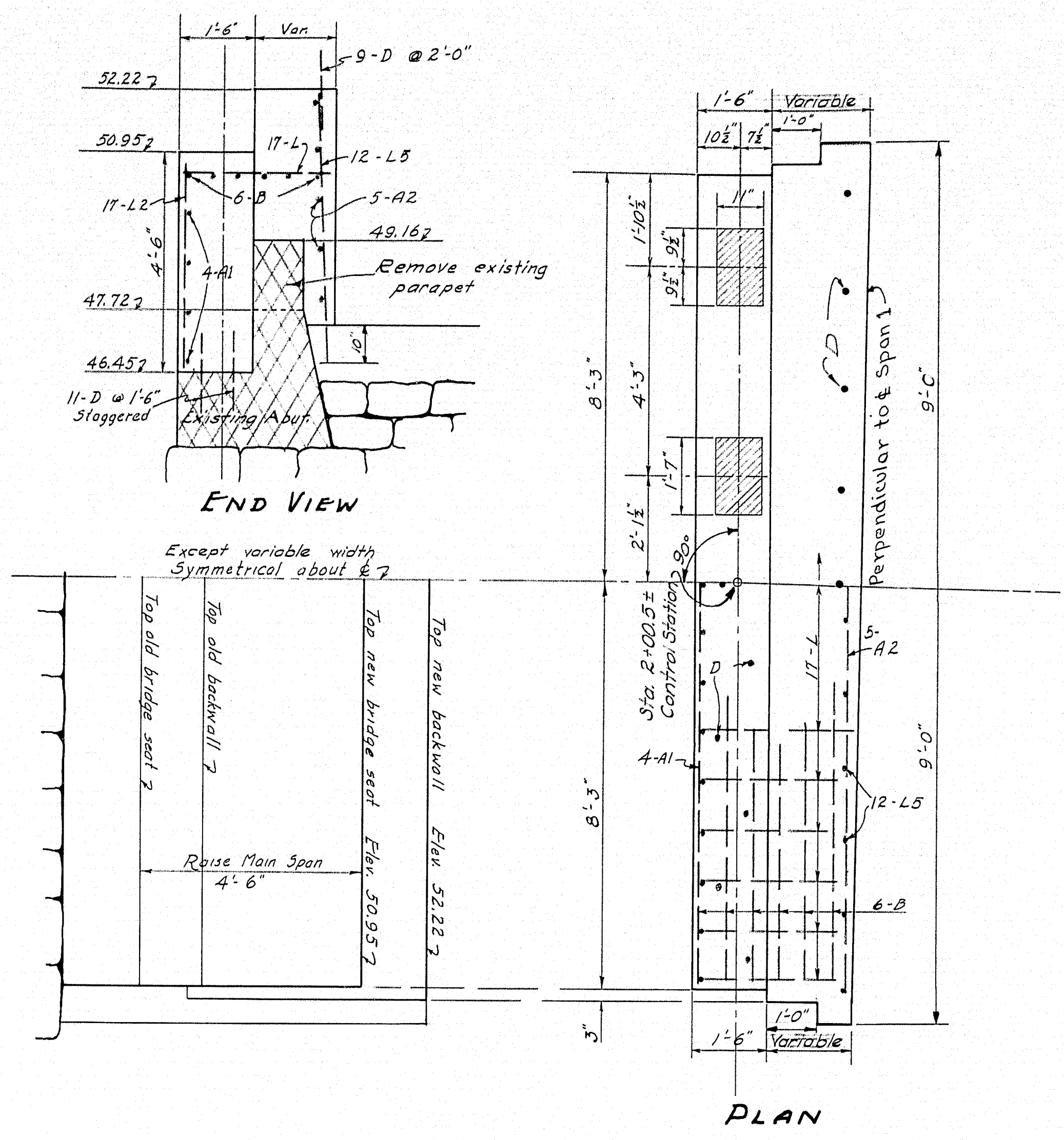
Note: Final abutment to retain same shape as existing abut. - raise grades 4'-6".



Column No.	Elevation
1	52.05
2	51.90
3	51.77
4	51.39
5	51.2

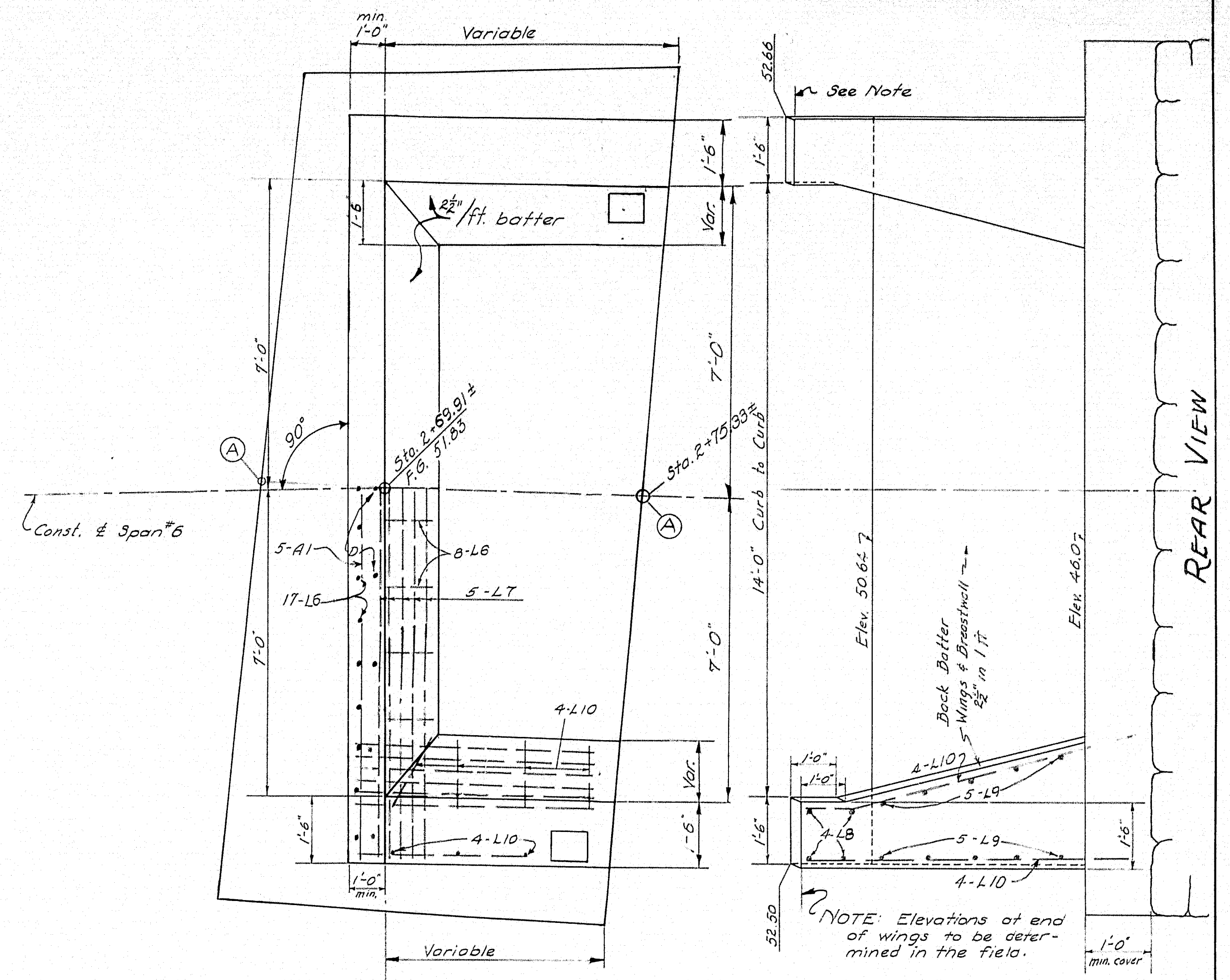


TYPICAL COLUMN

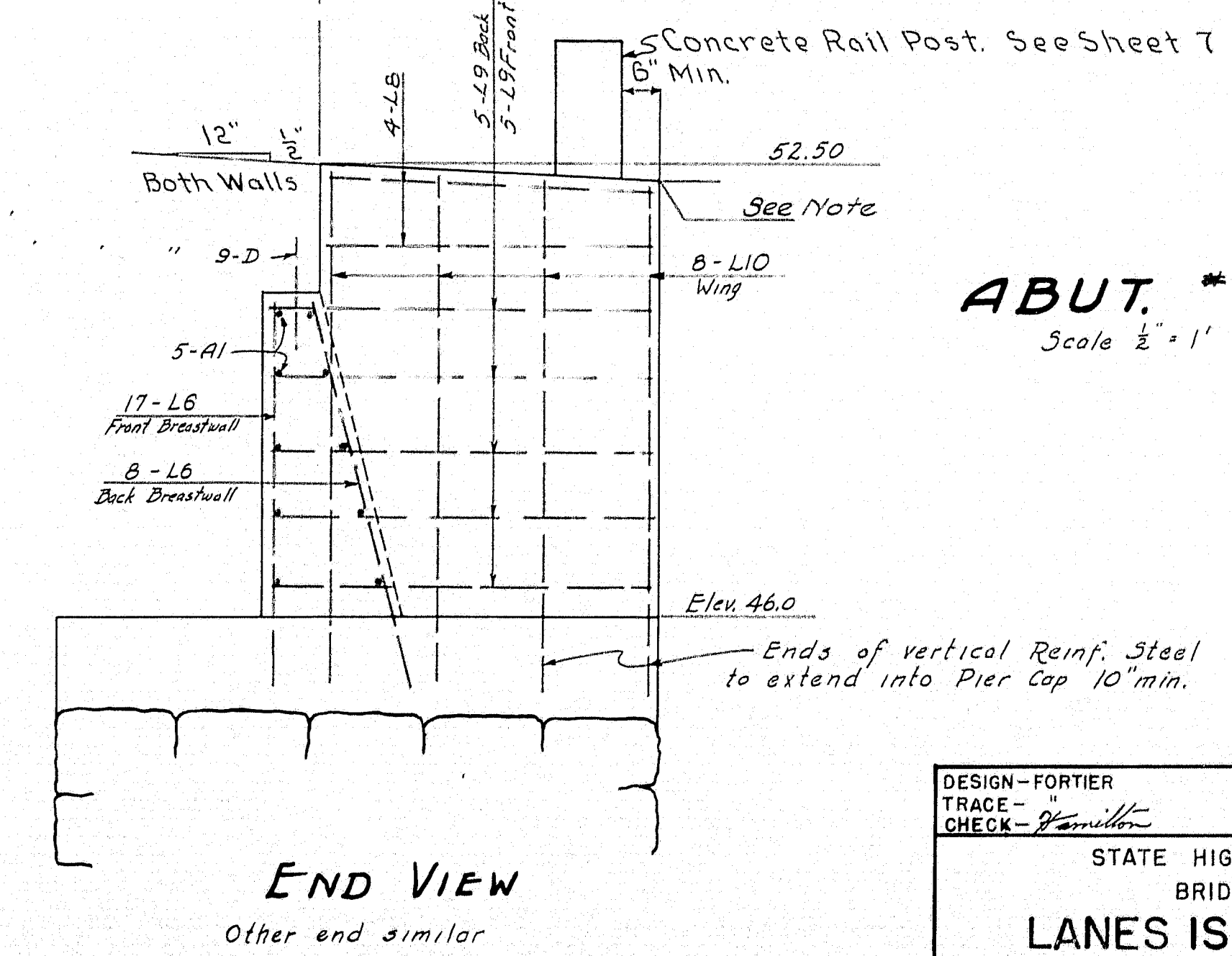


ABUT. #2
Scale 1/2" = 1'

NOTE: All steel in substructure to have 3" cover. Cut or bend reinforcing steel to fit where necessary.

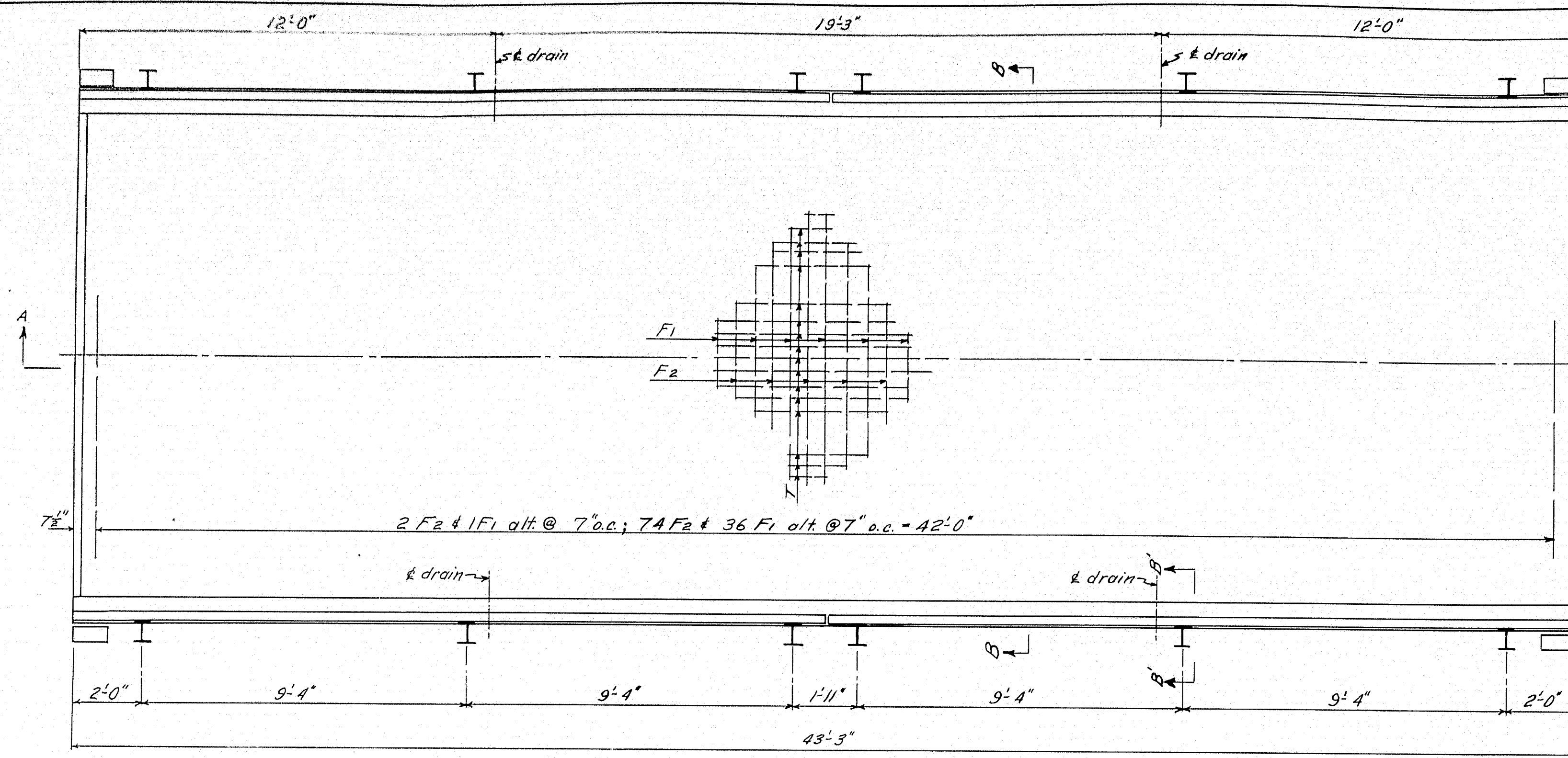


ABUT. #3
Scale 1/2" = 1'

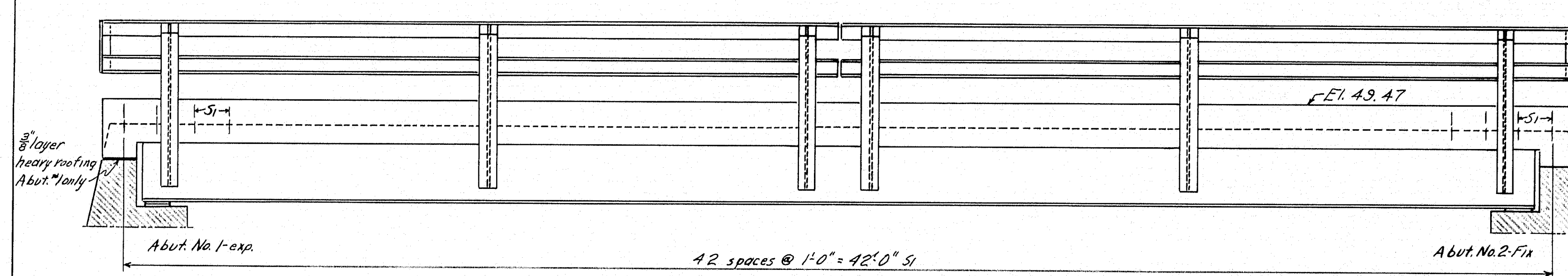


END VIEW
Other end similar

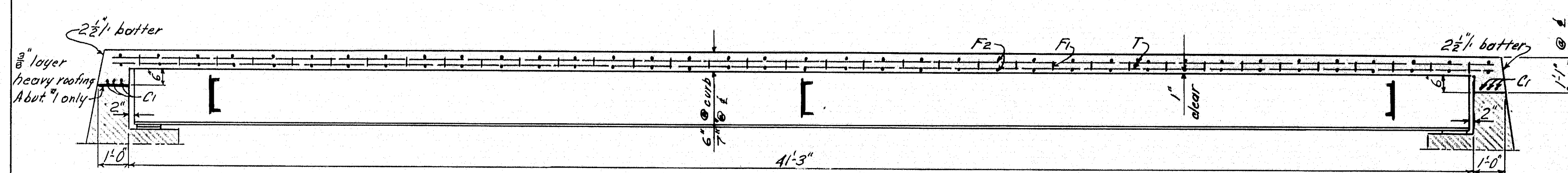
DESIGN - FORTIER	BRIDGE - 5270
TRACE -	STATE HIGHWAY COMMISSION
CHECK -	BRIDGE DIVISION
LANES ISLAND BRIDGE	
OVER	
CARVERS HARBOR	
IN THE TOWN OF	
VINALHAVEN	
KNOX COUNTY	
SUBSTRUCTURE 1951	
SHEET 5 OF 9	AUGUSTA, ME. MAY, 1951



PLAN

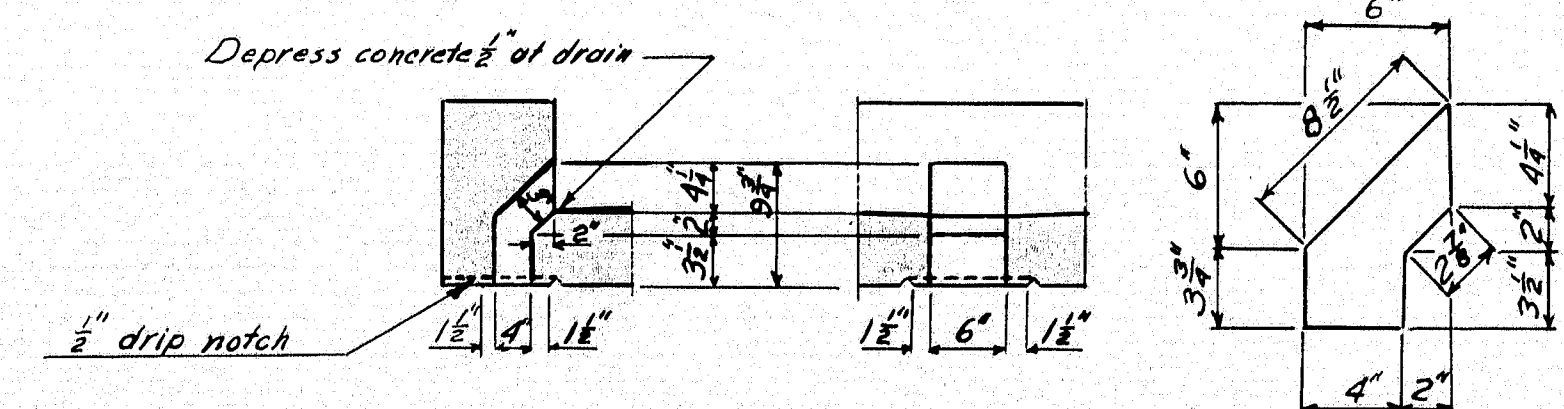


SIDE ELEV.



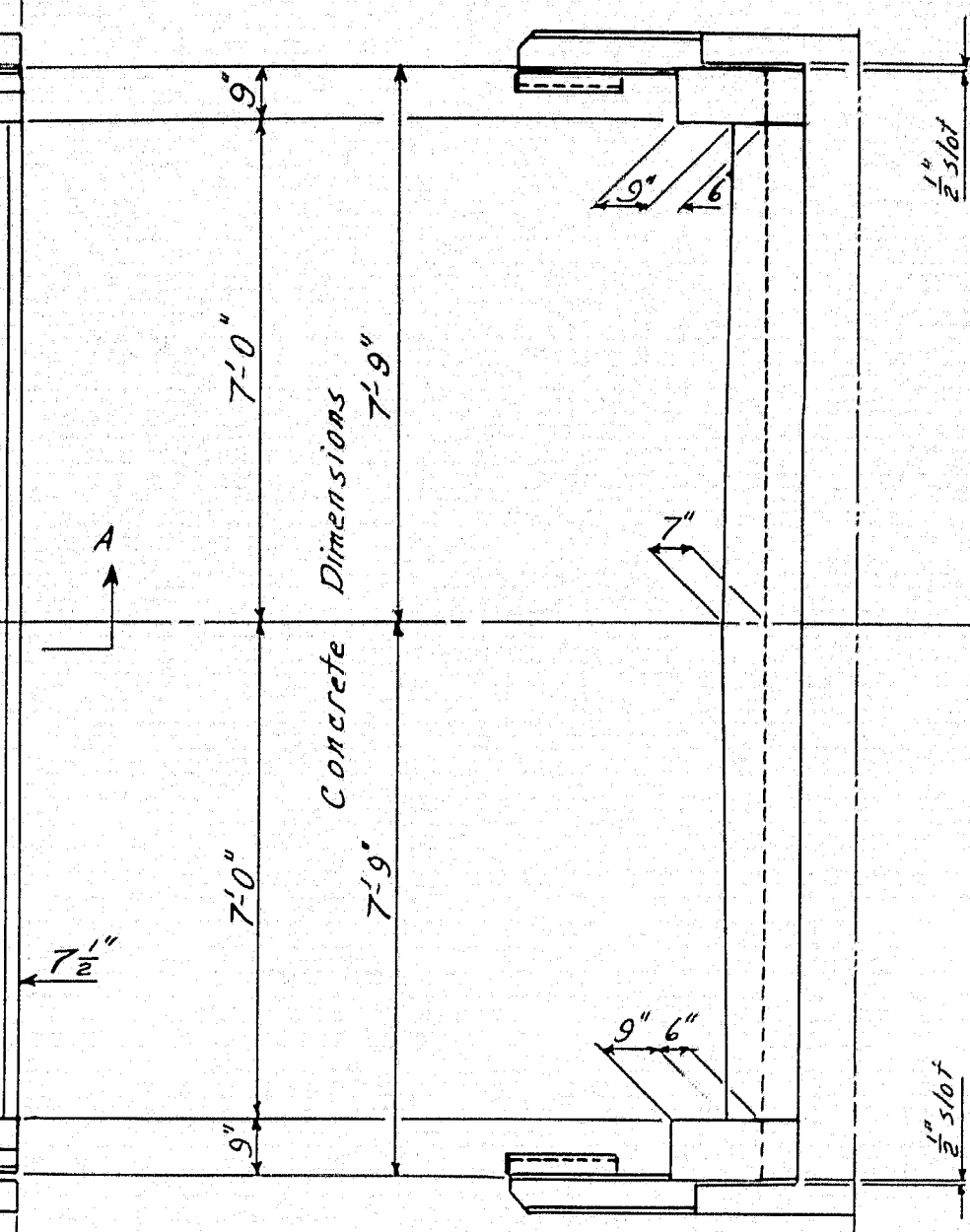
SECTION A-A

Typical details

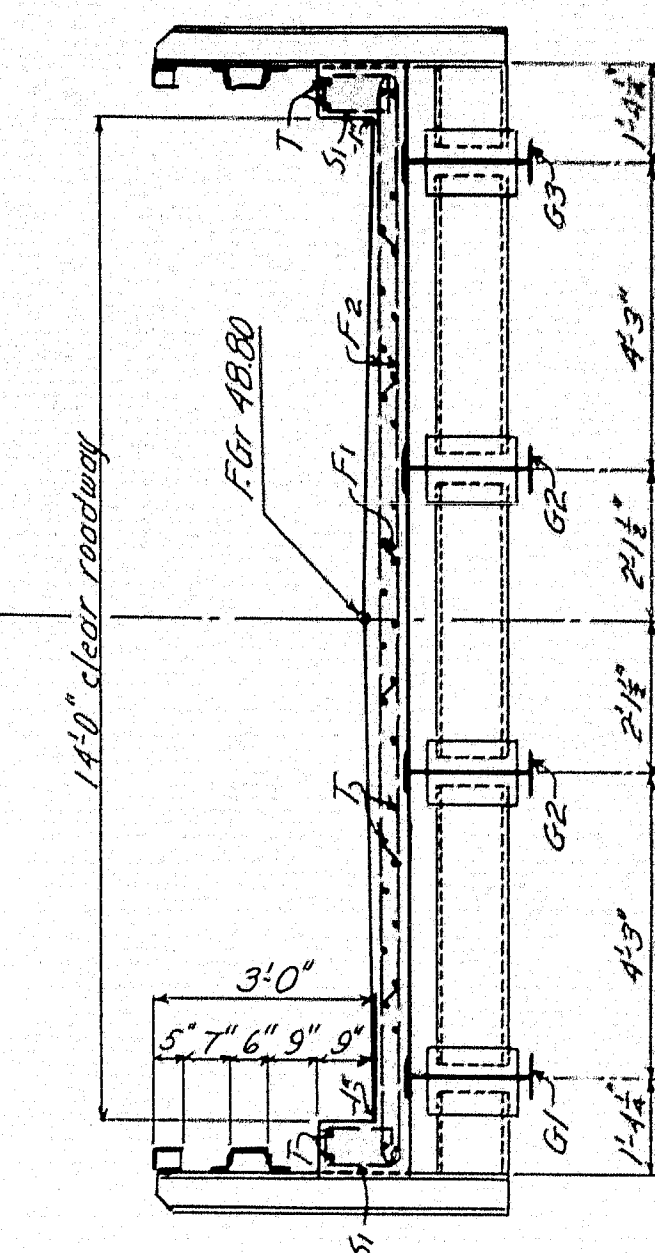


DRAIN DETAIL

Drains - 24 gage galvanized iron
4 required

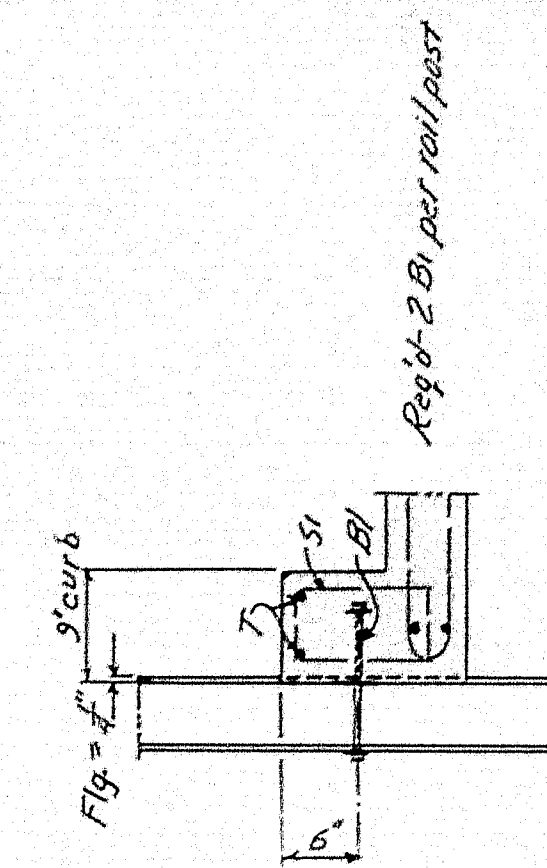


END ELEV.



SECTION B-B

Typical details



SECTION B-B'

Typical details

REINFORCING STEEL SCHEDULE					
Mark	No	Size	Length	Location	
F1	36	3/8"	16'-7"	Slab	
F2	74	3/8"	16'-10"	Slab	
S1	86	1/2"	2'-11"	Curb	
BENT BARS					
A1	22	3/4"	2'-4"	Abutments	
A2	6	1/2"	15'-10"	do	
A3	20	3/8"	15'-10"	do	
A4	32	1/2"	2'-5"	do	
A5	8	3/4"	3'-7"	do	
T	70	1/2"	22'-1"	Slab & curbs, spliced	
C1	6	1/2"	15'-0"	Ends of slab	
STRAIGHT BARS					
NOTE: All dimensions to E of reinforcing steel.					

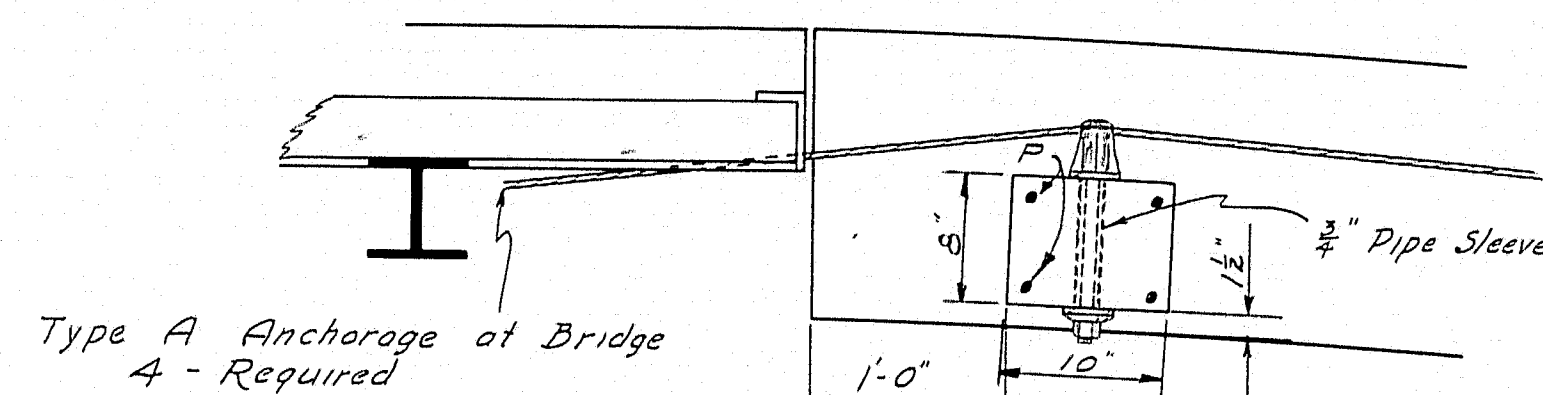
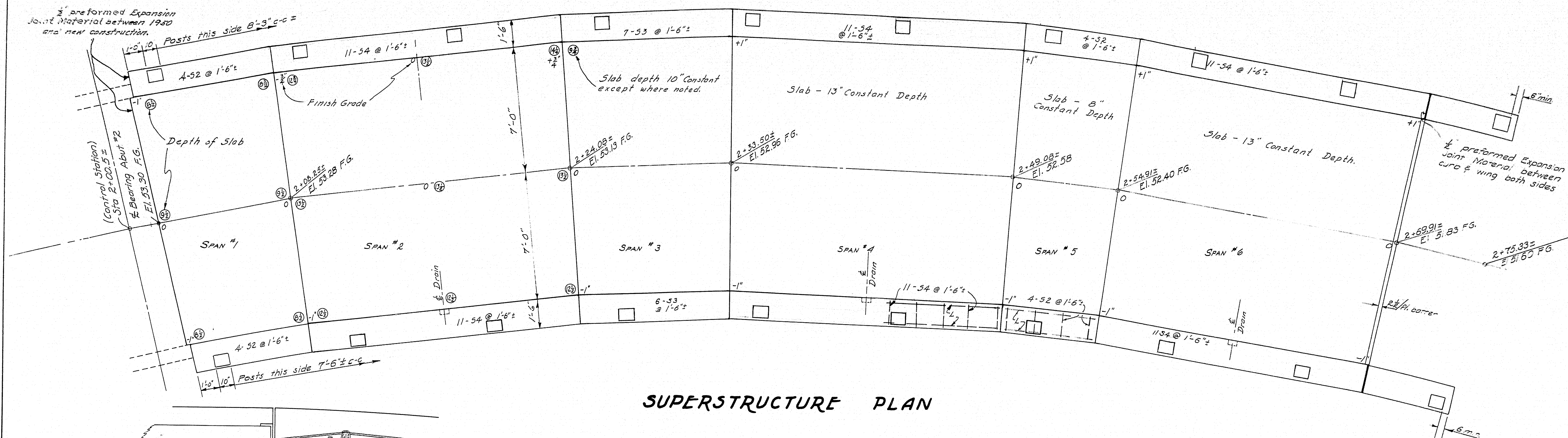
NOTE: Cover the 1/2" slots between the superstructure and the parapets on the backside with two layers of heavy roofing 10" wide. Coat the surface of the concrete and the backside of each layer as applied with a suitable grade of roofing cement. The area to be covered is to be recessed 1/4" by nailing thin strips to the form before concrete is placed. Curb to be cast with slab.

DESIGN

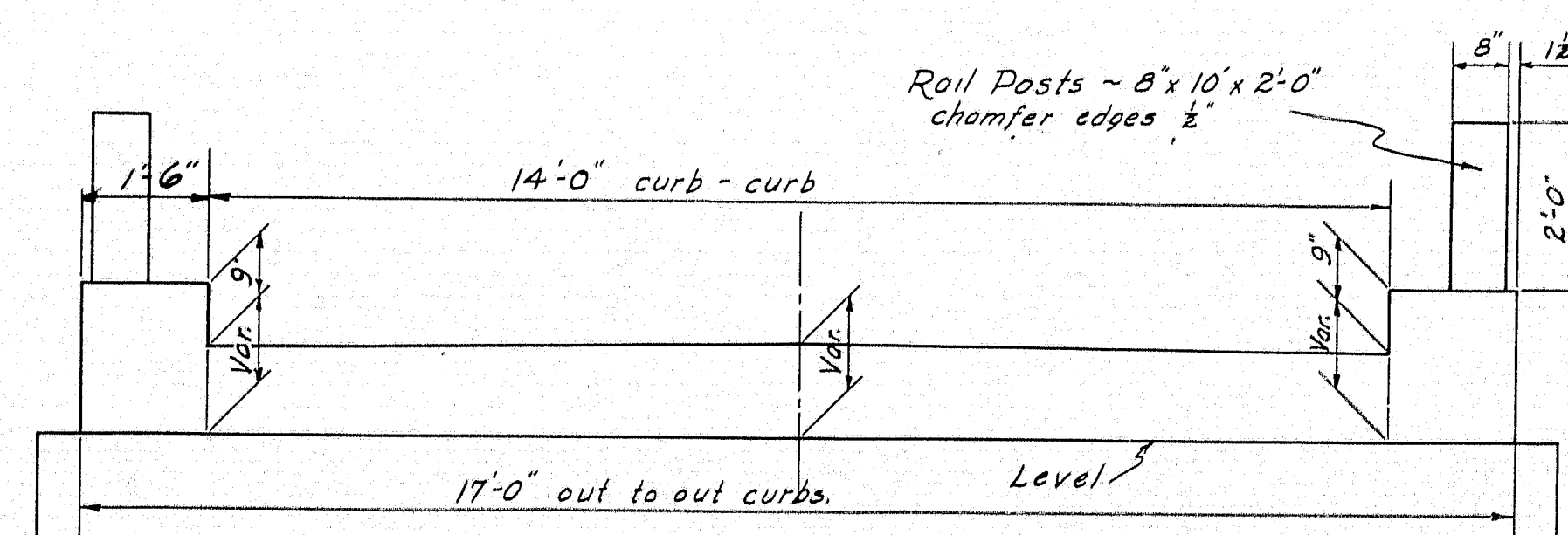
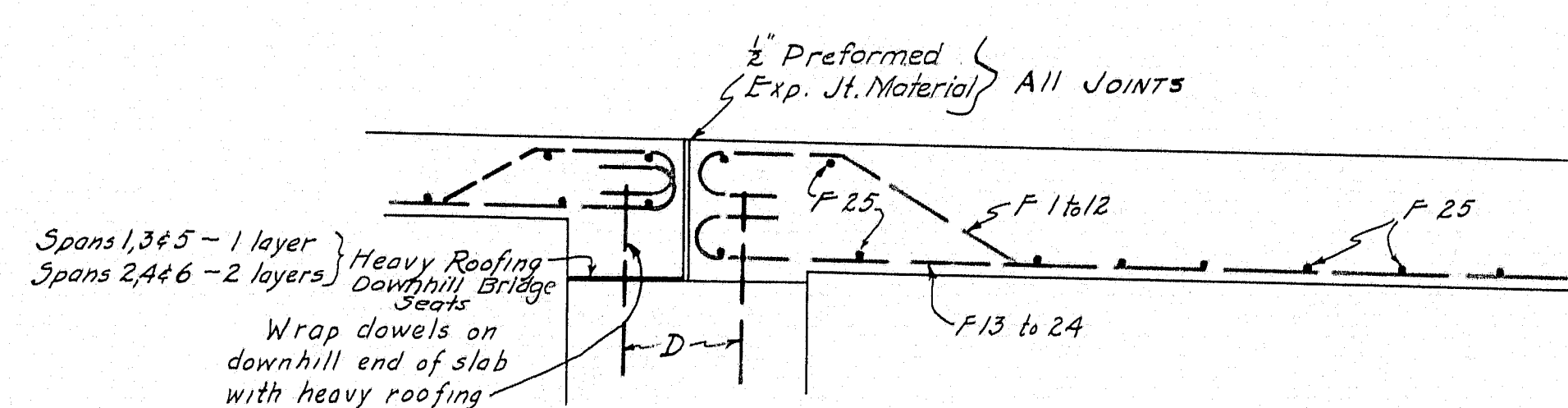
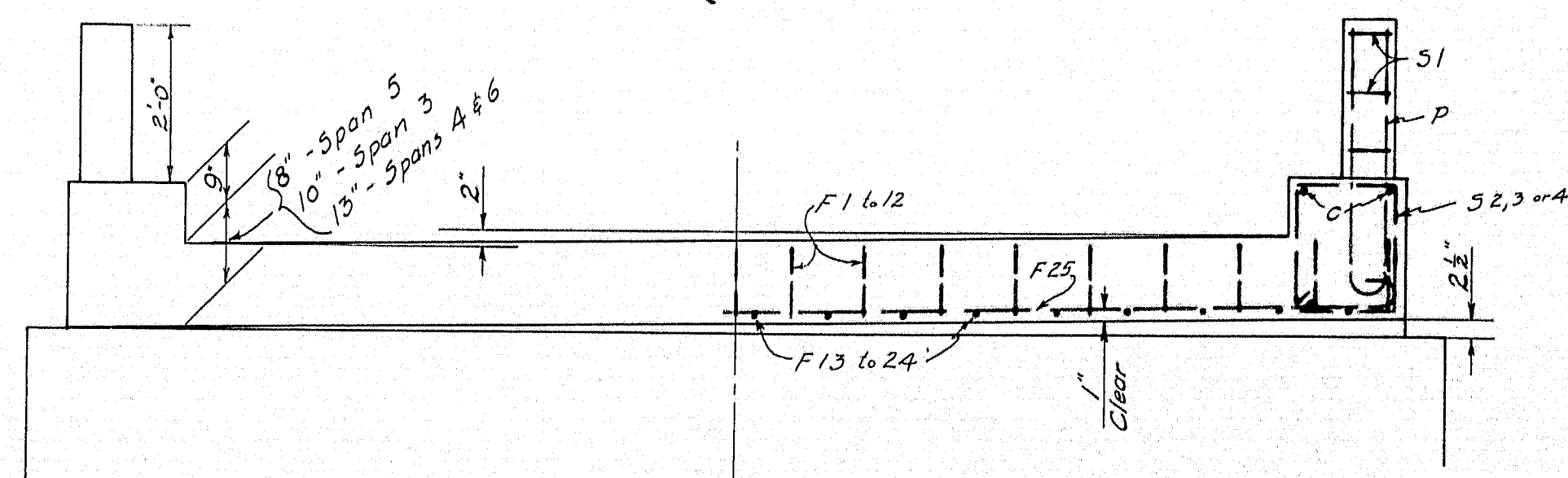
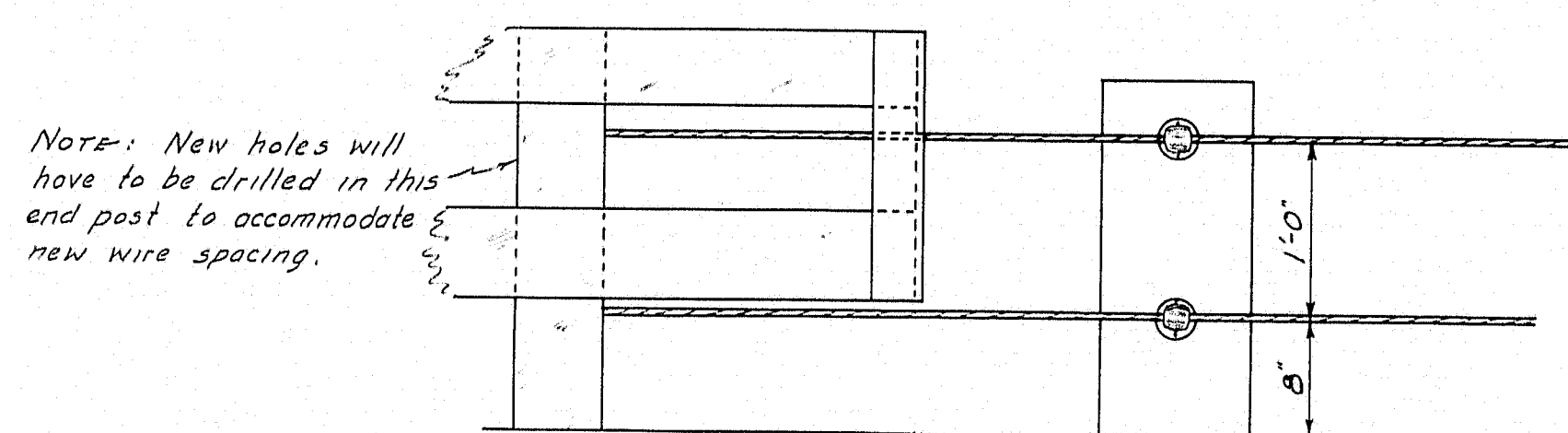
$f_s = 18,000$ p.s.i.
 $f_c = 1,000$ p.s.i.
 $n = 10$
Loading - H-15-44

This superstructure as built in 1950 to be raised 4'-6".

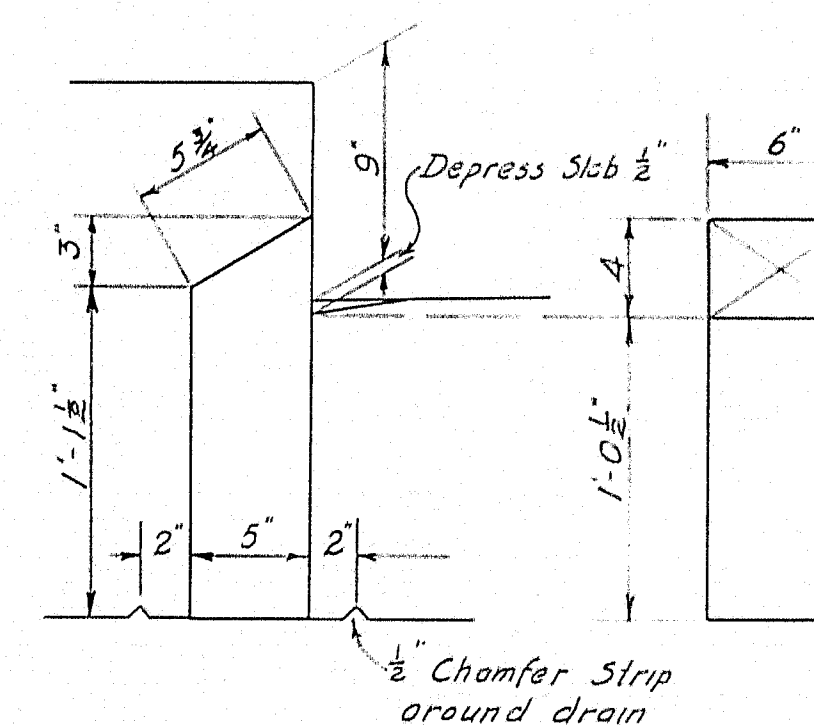
DESIGN - RISSEL	BRIDGE - 5270
TRACE - HARRIS	
CHECK - HARRIS	
STATE HIGHWAY COMMISSION	
BRIDGE DIVISION	
LANES ISLAND BRIDGE	
OVER	
CARVERS HARBOR	
IN THE TOWN OF	
VINALHAVEN	
KNOX COUNTY	
SUPERSTRUCTURE - 1950	
SHEET 6 OF 9	AUGUSTA, MAINE DEC. 1949



Galvanized offset fastenings for $\frac{3}{4}$ "
 $\frac{3}{4}$ " Wire Cable, ribbed washers and $\frac{5}{8}$ " ϕ
threaded rod.



NOTE: Variable slab thickness ~ this dimension will vary as shown thus (12") on above plan.



DESIGN
 $f_s = 18,000 \text{ psi}$
 $f_c = 4,000 \text{ psi}$
 $n = 10$
 Loading H15-44

DESIGN - FORTIER
TRACE -
CHECK - *Stamilton*

BRIDGE-5270

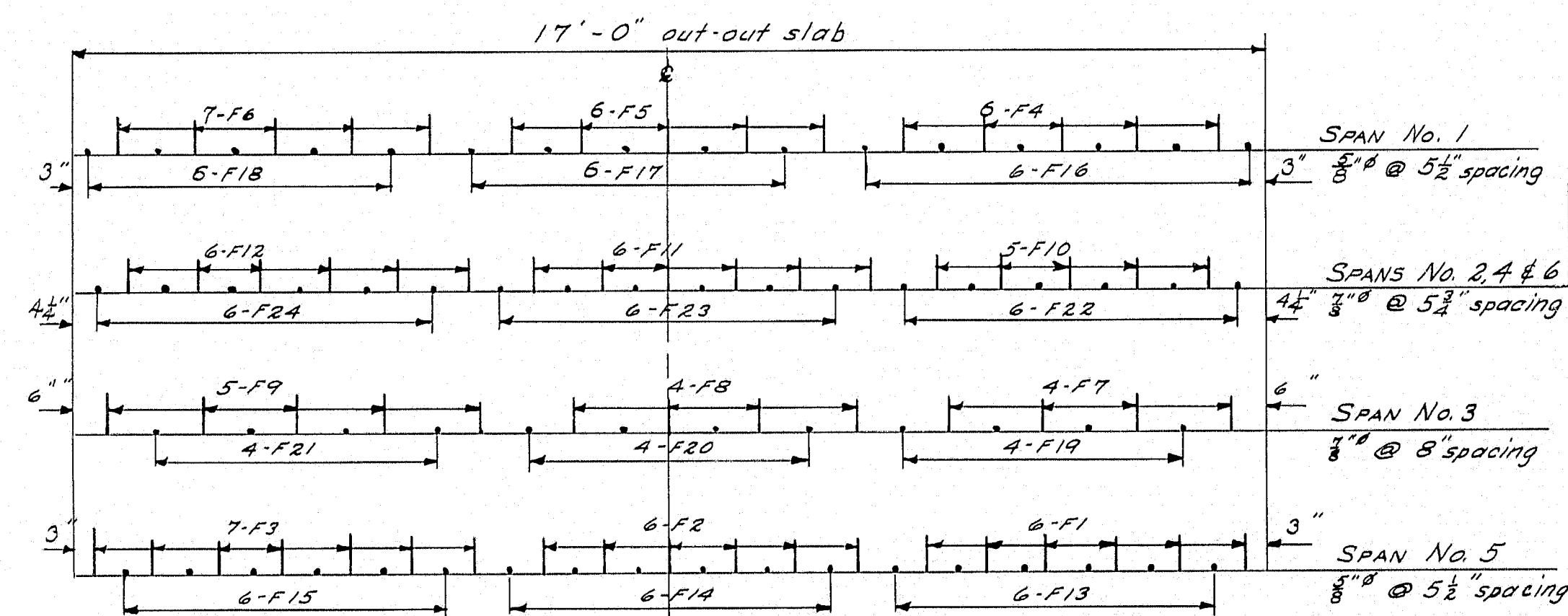
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
LANES ISLAND BRIDGE
OVER
CARVERS HARBOR
IN THE TOWN OF
VINALHAVEN
KNOX COUNTY
SUPERSTRUCTURE 1951

SHEET 7 OF 9 AUGUSTA, ME. MAY, 1951

STRAIGHT BARS				
Mark	Size	No.	Length	Location
A 1	$\frac{1}{2}$ "	21	16'-0"	Abuts. #1, 2 & 3
A 2	$\frac{1}{2}$ "	5	16'-6"	Abut. #2
L 2	$\frac{1}{2}$ "	68	4'-4"	Abuts. #1 & 2
L 3	$\frac{1}{2}$ "	34	3'-0"	Abut. #1 & 2
F 25	$\frac{1}{2}$ "	128	16'-8"	Slab - all spans
L 4	$\frac{1}{2}$ "	11	7'-0"	Abut. #1
PC 1	$\frac{1}{2}$ "	21	18'-0"	Pier Caps #1, 3 & 4 Longitudinal
2	$\frac{1}{2}$ "	11	19'-0"	" " #2 "
3	$\frac{1}{2}$ "	15	8'-0"	" " #4 Transverse
4	$\frac{1}{2}$ "	18	8'-6"	" " #1 & 3 "
5	$\frac{1}{2}$ "	11	9'-0"	" " #1 & 3 "
6	$\frac{1}{2}$ "	6	12'-3"	" " #2 "
7	$\frac{1}{2}$ "	6	13'-3"	" " #2 "
PC 8	$\frac{1}{2}$ "	3	14'-3"	" " #2 "
B	$\frac{1}{2}$ "	11	16'-0"	Abuts. #1 & 2
D	$\frac{1}{2}$ "	137	1'-6"	Abuts. & Columns
L 5	$\frac{1}{2}$ "	12	5'-0"	Abut. #2
L 6	$\frac{1}{2}$ "	25	5'-3"	Abut. #3
L 7	$\frac{1}{2}$ "	5	16'-6"	Abut. #3
L 8	$\frac{1}{2}$ "	8	5'-6"	Abut. #3
L 9	$\frac{1}{2}$ "	20	6'-6"	Abut. #3
L 10	$\frac{1}{2}$ "	16	7'-0"	Abut. #3
P 1	$\frac{1}{2}$ "	78	4'-6"	Cols. #1-4-5
P 2	$\frac{1}{2}$ "	52	5'-5"	Cols. #2-3
P 3	$\frac{1}{2}$ "	44	17'-6"	All Columns

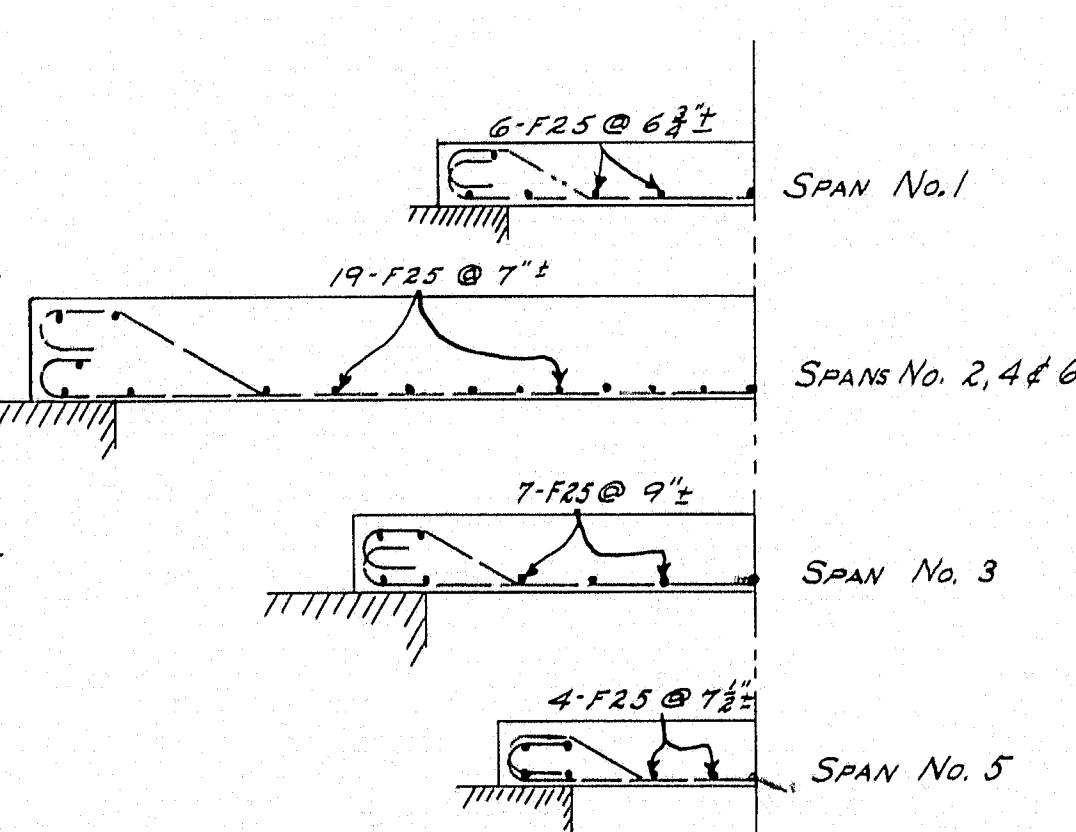
STRAIGHT BARS (Cont.)				
Mark	Size	No.	Length	Location
C 1	$\frac{1}{2}$ "	2	6'-6"	Curb (left) Span #1
C 2	$\frac{1}{2}$ "	2	16'-6"	" " " #2
C 3	$\frac{1}{2}$ "	2	9'-6"	" " " #3
C 4	$\frac{1}{2}$ "	2	13'-6"	" " " #4
C 5	$\frac{1}{2}$ "	2	5'-6"	" " " #5
C 6	$\frac{1}{2}$ "	2	14'-8"	" " " #6
C 7	$\frac{1}{2}$ "	2	5'-0"	" (Right) " #1
C 8	$\frac{1}{2}$ "	2	14'-6"	" " " #2
C 9	$\frac{1}{2}$ "	2	9'-4"	" " " #3
C 10	$\frac{1}{2}$ "	2	14'-8"	" " " #4
C 11	$\frac{1}{2}$ "	2	5'-2"	" " " #5
C 12	$\frac{1}{2}$ "	2	14'-3"	" " " #6

BENT BARS									
Mark	Size	No.	A	B	C	D	E	Length	Location
F 1	$\frac{1}{2}$ "	6	7'-2"	2'-6"	4'-2"	9"	6"	8'-10"	Slab - Span #5 Rt.
2	"	6	"	"	"	"	7"	7'-0"	" Ctn.
3	"	7	"	"	"	"	8"	7'-2"	" Lt.
4	"	6	"	"	"	"	5"	6'-8"	Span #1 Rt.
5	"	6	"	"	"	"	8"	7'-3"	" Ctn.
6	"	7	"	"	"	"	1'-0"	7'-11"	" Lt.
7	$\frac{1}{2}$ "	4	11'-2"	4'-11"	6'-2"	1'-1"	7"	10'-6"	Span #3 Rt.
8	"	4	"	"	"	"	10'-2"	11'-1"	" Ctn.
9	"	5	"	"	"	"	1'-2"	11'-8"	" Lt.
10	"	15	1'-4"	10'-5"	9'-2"	1'-7"	4'-2"	16'-7"	Spans #2, 4 & 6 Rt.
11	"	18	"	"	"	"	5'-2"	16'-9"	" Ctn.
12	"	18	"	"	"	"	7"	17'-0"	" Lt.
13	$\frac{1}{2}$ "	6	4'-10"	"	"	"	"	6'-8"	Span #5 Rt.
14	"	6	5'-0"	"	"	"	"	6'-10"	" Ctn.
15	"	6	5'-2"	"	"	"	"	7'-0"	" Lt.
16	"	6	4'-8"	"	"	"	"	6'-6"	Span #1 Rt.
17	"	6	5'-3"	"	"	"	"	7'-1"	" Ctn.
18	"	6	5'-11"	"	"	"	"	7'-9"	" Lt.
19	$\frac{1}{2}$ "	4	8'-0"	"	"	"	"	10'-3"	Span #3 Rt.
20	"	4	8'-7"	"	"	"	"	10'-10"	" Ctn.
21	"	4	9'-2"	"	"	"	"	11'-5"	" Lt.
22	"	18	13'-11"	"	"	"	"	16'-2"	Spans #2, 4 & 6 Rt.
23	"	18	9'-4"	"	"	"	"	16'-4"	" Ctn.
24	"	18	9'-7"	"	"	"	"	16'-6"	" Lt.
51	$\frac{1}{2}$ "	60	"	"	"	"	"	2'-6"	Rail Posts
2	$\frac{1}{2}$ "	16	"	"	"	"	"	5'-4"	Curb Spans 1 & 5
3	"	13	"	"	"	"	"	5'-8"	Span 3
4	"	66	"	"	"	"	"	6'-2"	Spans 2, 4, 6
P	$\frac{1}{2}$ "	40	"	"	"	"	"	6'-7"	Rail Posts

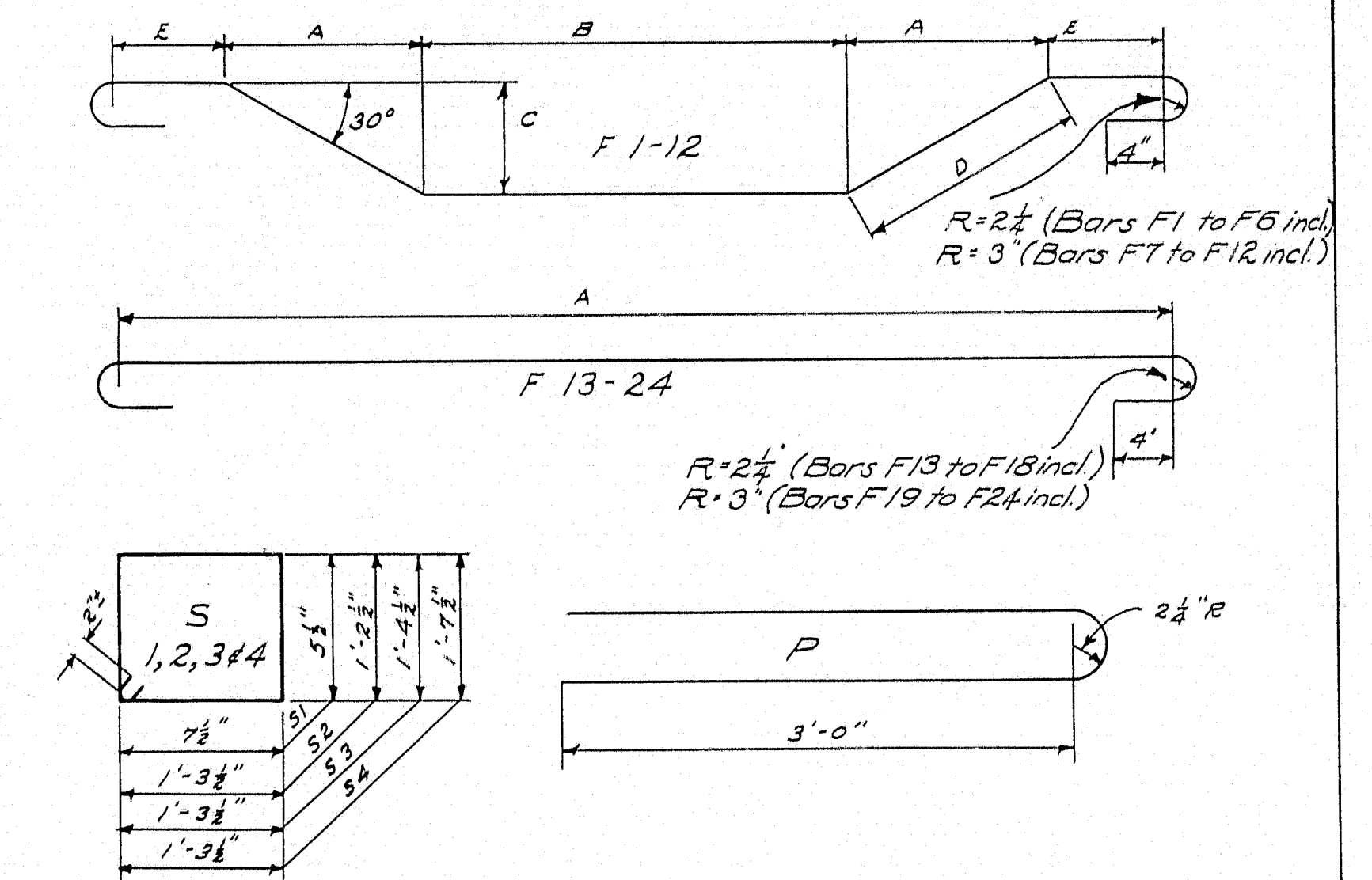


CROSS SECTION DIAGRAM - SLABS
SHOWING SPACING LONG REINF. STEEL

Alternate bars may be staggered longitudinally to compensate for variable bridge seat widths.

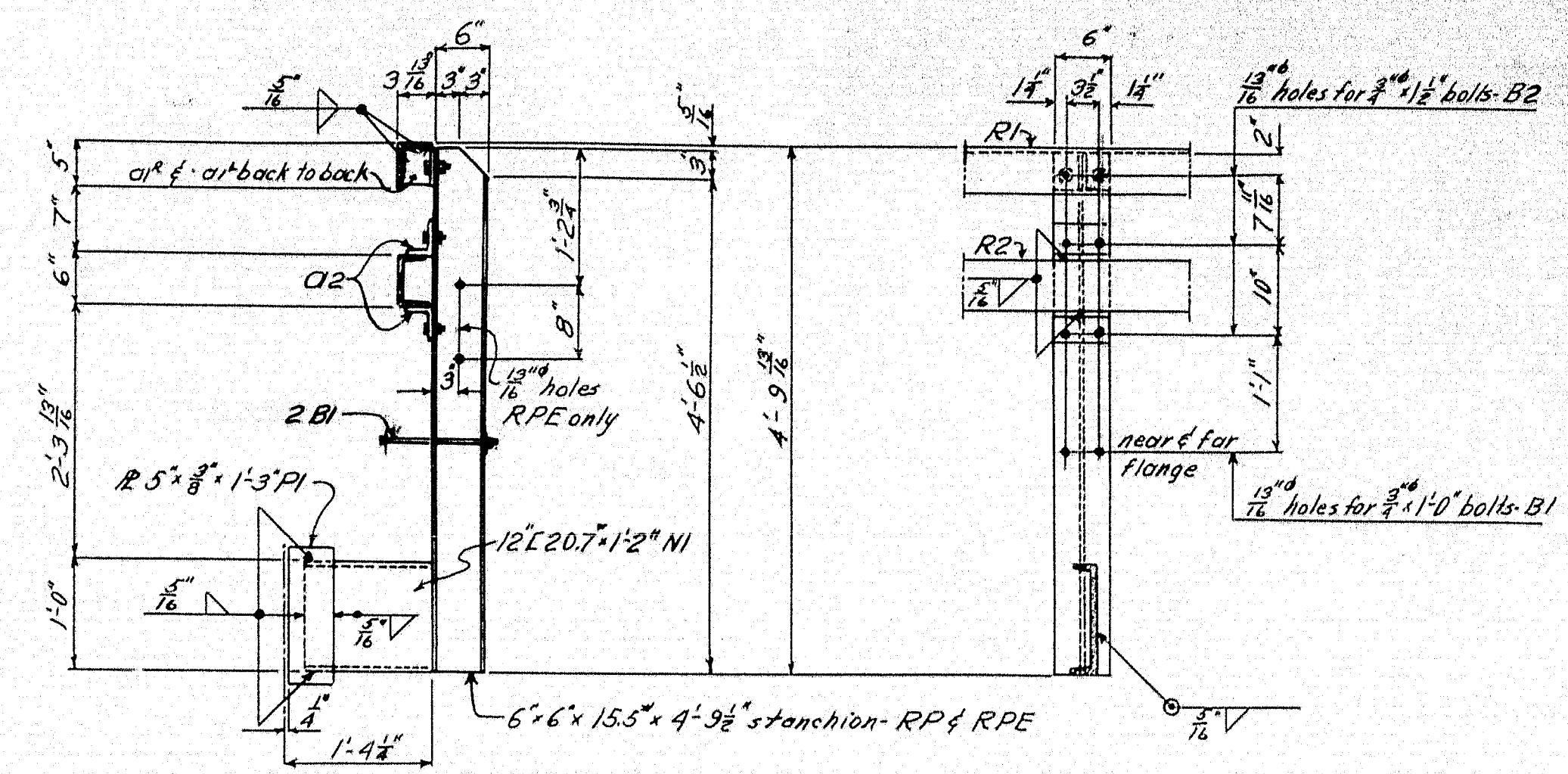
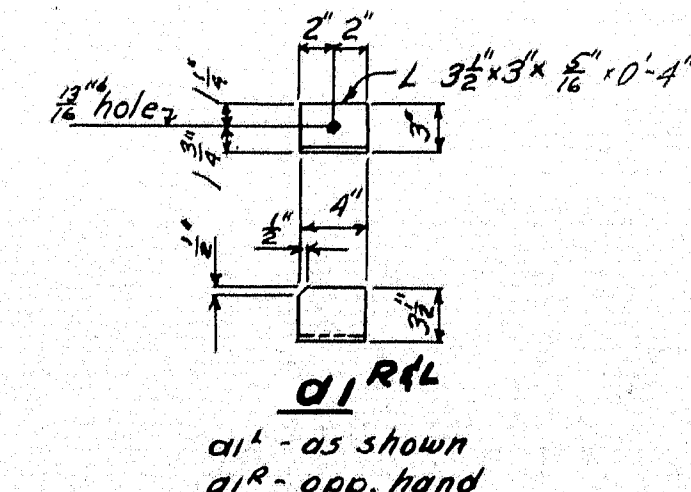
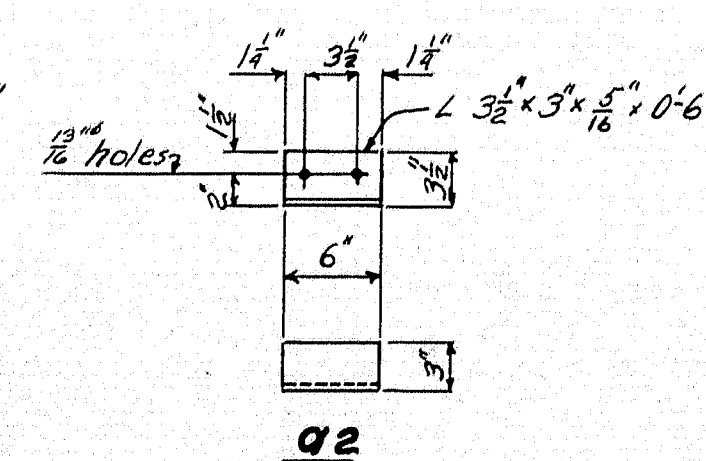
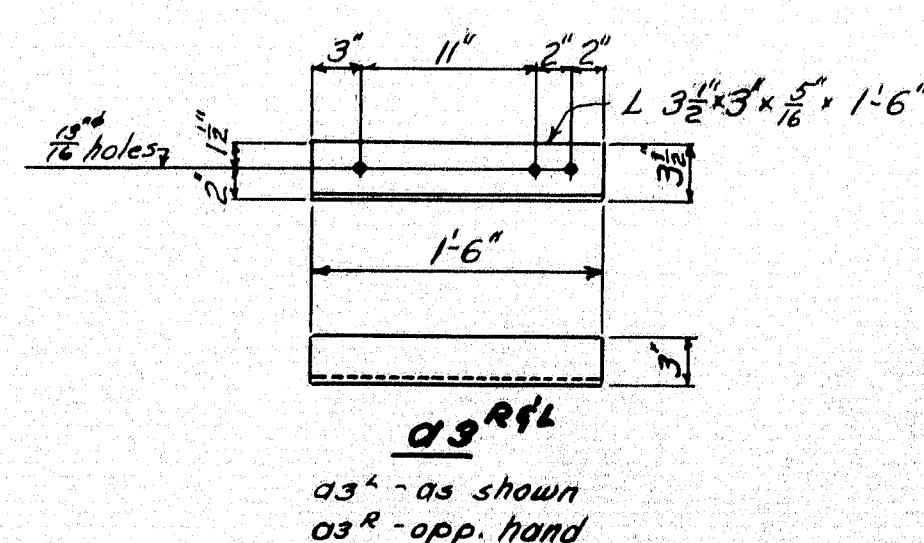
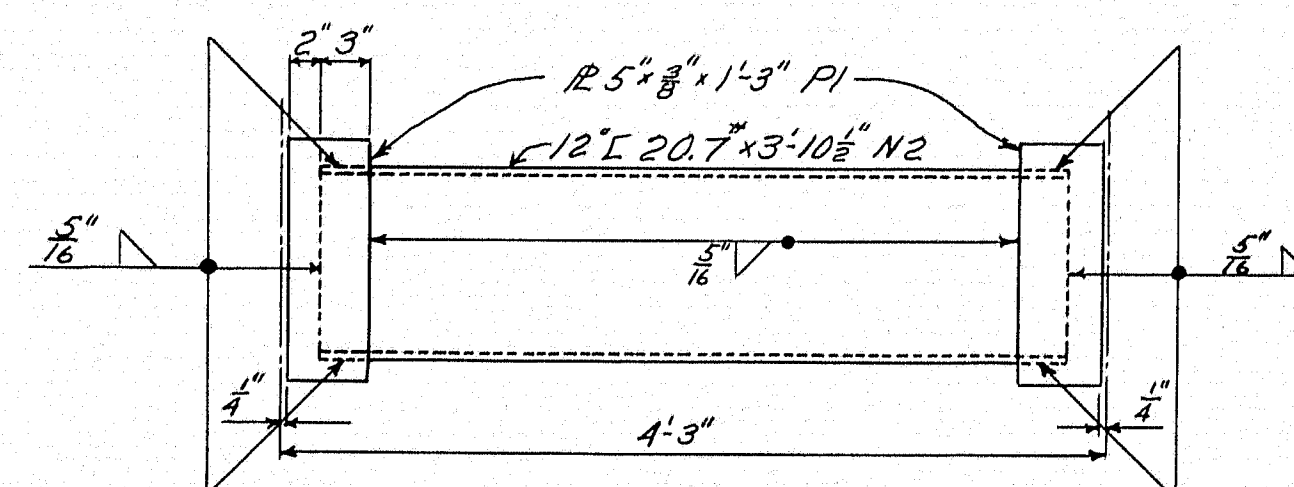
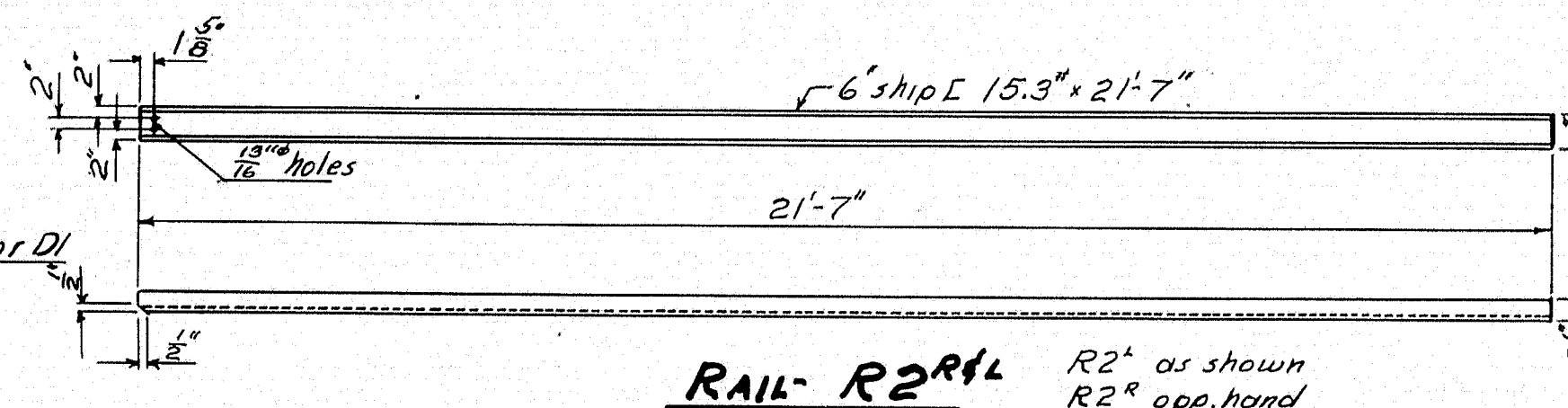
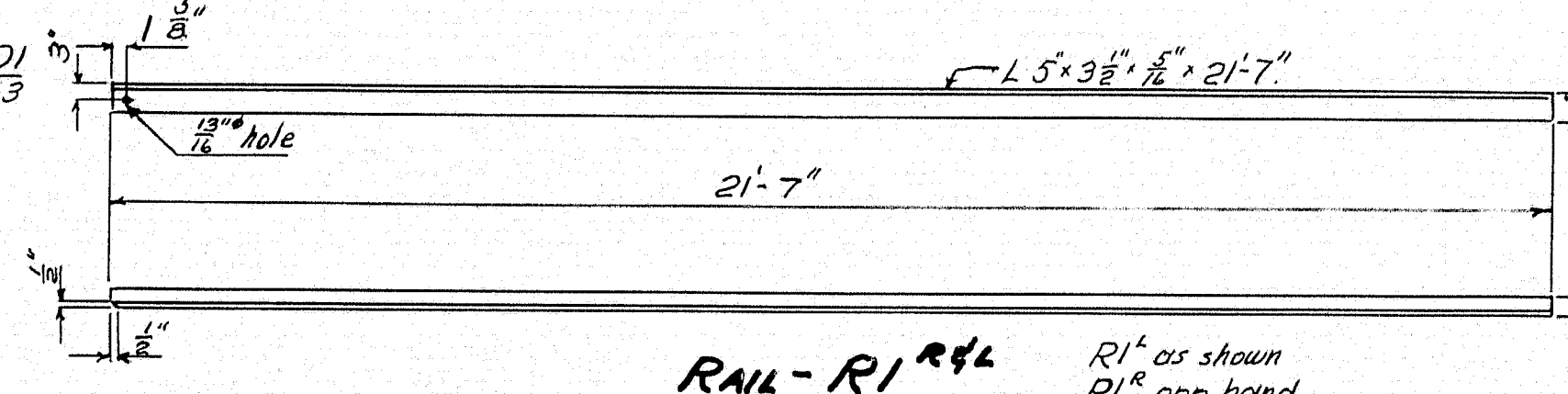
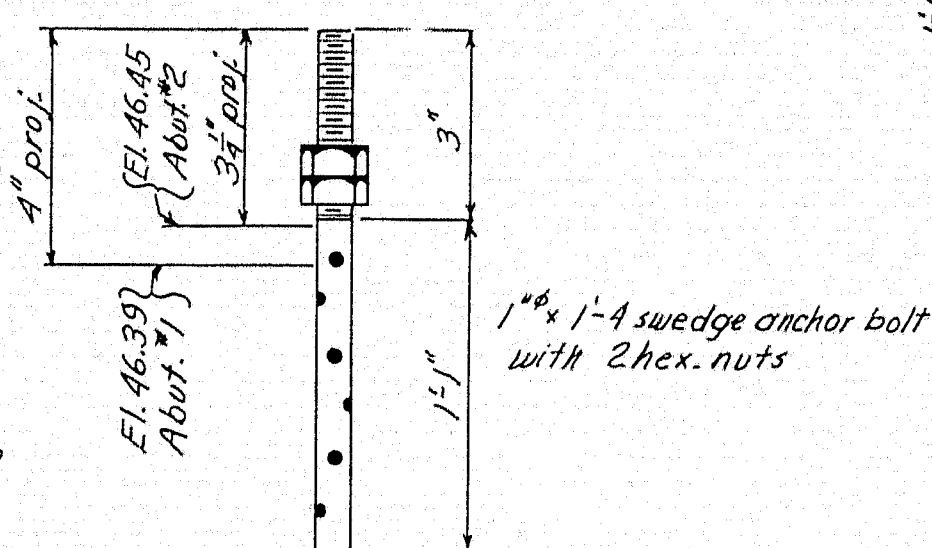
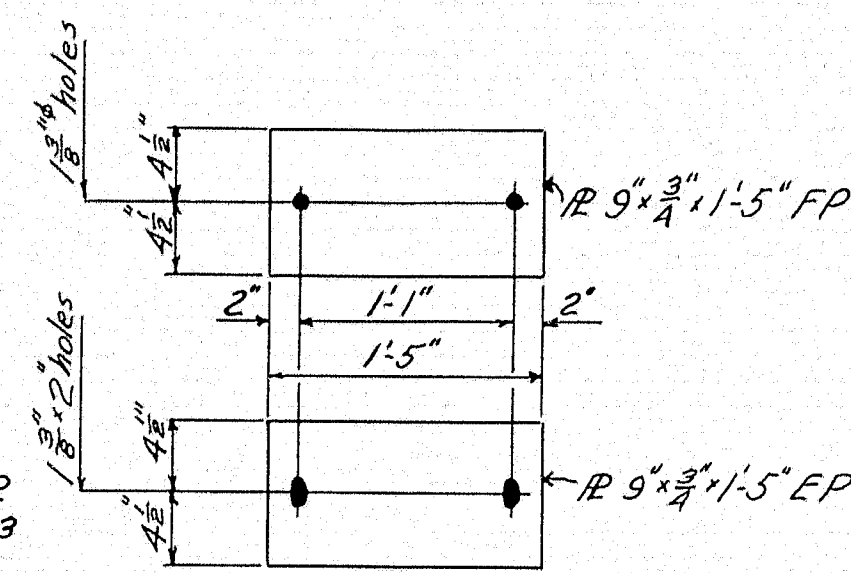
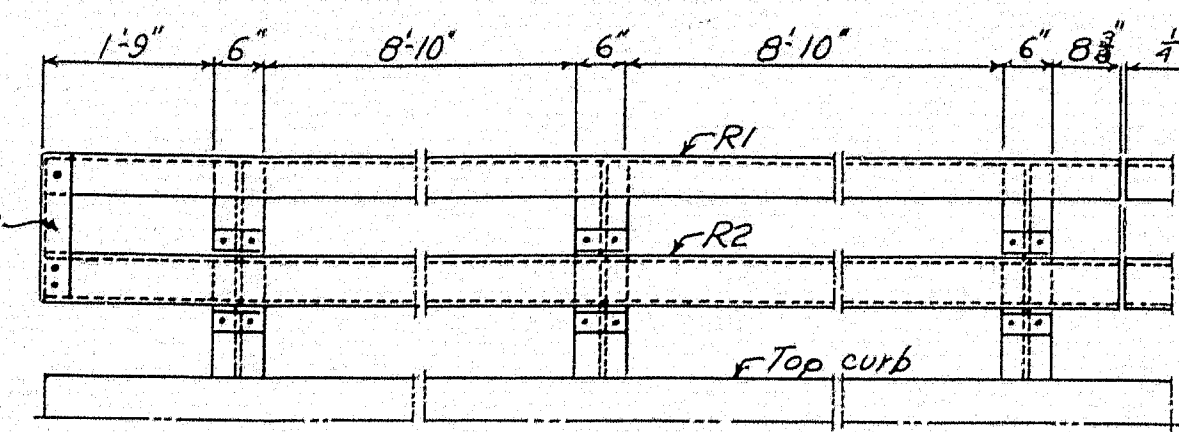
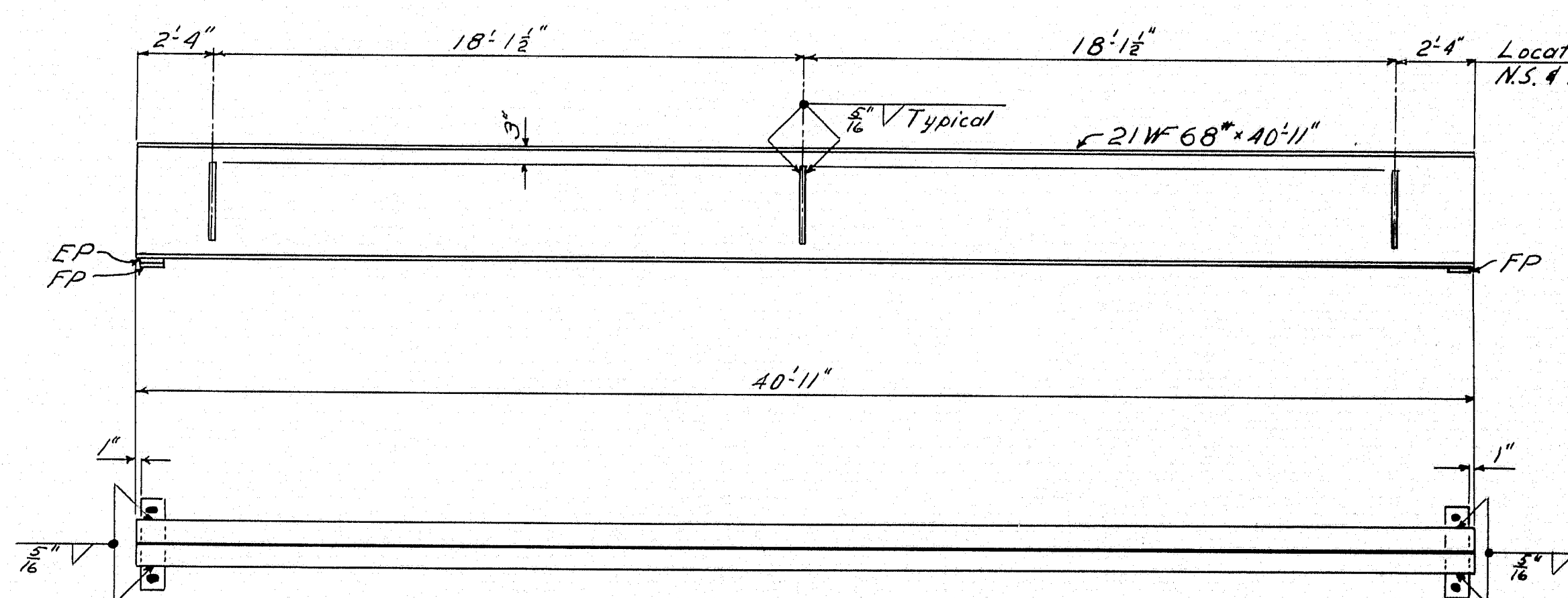
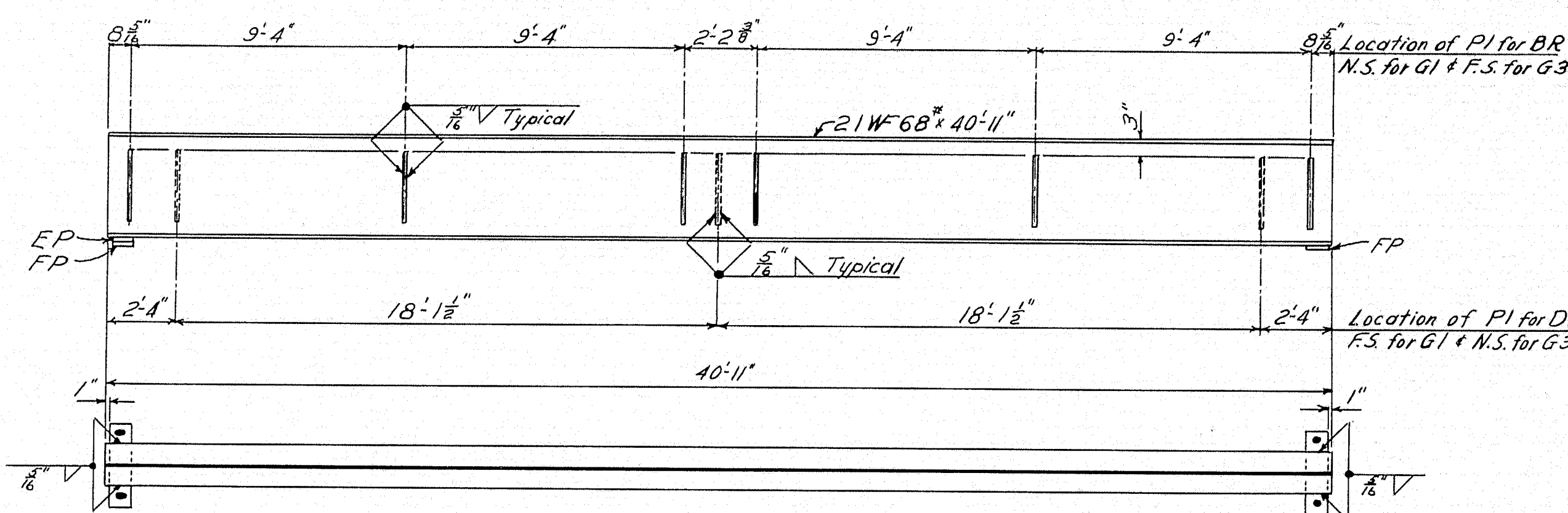
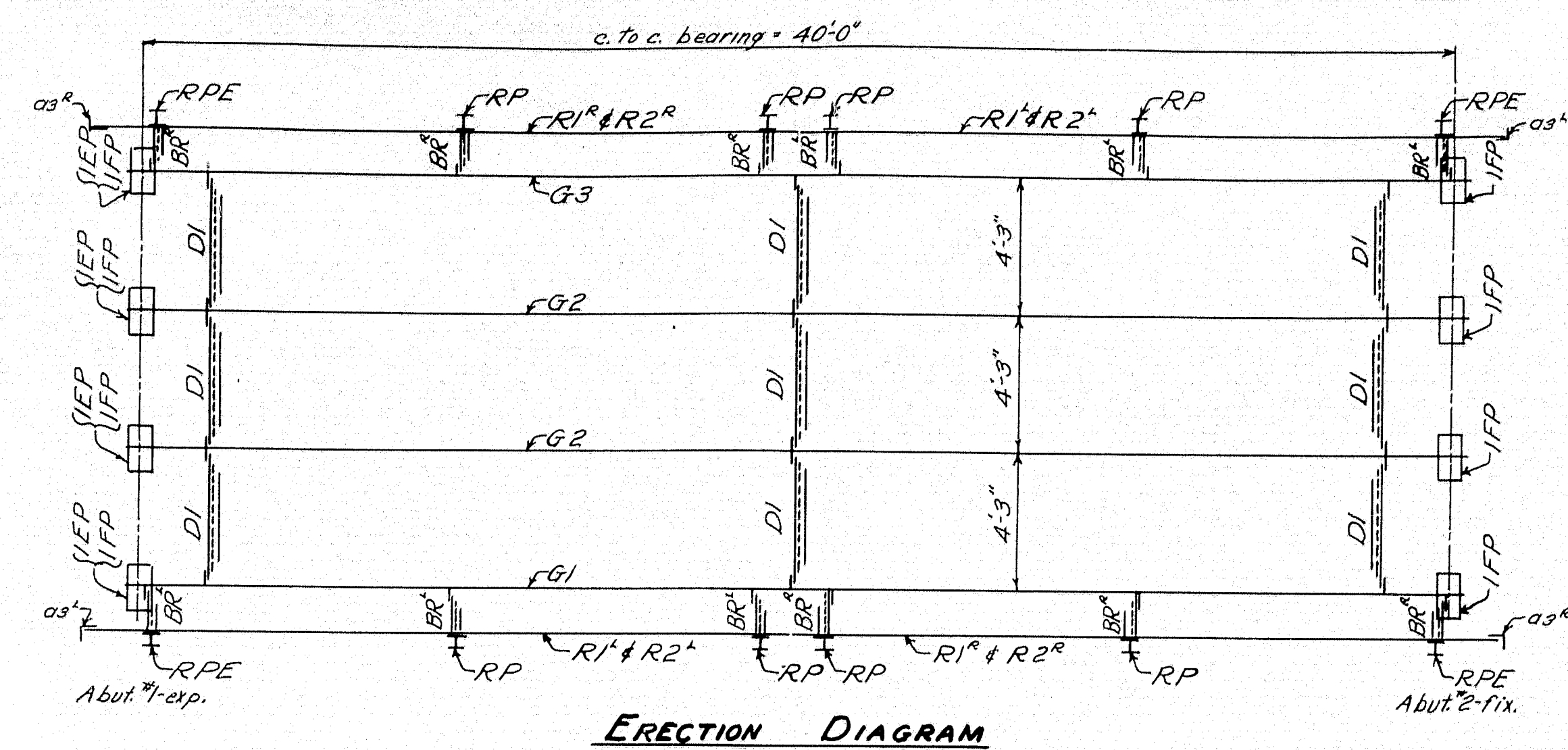


LONG. HALF SECTION - SLAB
SHOWING SPACING F-25 BARS



NOTES:
All dimensions are to $\frac{1}{2}$ of reinforcing bars.
Deformations are to meet ASTM Specifications A-305.

DETAIL - FORTIER TRACE - GRAY CHECK - <i>[Signature]</i>	BRIDGE - 5270
STATE HIGHWAY COMMISSION BRIDGE DIVISION LANES ISLAND BRIDGE OVER CARVERS HARBOR IN THE TOWN OF VINALHAVEN KNOX COUNTY REINF. STEEL 1951	
SHEET 8 OF 9 AUGUSTA, ME. MAY, 1951	



BILL OF MATERIALS			
Mark	Description	No.	Shop work required
G1	21W ^{68"} × 40 ^{14"}	1	none
G2	do	2	none
G3	do	1	none
R1 ^R	1 5' × 3 1/2" × 3/4" × 21' 7"	2	opp. hand
R1 ^L	do	2	as shown
R2 ^R	6' ship L 15.3" × 21' 7"	2	opp. hand
R2 ^L	do	2	as shown
RP	6' 6" × 15.5" × 4' 9 3/8" stanchion	8	as shown
RPE	do	4	as shown
EP	10 9" × 3/4" × 1.5"	4	as shown
FP	do	8	as shown
AB	1 1/8" × 1/4" swedge anchor bolt	16	as shown
α1 ^R	1 3 1/2" × 3" × 3/8" × 0' 4"	12	opp. hand
α1 ^L	1 3 1/2" × 3" × 3/8" × 0' 4"	12	as shown
α2	1 3 1/2" × 3" × 3/8" × 0' 6"	24	as shown
α3 ^R	1 3 1/2" × 3" × 3/8" × 1' 6"	2	opp. hand
α3 ^L	do	2	as shown
N1	12' L 20.7" × 3' 10"	12	none
N2	12' L 20.7" × 3' 10 3/8"	9	none
P1	10 5" × 3/8" × 1' 3"	30	none
B1	Bolt 3/4" × 1 1/2", Hex nut & head 1/2" × 2" washer	24	none
B2	Bolt 1 1/4" × 1 1/2", Hex nut & head 1/2" lock washer	84	none