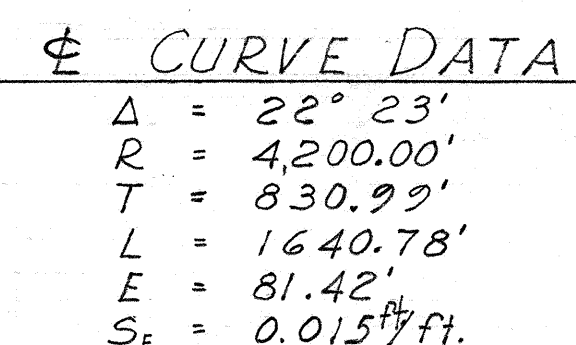
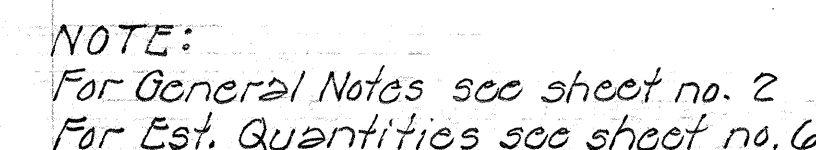
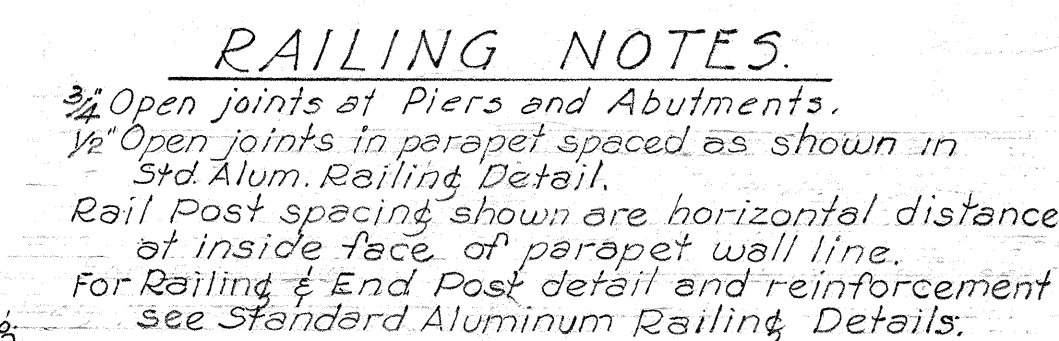




Scale ~ 1" = 20'-0"



Scale: 1" = 20'-0"



KEEAUMOKU SEPARATION
Sta. 7+00.03 to Sta. 10+91.69

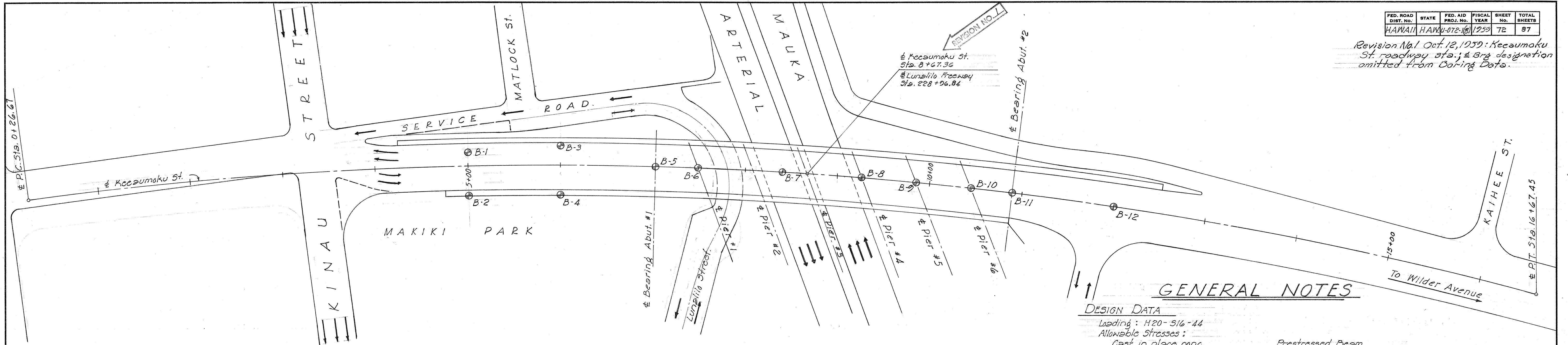
February 1953

SHEET No. 1 OF 17 SHEETS

§ 183.71

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	U-072-1(8)	1959	72	87

Revision No. 1 Oct. 12, 1959: Keeaumoku St. roadway Sta. 1 & Brg designation omitted from Boring Data.



LOCATION PLAN
Scale ~ 1" = 50'-0"

GENERAL NOTES

DESIGN DATA

Loading: H20-S16-44

Allowable Stresses:

Cast in place conc.

$f_c = 20,000$ psi

$f_c = 1,200$ psi

$n = 10$

Prestressed Beam

$f_c = 4,200$ psi at transfer

$1/4$ # strands ~

Tensioning Load = 18,000 #

Design Load = 15,120 # per strand

SPECIFICATIONS: AASHO

Standard Specifications for Highway Bridges (7th Edition) with subsequent additions and modifications.

MATERIALS

Concrete - All concrete shall be Class A-1 except concrete for prestressed beams.

Concrete for prestressed beams, see Special Provisions.

Struct. Steel - Struct. steel shall be Struct. Carbon Steel, ASTM Designation A-1.

Admixture - Admixture of "Plastiment" or approved equal shall be added to all concrete in accordance with manufacturer's recommendations.

CONSTRUCTION METHOD

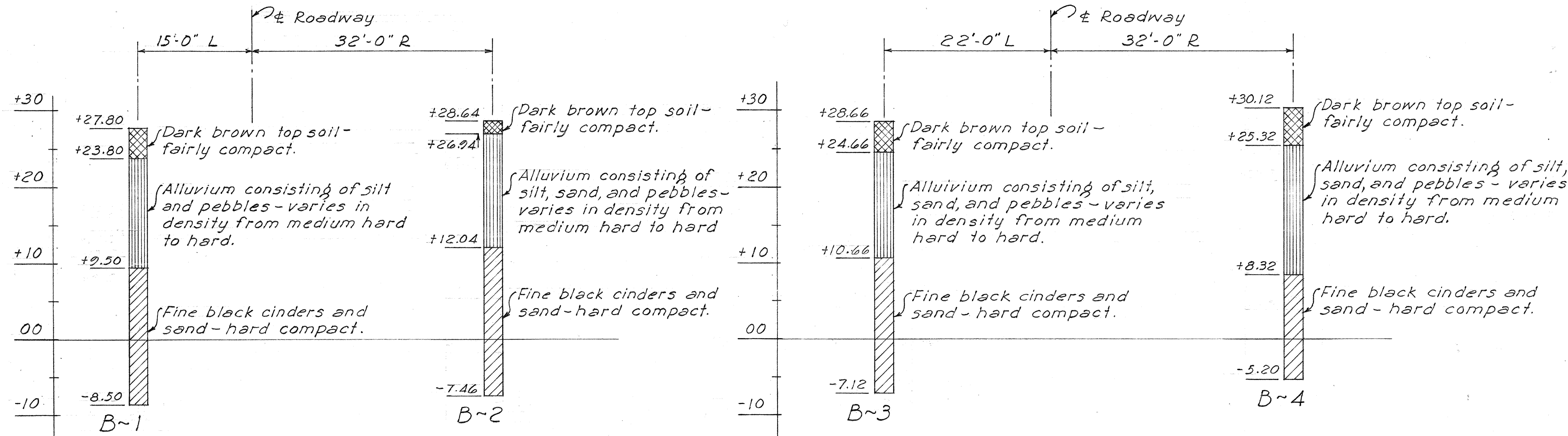
General - See Standard Specifications.

Welding - All welding shall conform to the latest specifications for Welding Highway and Railway Bridges, Design, Construction and Repair, of the American Welding Society.

Forms - Forms for all exposed surfaces of separation structure including retaining walls (except prestressed beams and round columns) shall be plywood. Forms for round columns and prestressed beams shall be made of material that results in a smooth finish and true dimensions as shown in the plans.

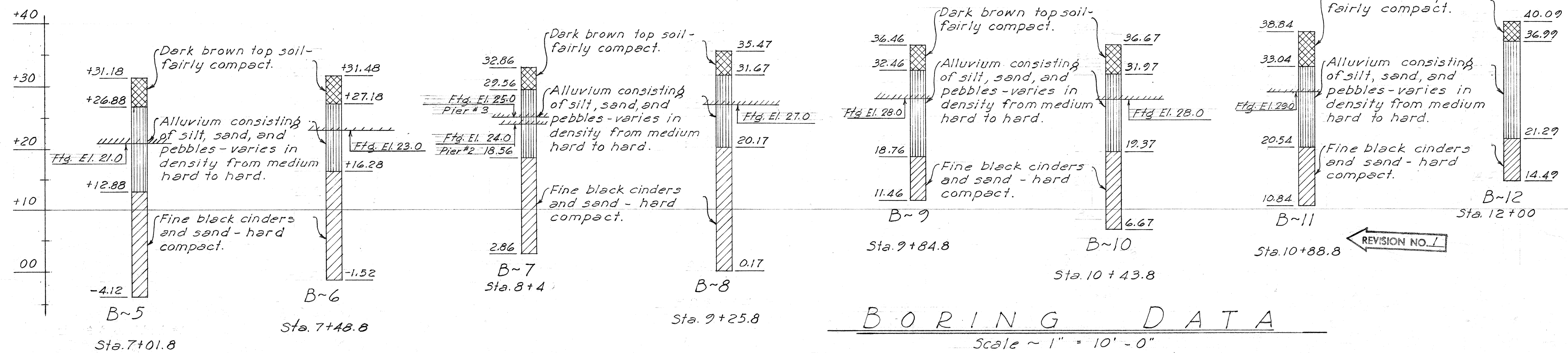
Finish - See Standard Specifications for Road and Bridge Construction for class of finish except as noted on Normal Section on sheet #3. All exposed edges shall be chamfered $3/4$ " unless otherwise noted.

Backfill - Backfill behind abutment and retaining walls before placing superstructure.



Sta. 5+00

Sta. 6+00



BORING DATA

Scale ~ 1" = 10'-0"

HAWAII STATE HIGHWAY DEPARTMENT

STATE OF HAWAII

KEEAUMOKU SEPARATION

Sta. 7+00.03 to Sta. 10+01.62

LUNALILO FREEWAY PROJ. U-072-1(8)

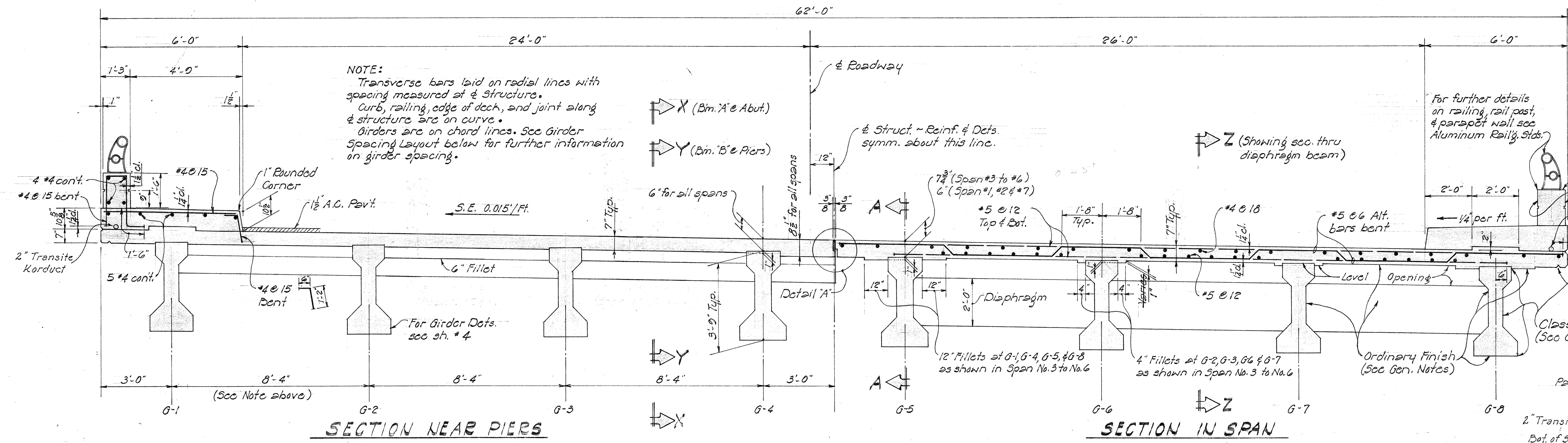
February 1959

SHEET NO. 2 OF 17 SHEETS

8183.72

SURVEY PLOTTED BY	DATE
DRAWN BY	8/58
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	

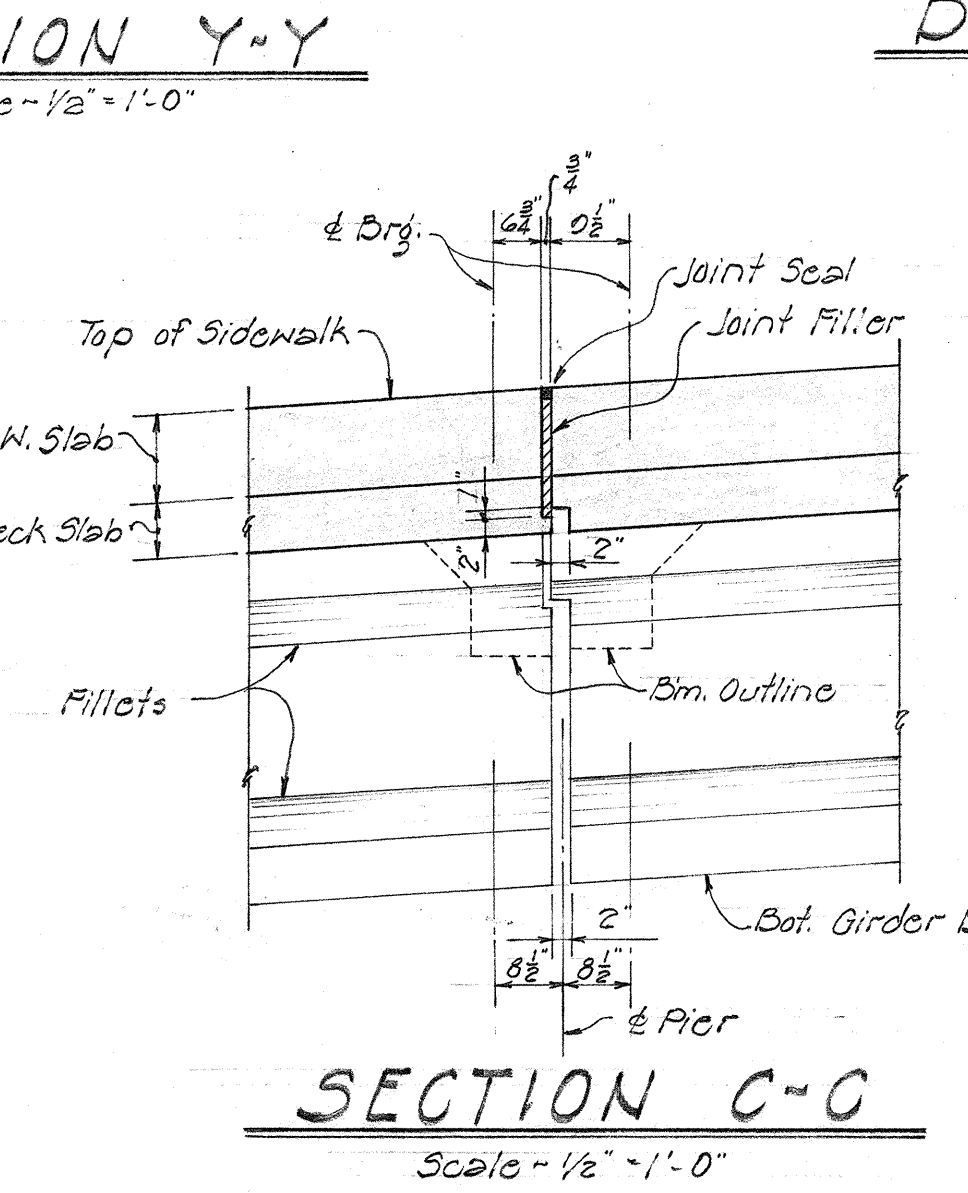
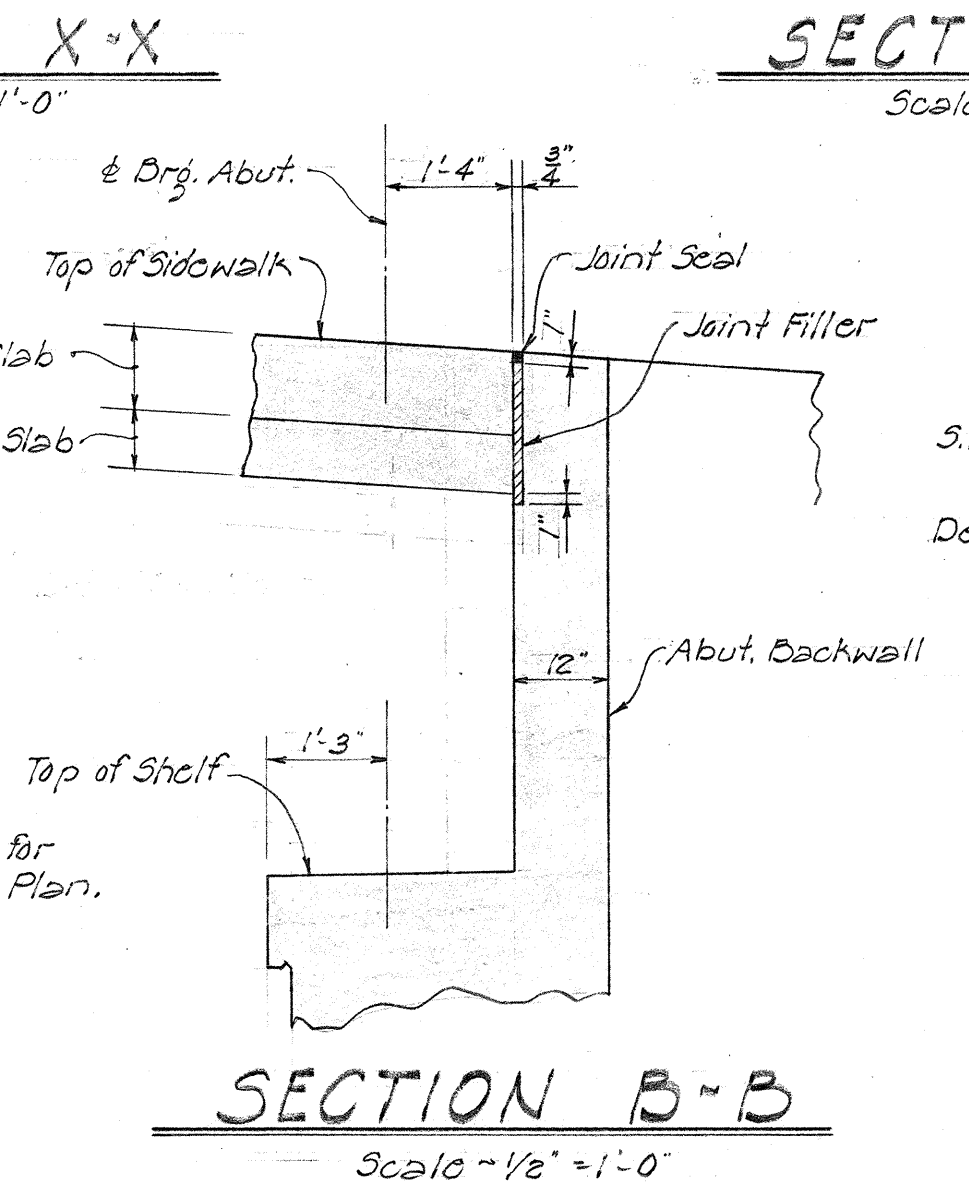
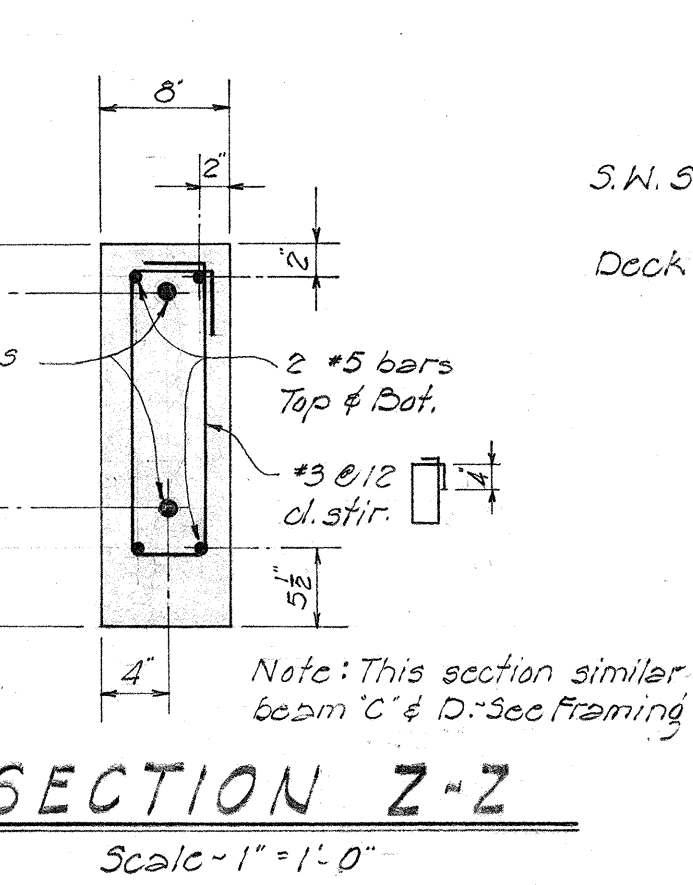
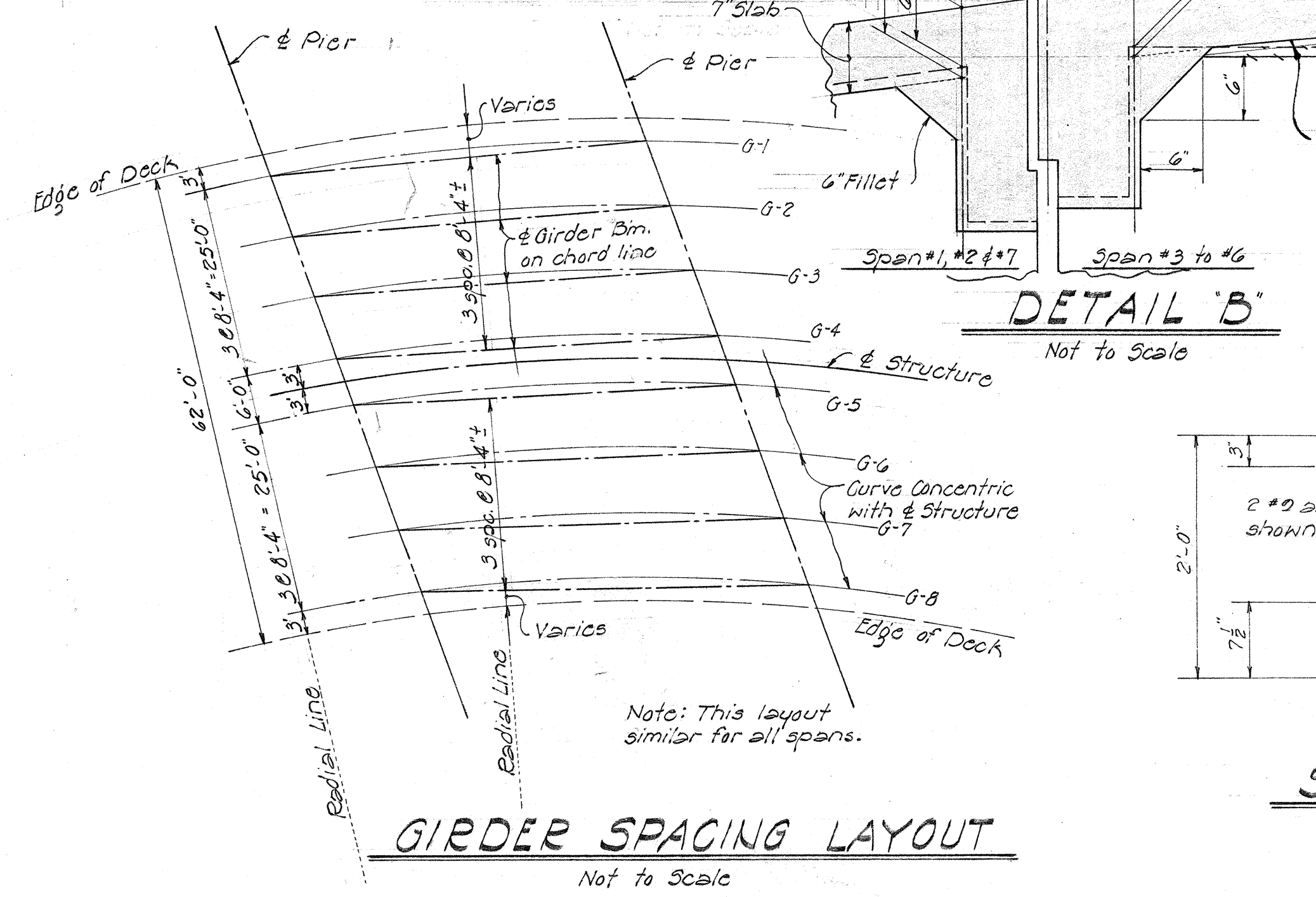
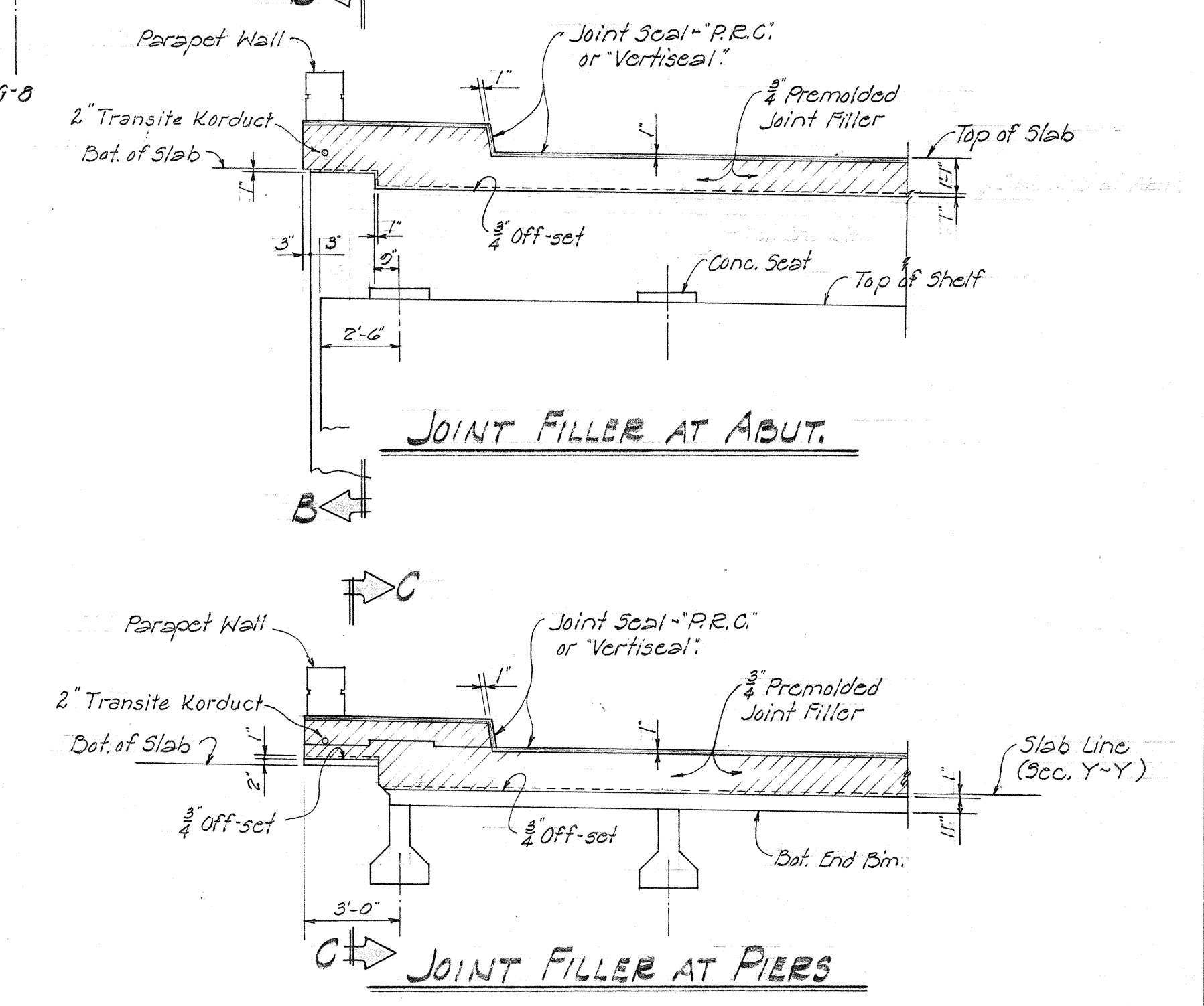
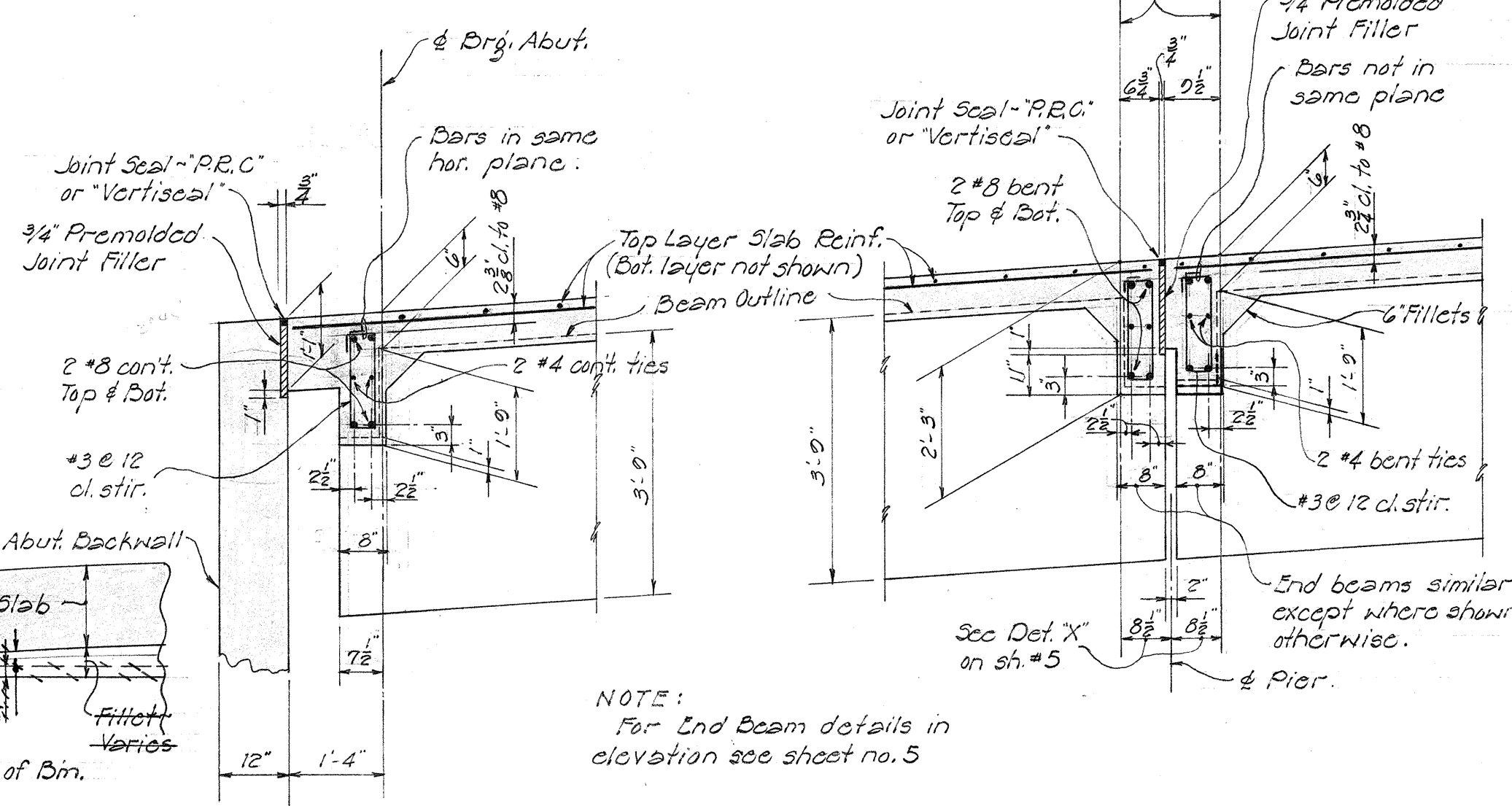
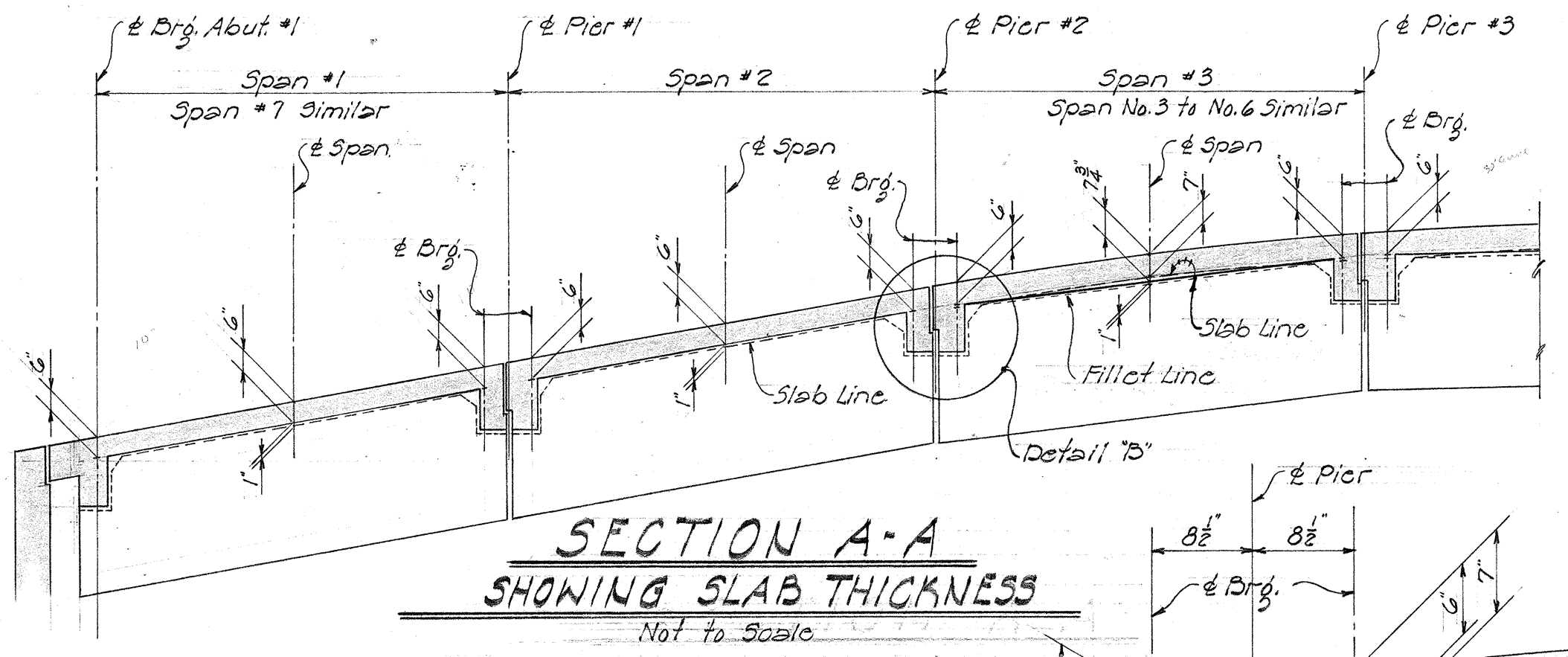
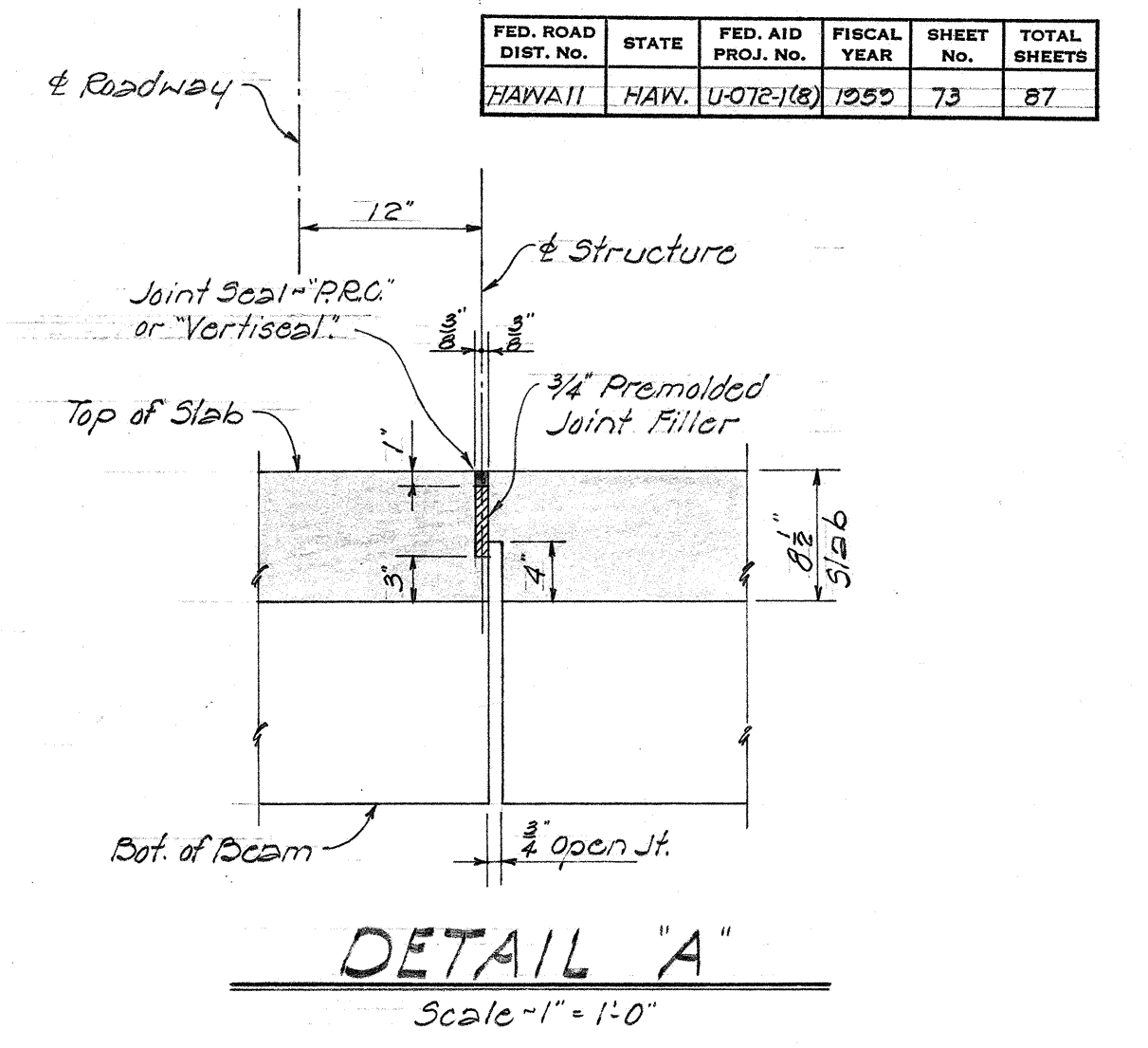
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-1(8)	1959	73	87



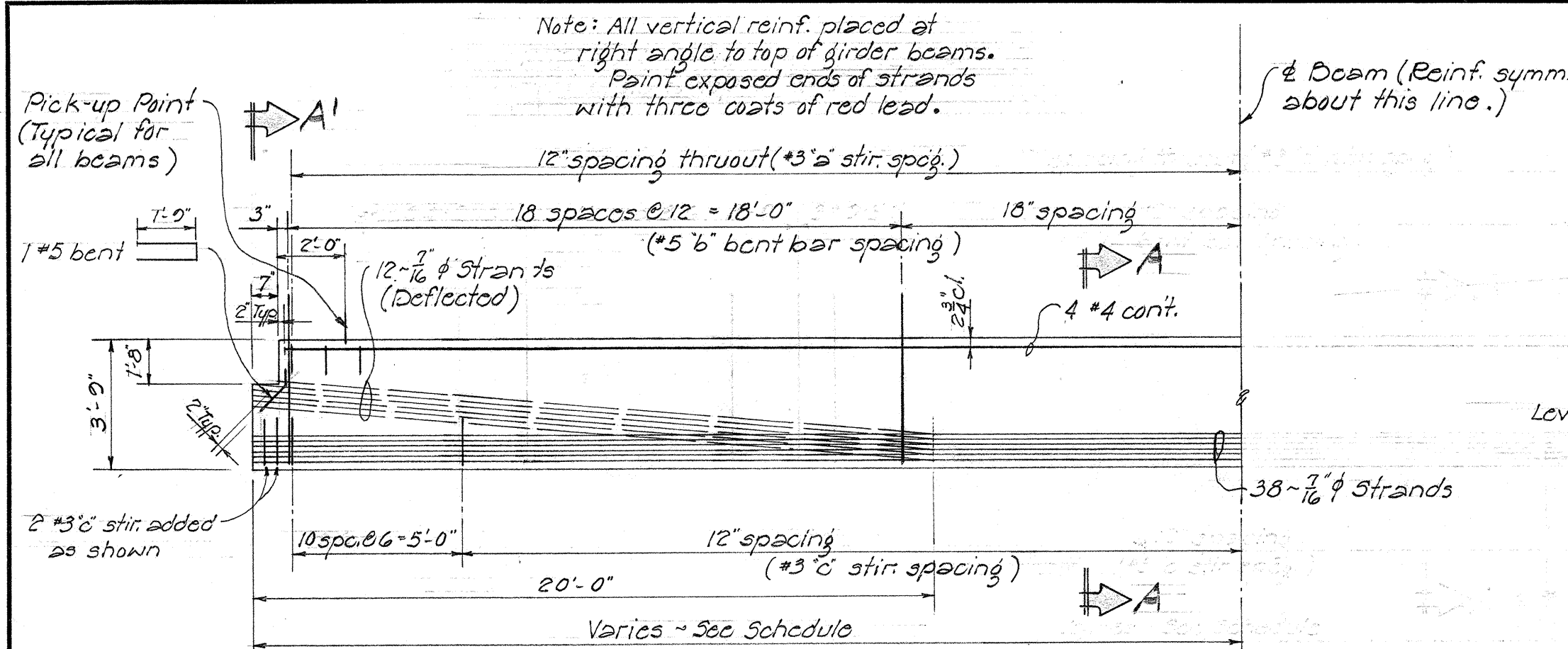
SECTION NEAR PIERS

NORMAL SECTION
Scale - 3/8" = 1'-0"

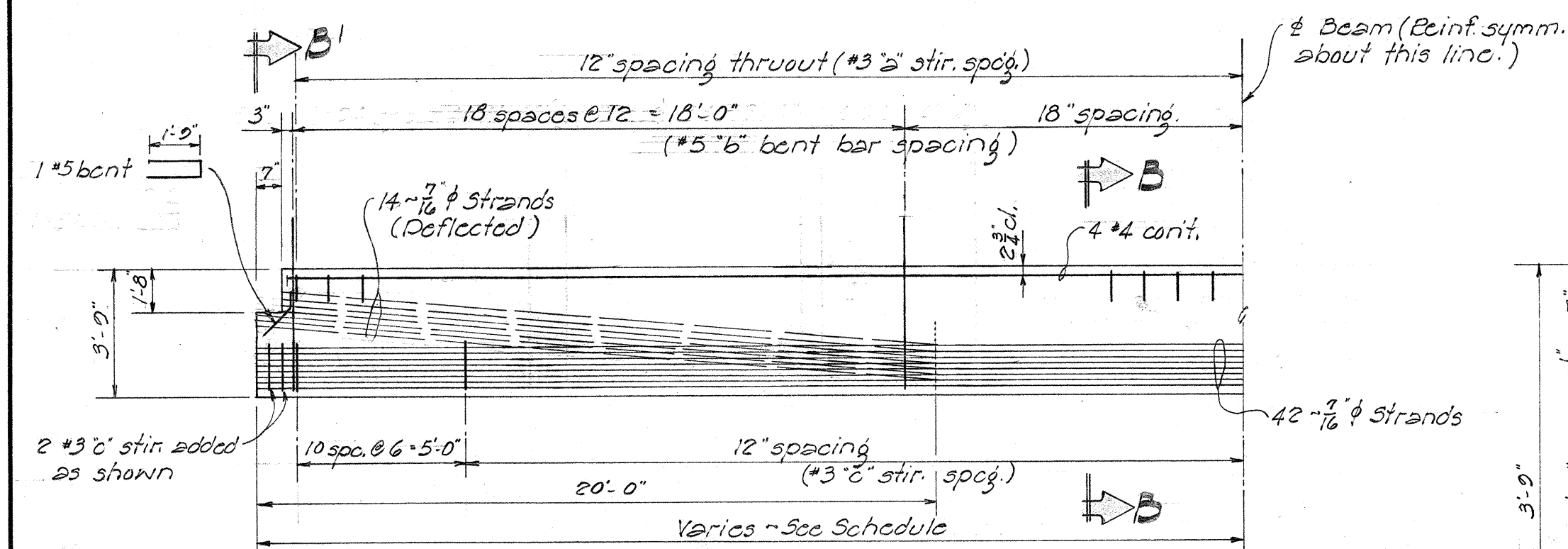
SECTION IN SPAN



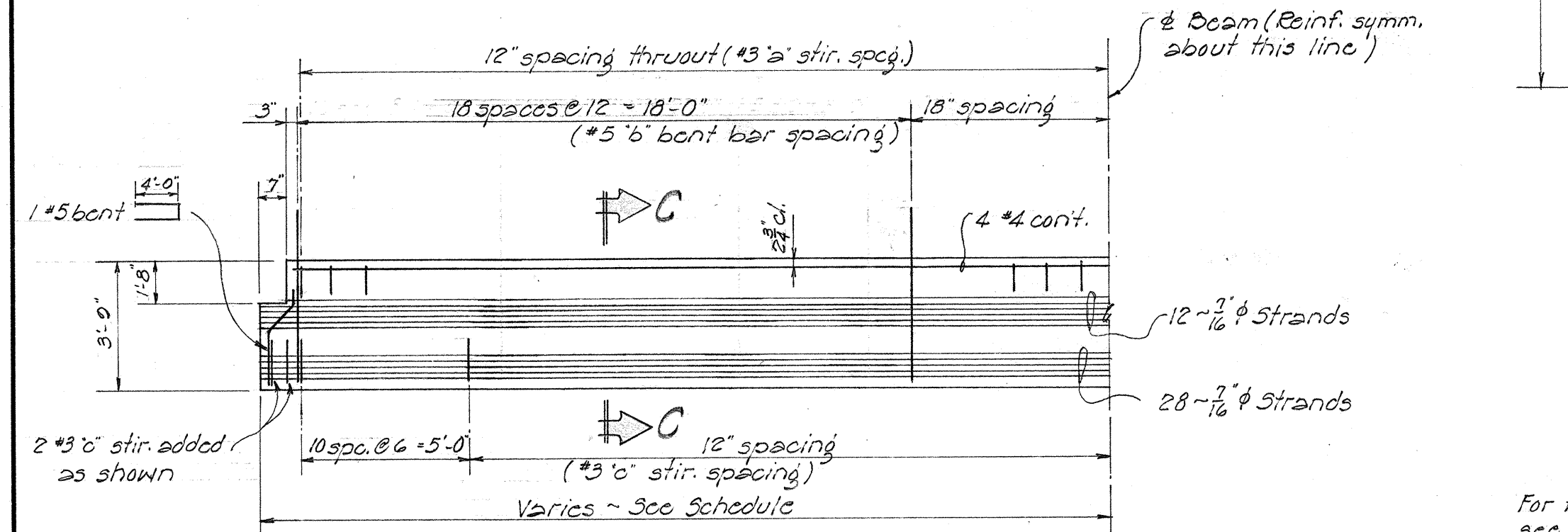
HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII
KEEAUMOKU SEPARATION
Sta. 6+99.53 to Sta. 10+91.19
LUNALILO FREEWAY Proj. No. U-072-1(8)
February 1959



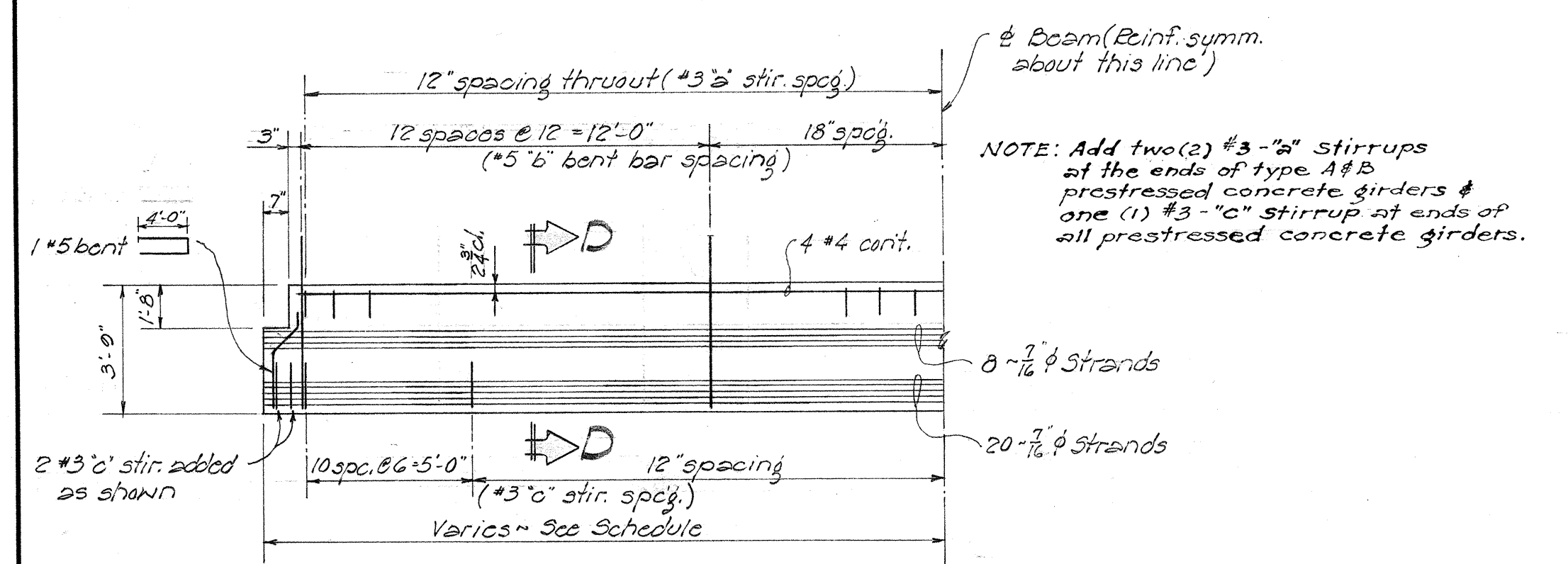
TYPE "A" GIRDER BM.



TYPE "B" GIRDER BM.



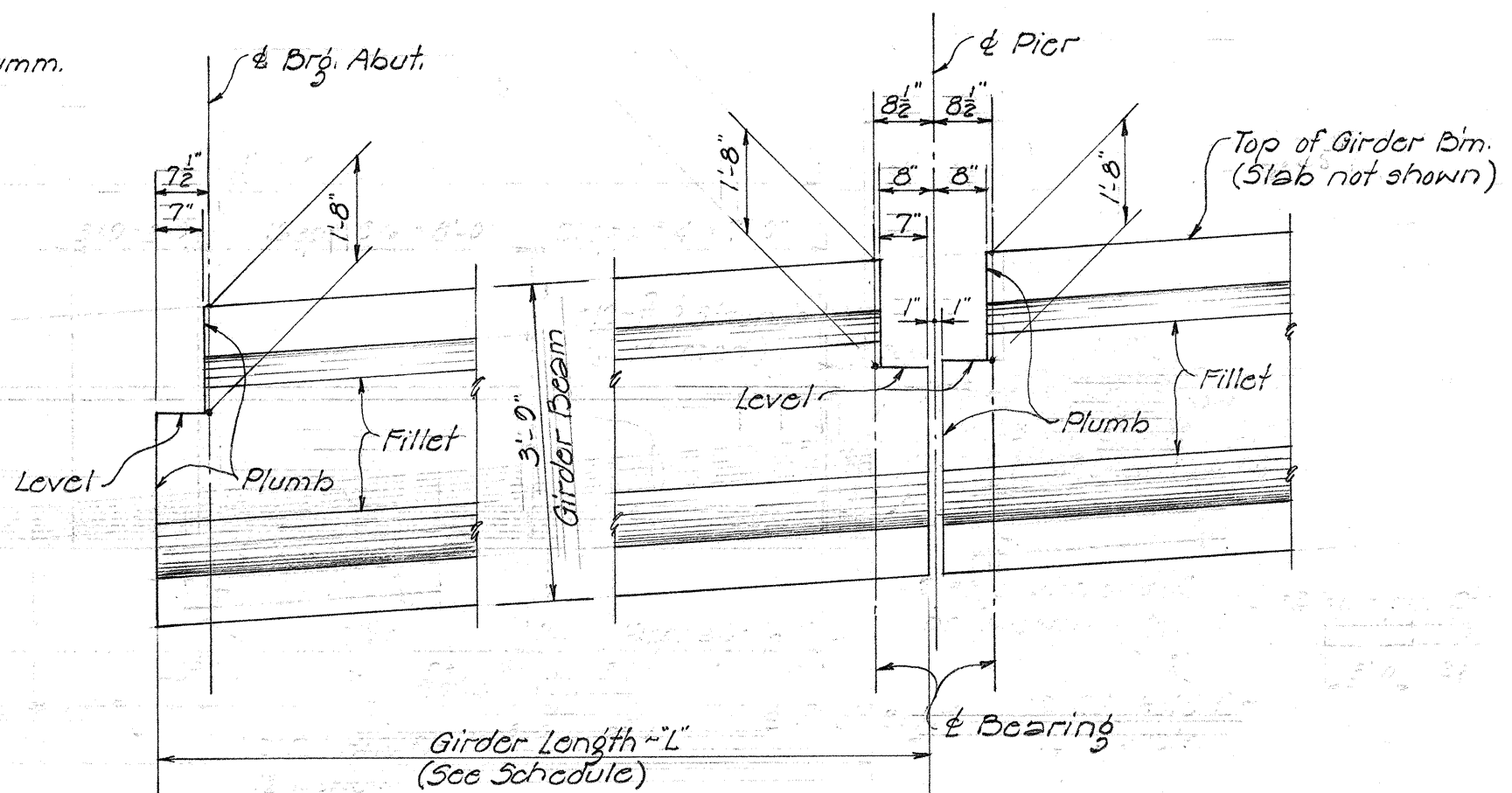
TYPE "C" GIRDER BM.



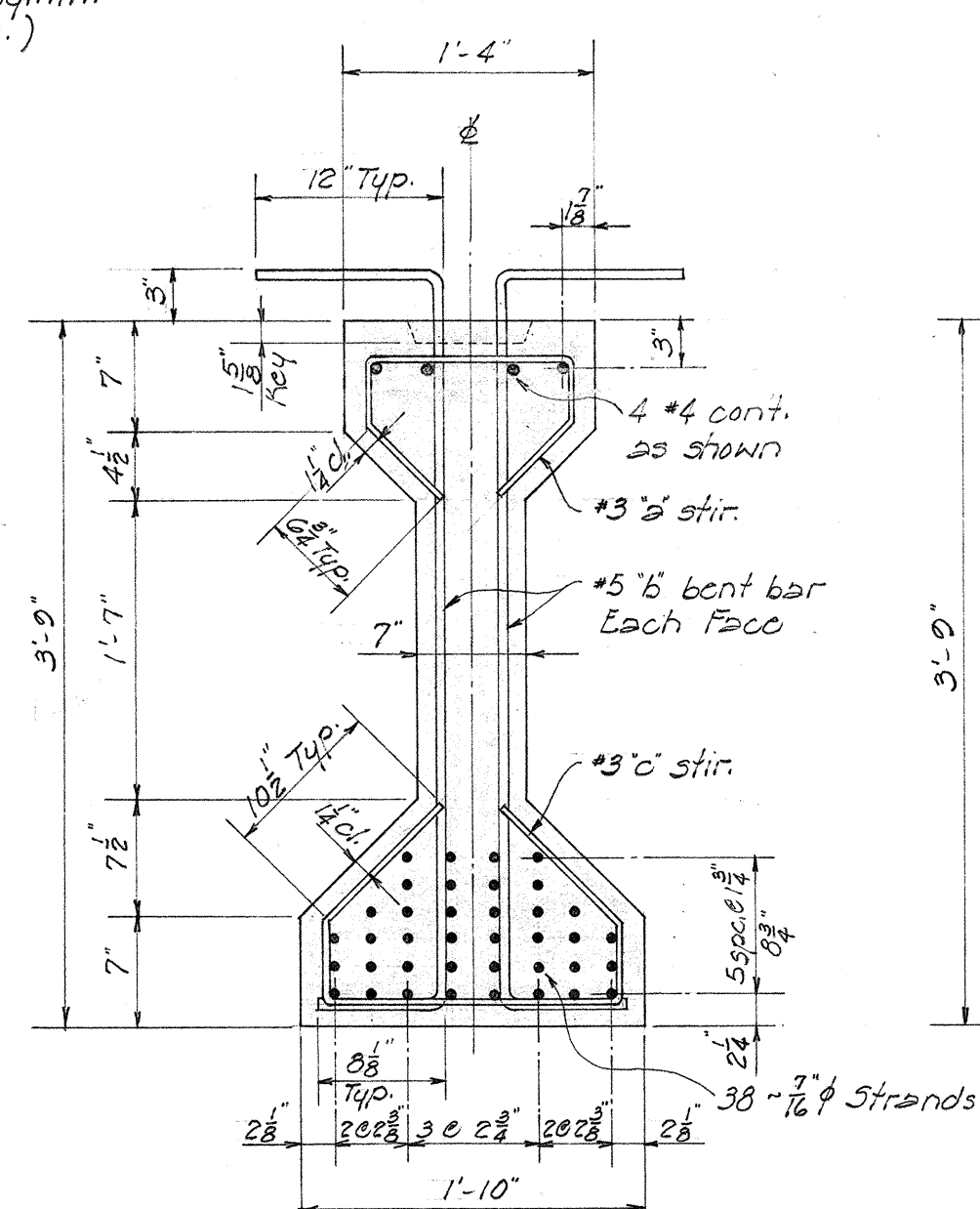
TYPE "D" GIRDER BM.

GIRDER BEAM DETAILS

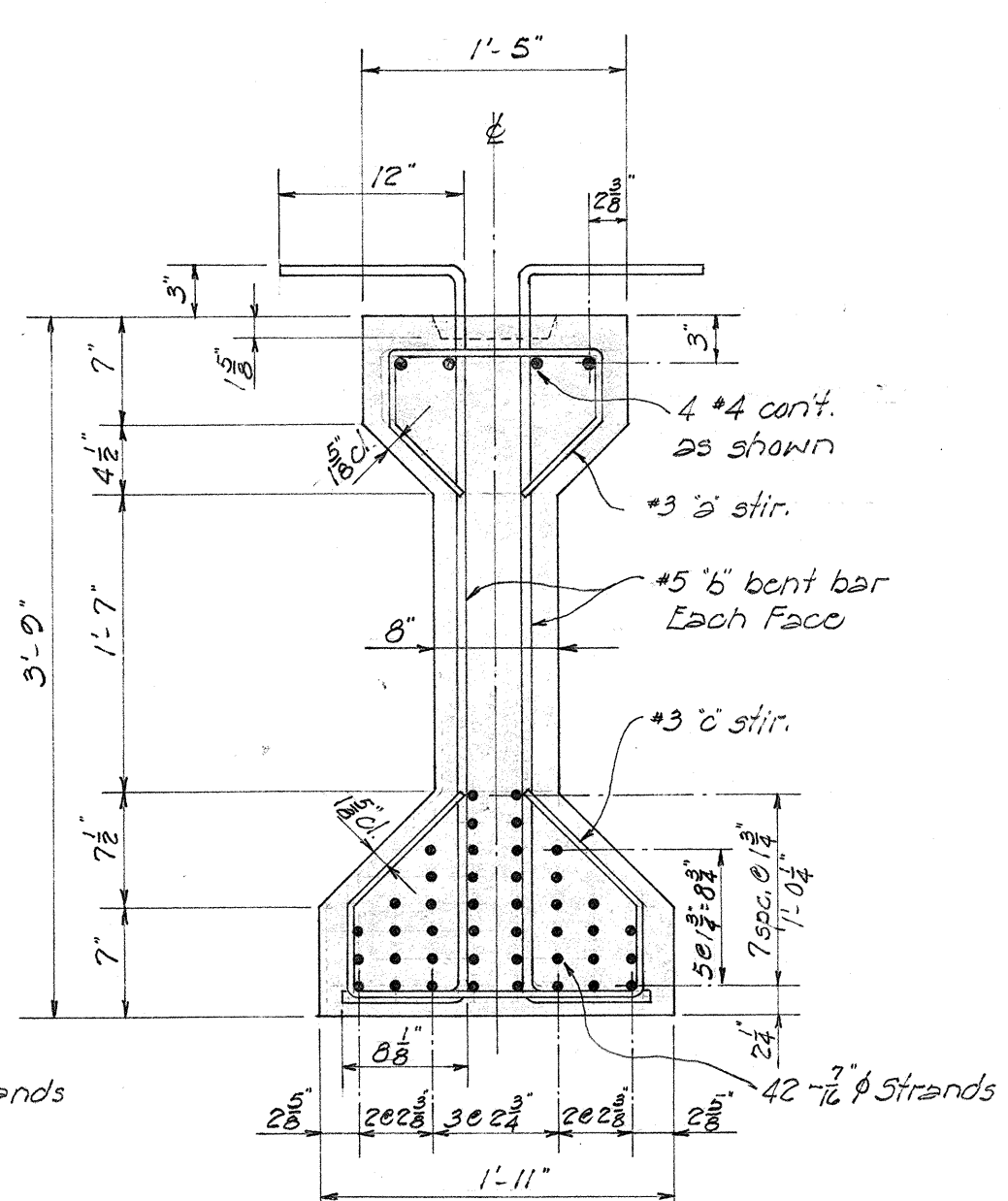
Scale 1/4" = 1'-0"



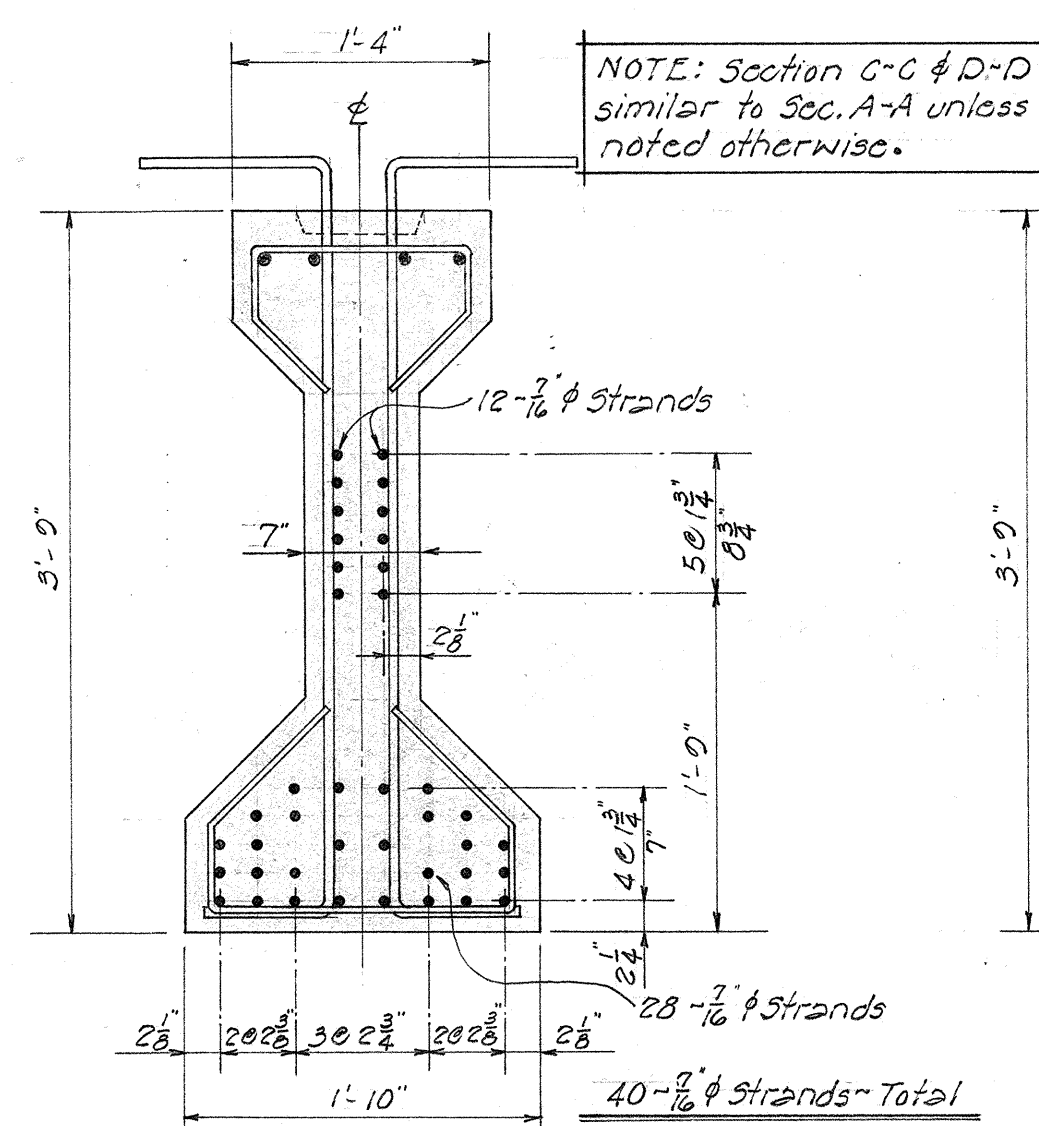
TYP. DET. - GIRDER BM. END



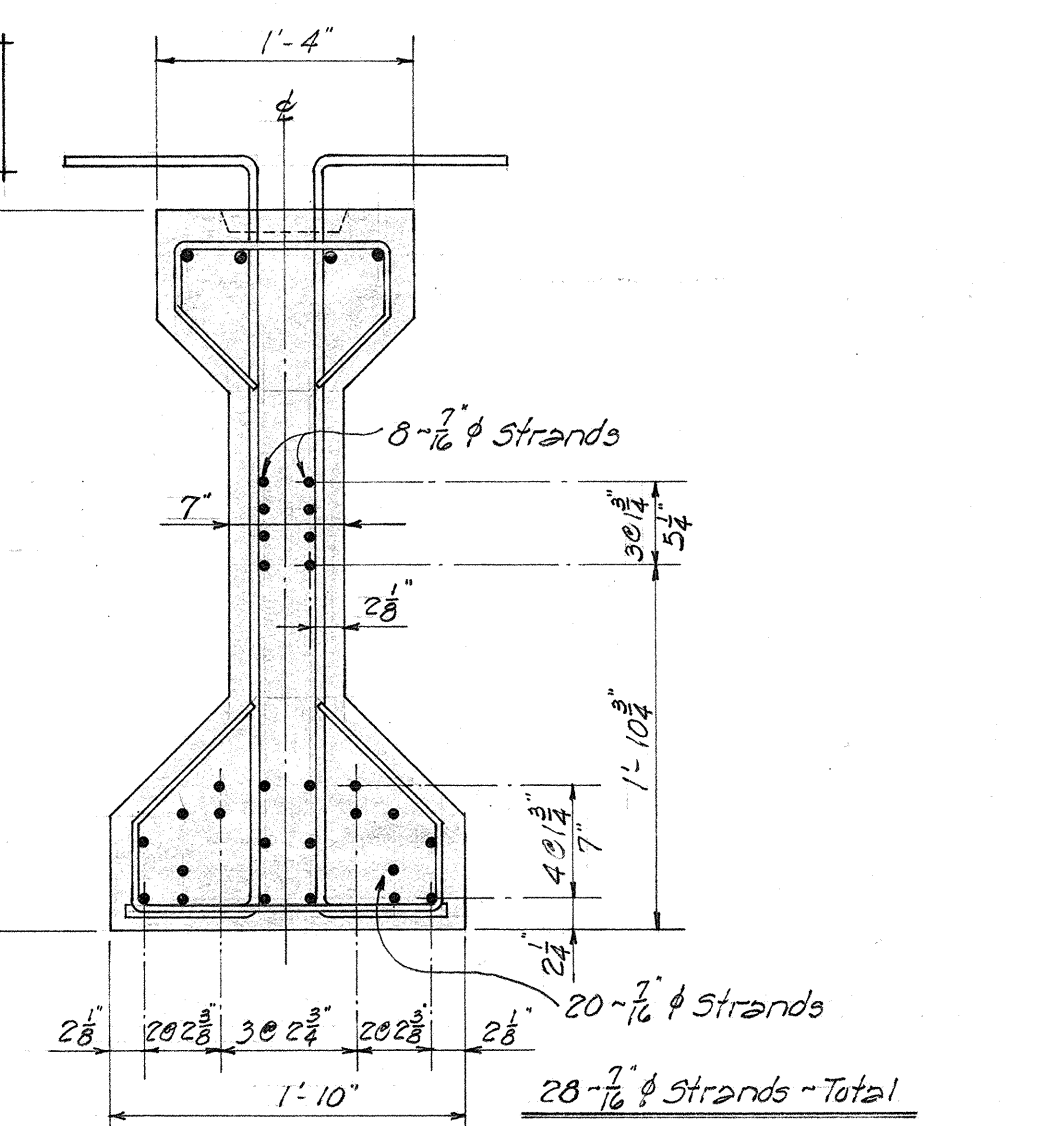
SECTION A-A



SECTION B-B

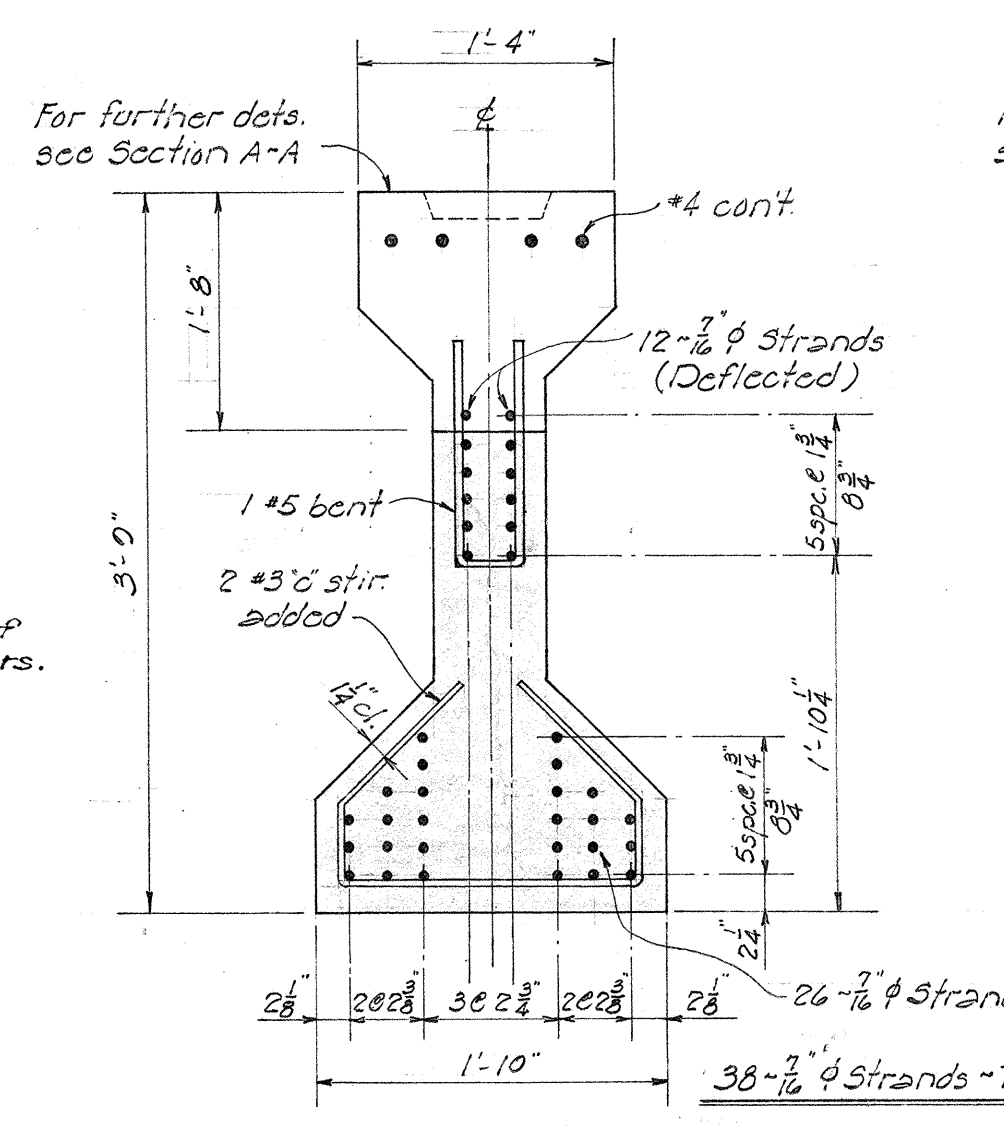


SECTION C-C

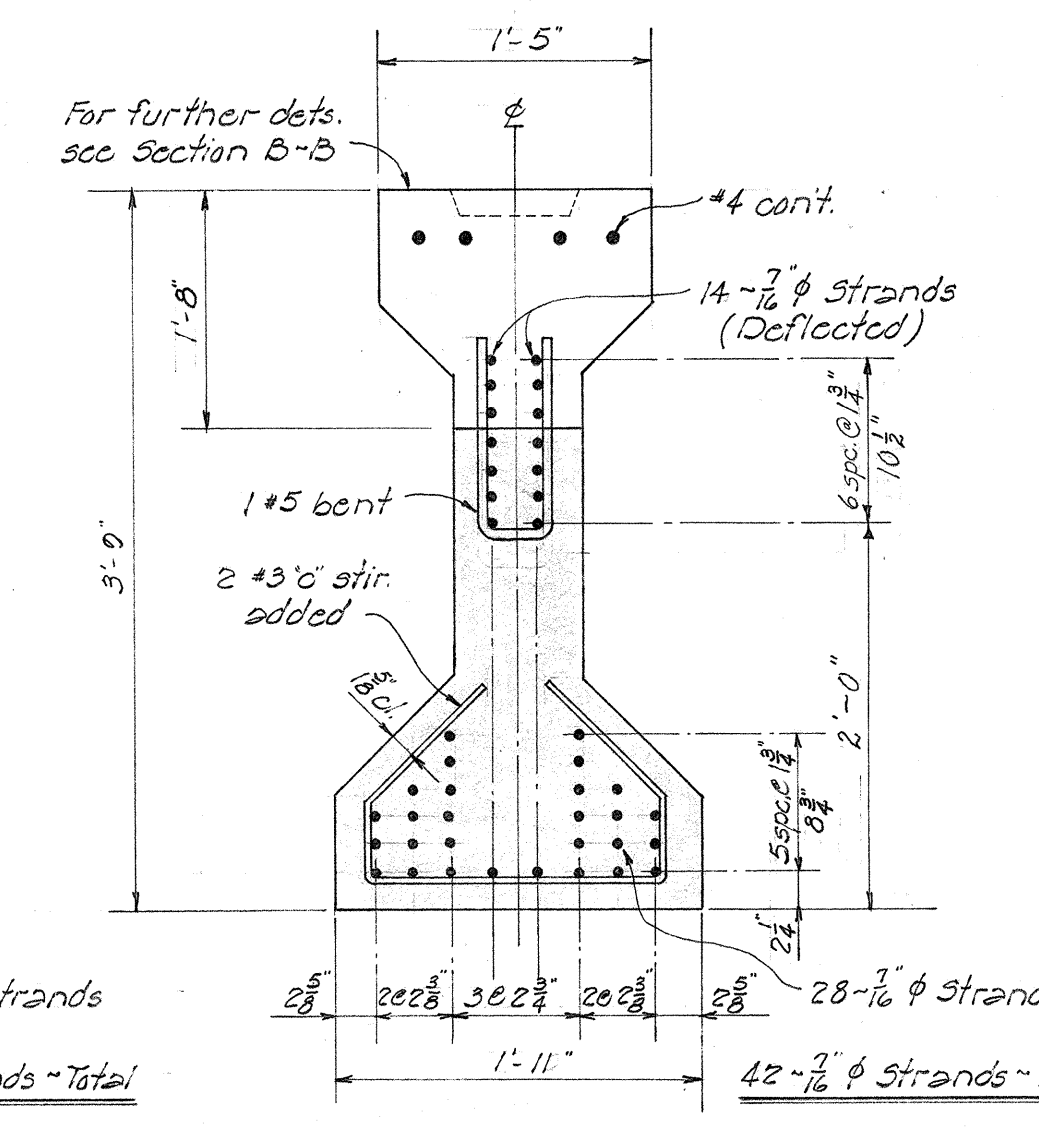


SECTION D-D

SECTIONS - Scale 1" = 1'-0"

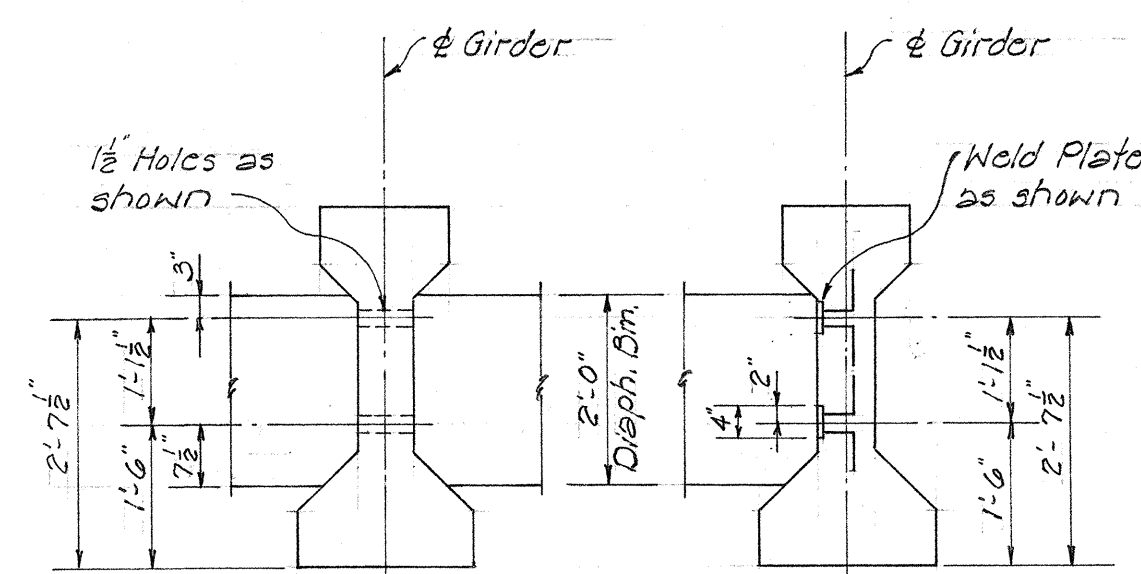


SECTION A-A'



SECTION B-B'

SECTIONS - Scale 1" = 1'-0"



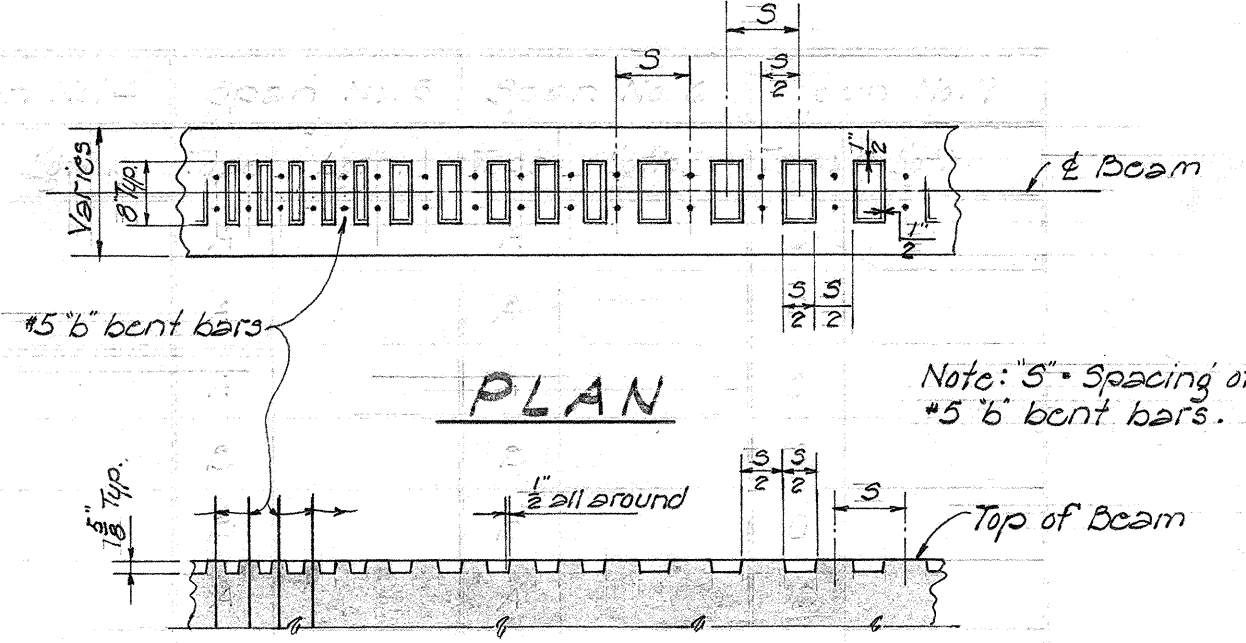
Note: For location of holes and weld plate in span, see Framing Plan. Weld plate and holes incidental to Prestressed Beams. (See Special Provisions)

TYPICAL DETAIL

SHOWING HOLE & WELD IN ELEV.

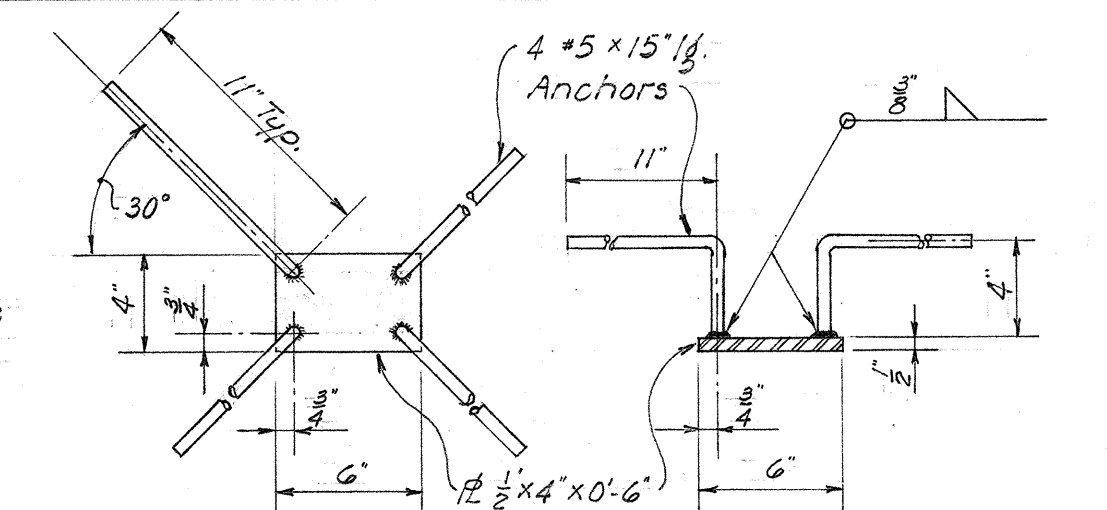
Scale 1/2" = 1'-0"

NOTE:
① For precast, tensioned girders, on equivalent post-tensioning arrangement or a combination of pre-tensioning and post-tensioning will be allowed subject to approval of the Engineer. If post-tensioning is used, all ducts shall be pressure-grouted solid with 4,000 psi expansion grout and end blocks will be required.



SHEAR KEY DETAIL

Scale 1/2" = 1'-0"



HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII

KEEAUMOKU SEPARATION

Sta. 6+29.53 to Sta. 10+91.10

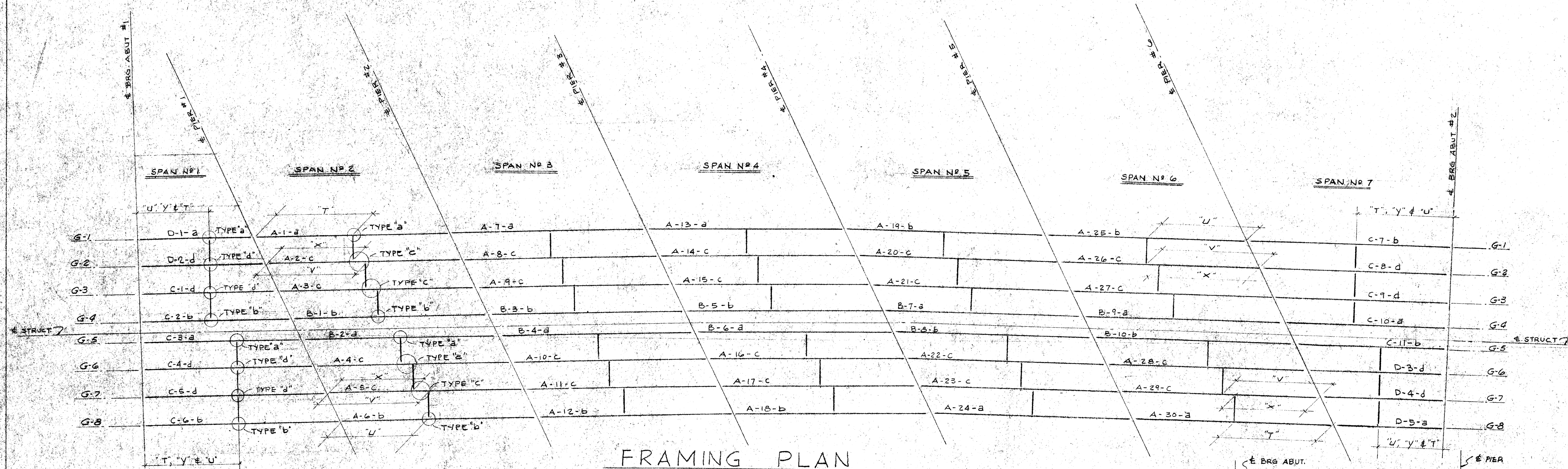
LUNALILO FREEWAY Proj. No. U-072-1(8)

February 1959

SHEET No. 4 OF 17 SHEETS

8183.74

DATE
DESIGNED BY
DRAWN BY
CHECKED BY
QUANTITIES CHECKED BY
NOTE BOOK NO.



KEY TO MARK NUMBERS

D-1-a
 TYPE OF DIAPHRAGM CONNECTION
 GIRDER NUMBER
 GIRDER TYPE & REINFORCING

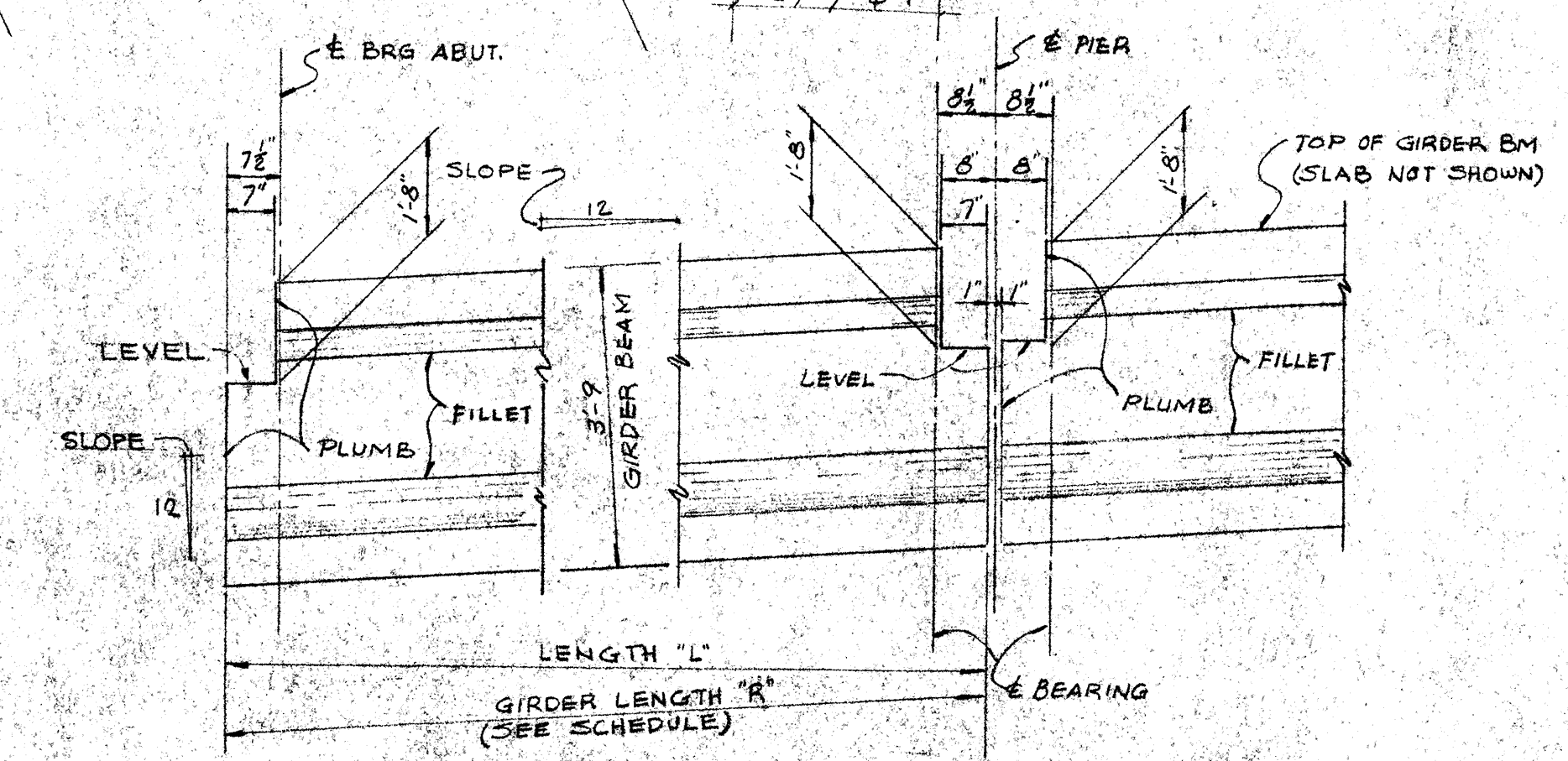
FRAMING PLAN

NOT TO SCALE

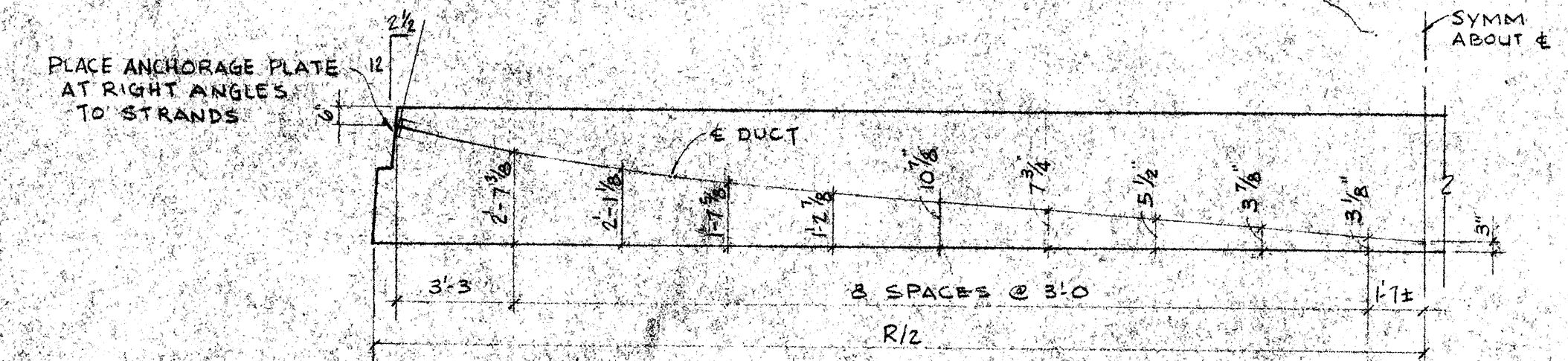
NOTE: FOR INTERMEDIATE DIAPHRAGM CONNECTION TYPES 'a', 'b', 'c' & 'd' AND DIMENSIONS 'T', 'U', 'V', 'X' & 'Y' SEE SHEET 2 FOR DETAILS.

GIRDER SCHEDULE

MARK NO.	NO. REQ'D	SLOPE	R	T	U	V	X	Y	REMARK	MARK NO.	NO. REQ'D	SLOPE	R	T	U	V	X	Y	REMARK	
D-1-a	ONE	13/16	36-7	22-5 1/2					NOTE ①	A-4-c	ONE	9/16	58-11 3/8					31-3 1/8	27-8 1/4	
D-2-d	DO	DO	39-11 7/8					22-5 1/2		A-5-c	DO	DO	58-11 1/8					31-3 5/8	27-8 1/8	
D-3-d	DO	9/16	39-2 5/8					20-7 1/4		A-6-b	DO	DO	58-11 7/8							NOTE ①
D-4-d	DO	DO	34-10 5/8					DO		A-7-b	DO	1/16	58-9 1/2	31-2 1/8						NOTE ①
D-5-a	DO	DO	30-6 1/4	20-7 1/4					NOTE ①	A-8-c	DO	DO	58-9 1/2					31-2 7/8	27-6 5/8	
C-1-d	DO	13/16	43-4 3/4					22-5 1/2		A-9-c	DO	3/8	58-9 5/8					31-3	DO	
C-2-b	DO	DO	46-9 1/2		22-5 1/2					A-10-c	DO	DO	58-10 1/4					31-5 7/8	27-7	
C-3-d	DO	DO	49-3	29-0 3/8						A-11-c	DO	DO	58-11 3/8					31-4 1/8	27-7 1/8	
C-4-d	DO	DO	52-7 3/4					29-0 3/8		A-12-b	DO	5/16	58-11 3/8		27-7 3/8					NOTE ①
C-5-d	DO	DO	56-1					DO		A-13-a	DO	3/16	58-9 1/8	31-3 1/2						NOTE ①
C-6-b	DO	DO	59-6		29-0 3/8				NOTE ①	A-14-c	DO	DO	58-9 1/4					31-3 1/2	27-5 3/4	
C-7-b	DO	1/2	59-7 3/4		28-7 1/4				NOTE ①	A-15-c	DO	DO	58-9 3/8						DO	
C-8-d	DO	DO	55-4					28-7 1/4		A-16-c	DO	1/8	58-10 1/2					31-4 3/8	27-6	
C-9-d	DO	DO	50-11 3/4					DO		A-17-c	DO	DO	58-11					31-4 3/4	27-6 1/8	
C-10-a	DO	DO	46-7 3/4	28-7 1/4						A-18-b	DO	DO	58-11 1/8		27-6 1/4					NOTE ①
C-11-b	DO	9/16	43-6 1/4		20-7 3/4					A-19-b	DO	1/16	58-9 1/8		27-4 1/8					NOTE ①
B-1-b	DO	5/8	58-10 3/4		27-7 1/8					A-20-c	DO	DO	58-9 1/4					31-4 1/4	27-5	
B-2-a	DO	DO	58-11 1/4	31-3						A-21-c	DO	DO	58-9 1/4					31-4 5/8	27-4 3/4	
B-3-b	DO	3/8	58-10 1/4		27-6 3/4					A-22-a	DO	1/8	58-10 1/2					31-5 1/4	27-5 3/8	
B-4-a	DO	DO	58-10 3/8	31-3 1/2						A-23-c	DO	DO	58-11 1/8					31-5 5/8	27-5 5/8	
B-5-b	DO	3/16	58-9 1/8		27-5 1/2					A-24-b	DO	DO	58-11 1/4	31-5 1/8						NOTE ①
B-6-a	DO	1/8	58-10 3/8	31-4 1/2						A-25-b	DO	1/4	58-9 1/4		27-4 1/8					NOTE ①
B-7-d	DO	1/16	58-9 7/8	31-4 3/4						A-26-c	DO	DO	58-9 3/8					31-5 1/2	27-4	
B-8-b	DO	1/8	58-10 3/8		27-5 1/4					A-27-c	DO	DO	58-9 1/2					31-5 1/2	27-4 1/8	
B-9-a	DO	3/8	58-10 3/8	27-5 5/8						A-28-c	DO	3/8	58-10 3/8					31-6 3/8	27-4 1/2	
B-10-b	DO	DO	58-10 3/8		27-4 3/4					A-29-c	DO	DO	58-11 3/8					31-6 1/2	27-4 3/4	
A-1-a	DO	3/8	58-10 1/2	31-2 1/2					NOTE ①	A-30-a	DO	DO	58-11 1/2	31-6 1/4						NOTE ①
A-2-c	DO	DO	58-10 1/4			31-2 1/4	27-7 1/4													
A-3-c	DO	DO	58-10 1/4			31-2 3/8	27-7 1/4													



TYPICAL GIRDER DIMENSIONS



TYPICAL PROFILE OF POST-TENSIONED DUCT FOR GIRDERS A & B

NOTE ①
PROVIDE 3/4" HOLES @ 48" 1-2 FROM TOP FLANGE FOR FORMWORK SUPPORT

CLARKE-HALAWA ROCK CO
 HALAWA, OAHU

KEEAUMOKU SEPARATION
 SHOP DRAWINGS FOR
 PRESTRESSED BRIDGE GIRDERS

DR. EIK
 CL. DT
 DATE

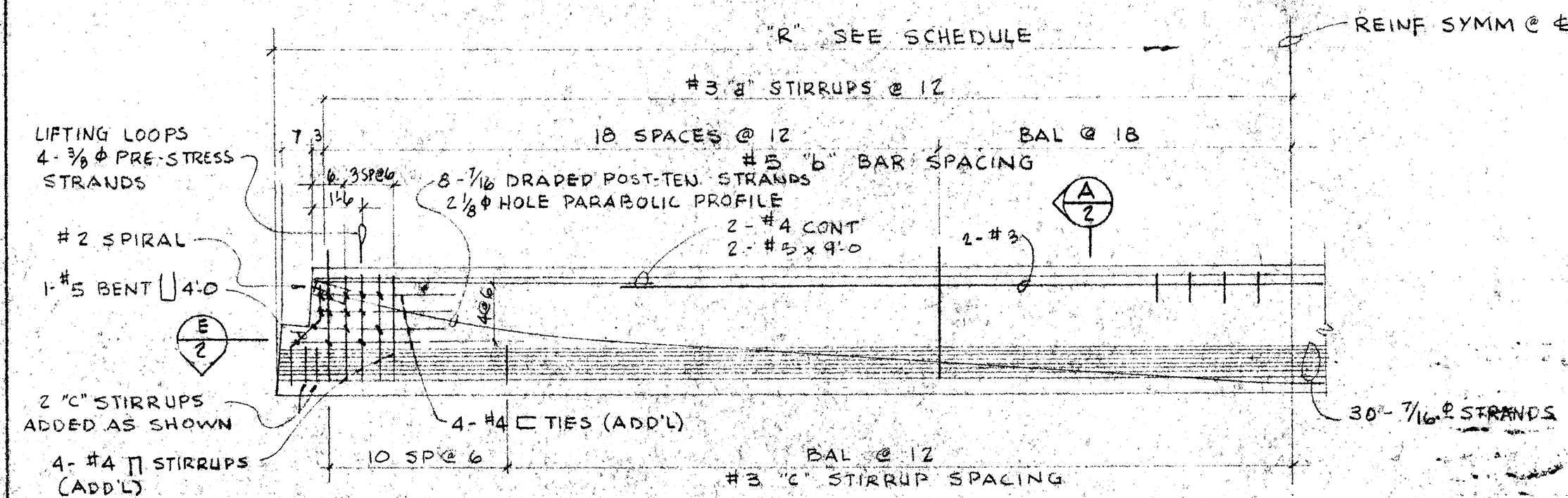
WALTER LUM ASSOCIATES
 1019-A UNIVERSITY AVE.
 CIVIL ENGINEERS
 PHONE 890-2711

Sheet
 1
 of
 2
 12-11-53

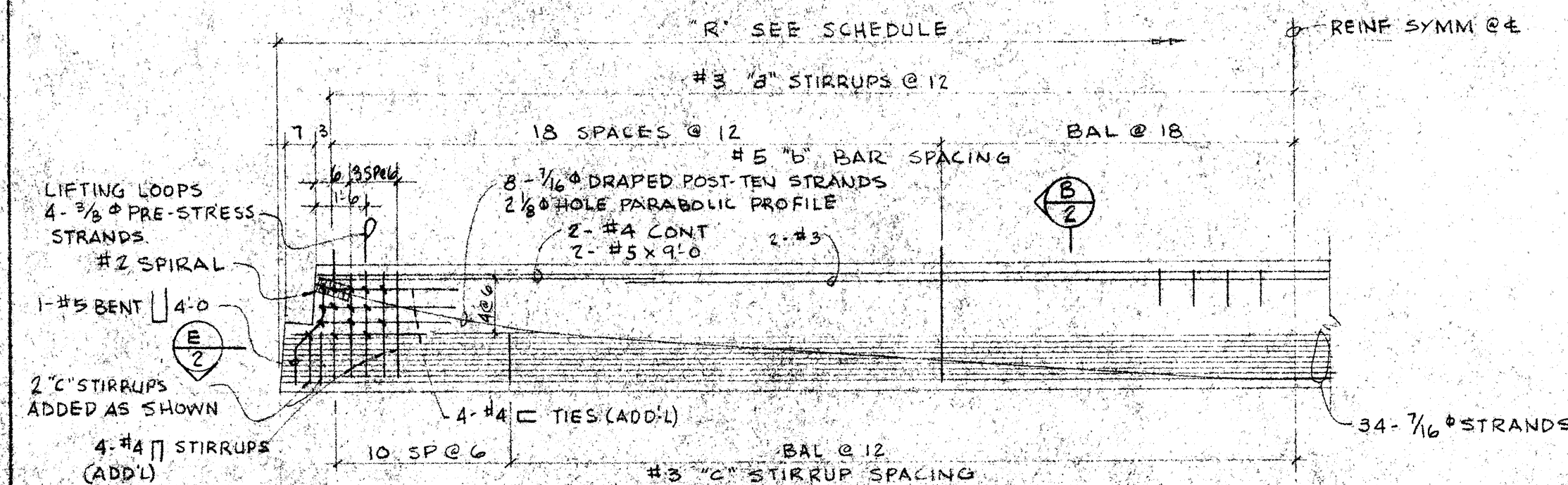
SID S1S3.74A

PROJ. NO. 11-072-1(B)

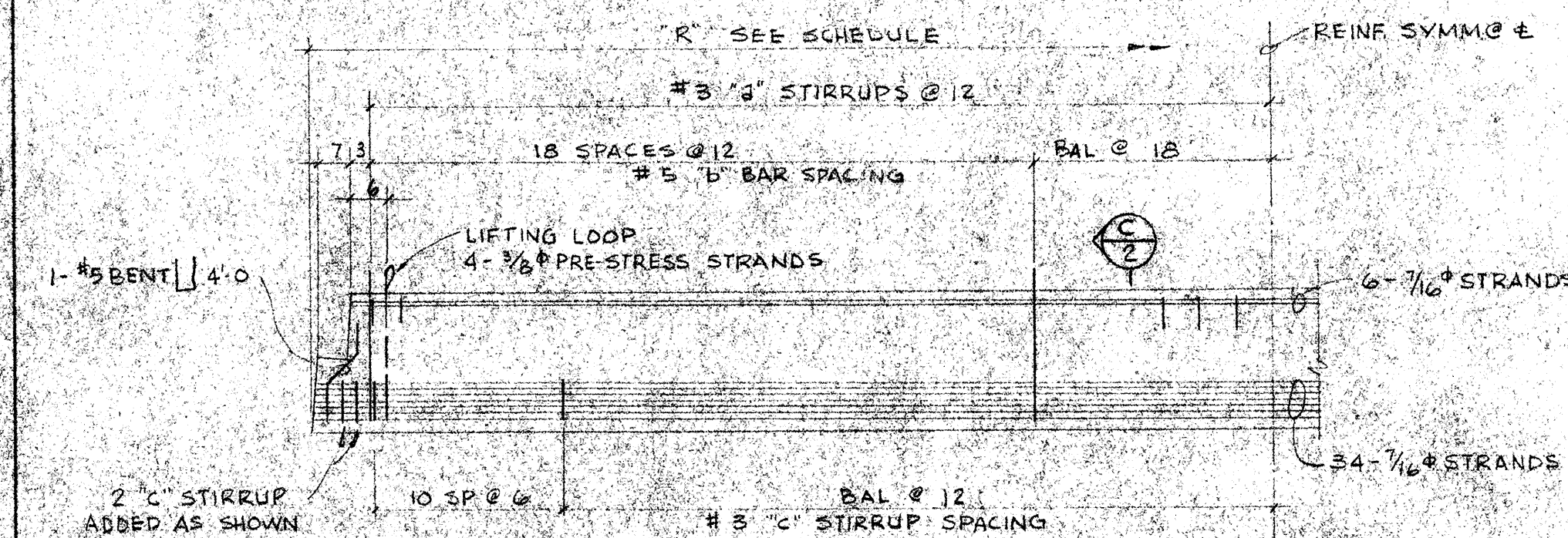
8183.74A



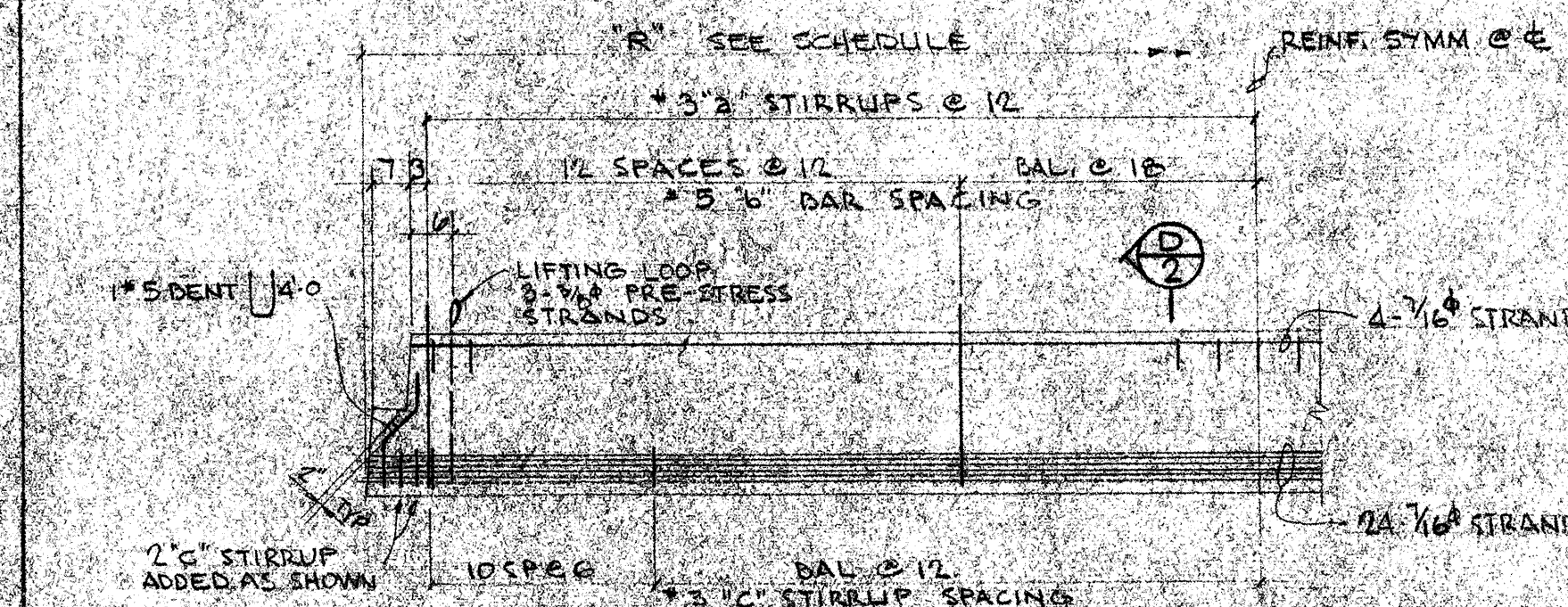
TYPE A GIRDER



TYPE B GIRDER

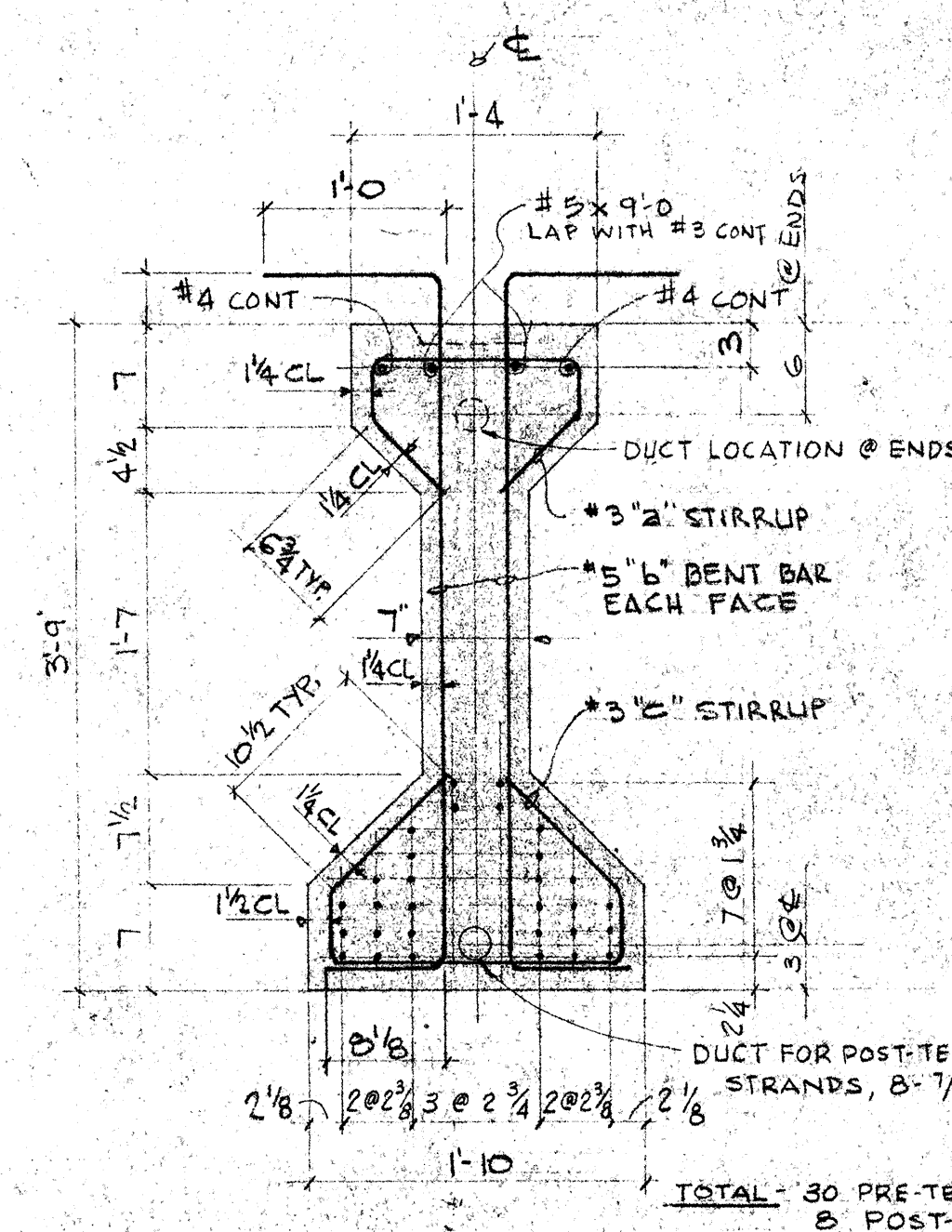


TYPE C GIRDER

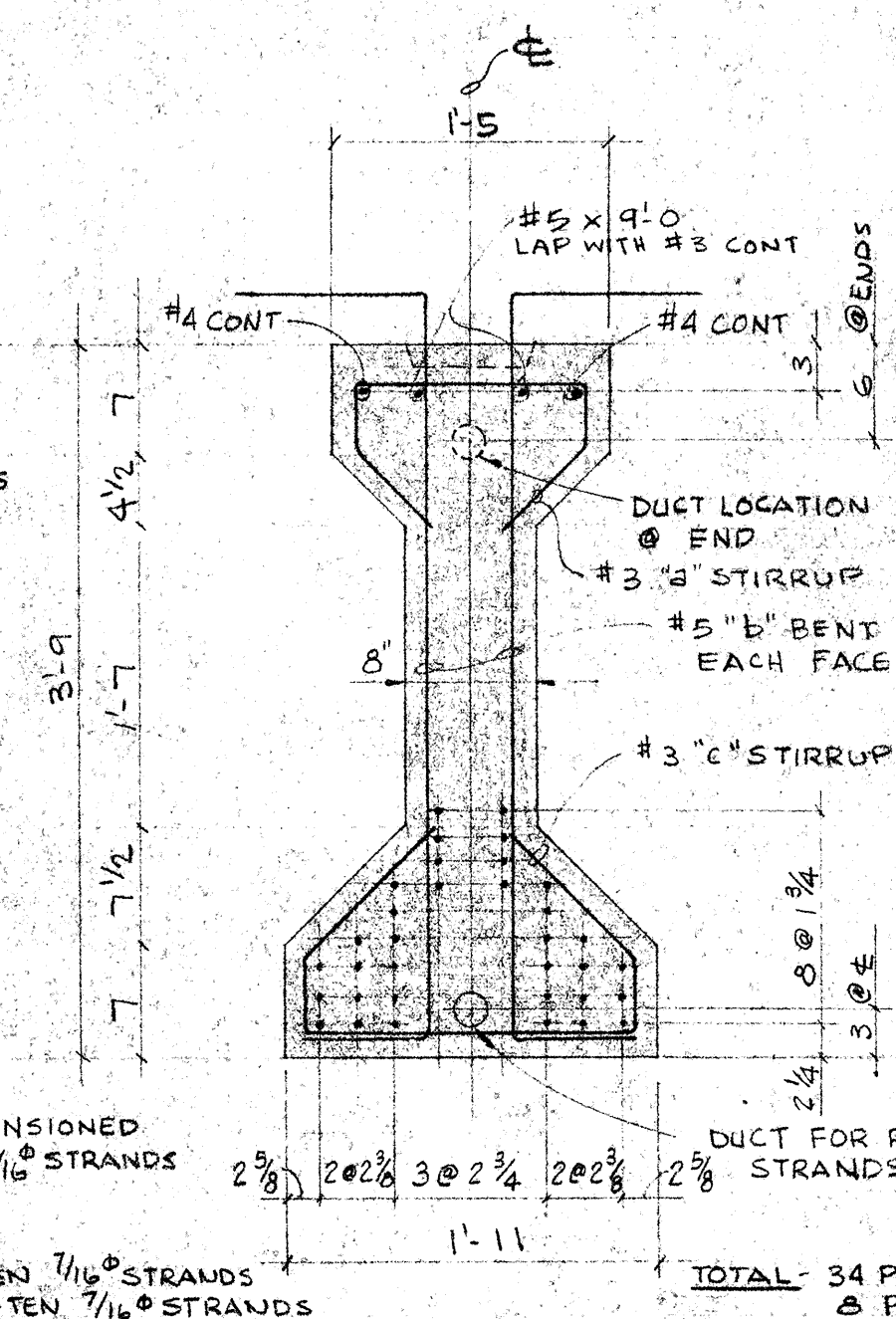


TYPE D GIRDER

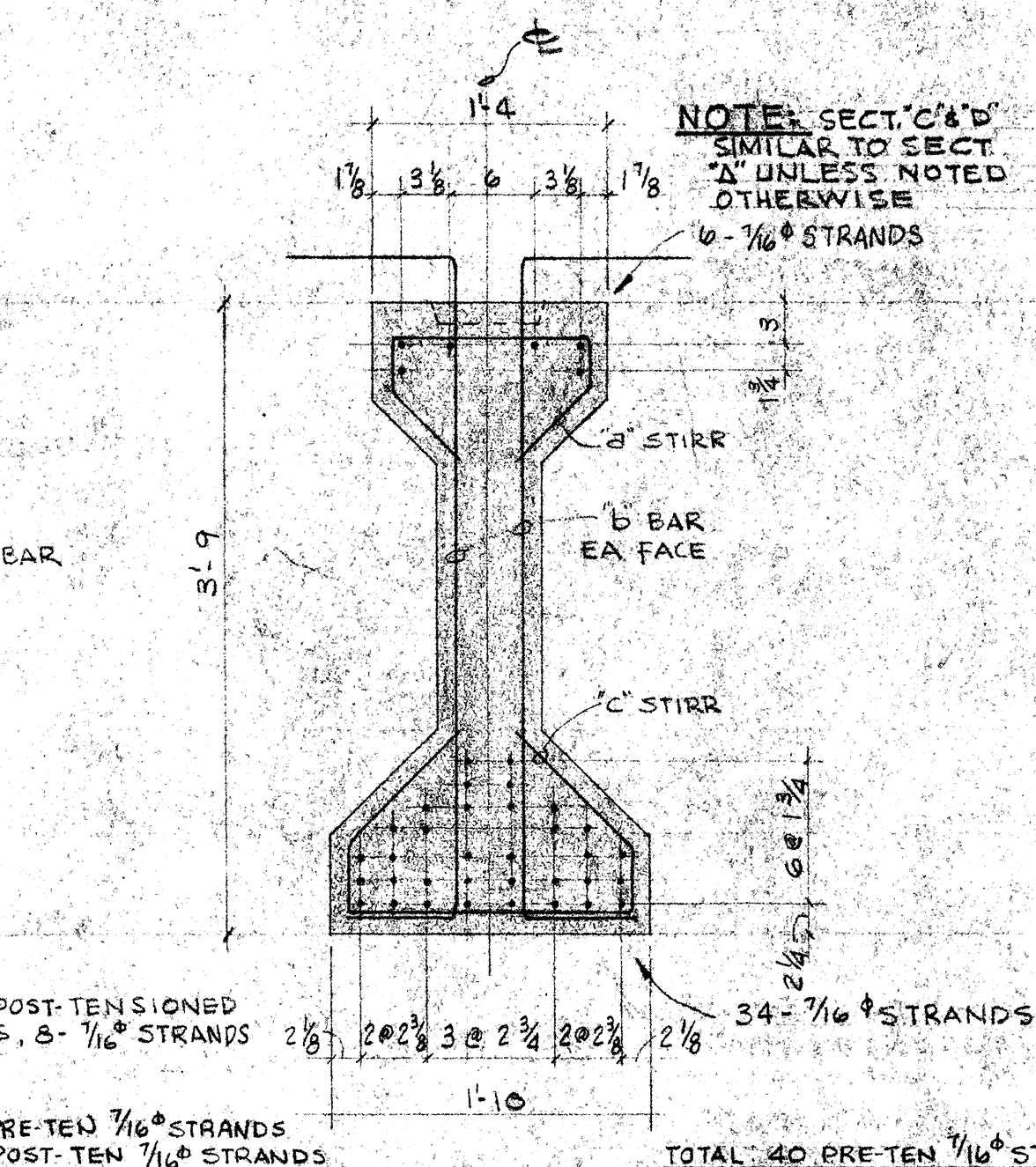
GIRDER ELEVATIONS SHOWING REINF



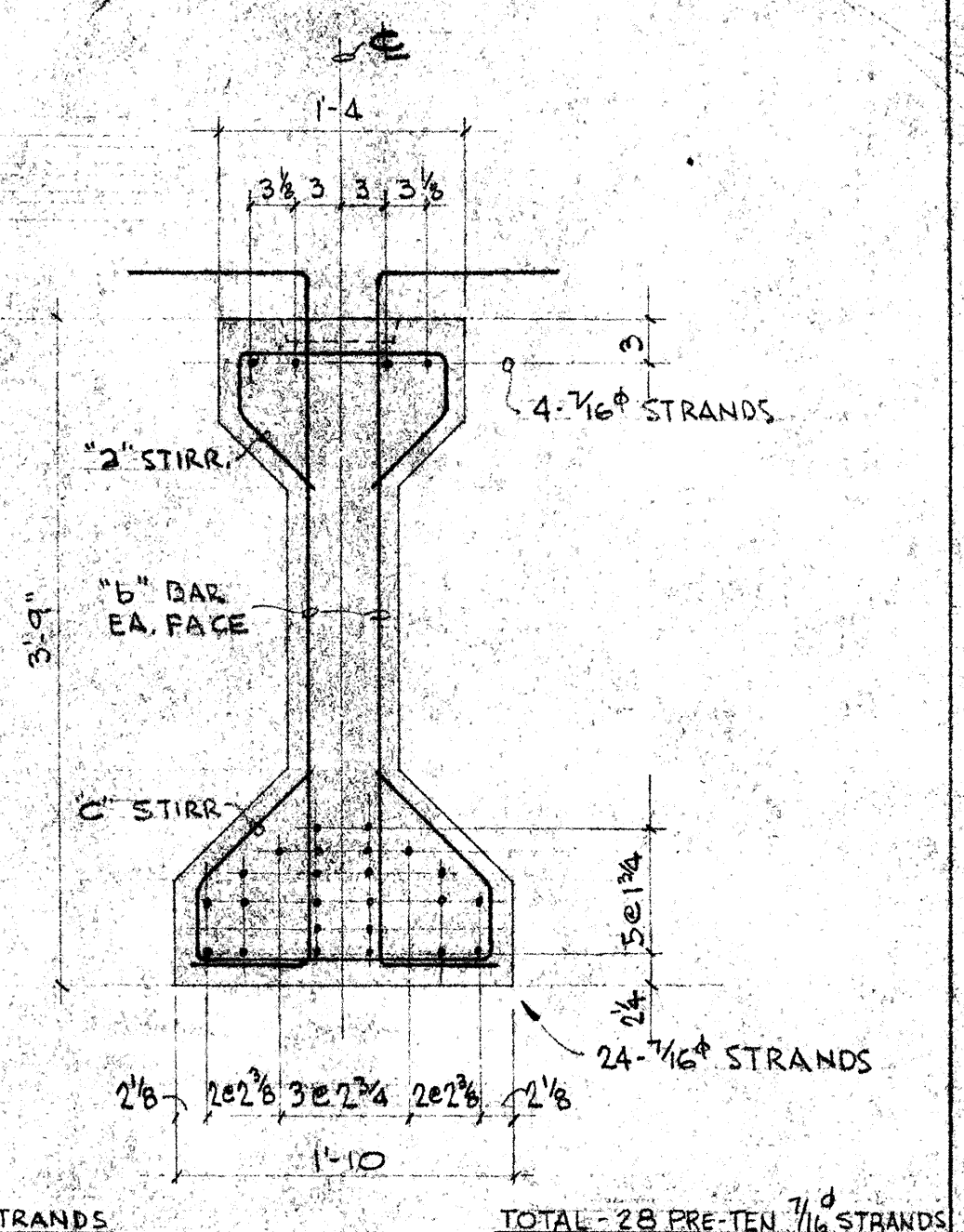
SECT. A



SECT. B

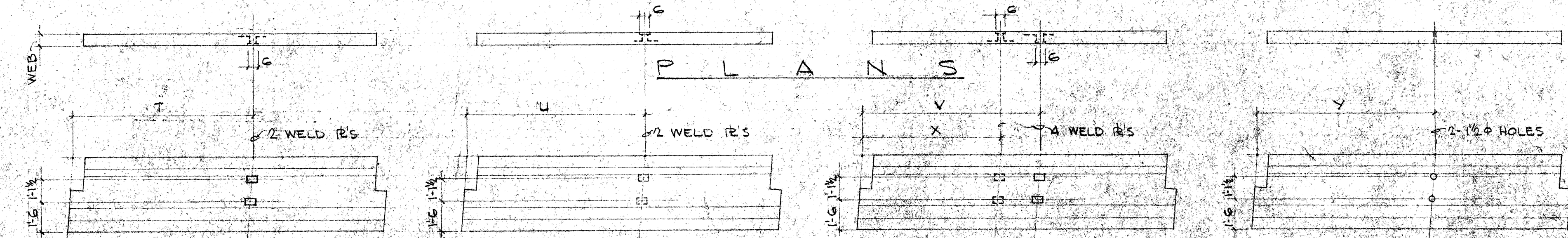


SECT. C

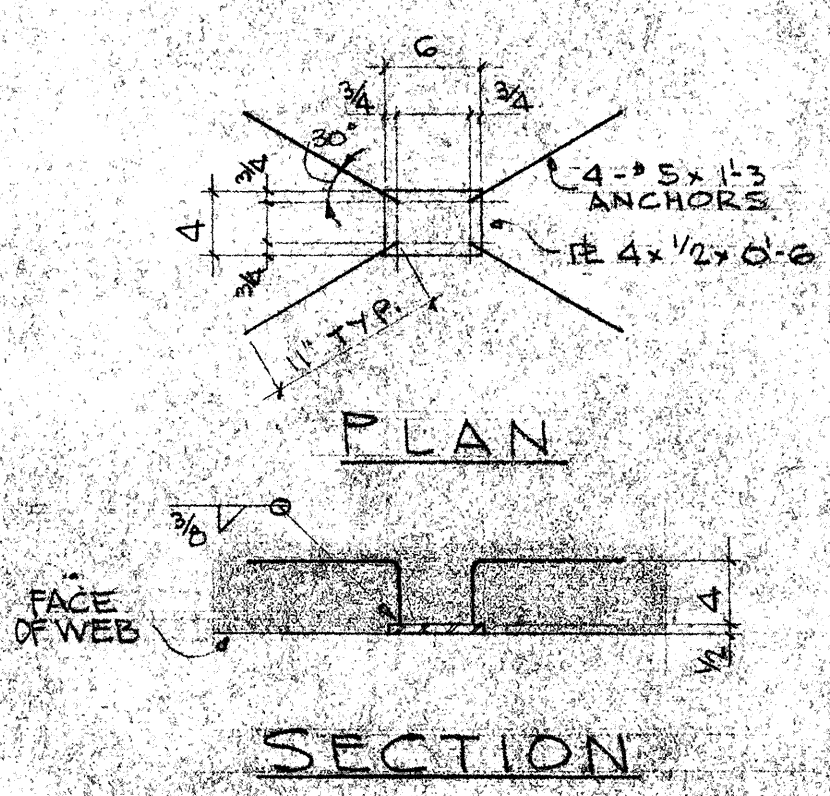


SECT. D

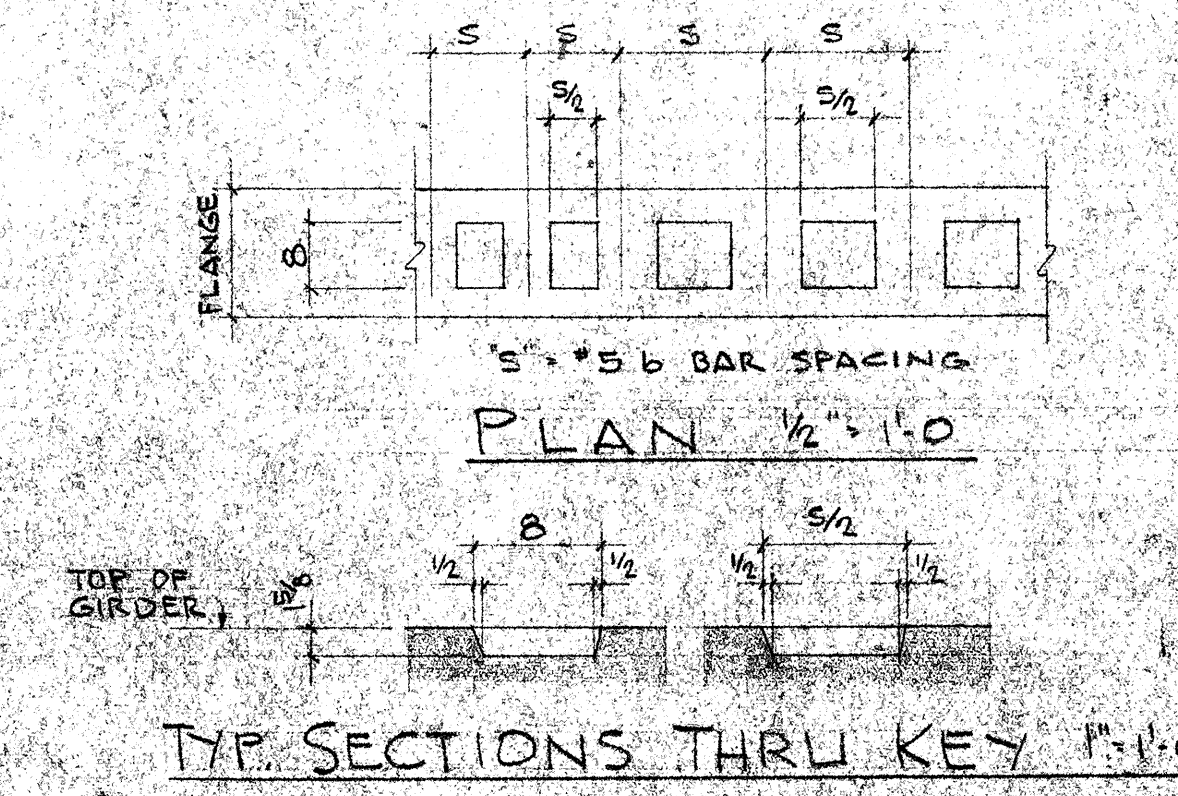
TYPICAL GIRDER SECTIONS



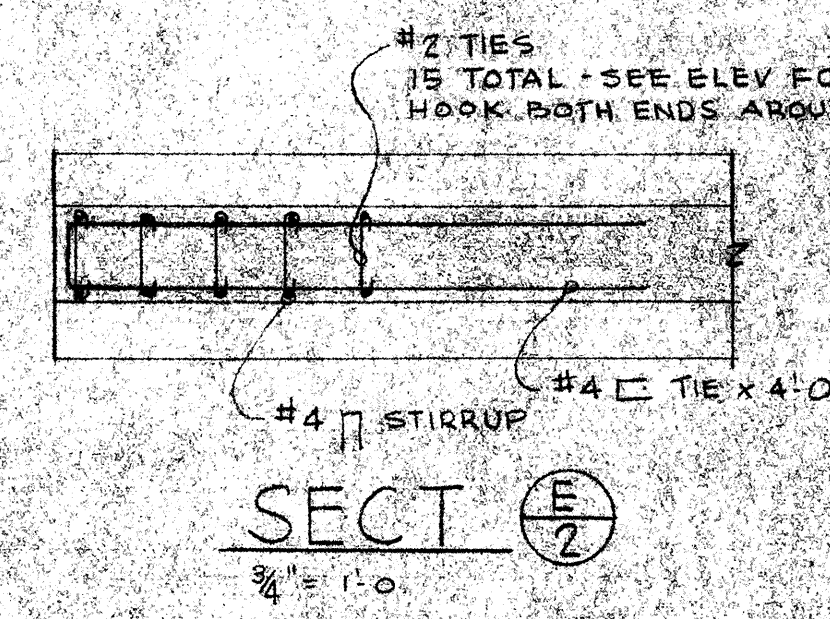
DIAPHRAGM CONNECTION DETAILS



WELD DETAILS



SHEAR KEY DETAILS



SECT. E

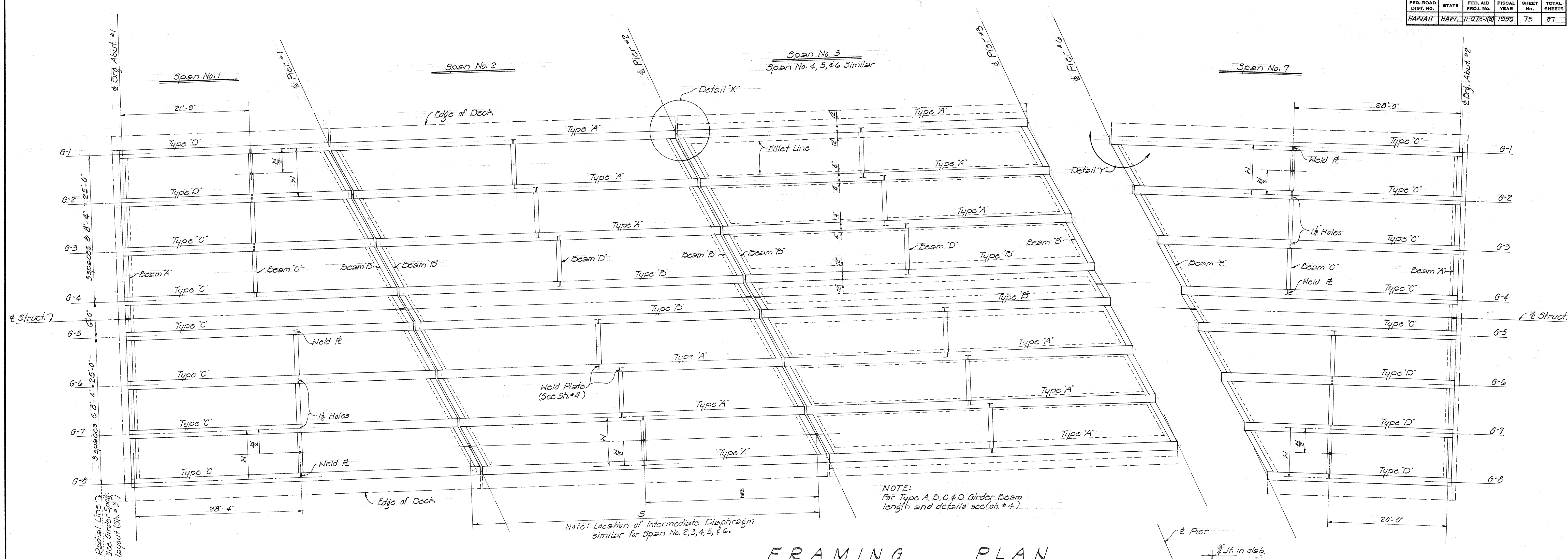
NOTE
LIFTING STRANDS TO BE OF SAME MATERIAL & STRENGTH AS PRE-STRESSING STRANDS. LIFTING LOOPS SHALL BE WRAPPED SO EACH LOOP WILL CARRY ITS SHARE OF THE TOTAL LOAD. EXTEND LOOPS TO WITHIN 3' CLEAR OF BOTTOM OF GIRDER.

CLARKE-HALAWA ROCK CO. HALAWA, OAHU		
KEEAUMOKU SEPARATION		
SHOP DRAWINGS FOR PRESTRESSED BRIDGE GIRDERS		
DR. BY CL. BY	WALTER LUM ASSOCIATES JUNIOR UNIVERSITY AID CIVIL ENGINEERS PHONE 783-71	DATE 2 12 1971

PROJ. NO. U-072-1(8)

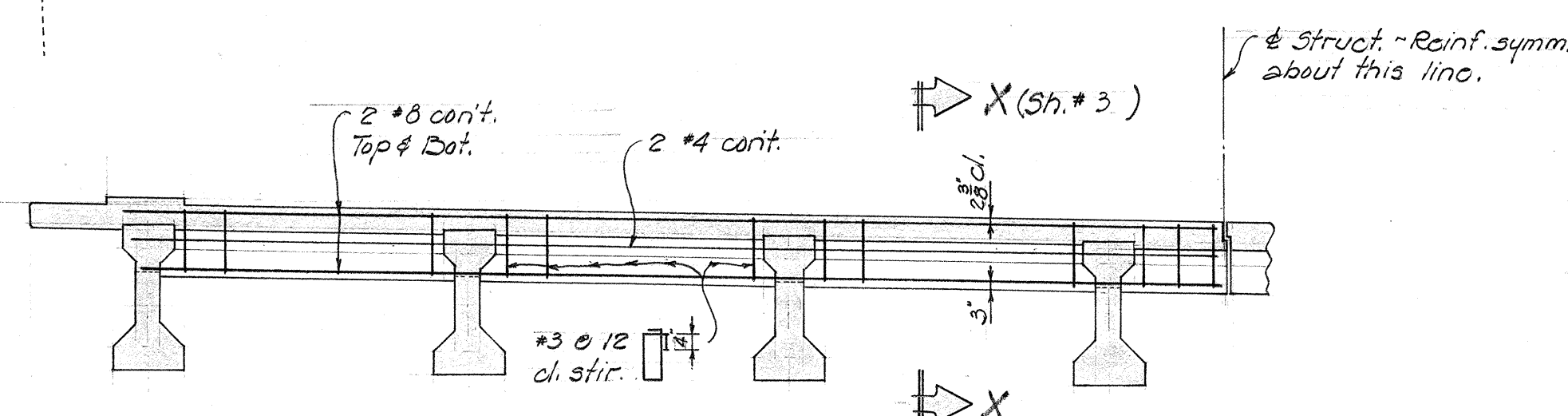
S 183.74B

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOT SHE
HAWAII	HAW.	U-072-1(8)	1959	75	87

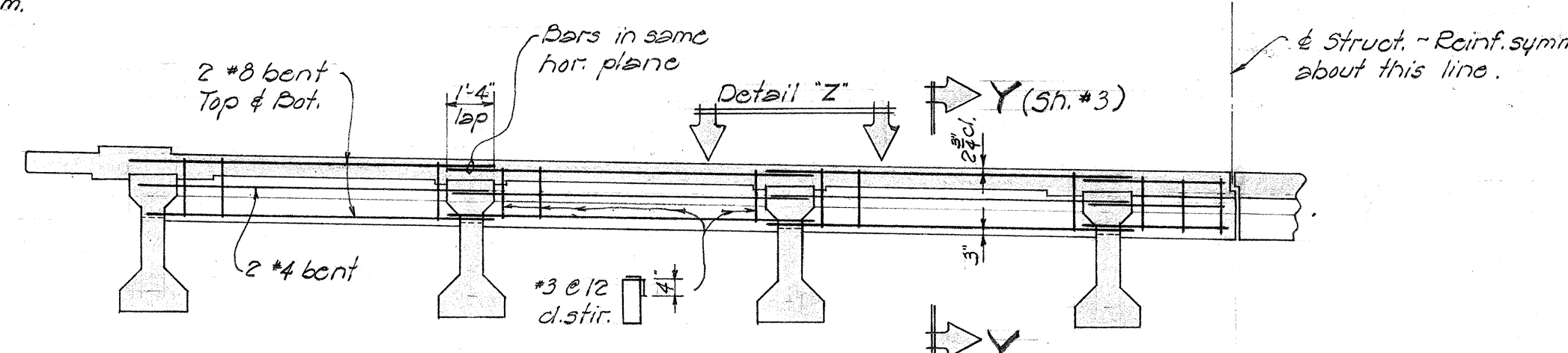


FRAMING PLAN

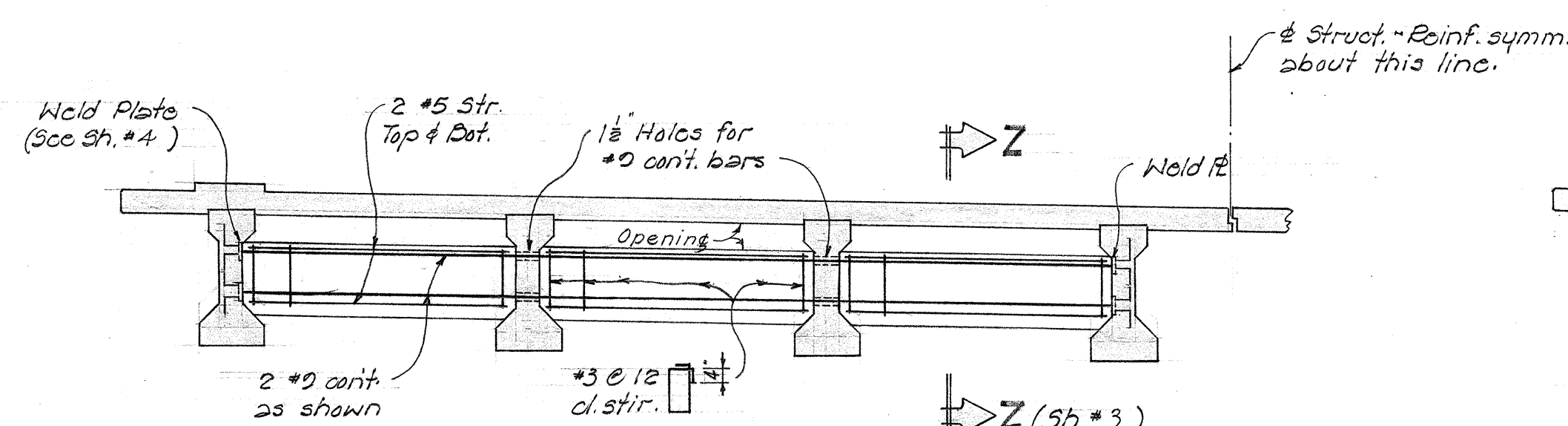
Scale $\sim 1/8" = 1'-0"$



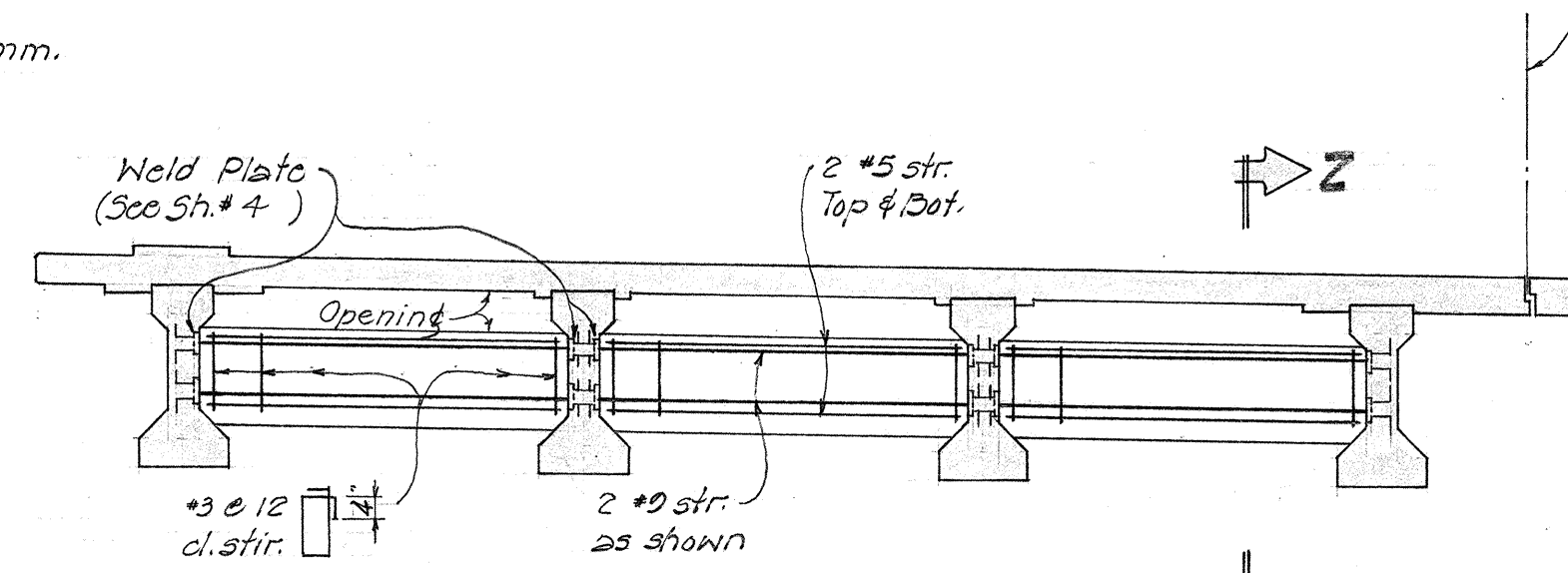
BEAM "A"



BEAM "B"



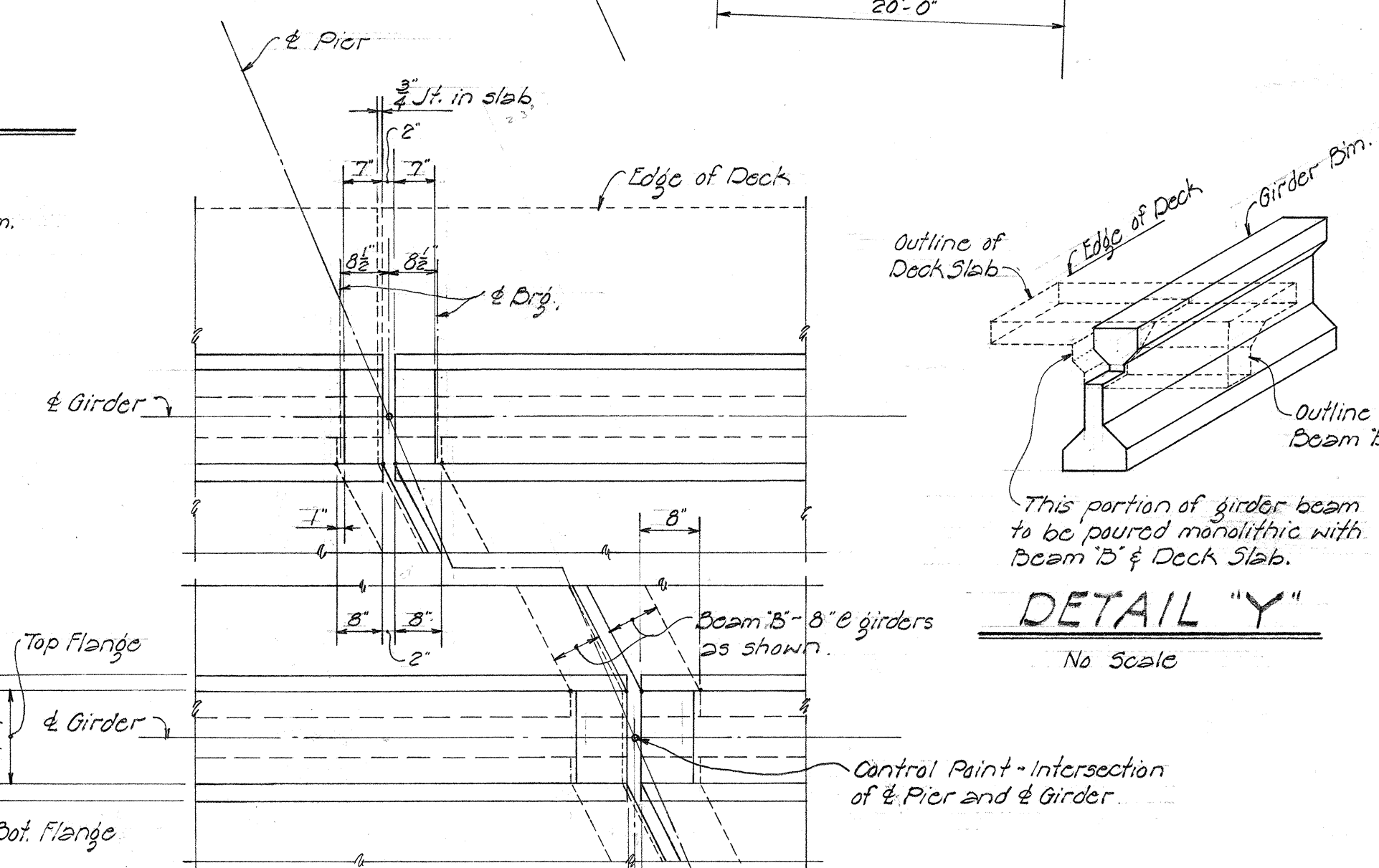
BEAM "C"



BEAM "D"

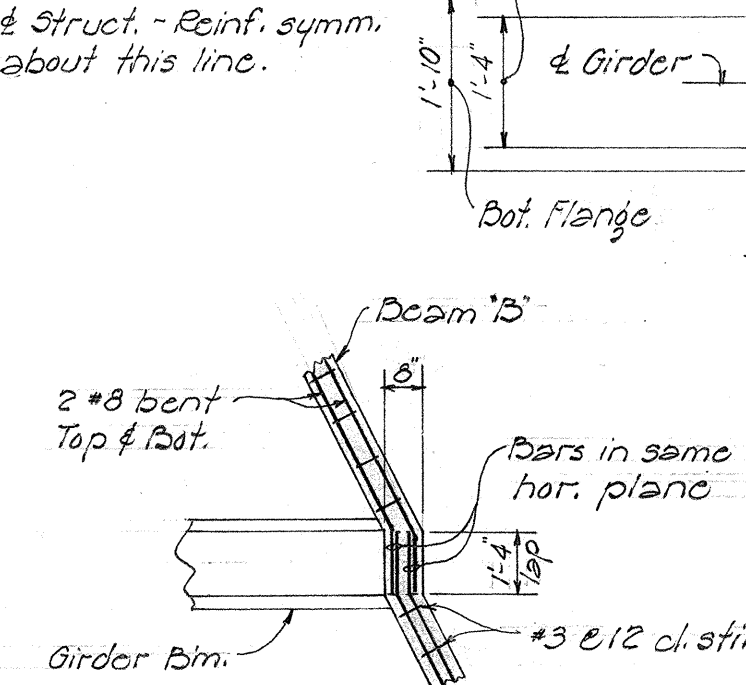
BEAM DETS.

Scale ~ $\frac{1}{4}" = 1'-0"$



DETAIL "Y"

No Scale



DETAIL "Z"

Scale $\sim 1/4" = 1 \text{ ft}$

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK No. _____	DESIGNED BY _____	_____"
	DRAWN BY _____	_____"
	TRACED BY _____	_____"
	QUANTITIES BY _____	_____"
	QUANTITIES CHECKED BY _____	_____"
	CHECKED BY _____	_____"

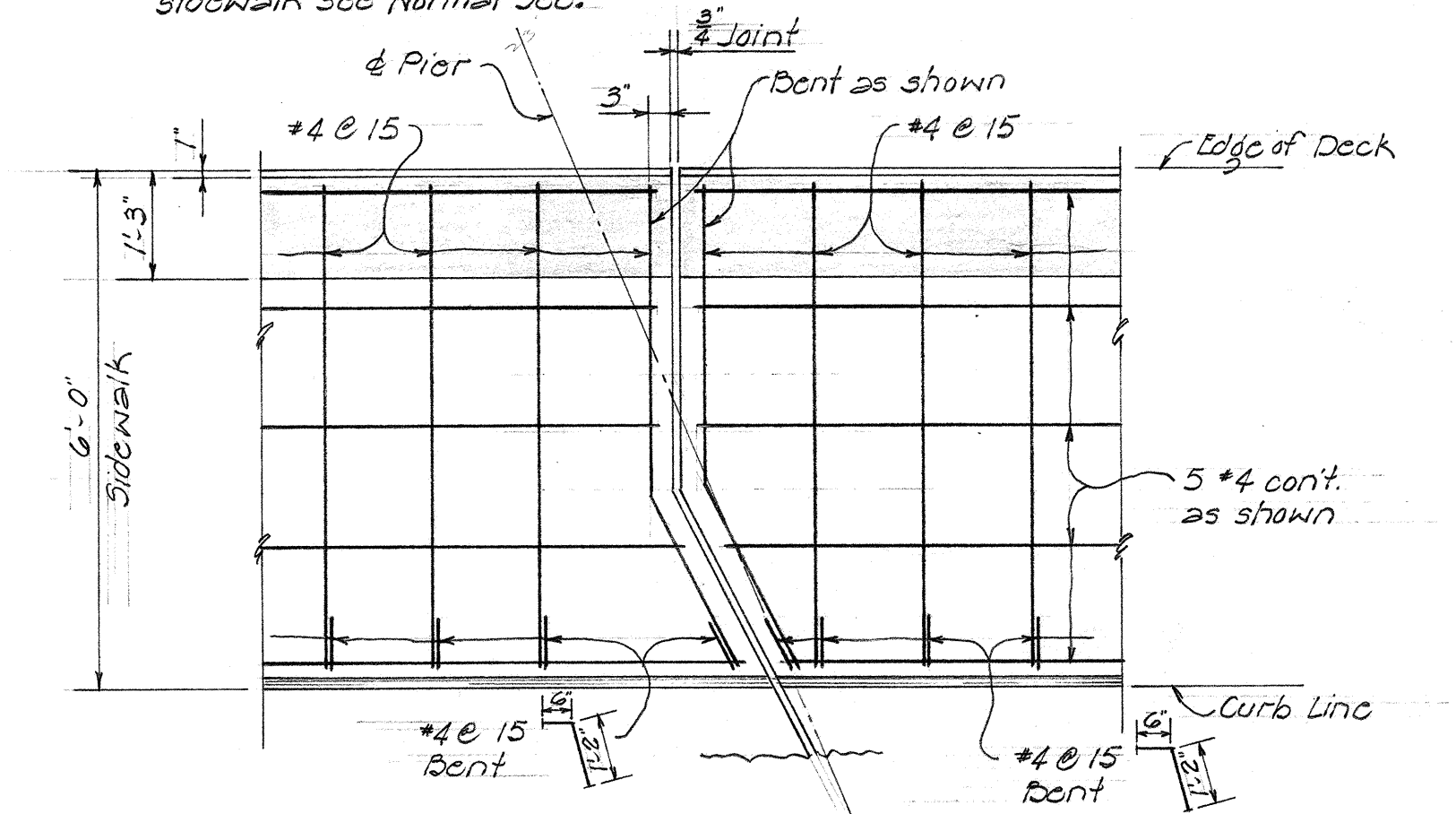
HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII
KEEAUMOKU SEPARATION
Sta. 6+99.53 to Sta. 10+91.10

LUNALILO FREEWAY Proj. No. U-072-1(6)
February 1959

Revision #1 - Oct. 12, 1959
 Revise Estimated Quantities
 and Roadway Station

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	U-072-1(8)	1959	76	87

Note: For Section through sidewalk see Normal Sec.

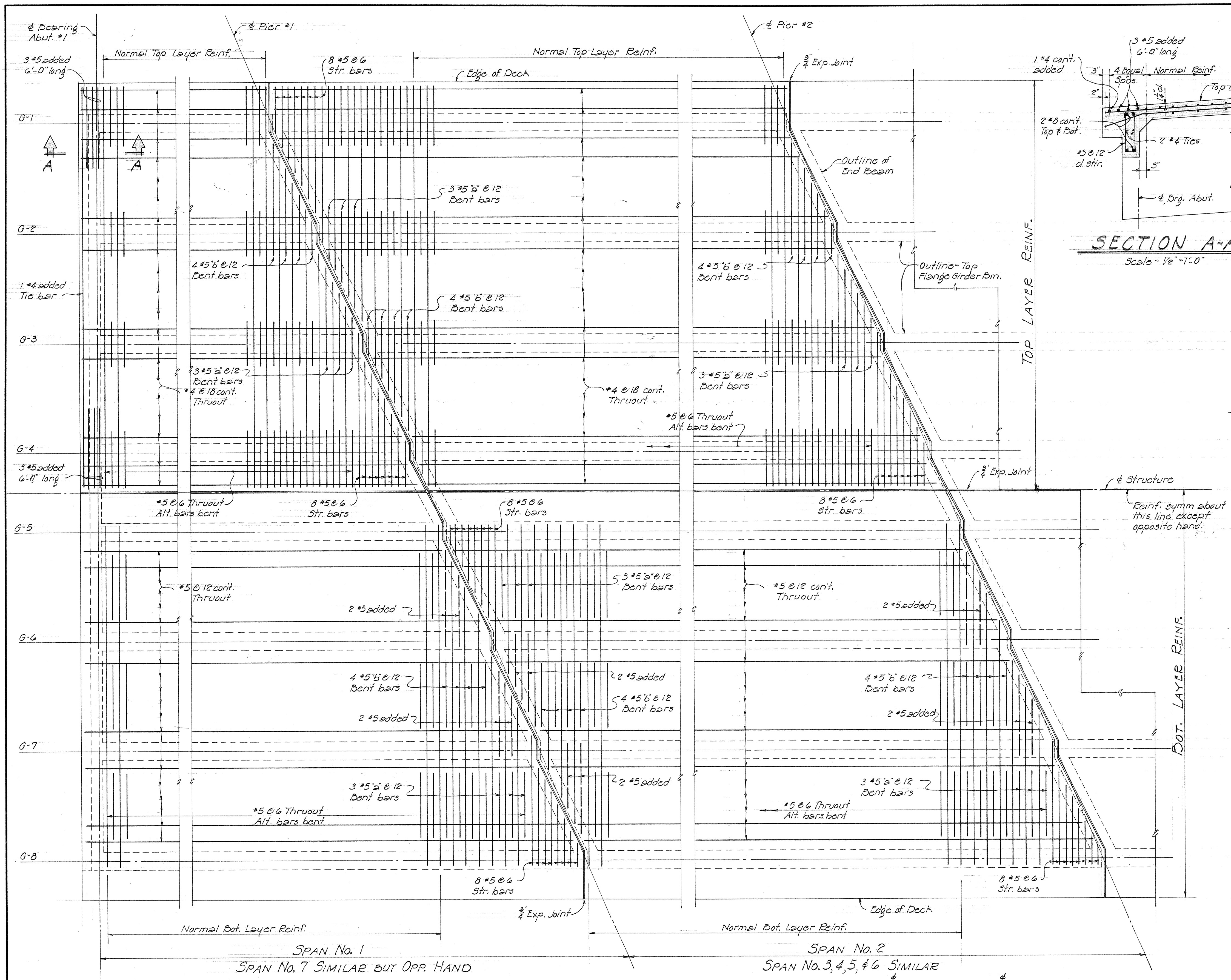


DET. - S.W. REINF. AT JOINT
 Scale 1/8" = 1'-0"

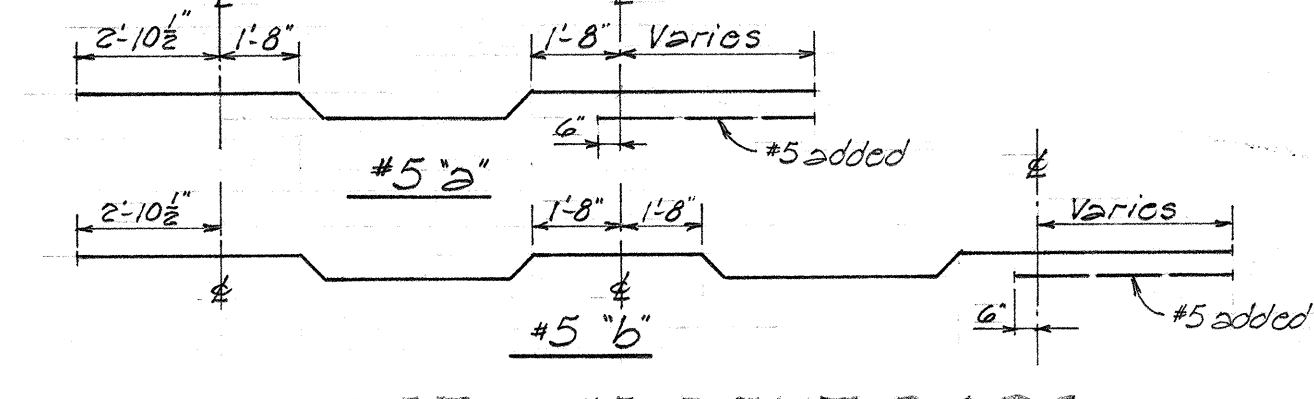
ESTIMATED QUANTITIES

BRIDGE:		
Class A-1 Conc.	-----	Lump Sum (1,800 Cu. Yds.) ✓
Reinf. Steel	-----	Lump Sum (273,500 Lbs.) ✓
Prestressed Beams	-----	Lump Sum (3,100 Lin. Ft.) ✓
Struct. Excavation	-----	1,950 Cu. Yds. ✓
Filter Material	-----	160 Cu. Yds. ✓
A.C. Pavt. Mix No. V	-----	180 Tons ✓
Bit. Tack Coat	-----	580 Gals. ✓
Aluminum Railing	-----	840 Lin. Ft. ✓
RETAINING WALL:		
Class A-1 Conc.	-----	1,030 Cu. Yds. ✓
Reinf. Steel	-----	93,500 Lbs. ✓
Struct. Excavation	-----	2,840 Cu. Yds. ✓
Filter Material	-----	380 Cu. Yds. ✓
Aluminum Railing	-----	730 Lin. Ft. ✓
COMFORT STATION:		
Class A-1 Conc.	-----	Lump Sum (130 Cu. Yds.) ✓
Reinf. Steel	-----	Lump Sum (28,500 Lbs.) ✓
Struct. Excavation	-----	260 Cu. Yds. ✓
Dampproofing	-----	270 Sq. Yds. ✓

REVISION NO. 1
 REVISION NO. 2



DECK REINF. PLAN
 Scale 1/4" = 1'-0"



DET. - #5 BENT BARS
 Scale 1/4" = 1'-0"

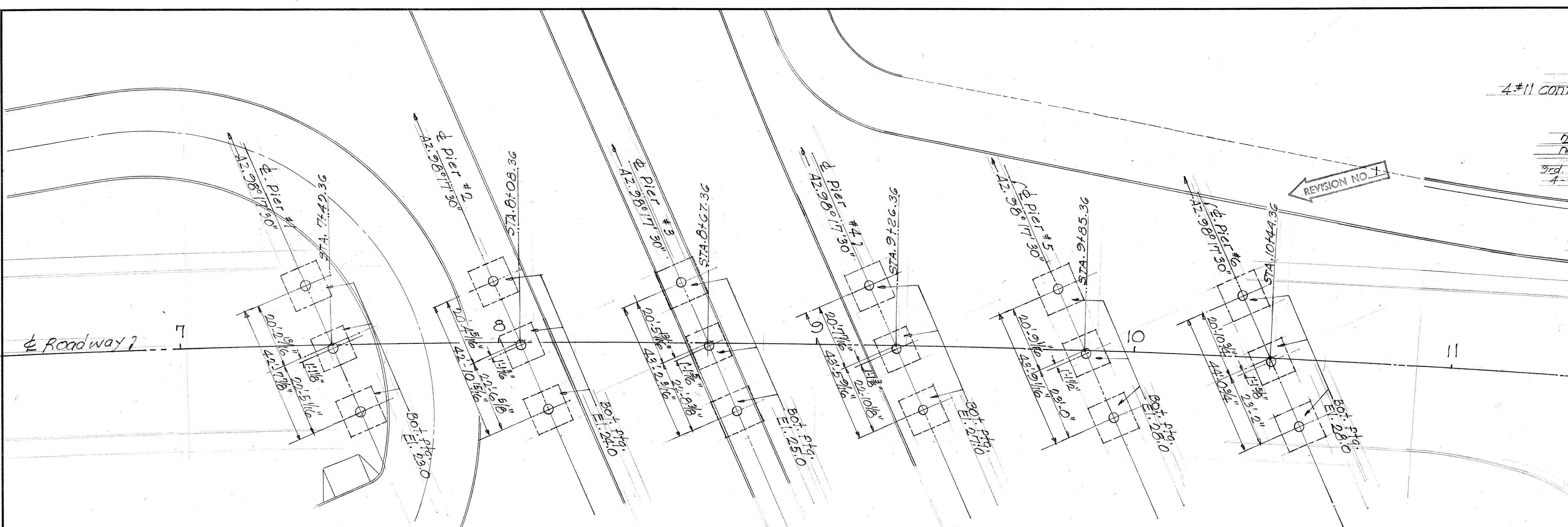
Reinf. Note:
 Transverse bars laid on radial lines with spacing measured at & Structure.
 Longitudinal bars laid on curve lines with spacing measured on radial lines.
 Edge of deck, railing, curb, and joint along & Structure are on curve.

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
QUANTITIES CHECKED BY	
NOTE BOOK NO.	

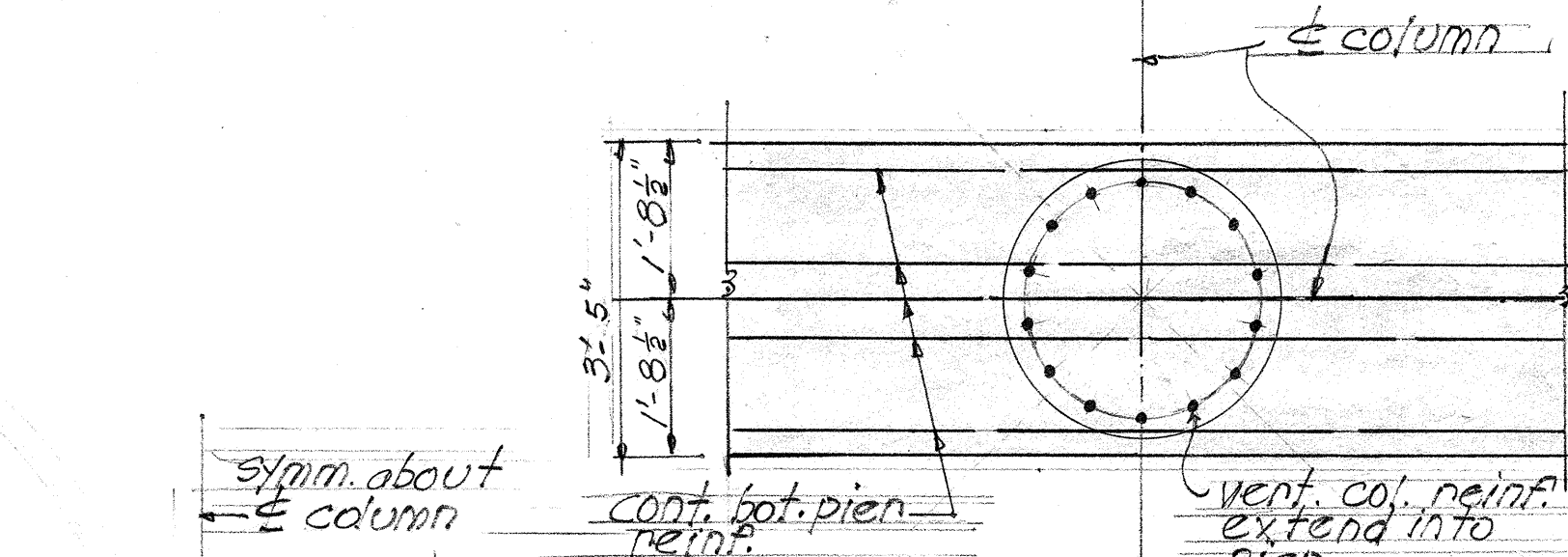
HAWAII STATE HIGHWAY DEPARTMENT
 STATE OF HAWAII
KEEAUMOKU SEPARATION
 Sta. 77+00.03 to Sta. 10+01.67
 LUNALILO FREEWAY Proj. No. U-072-1(8)
 February 1959

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	U-072-1(8)	1959	77	87

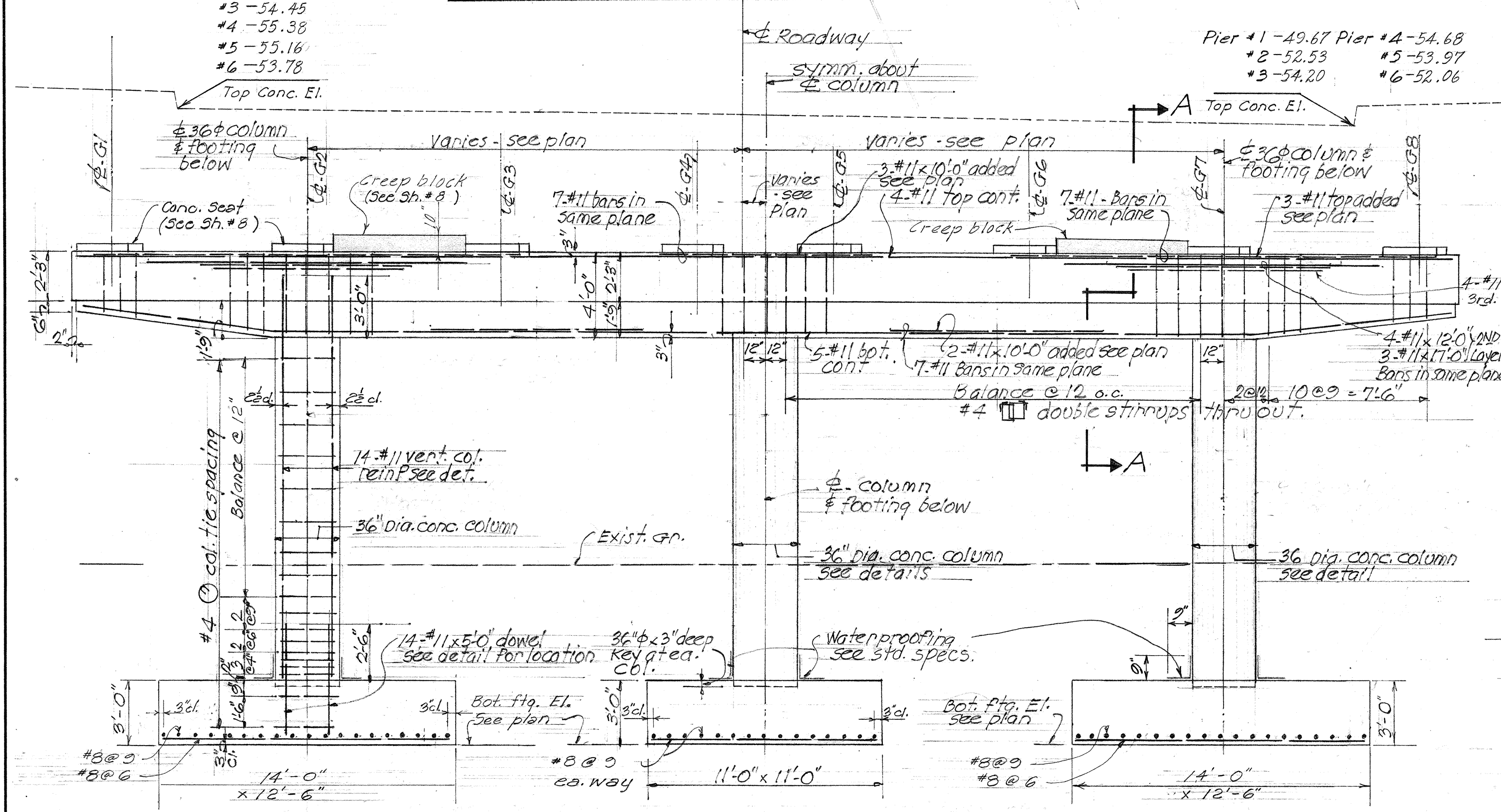
Revision No. 1 Oct. 12, 1959
Roadway sta.



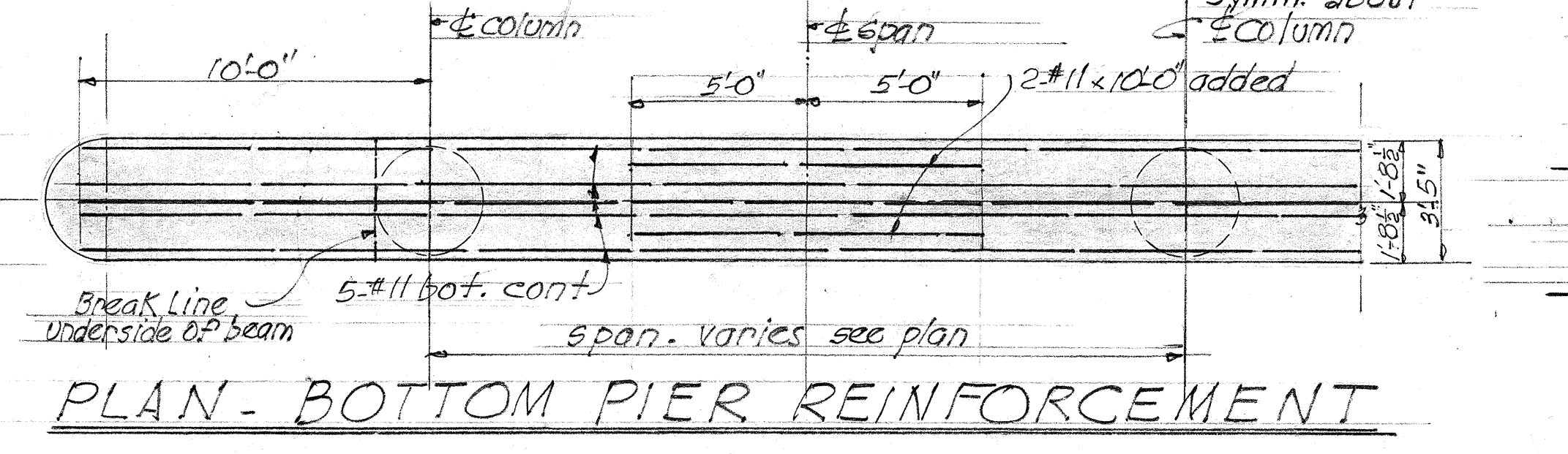
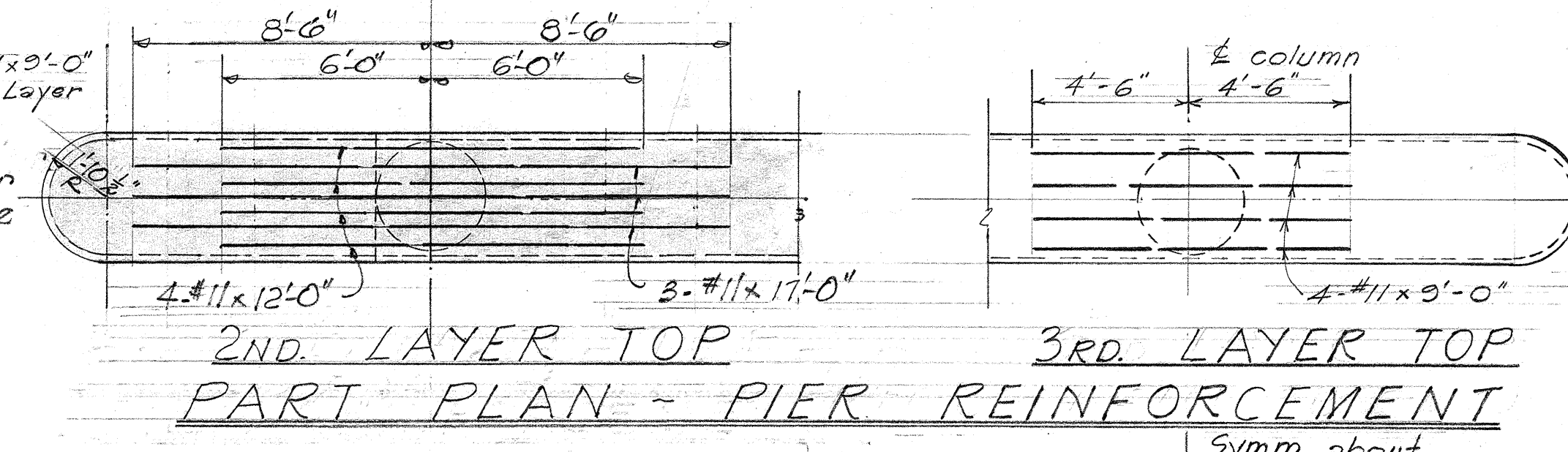
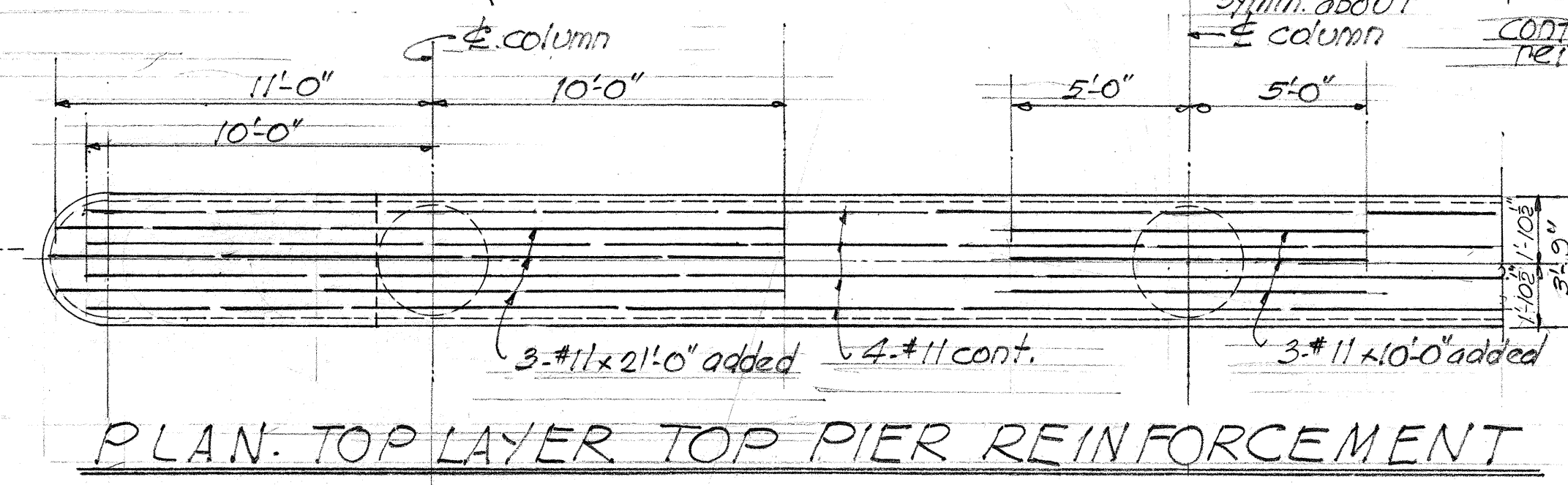
SECTION A-A
Scale - 1/2" = 1'-0"



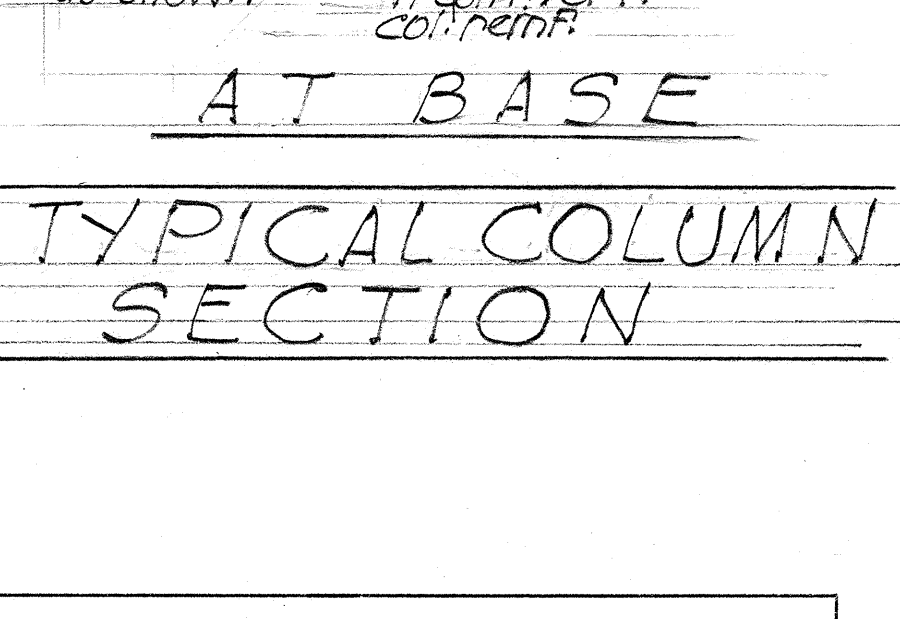
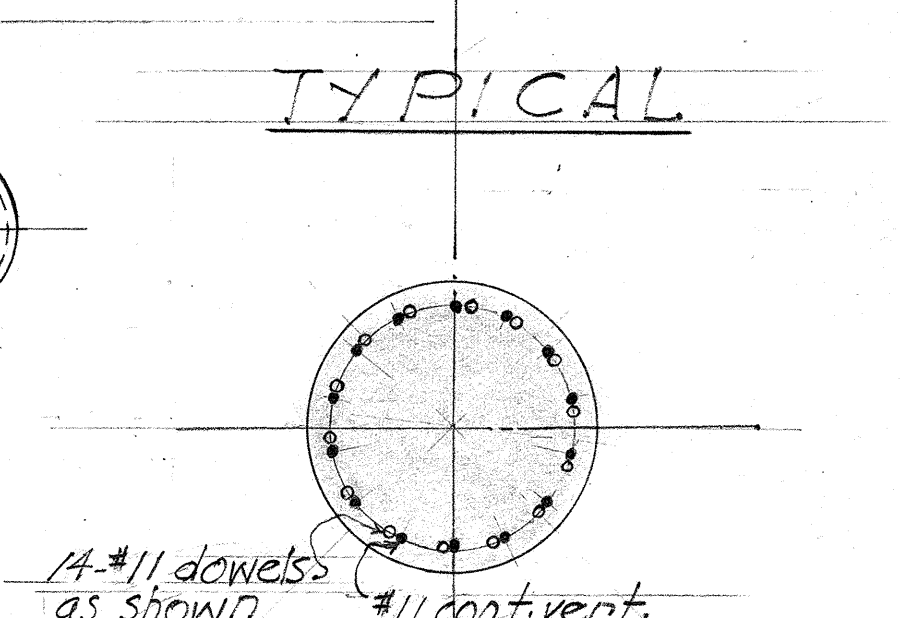
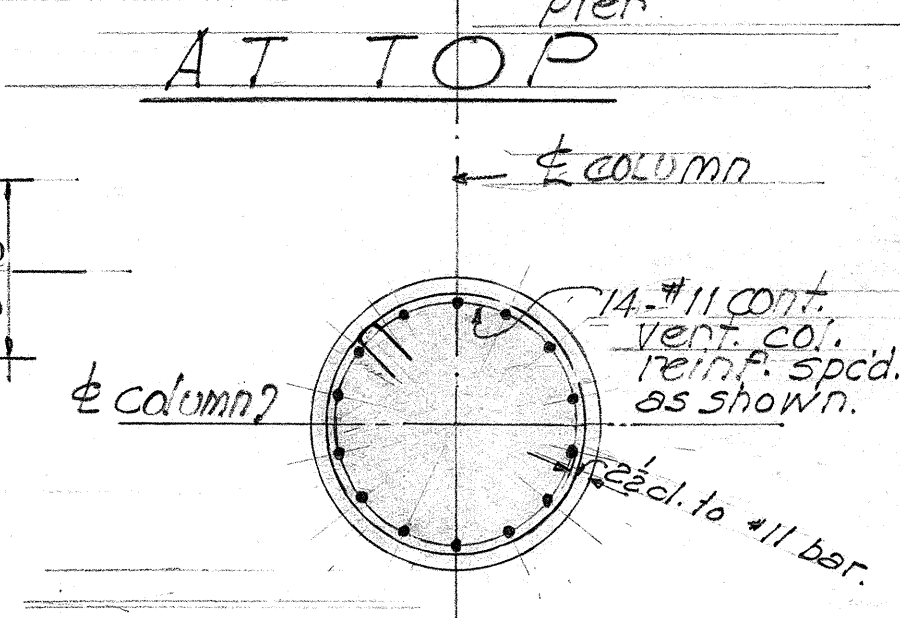
PIER FOUNDATION FOOTING PLAN



TYPICAL PIER DETAIL
Scale - 1/4" = 1'-0"



PLAN - BOTTOM PIER REINFORCEMENT

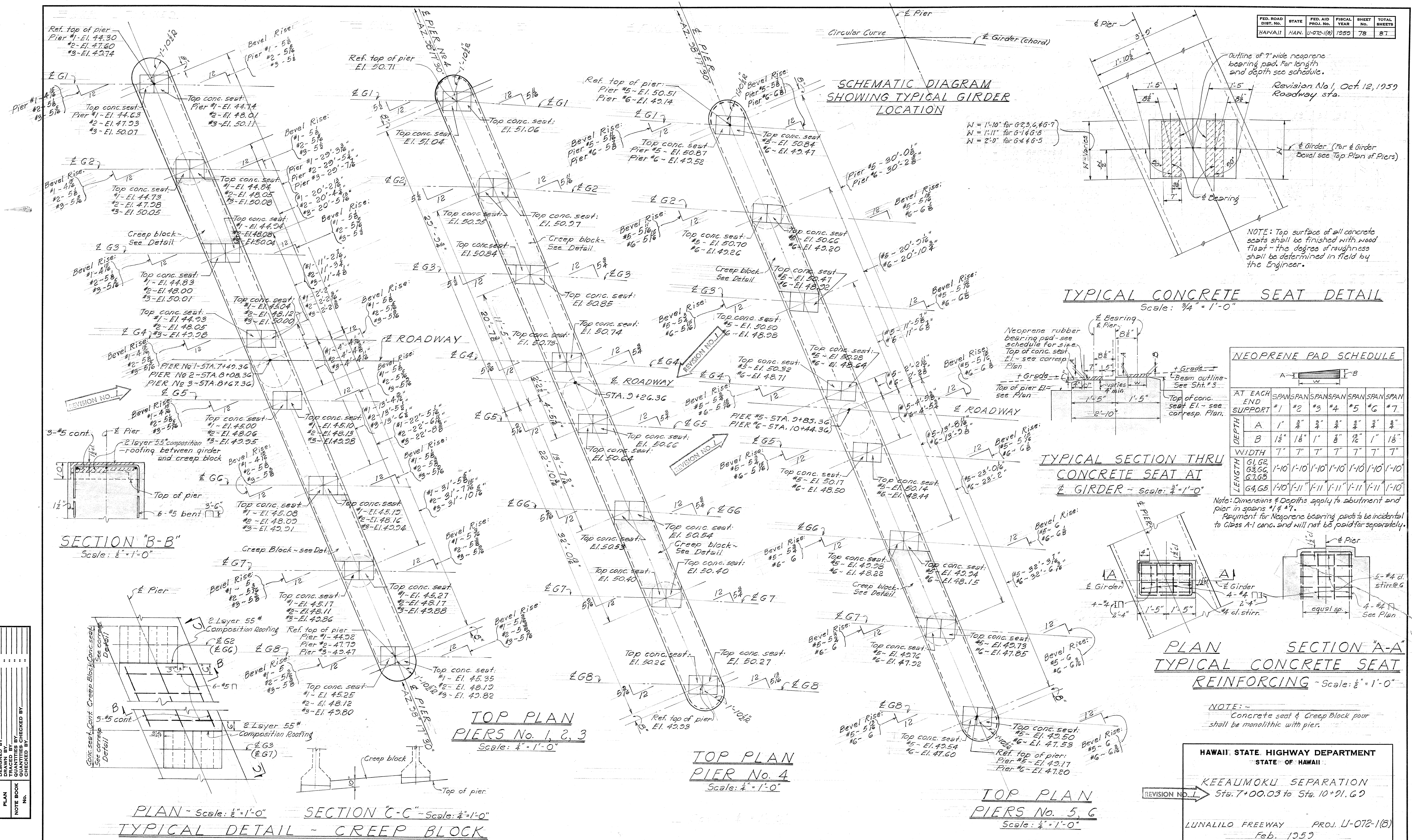


TYPICAL COLUMN SECTION

HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII
KEEAUMOKU SEPARATION
Sta. 7+00.03 to Sta. 10+91.69
LUNALILO FREEWAY PROJ. U-072-1(8)
February 1959
SHEET No. 7 OF 17 SHEETS

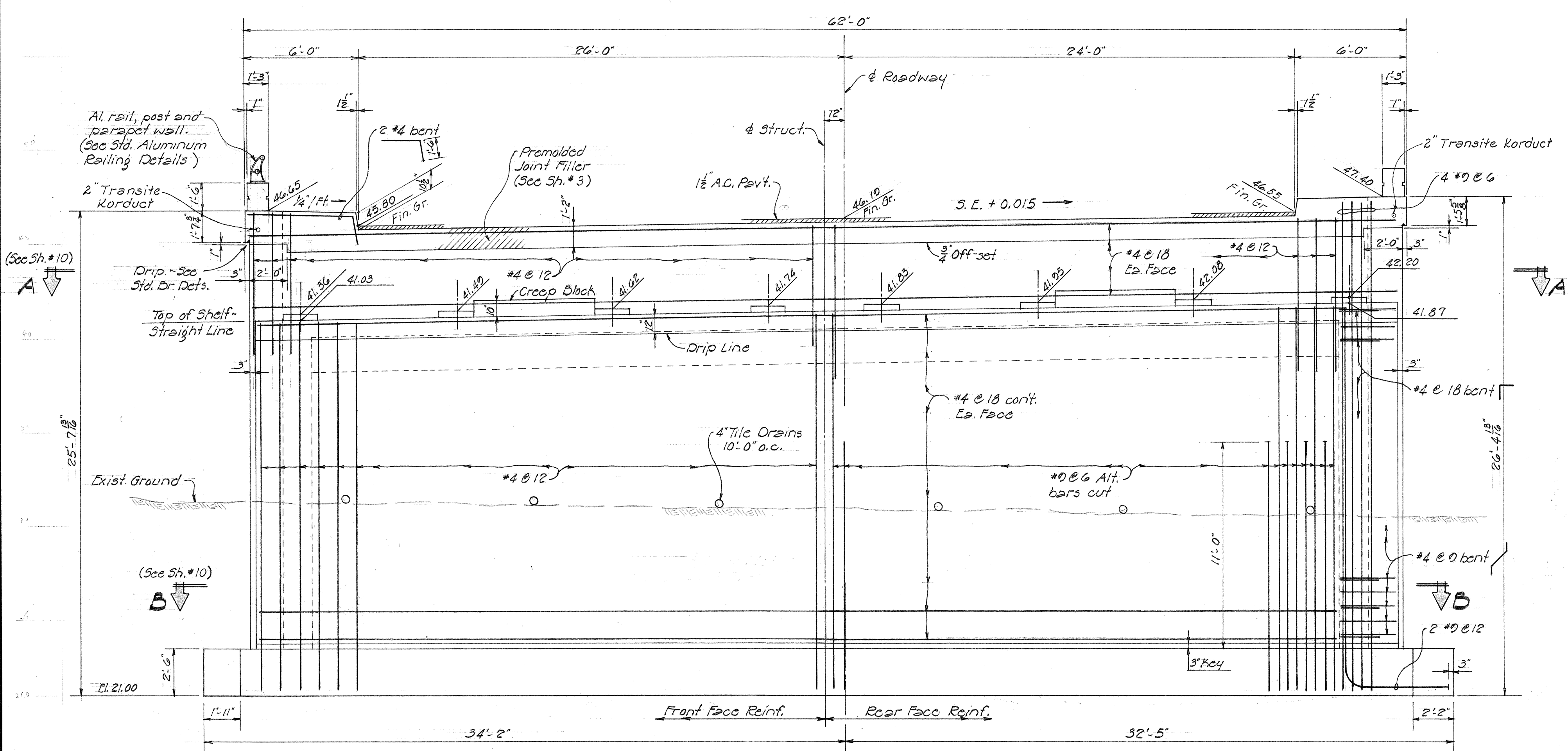
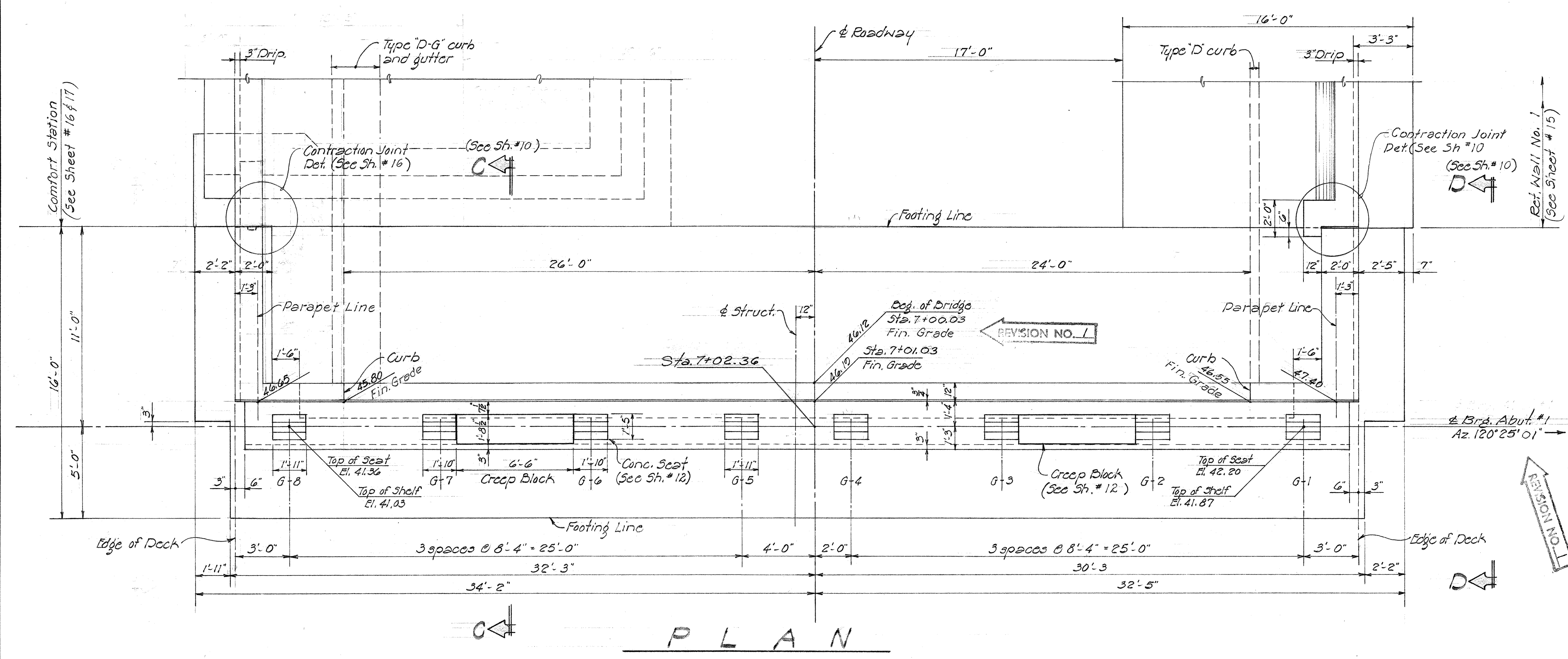
8183.77

SURVEY PLOTTED BY	DATE
PLAN	2/55
TRACED BY	
QUANTITIES CHECKED BY	
NOTE BOOK	
No.	

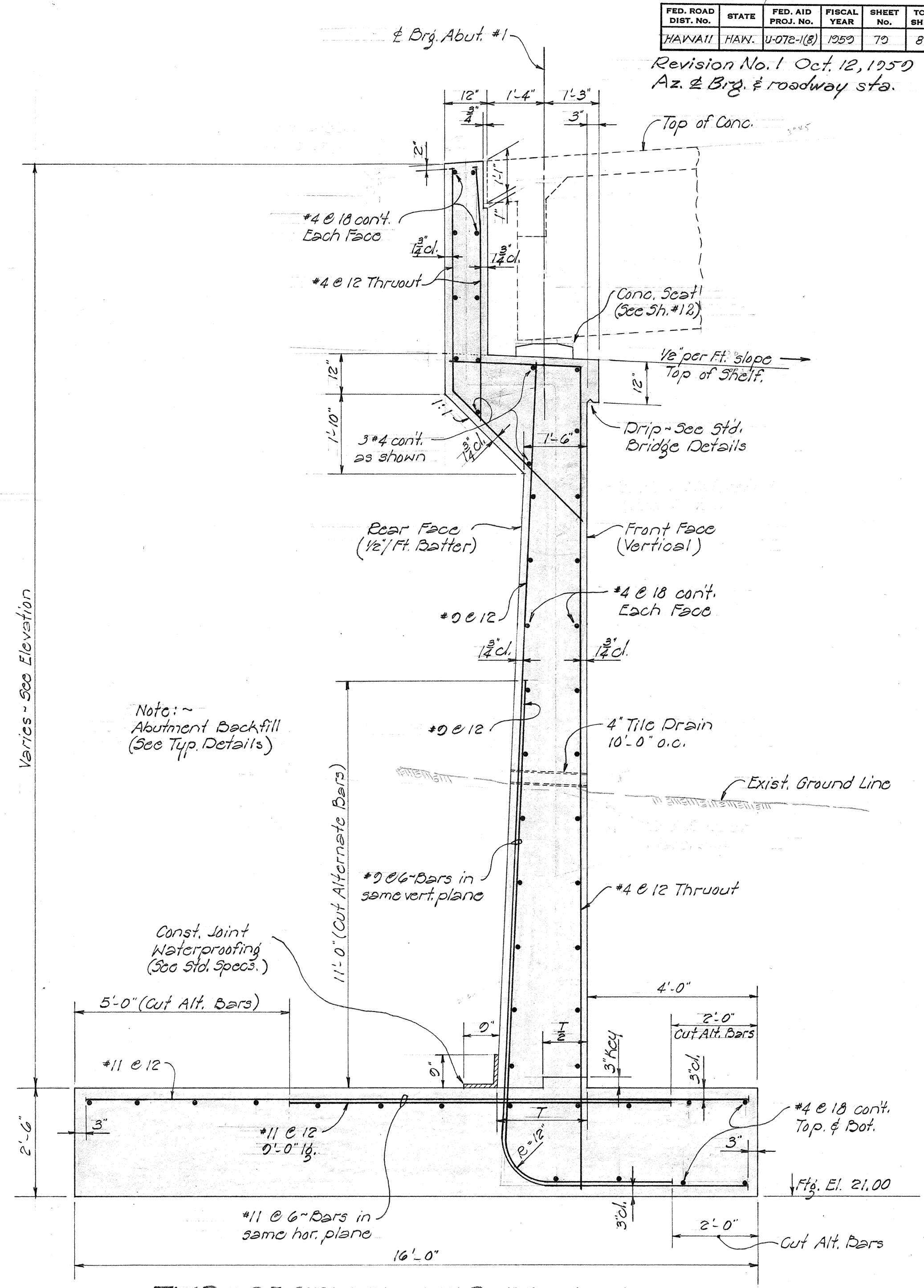


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-1(8)	1959	79	87

Revision No. 1 Oct. 12, 1959
Az. & Brg. & roadway sta.



DETAILS ~ ABUTMENT No. 1
Scale - 1/4" = 1'-0"



HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII
KEEAUMOKU SEPARATION
Sta. 7+00.03 to Sta. 10+01.62
LUNALILO FREEWAY Proj. No. U-072-1(8)
February 1959

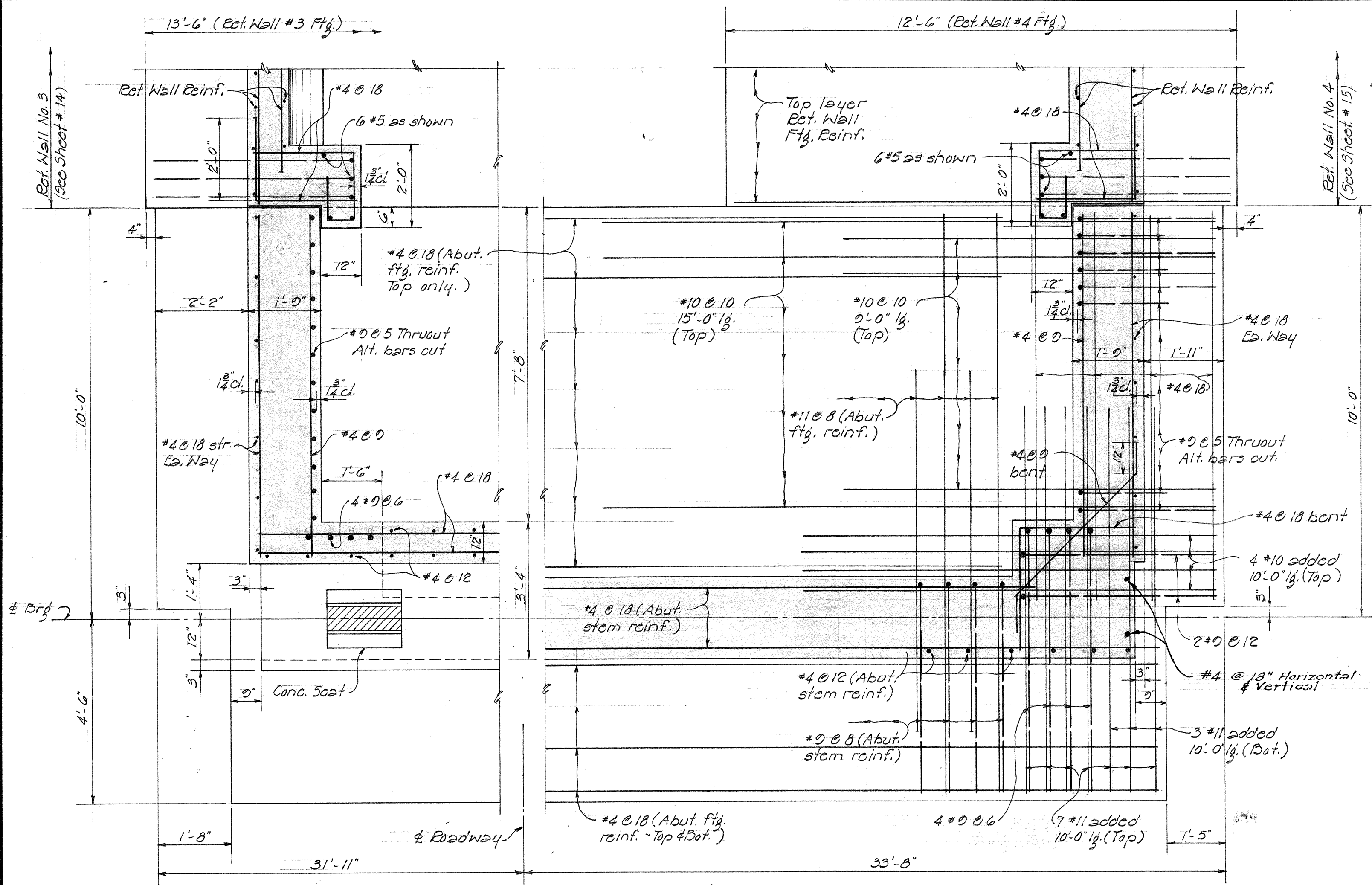
8183.79

SURVEY PLOTTED BY	DATE
DESIGNED BY	
DRAWN BY	
TRACED BY	
QUANTITIES CHECKED BY	
NOTE BOOK NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-1(B)	1959	82	87

Revision No. 1 Oct. 12, 1959: Elev. on abut. end wall; sta. title block.

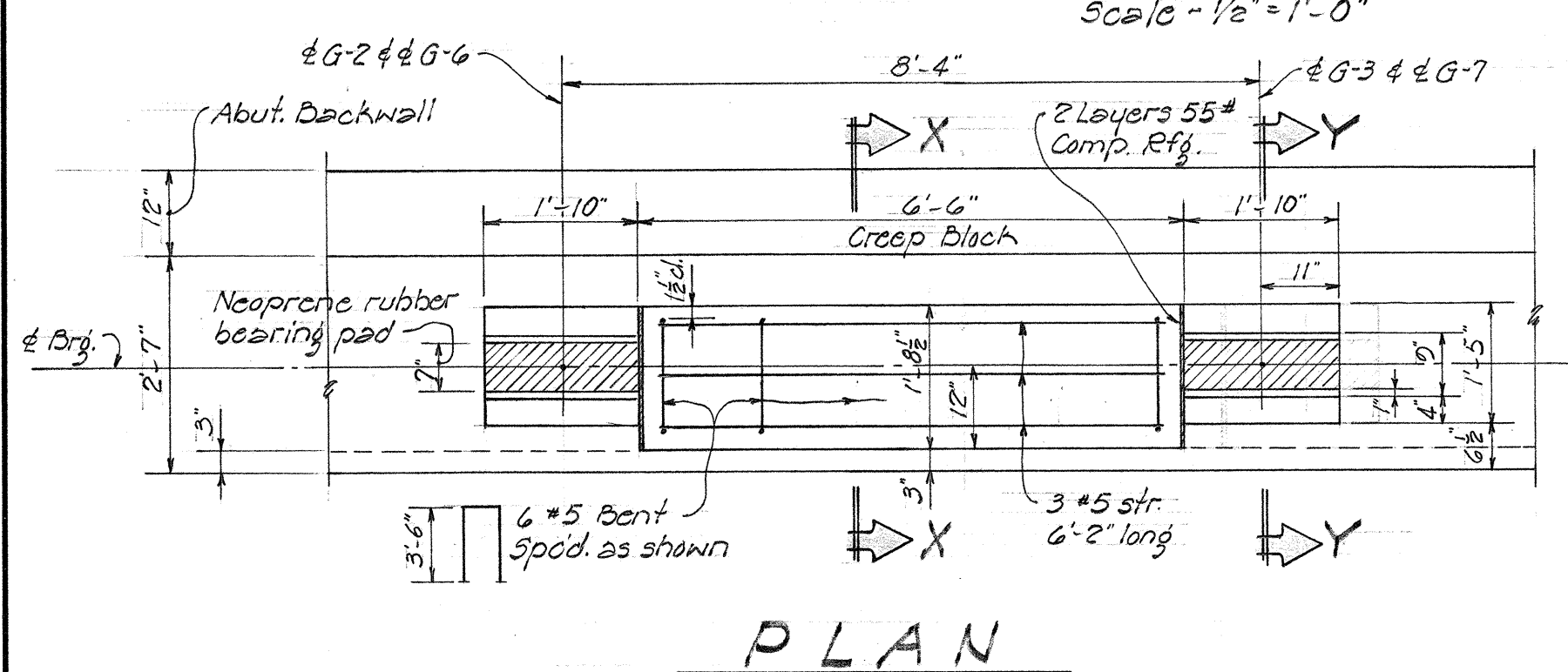
Note: Top of wall elevations shown are of inside face of railing parapet wall.



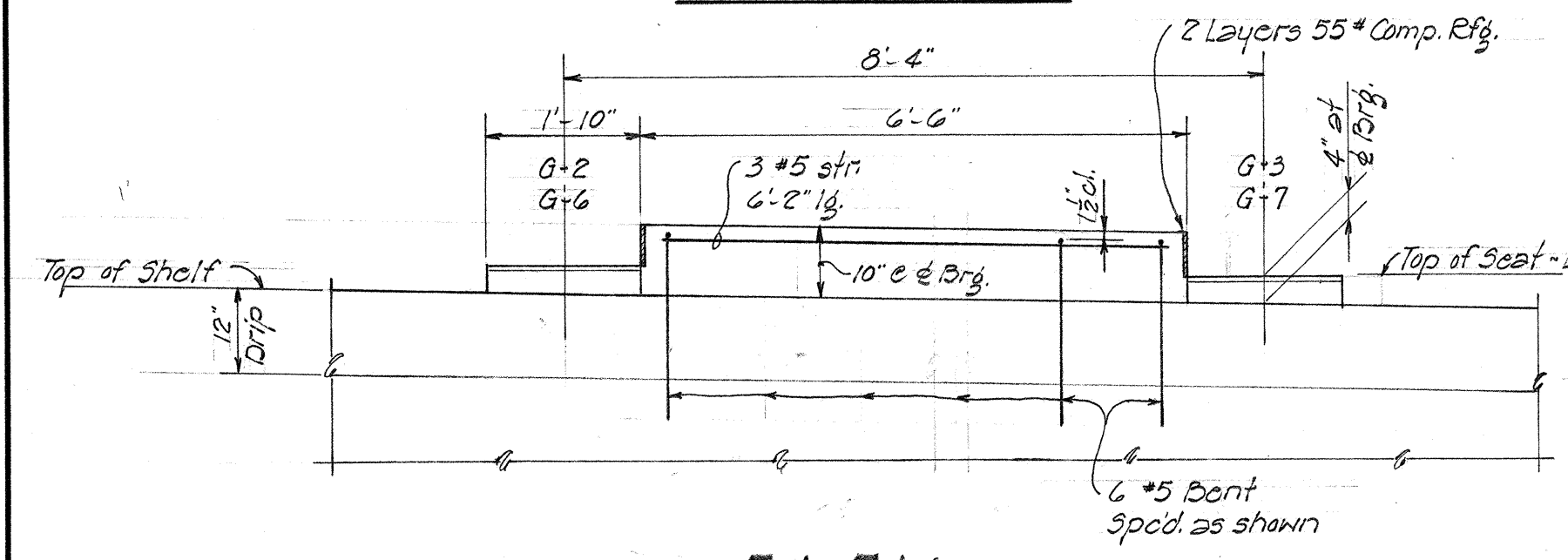
SECTION A-A

SECTION B-B

SECTIONS (See Sh. #11)

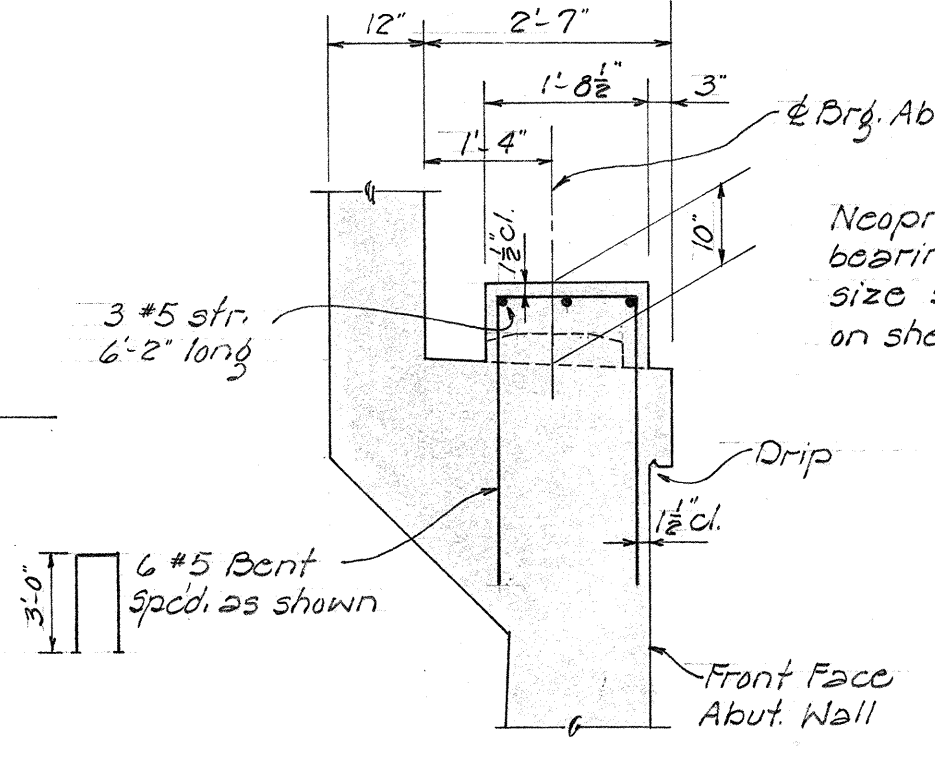


PLAN



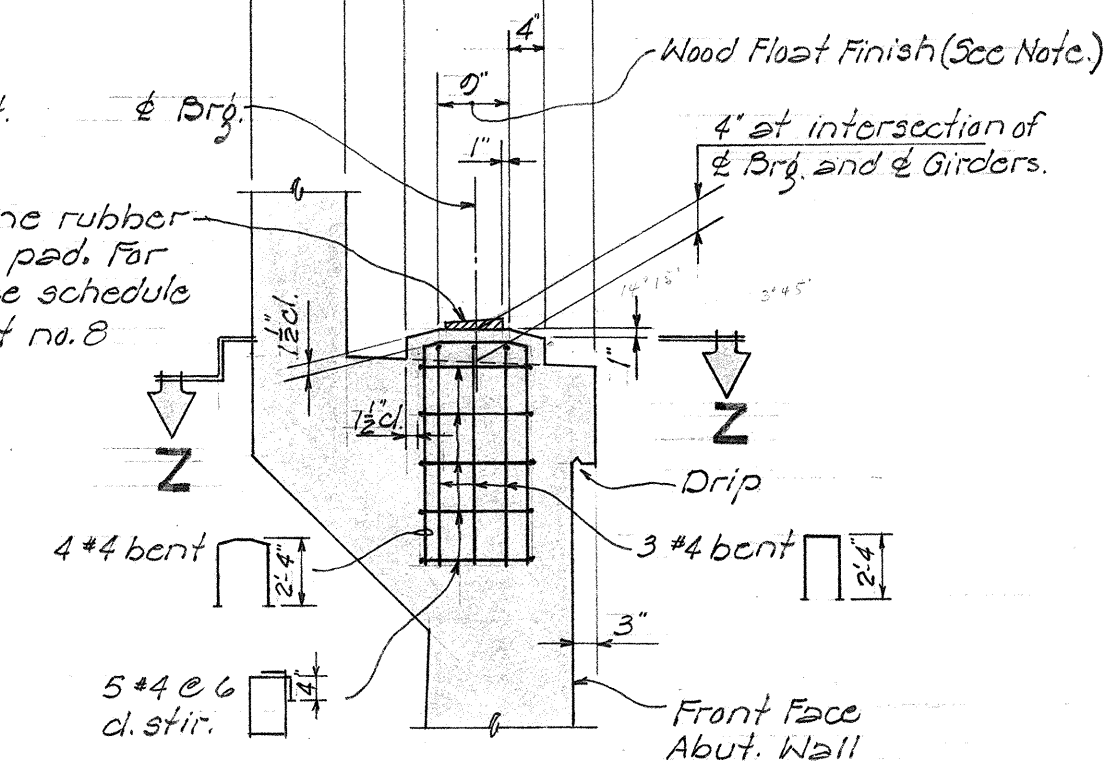
ELEV. CREEP BLOCK & SEAT DETS.

Scale - 1/2" = 1'-0"



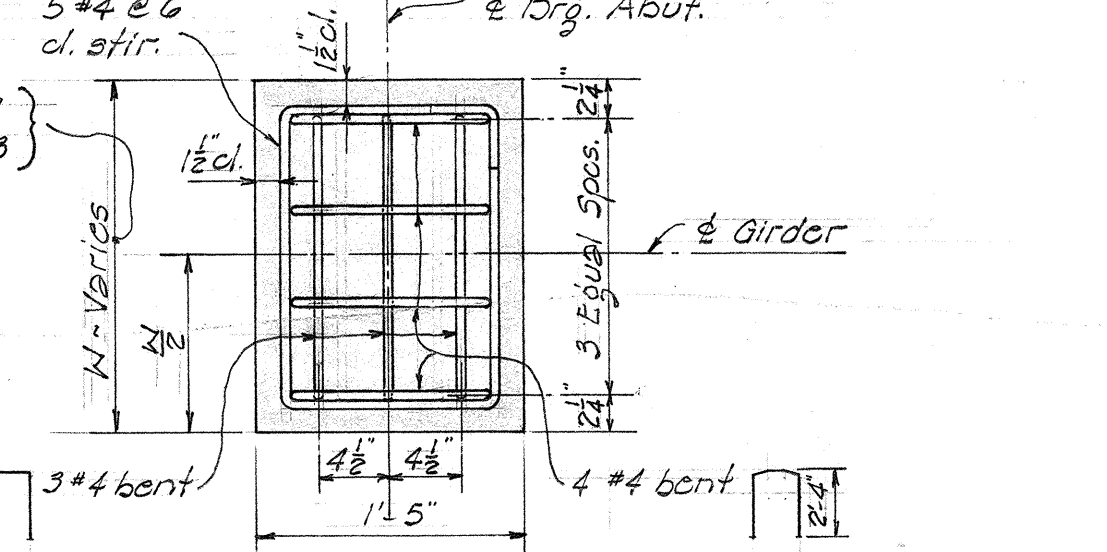
SECTION X-X

Scale - 1/2" = 1'-0"



SECTION Y-Y

Scale - 1/2" = 1'-0"

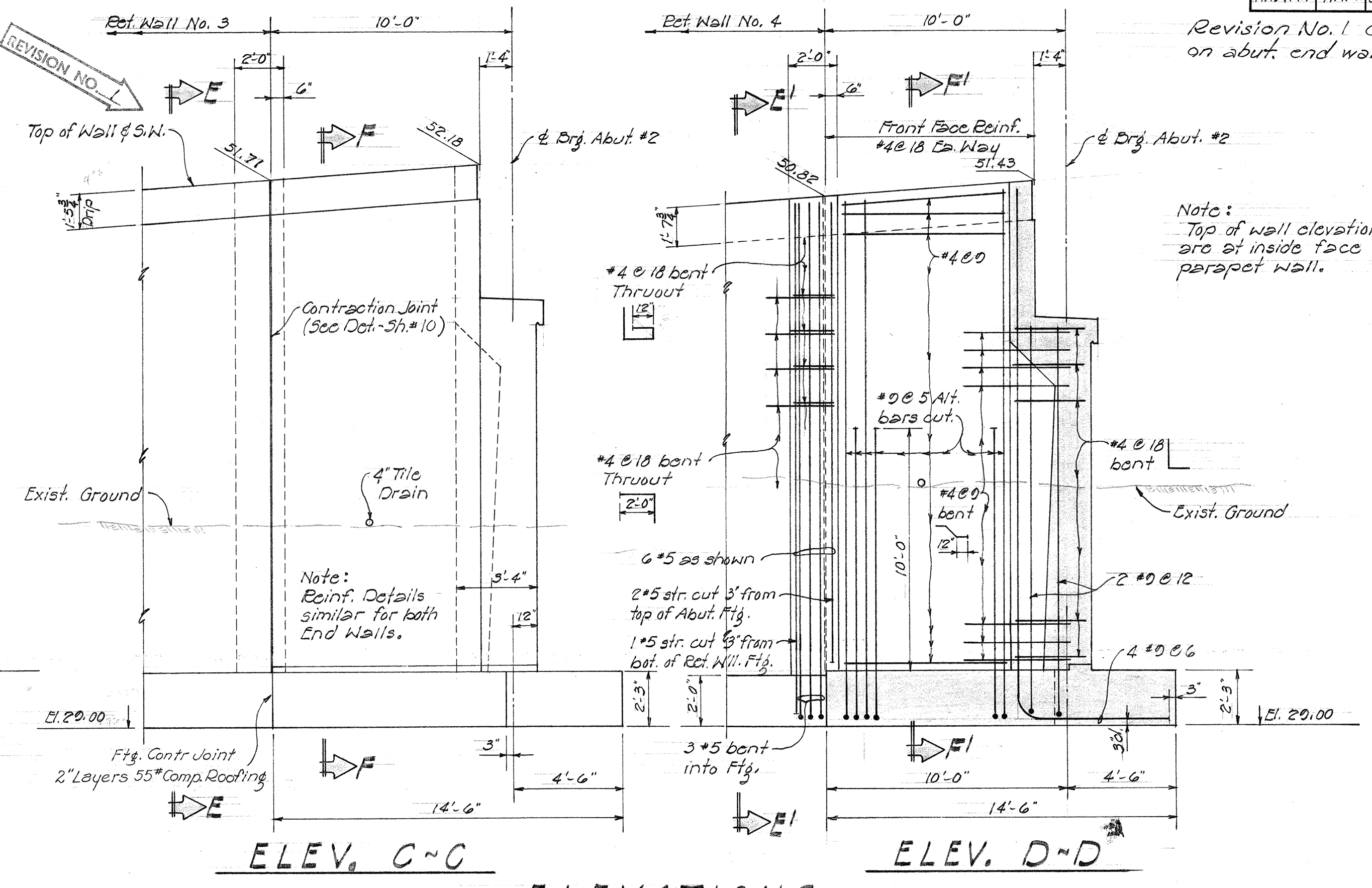


SECTION Z-Z

Scale - 1" = 1'-0"

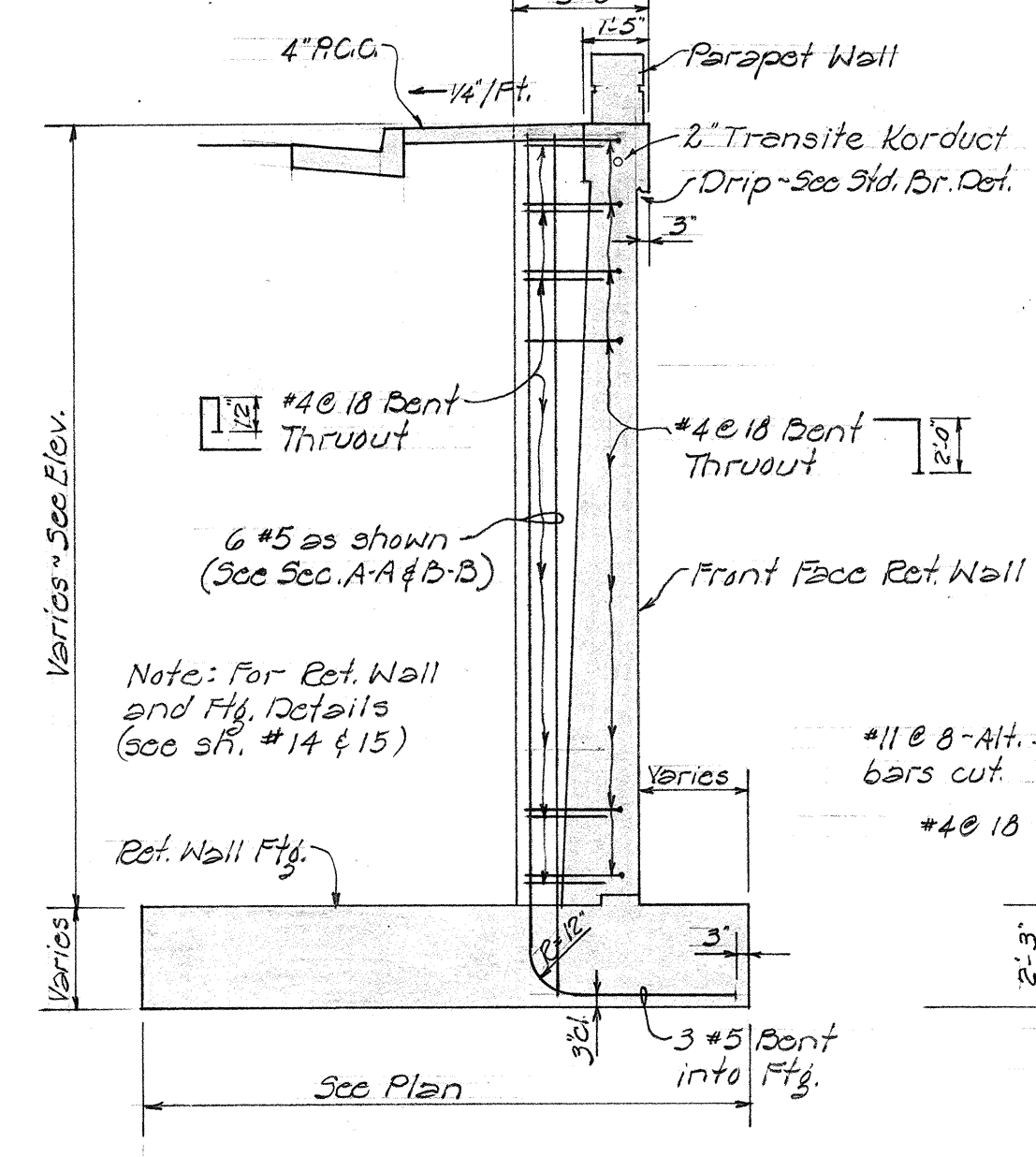
NOTES:
Creep Block & Seat monolithic with abutment pour.
Conc. Seat Reinf. shown similar for all seats of abutment.
For size of Neoprene rubber bearing pad see schedule on sh. #8

Note: The degree of roughness for Wood Float Finish shall be determined in field by the Engr.



ELEVATIONS (See Sh. #11)

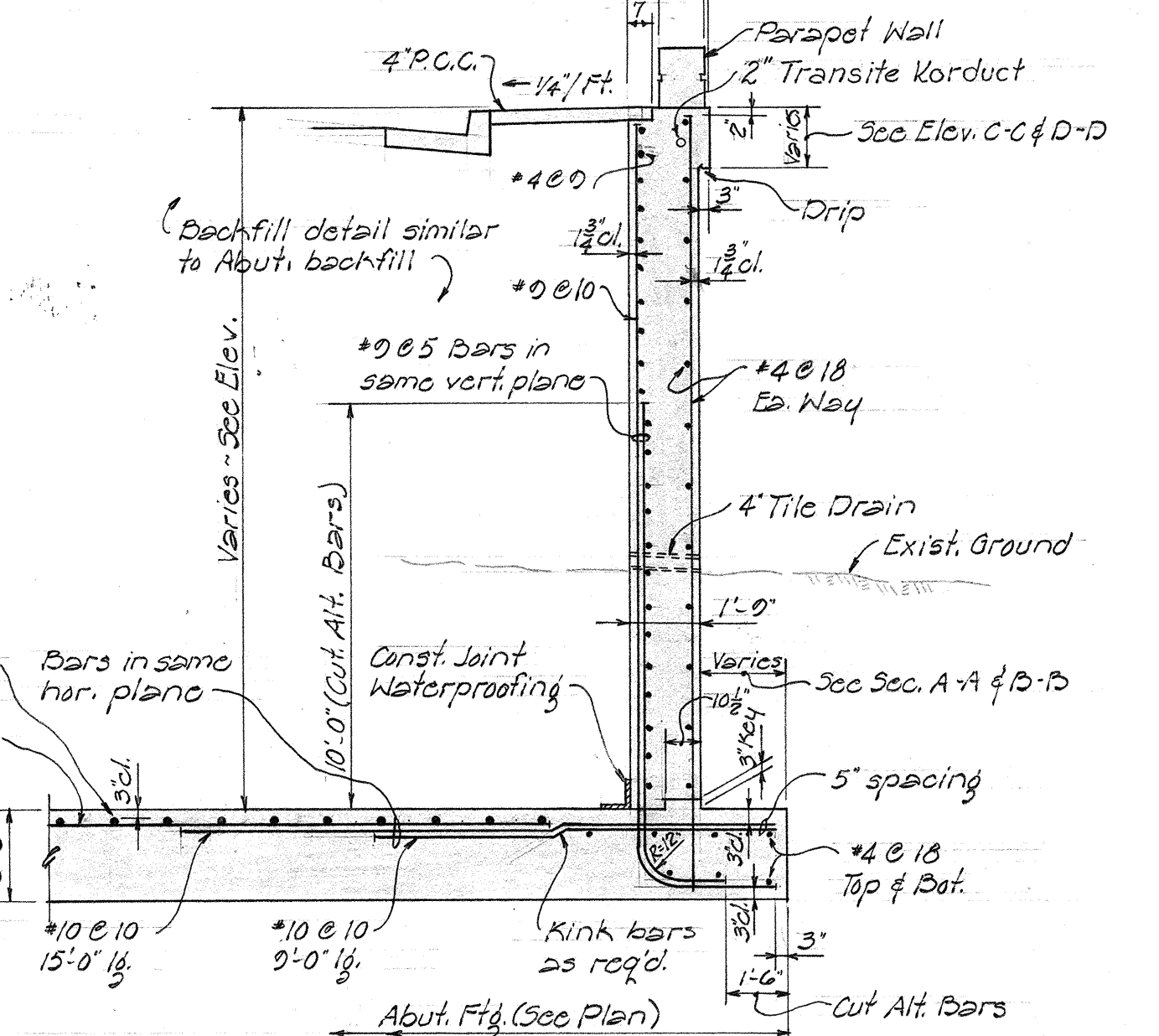
Scale - 1/4" = 1'-0"



SECTION E-E

Scale - 1/4" = 1'-0"

Note: Section E1-E1 Similar



SECTION F-F

Scale - 1/4" = 1'-0"

Note: Section F1-F1 Similar

HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII

KEEAUMOKU SEPARATION

Sta. 7+00.03 to Sta. 10+01.60

LUNALILO FREEWAY Proj. No. U-072-1(B)

February 1959

SHEET No. 12 OF 17 SHEETS

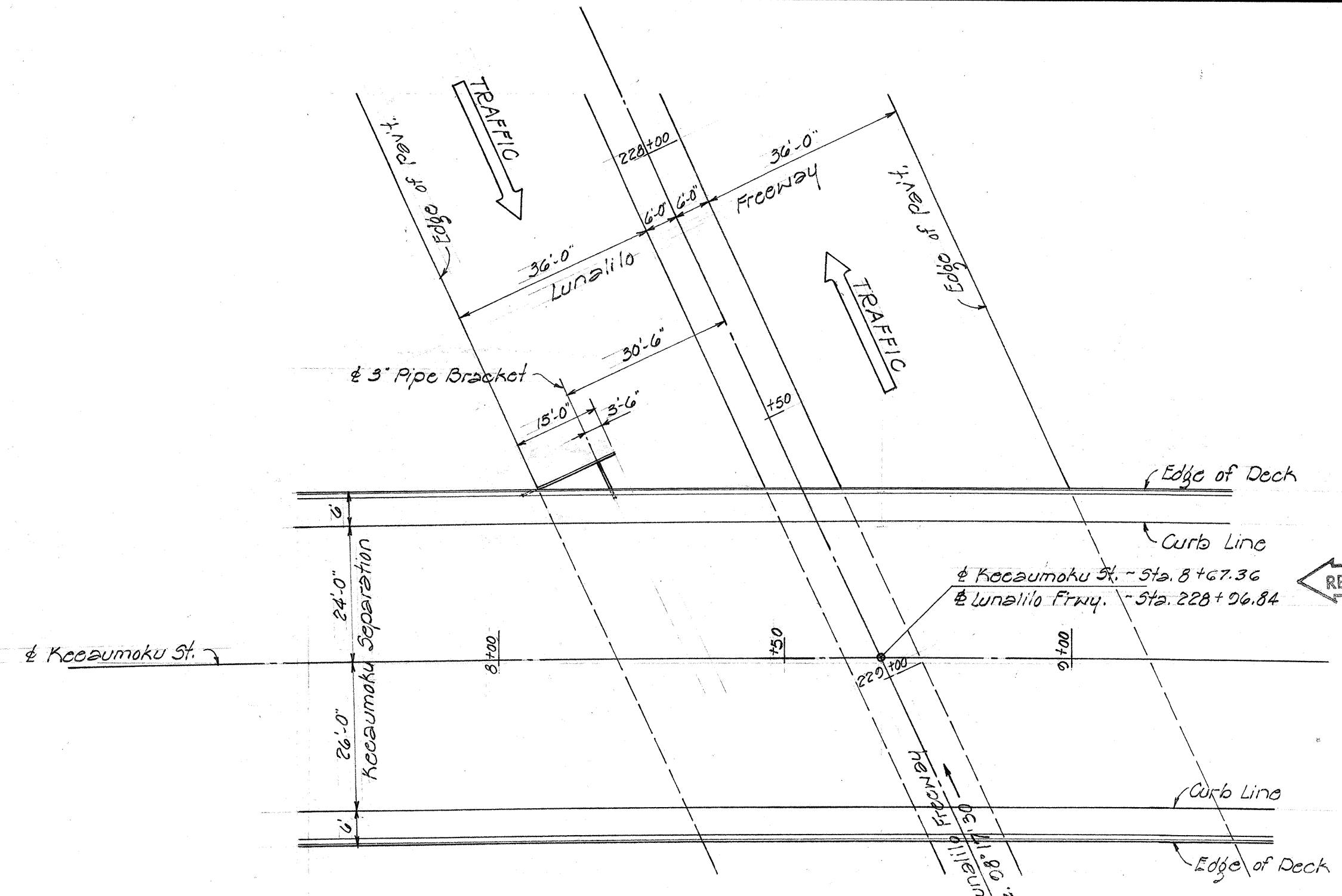
S183.S2

DATE	DESIGNED BY
PLAN	TRACED BY
QUANTITIES BY	CHECKED BY
NOTE BOOK	NO.

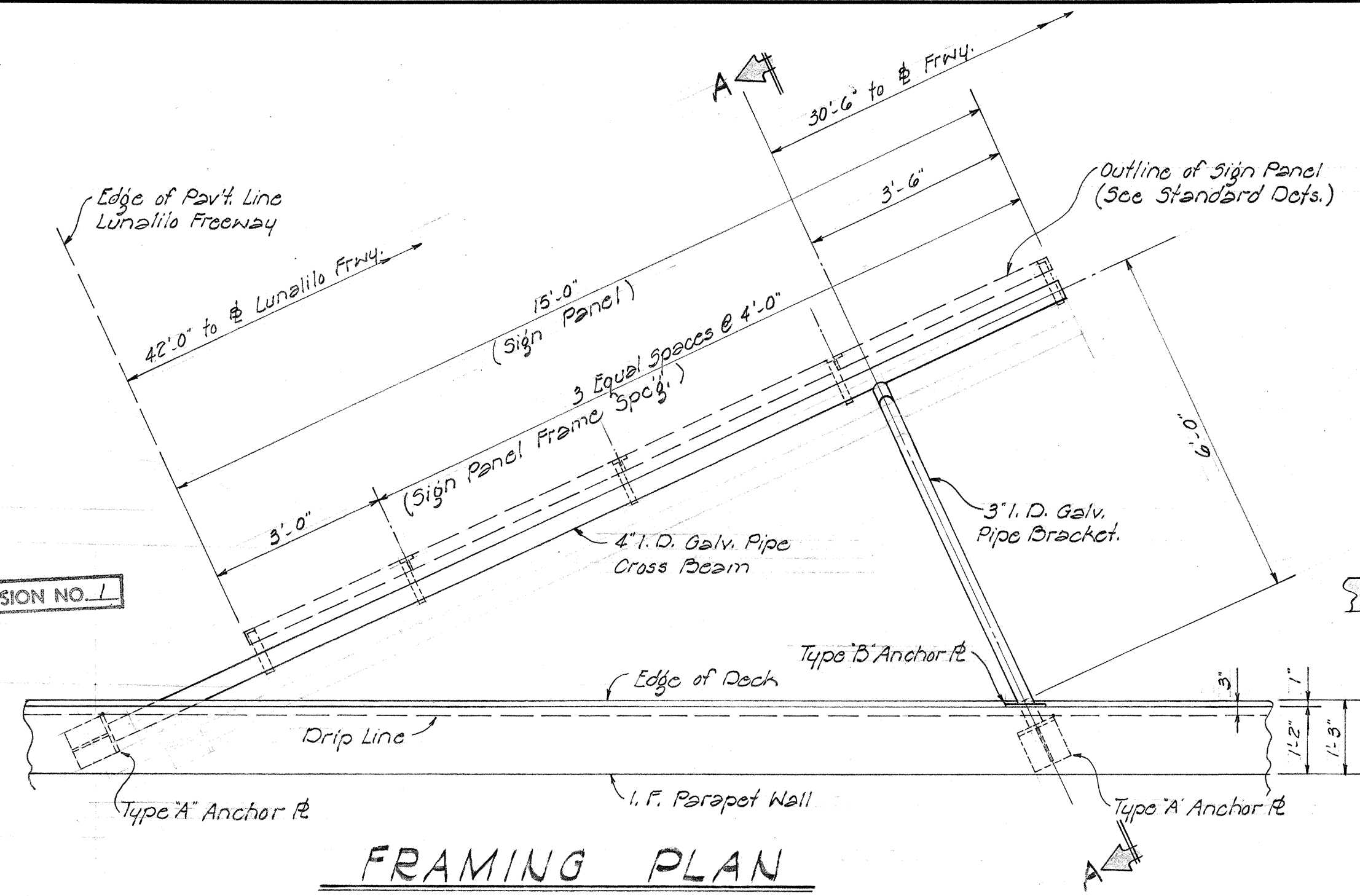
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-1(B)	1959	83	87

Revision No. 1, Oct. 12, 1959:
Keeaumoku St. roadway sta.

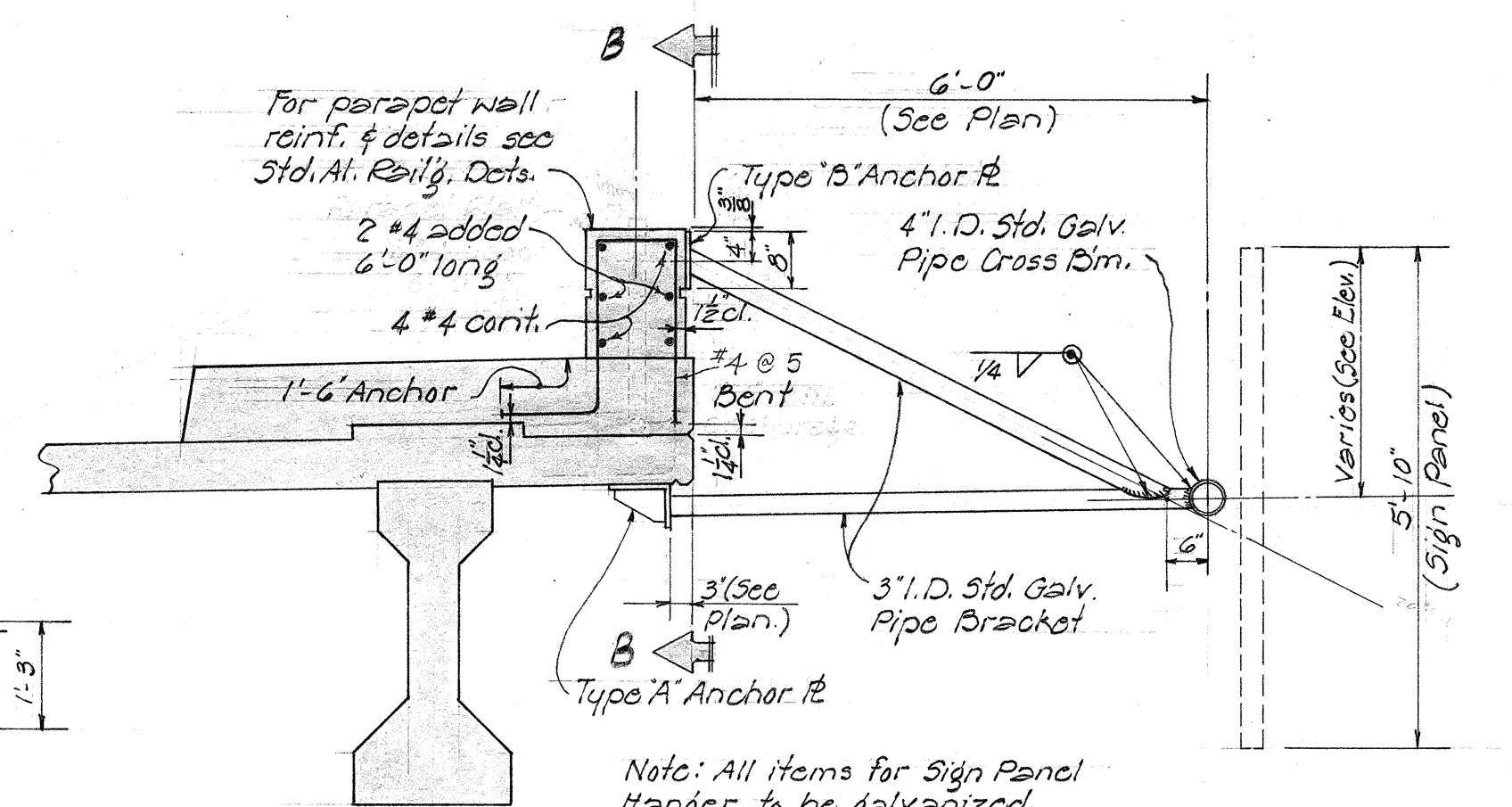
NOTE: Anchor plates with bolts only to be included in this contract. Payment will be incidental to Class A-1 concrete and will not be paid for separately. Frame and sign panel to be done by others.



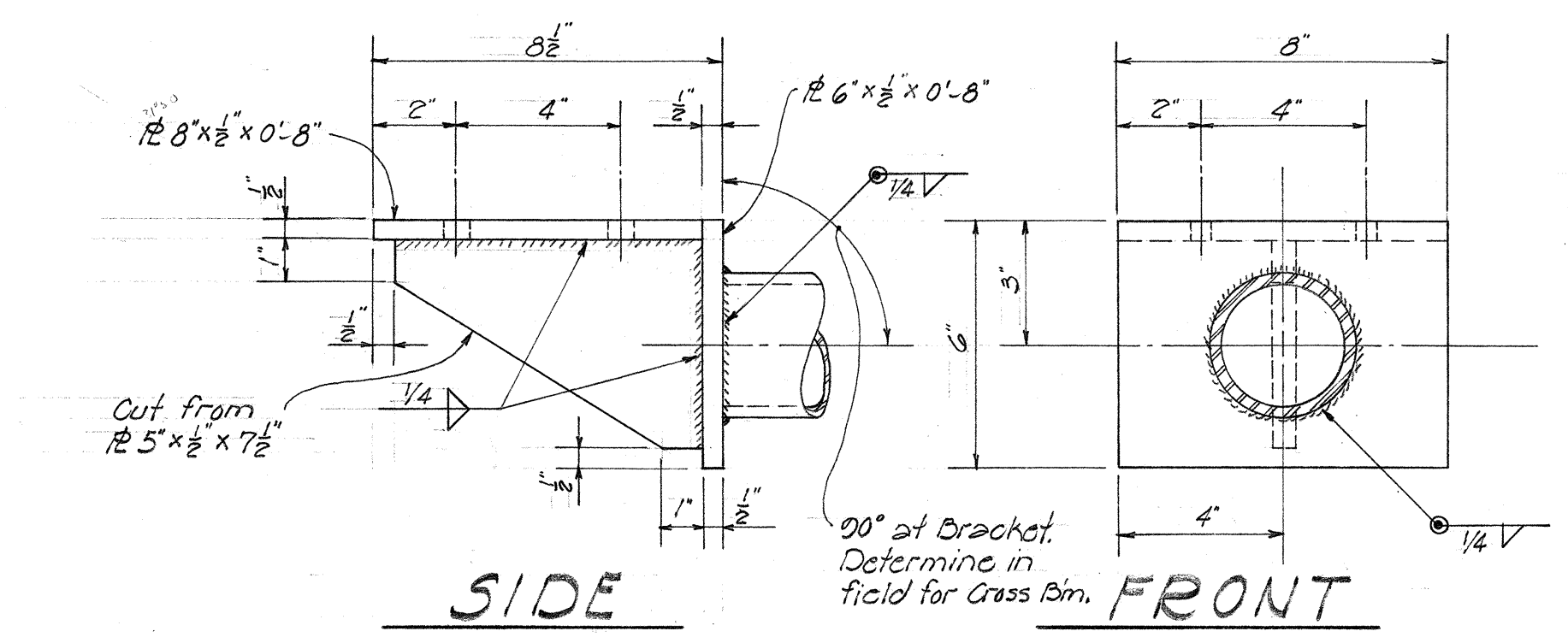
LOCATION PLAN - EXPRESSWAY SIGN
Scale - 1" = 20' 0"



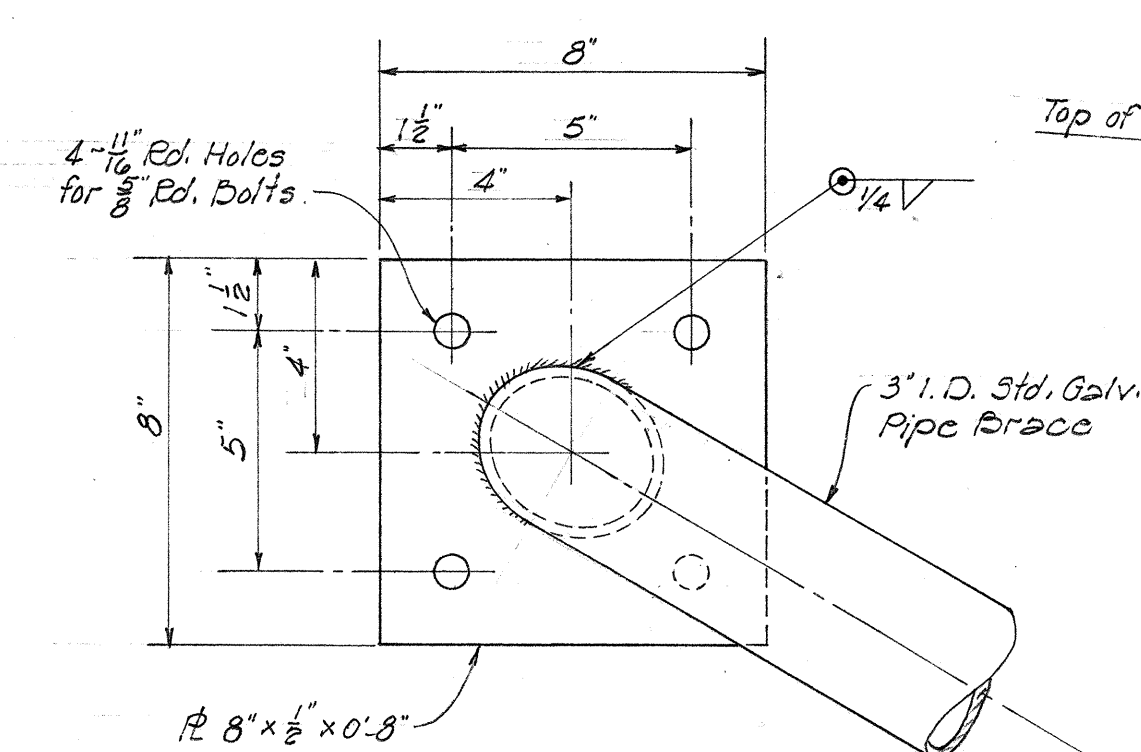
FRAMING PLAN
Scale - 1/2" = 1' 0"



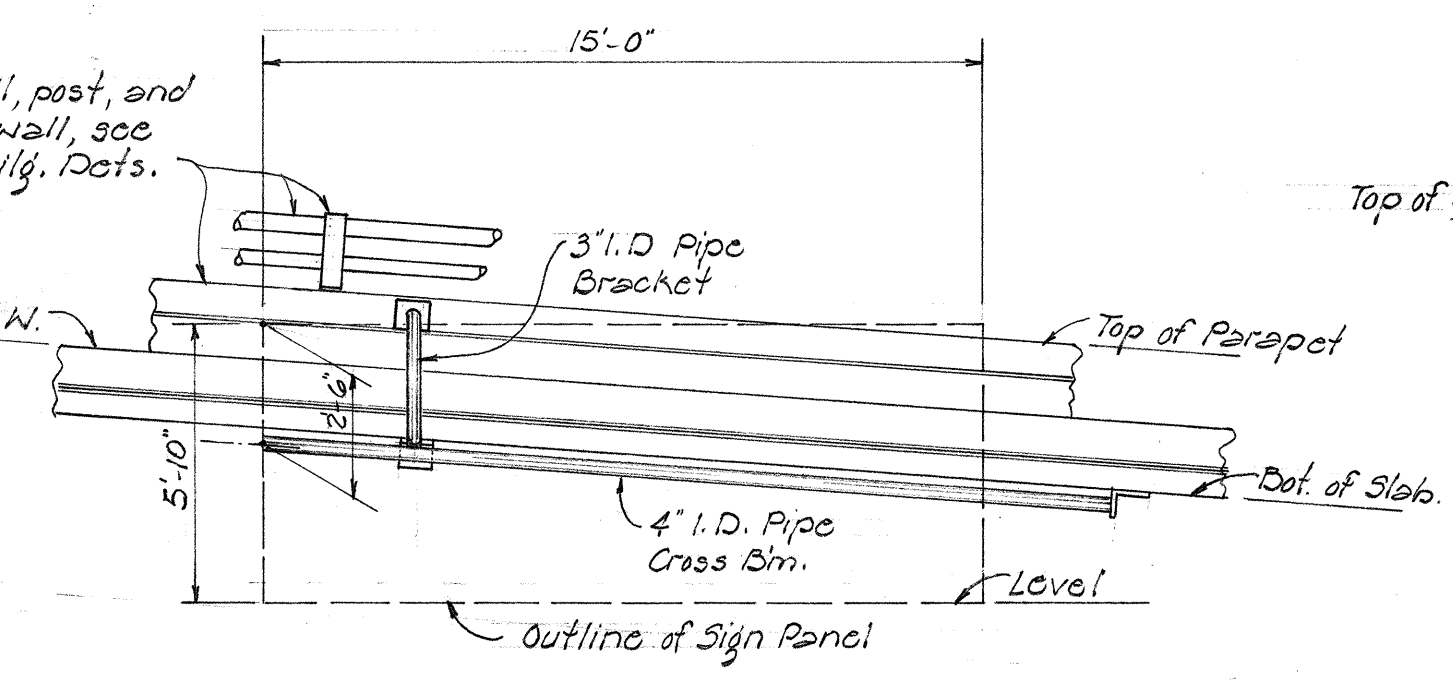
SECTION A-A
Scale - 1/2" = 1' 0"



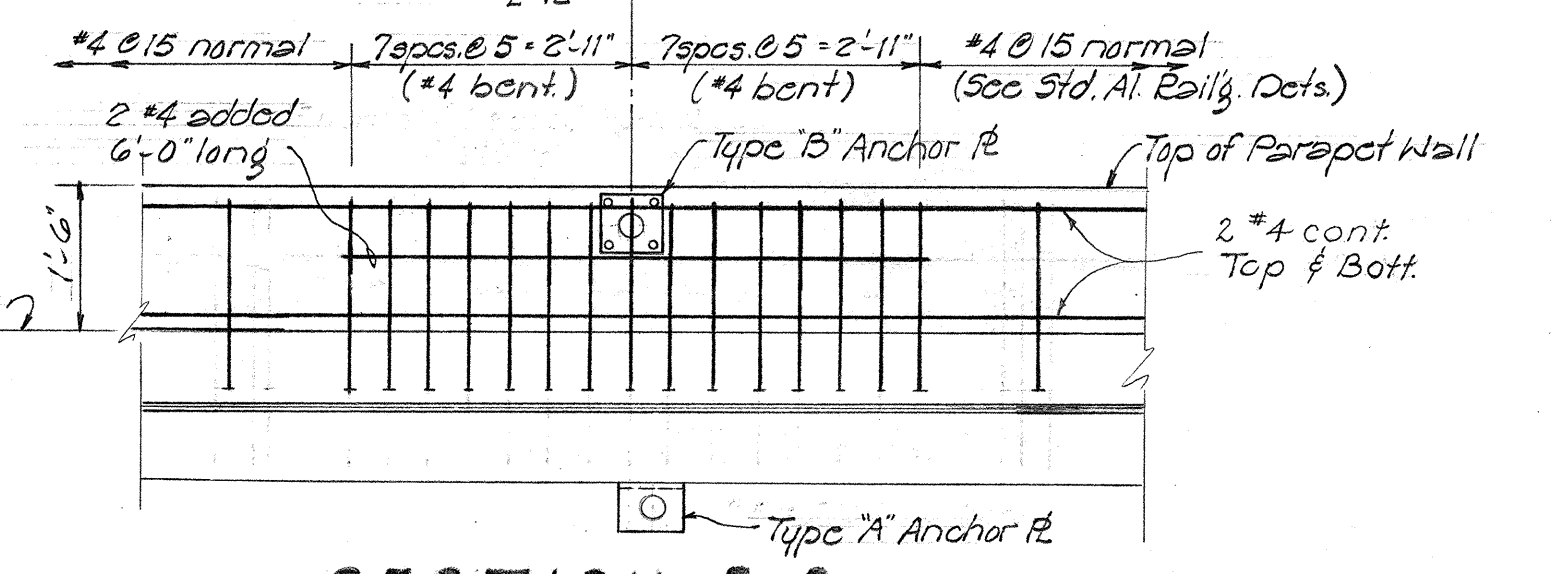
SIDE FRONT



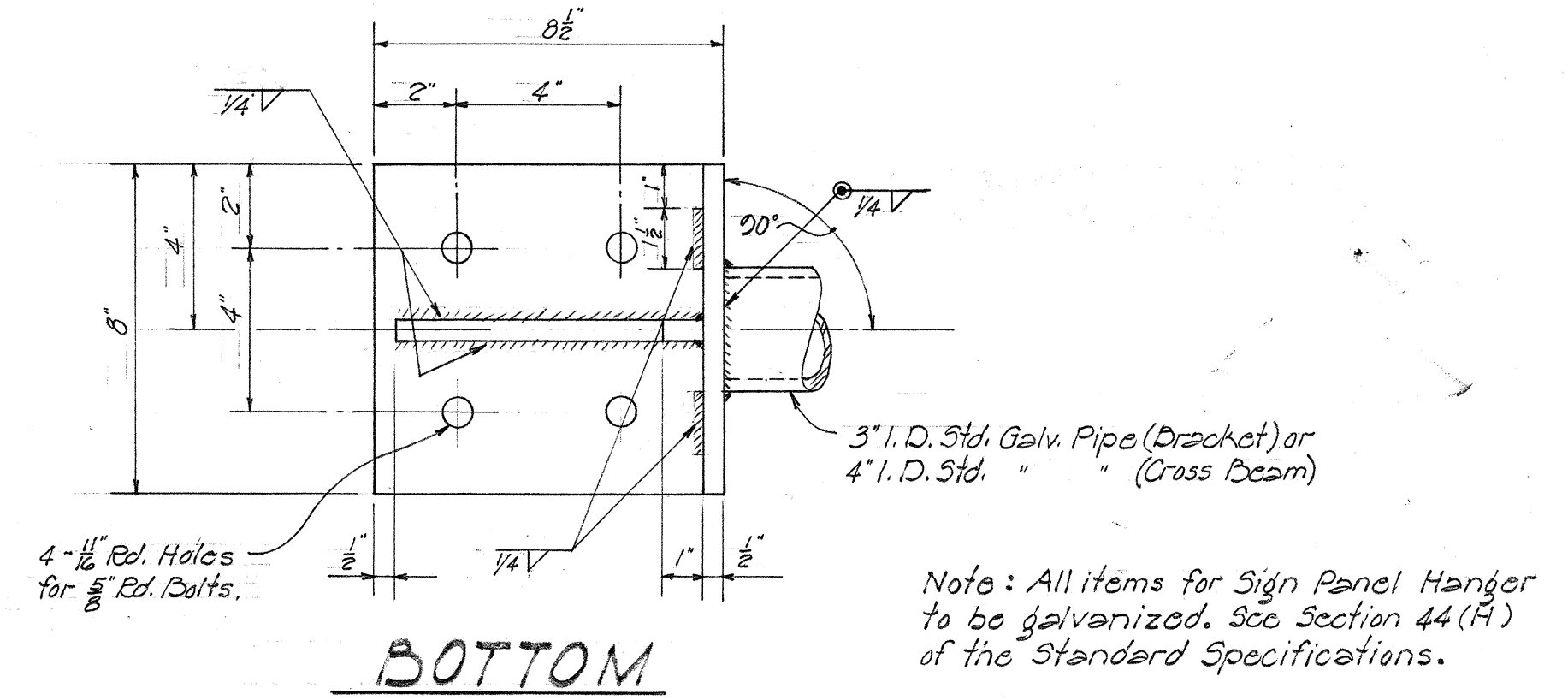
TYPE "B" ANCHOR DET.
Scale - 3" = 1' 0"



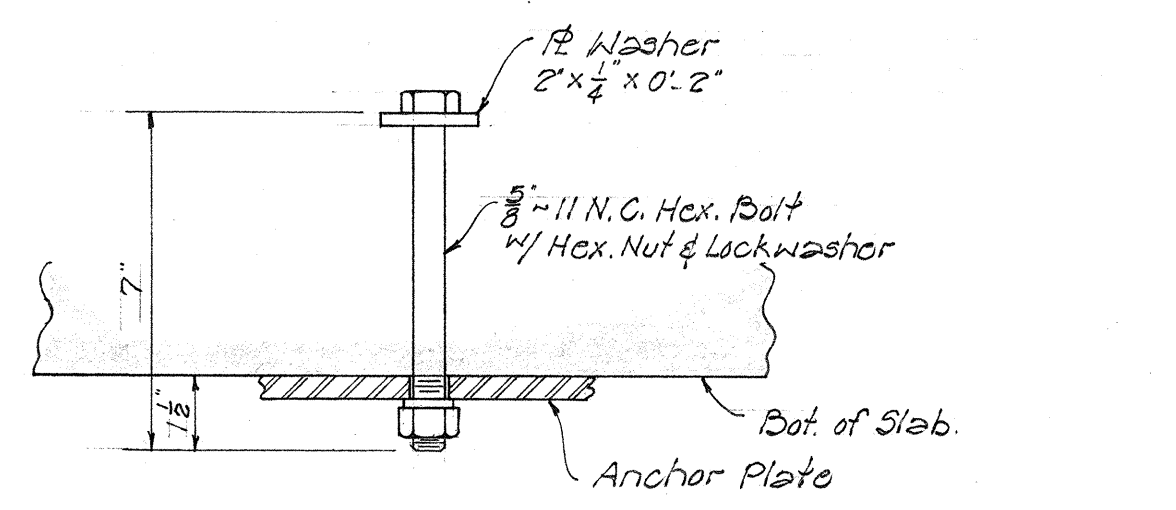
ELEV. - EXPRESSWAY SIGN
Scale - 1/4" = 1' 0"



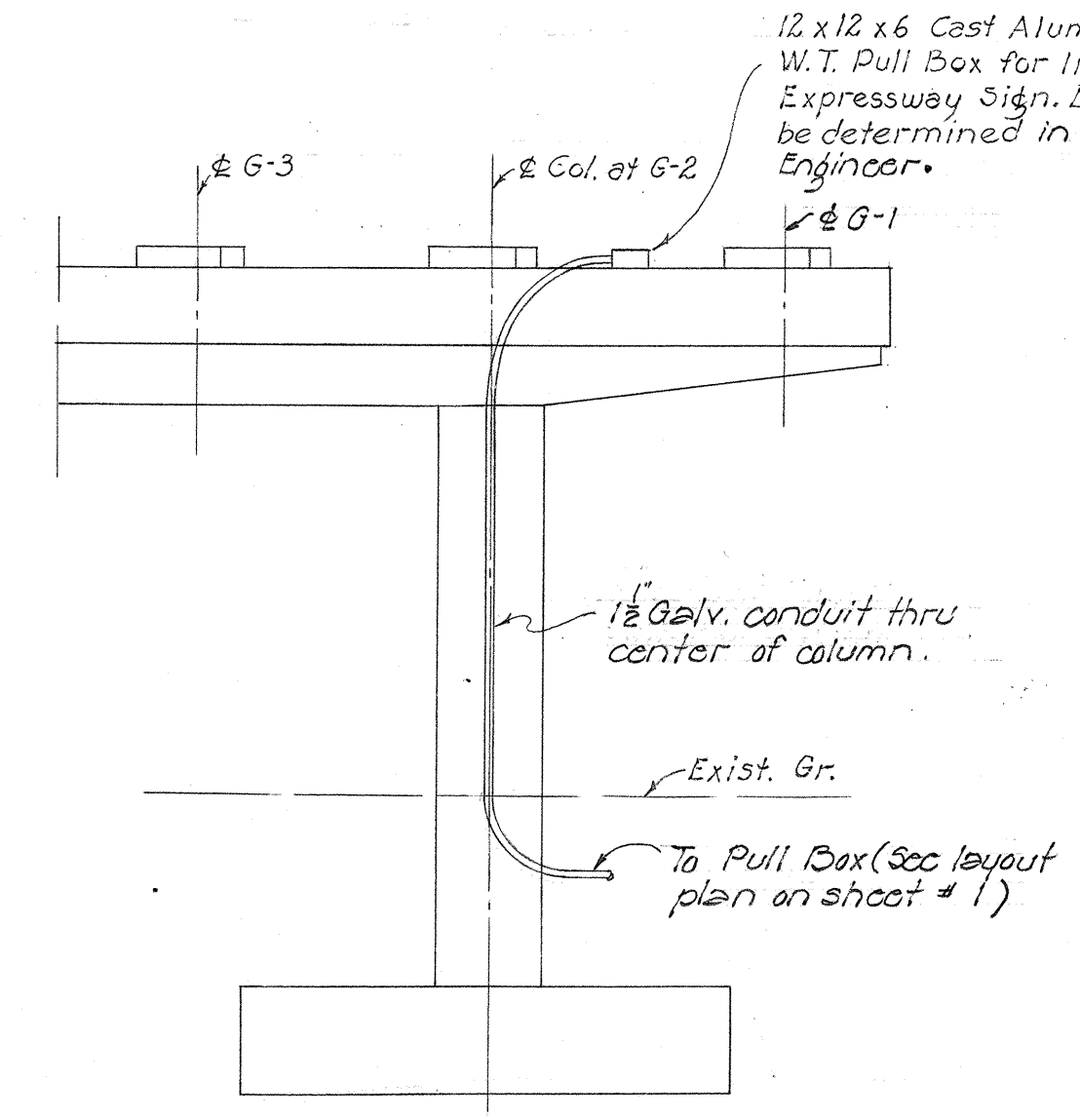
SECTION B-B
Scale - 1/2" = 1' 0"



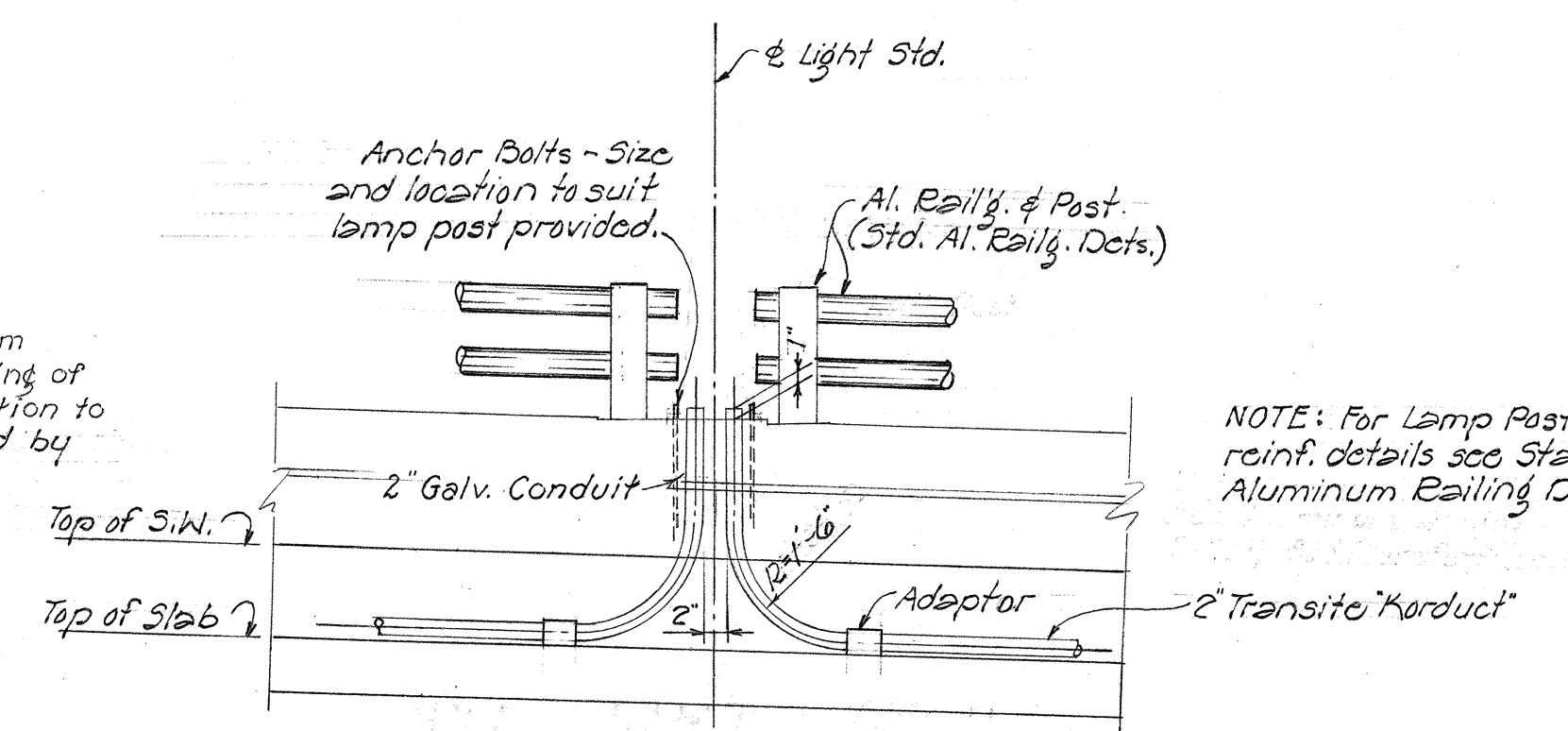
BOTTOM TYPE "A" ANCHOR DETS.
Scale - 3" = 1' 0"



BOLT DETAIL
Scale - 3" = 1' 0"



ELEV. - CAST ALUM. PULL BOX
Scale - 3/8" = 1' 0"



LIGHT STD. DETAIL
Scale - 1/2" = 1' 0"

NOTE: For Lamp Post Base reinf. details see Standard Aluminum Railing Details.

HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII
KEEAUMOKU SEPARATION
Sta. 7+00.03 to Sta. 10+91.69
LUNALILO FREEWAY Proj. No. U-072-1(B)
February 1959

SHEET No. 13 OF 17 SHEETS

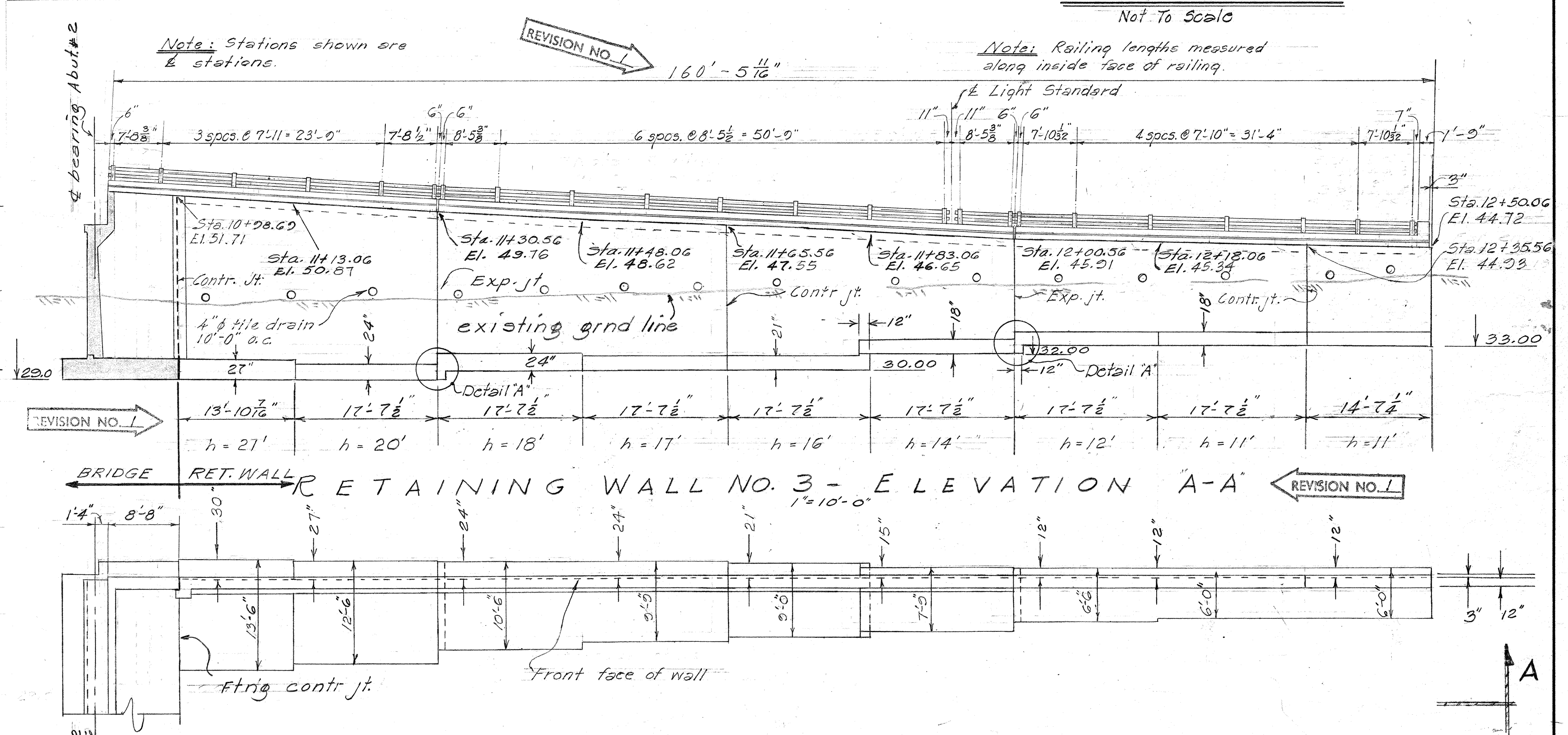
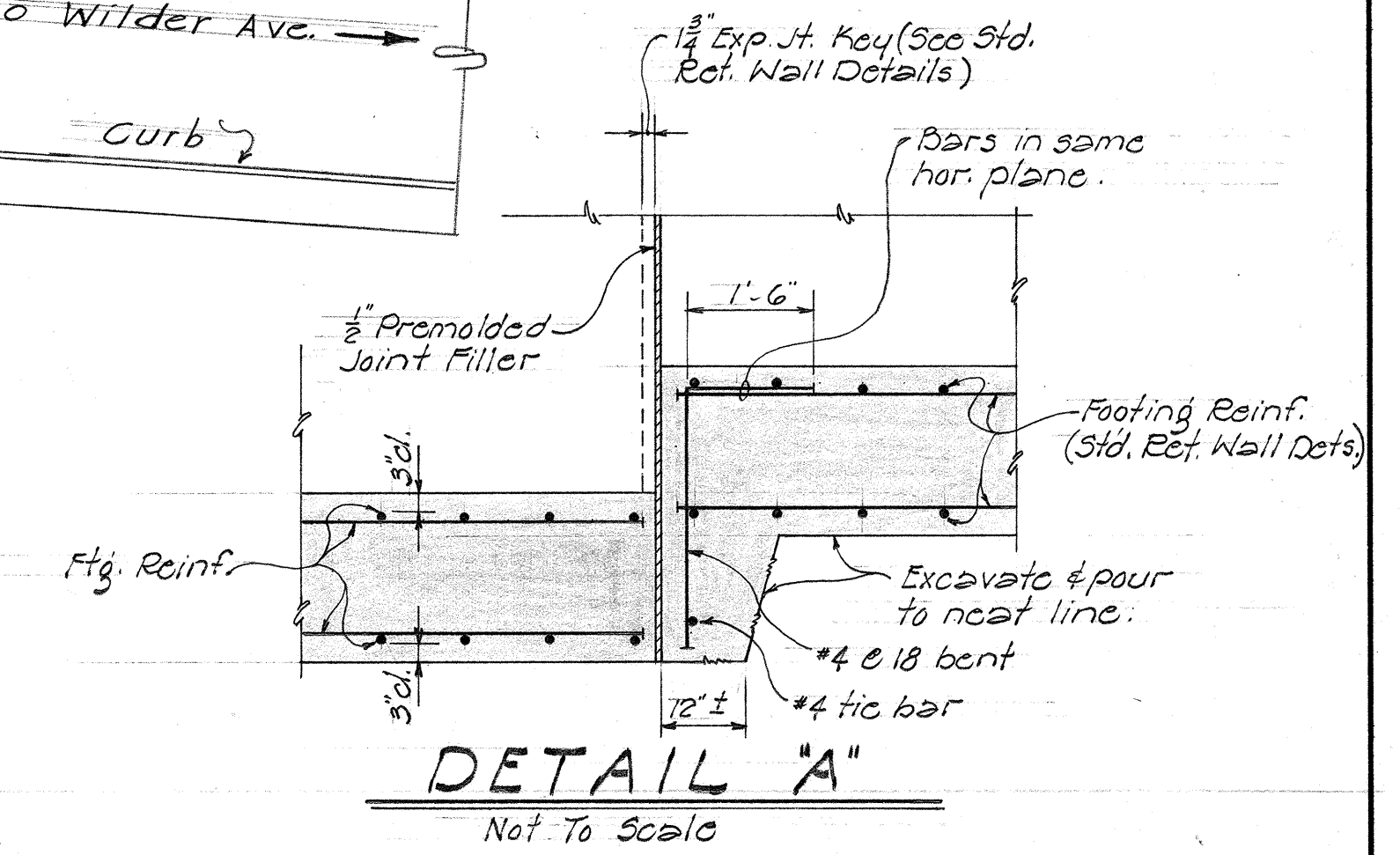
\$183.83

SURVEY PLANNED BY: _____
DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
NOTE BOOK NO. _____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	U-072-1	1959	84	87

Revision No. 1 Oct. 12, 1959: Az & Brg. About #1 & #2; railing spacing; ret. wall dimension.

LAYOUT PLAN-RET. WALLS 1,2,3,4 1"=20'-0" MAX. RET. WALL SOIL PR=4100 PSF



RET. WALL NO. 3 - FOOTING PLAN 1"=10'-0"

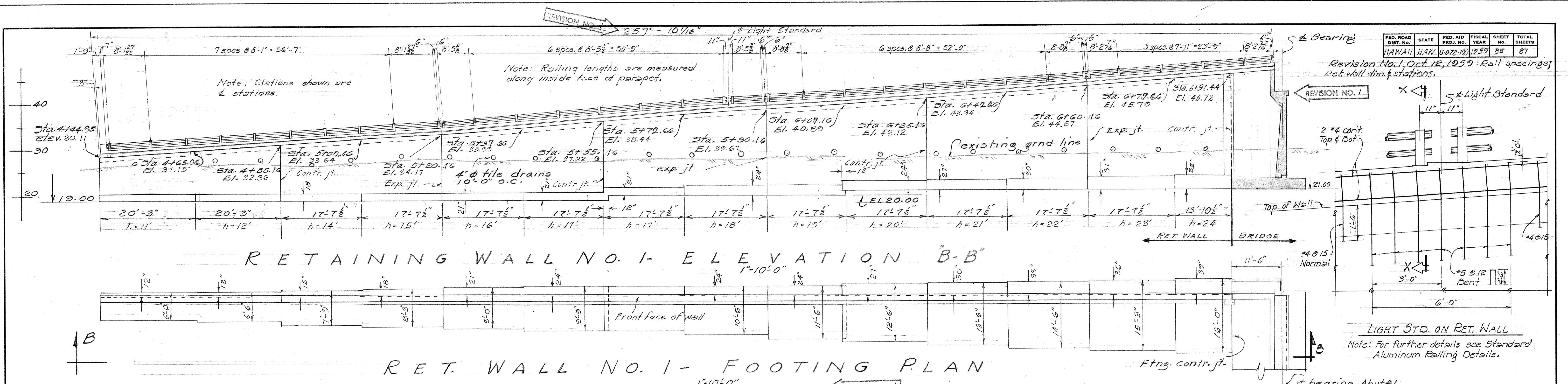
Note: Panel lengths for ret. walls are measured along front face of ret. wall.

HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII
KEEAUMOKU SEPARATION
Sta. 7+00.03 to Sta. 10+91.69
LUNALILO FREEWAY PROJ. U-072-1 (3)
Feb. 1959

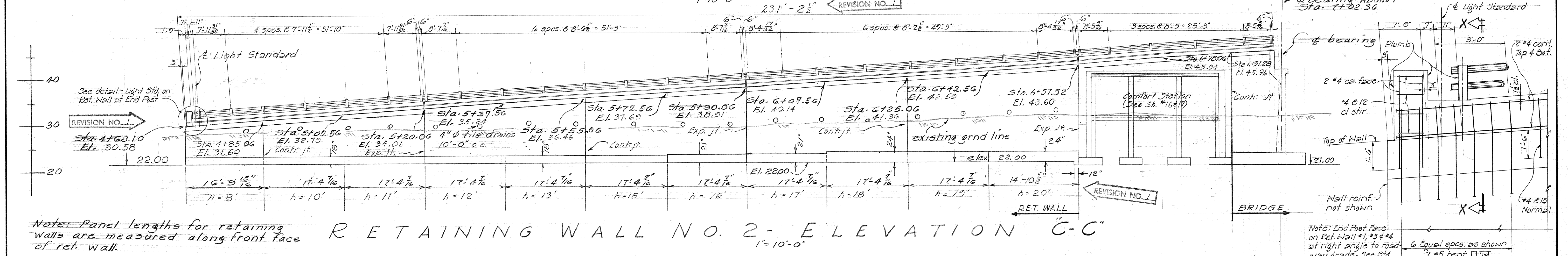
DATE	9/53
DESIGNED BY	W. E. Chisholm
DRAWN BY	W. E. Chisholm
CHECKED BY	W. E. Chisholm
NOTE BOOK NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-10	1959	85	87

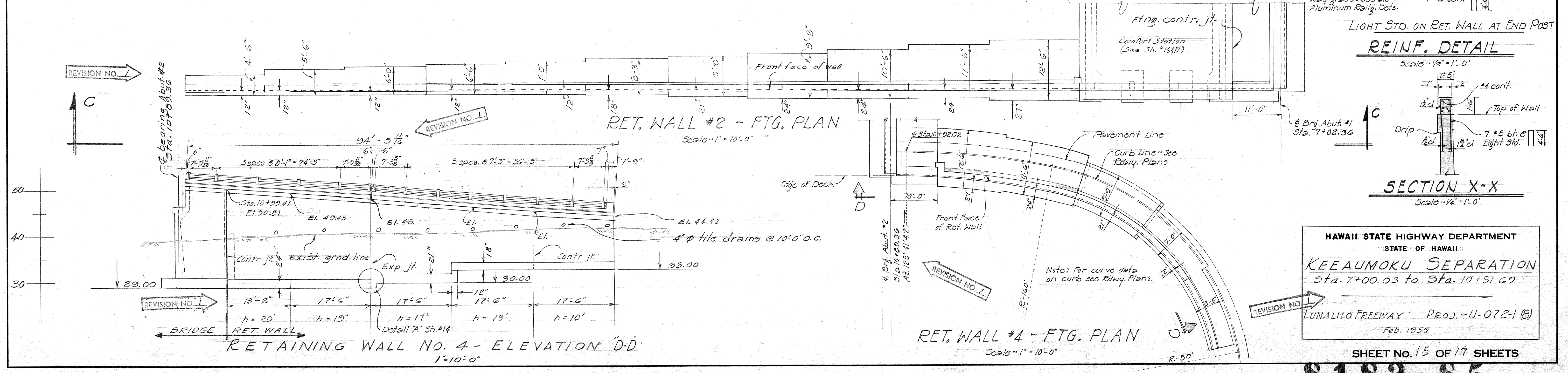
Revision No. 1, Oct. 12, 1959: Rail spacings, Ret. Wall dim. & stations.



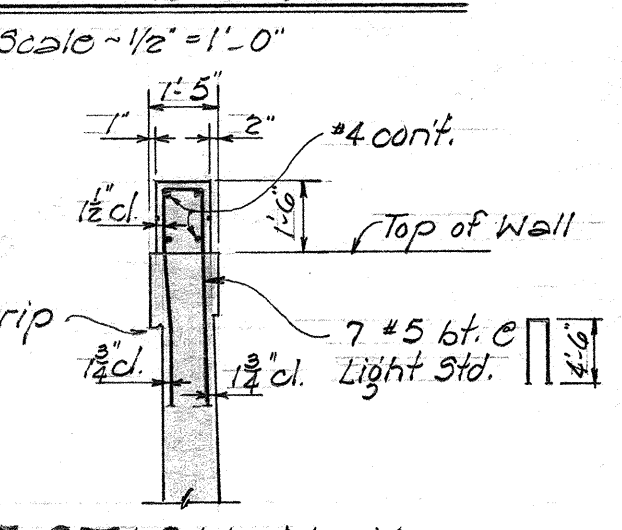
LIGHT STD. ON RET. WALL
Note: For further details see Standard Aluminum Railing Details.



RETAINING WALL NO. 2 - ELEVATION C-C



REINF. DETAIL



SECTION X-X

Scale 1/4"=1'-0"

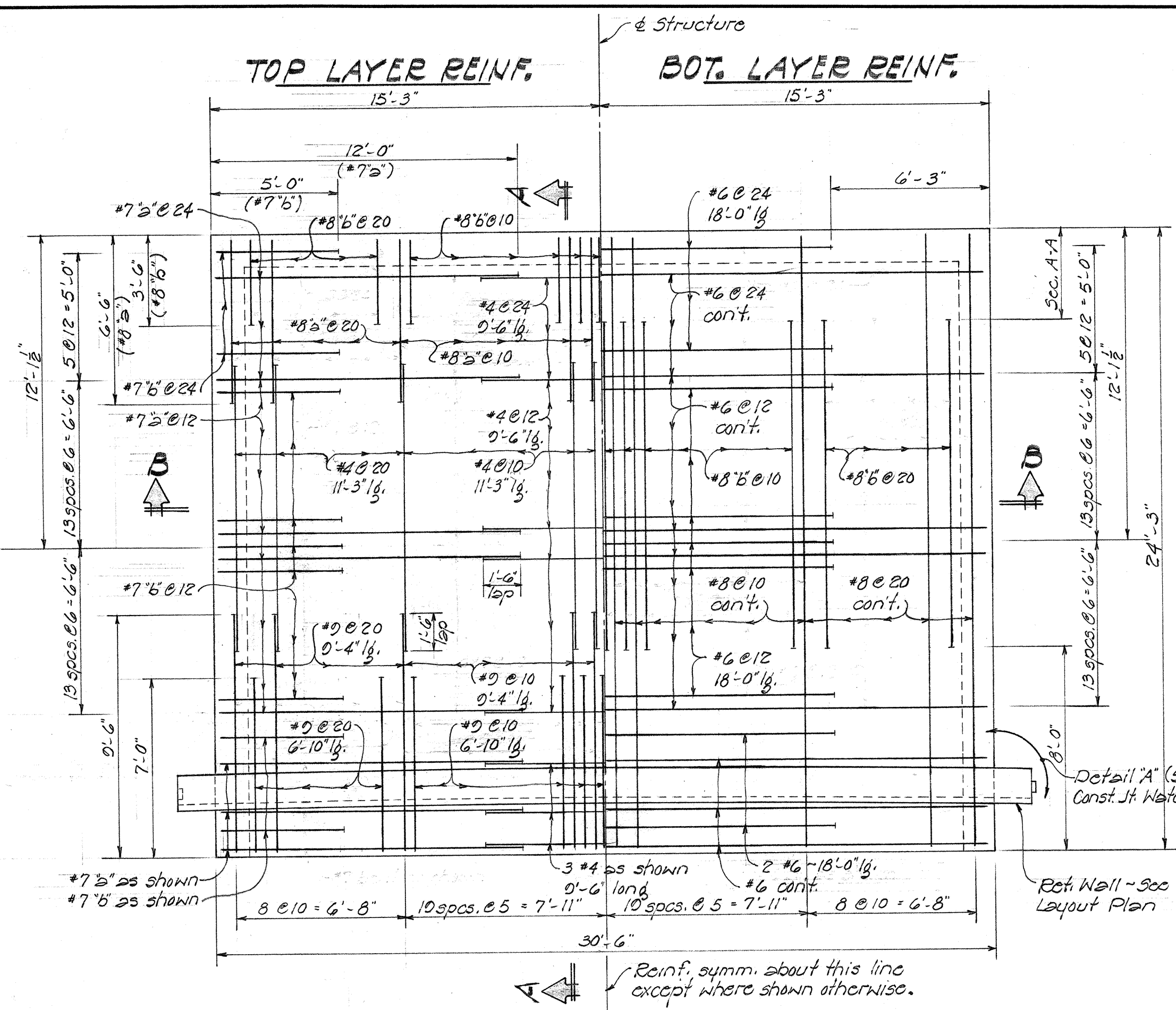
HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII
KEEAUMOKU SEPARATION
Sta. 7+00.03 to Sta. 10+91.67
LUNALILO FREEWAY PROJ. - U-072-1 (B)
Feb. 1959

SHEET No. 15 OF 17 SHEETS

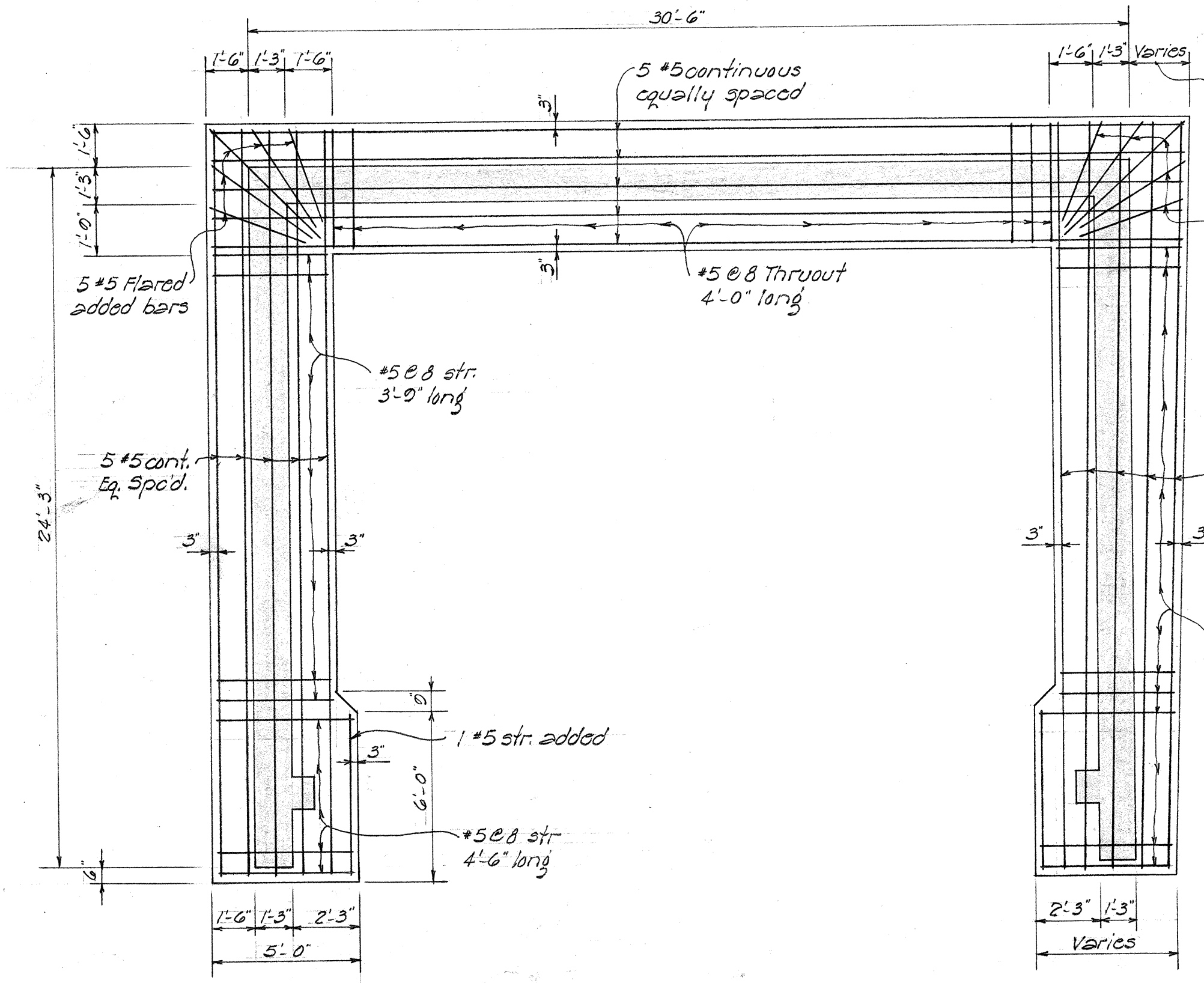
\$183.85

SURVEY PLOTTED BY	DATE
DESIGNED BY	9/1/59
DRAWN BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

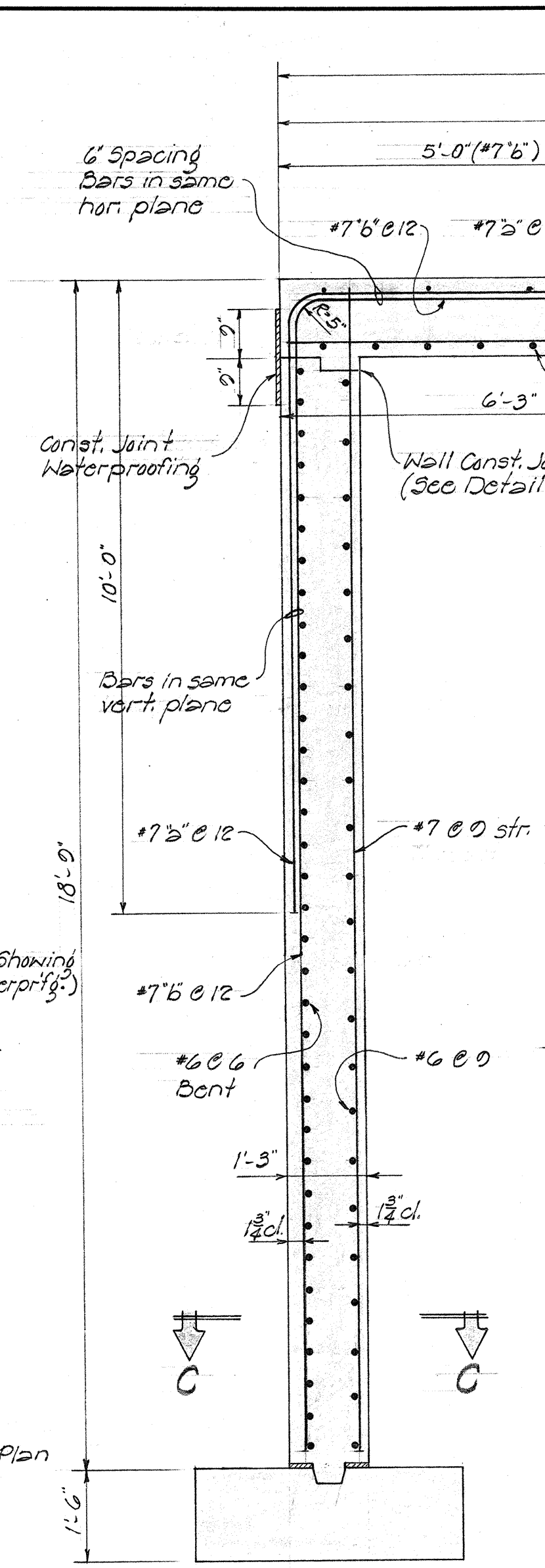
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-1(8)	1959	87	87



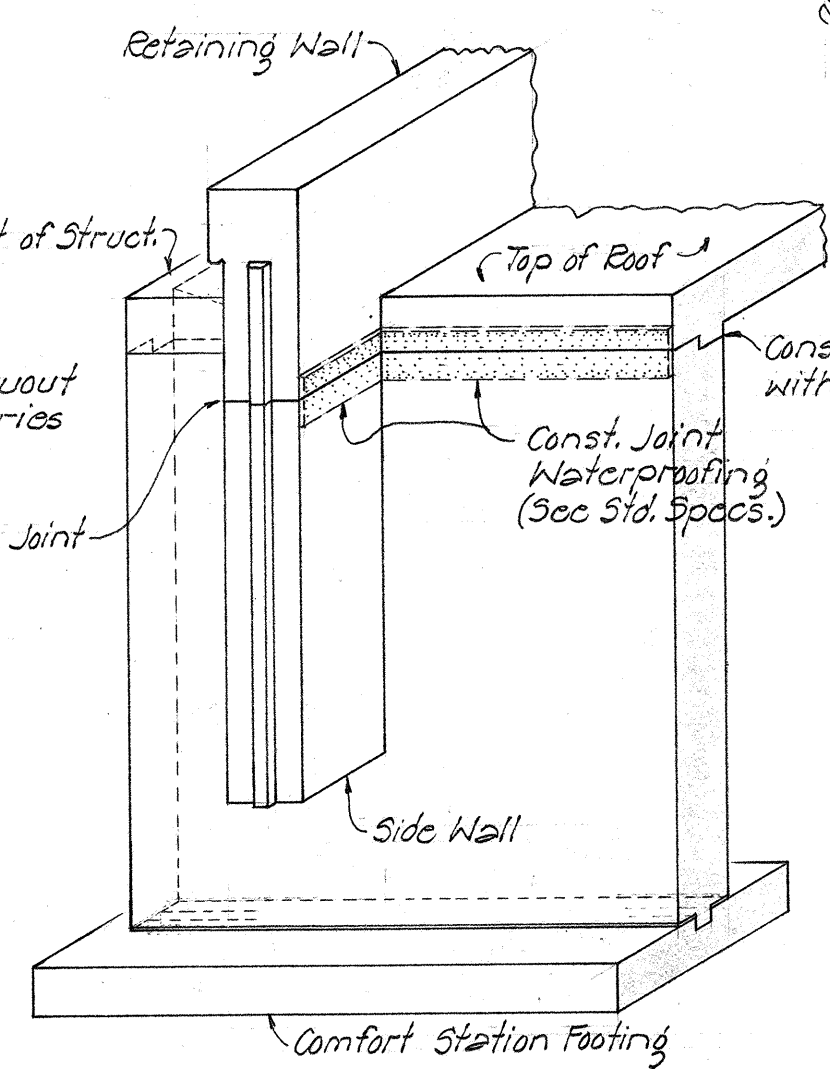
ROOF REINF. PLAN
Scale - 1/4" = 1'-0"



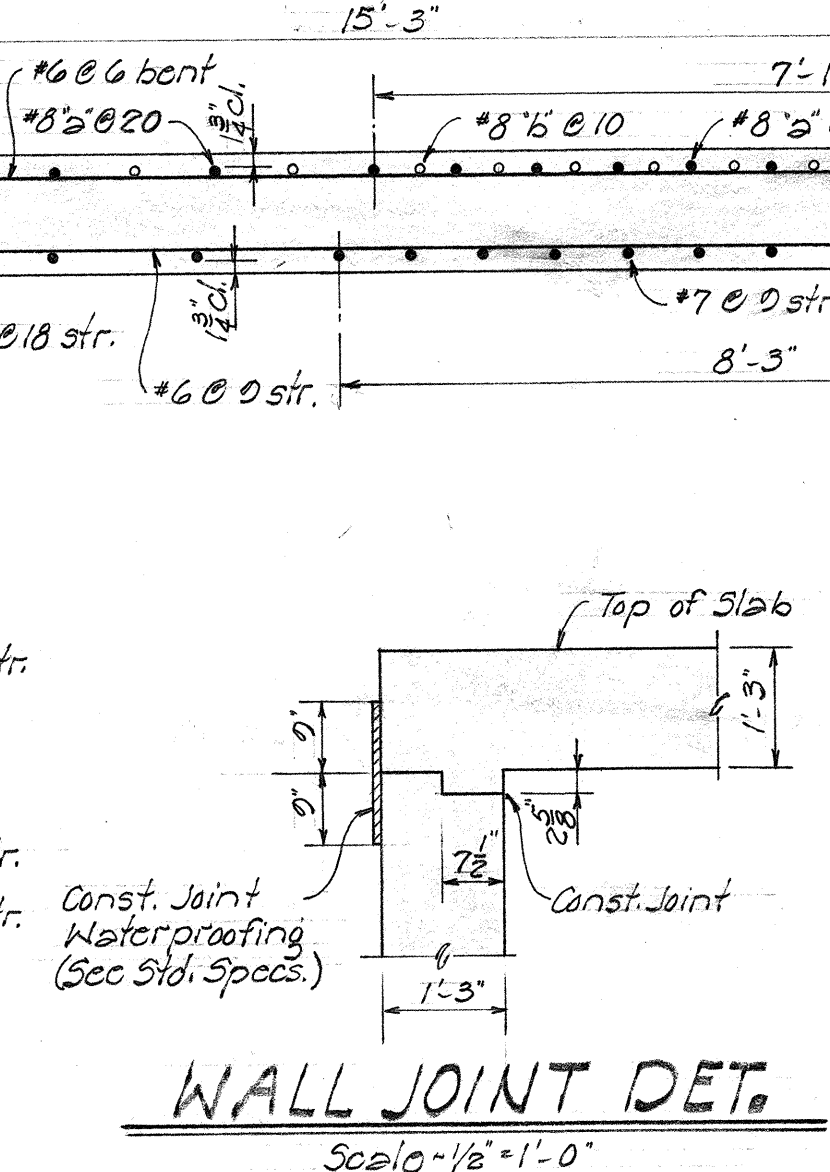
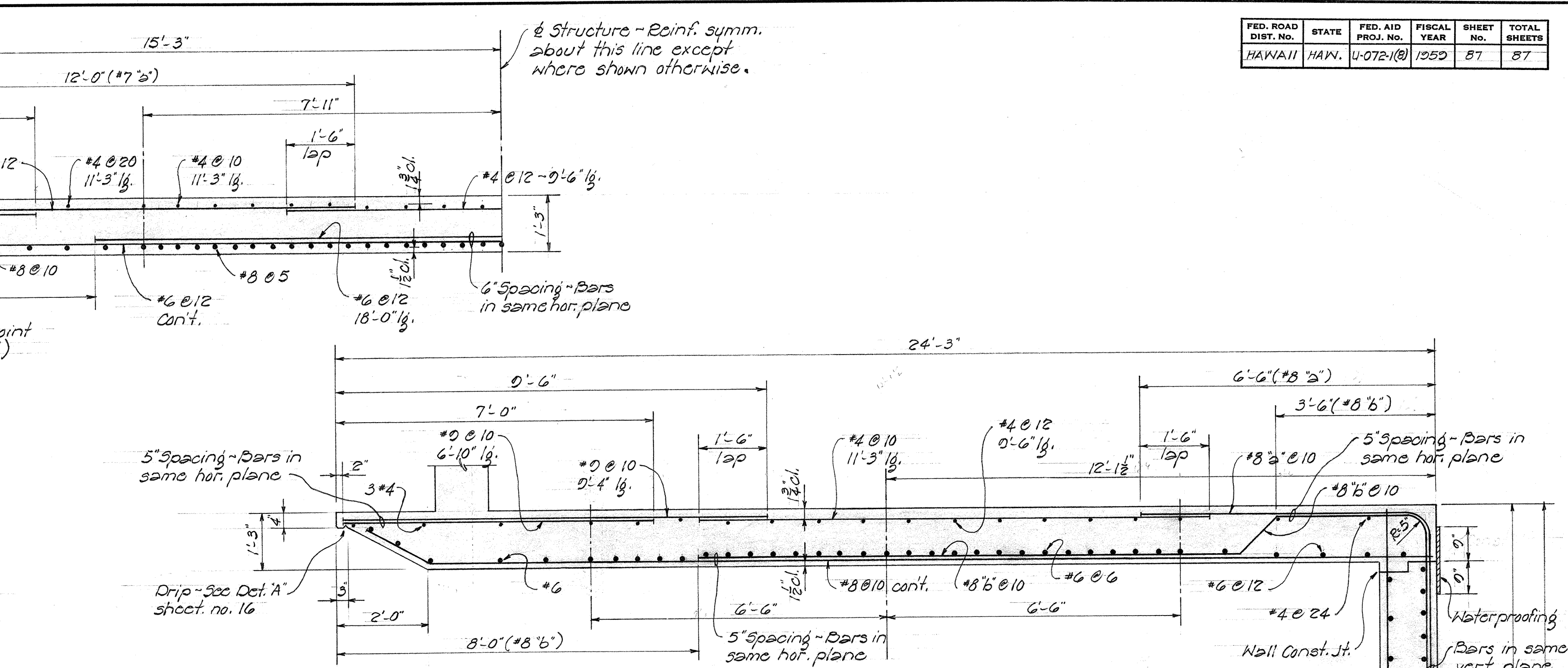
WALL FTG. REINF. PLAN
Scale - 1/4" = 1'-0"



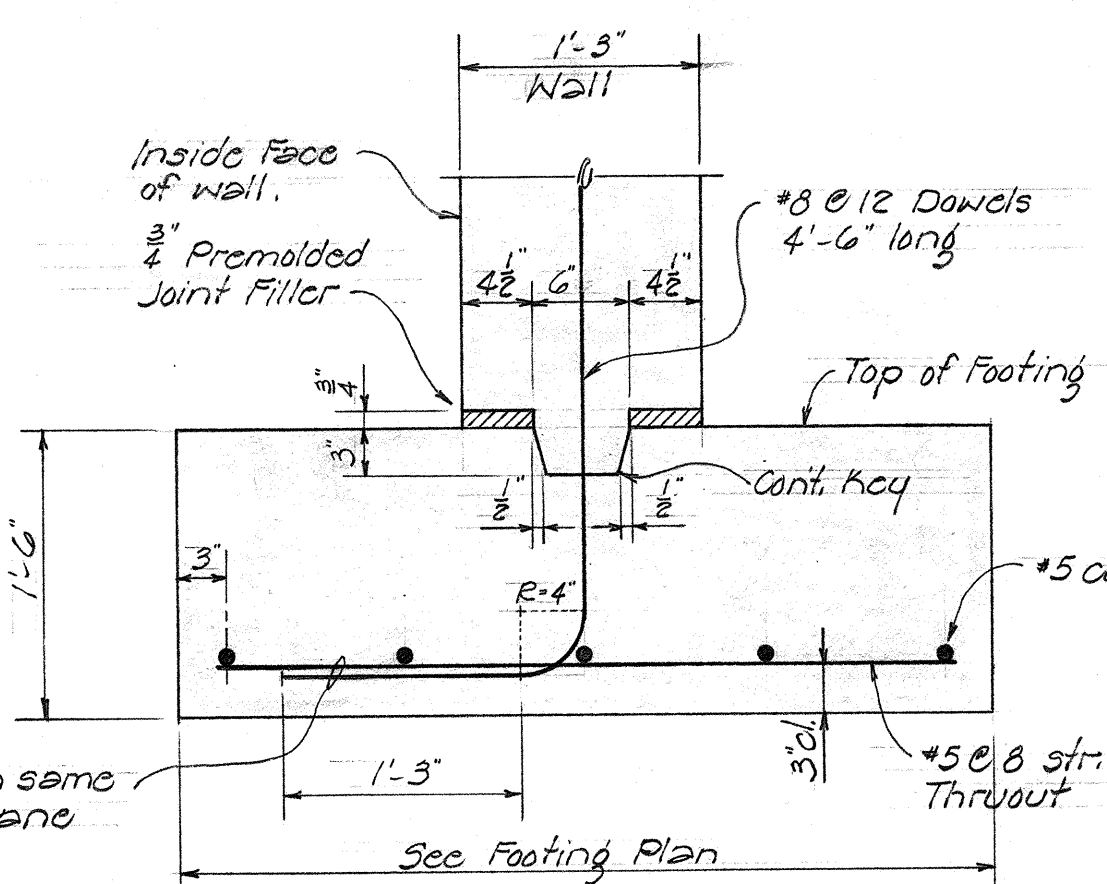
SECTION B-B
Scale - 1/2" = 1'-0"



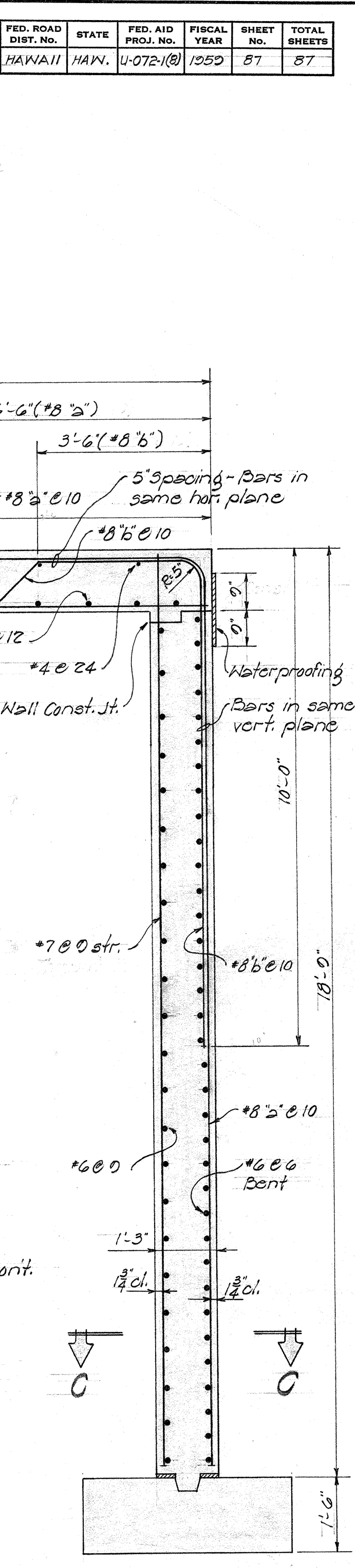
DETAIL 'A'
Not to Scale



WALL JOINT DET.
Scale - 1/2" = 1'-0"



TYP. FOOTING SECTION
Scale - 1" = 1'-0"



SECTION A-A
Scale - 1/2" = 1'-0"

HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII
KEEAUMOKU SEPARATION
Sta. 6+00.58 to Sta. 10+01.10
LUNAULO FREEWAY Proj. No. U-072-1(8)
February 1959

SURVEY PLOTTED BY	DATE
DESIGNED BY	
PLAN CHECKED BY	
QUANTITIES CHECKED BY	
NOTE BOOK NO.	