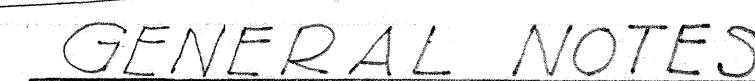


Revised: Aug. 9, 1955
Nov. 1, 1955



Scale ~ 1" = 10'-0"

at Pier #1
Sta. 23+01.5

± Bearing Abut #2
Sta 23+82.75 ±

MATERIALS

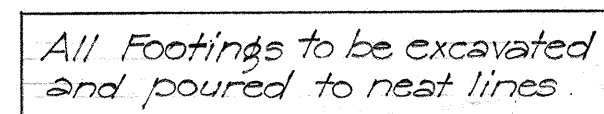
Concrete: All concrete shall be Class "A-1."

Structural Steel: Structural Steel shall be Structural Carbon Steel A.S.T.M. Designation A7 except that steel in webs and flanges of plate girders shall be Structural Steel for welding A.S.T.M. Designation A373-54T.

CONSTRUCTION METHODS

- a. Welding: See Special provisions.
Surface within 2 inches of any weld location shall be free of any paint or other material that would prevent proper welding or produce objectionable fumes while welding.
- b. Backfill of abutments:
Backfill at abutments shall be complete in place prior to placing of superstructure.
- c. Dampproofing:
Dampproofing in accordance with Sec. 66 of Standard Specifications is not required.
- d. Concrete finish:
All surface of railings, railing posts, end posts, and face of curbs shall have class 2 Rubbed Finish.
- e. Painting of Structural Steel:
See Special provisions.
- f. Joint Seal:
See Special provisions.
- g. Sidewalk Pour:
Deck formwork under sidewalk shall be released prior to sidewalk pour.

CONCRETE	LUMP SUM
REINF. STEEL	LUMP SUM
STRUCTURAL STEEL	LUMP SUM
STRUCTURAL EXC.	1,670 cu. yds
CEMENT RUBBLE MASONRY	2.0 cu. yds
AC. PAVING	44.0 Tons
BITUMINOUS TACK COAT	125.0 gals.
FILTER MATERIAL	48.0 cu. yds



Scale: 1"=10'-0"

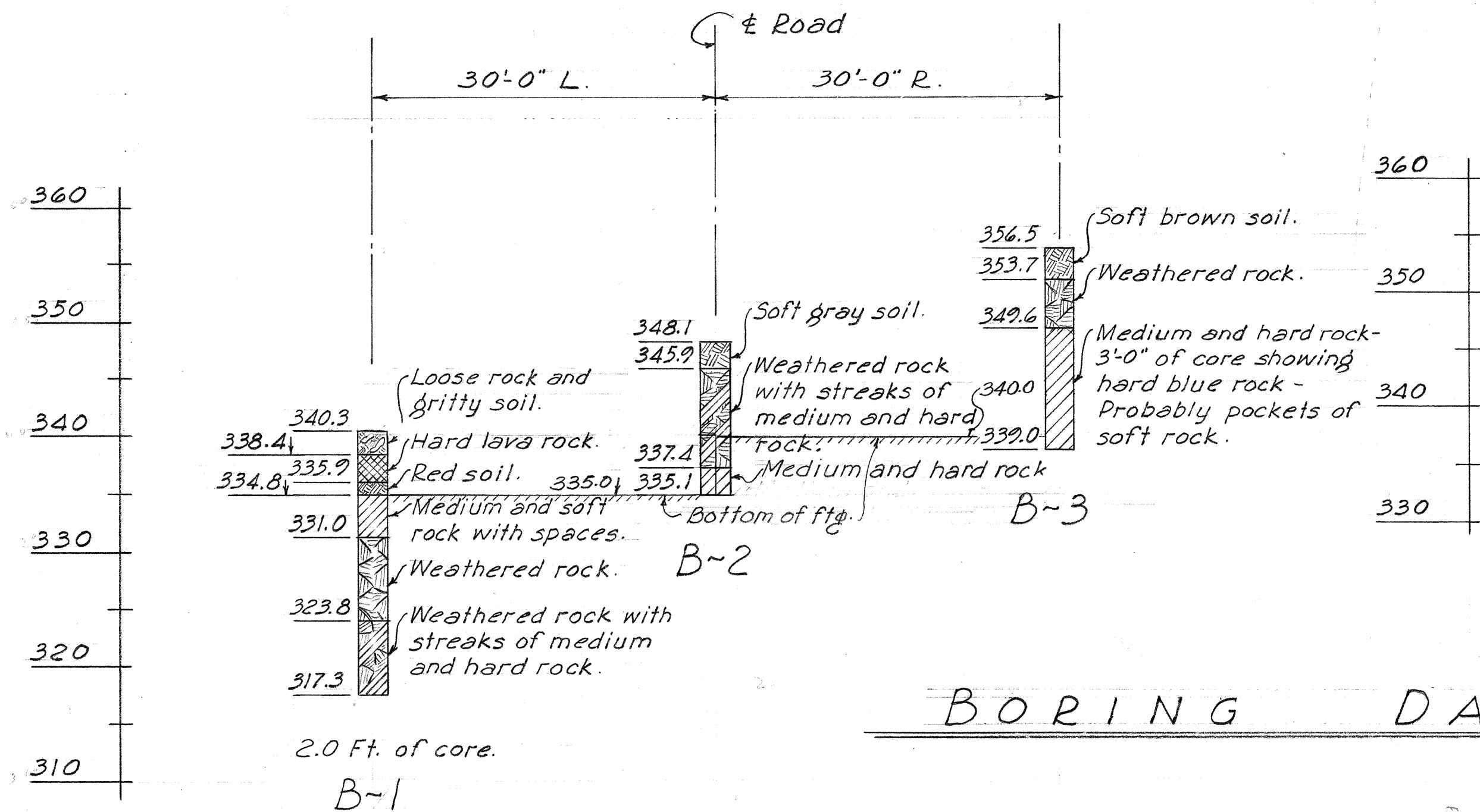
KUWAIKAI BRIDGE
Sta. 21+92.46 to Sta. 23+86.52

HAWAII BELT RD. PROJ. F-019-2(3)
July 1955

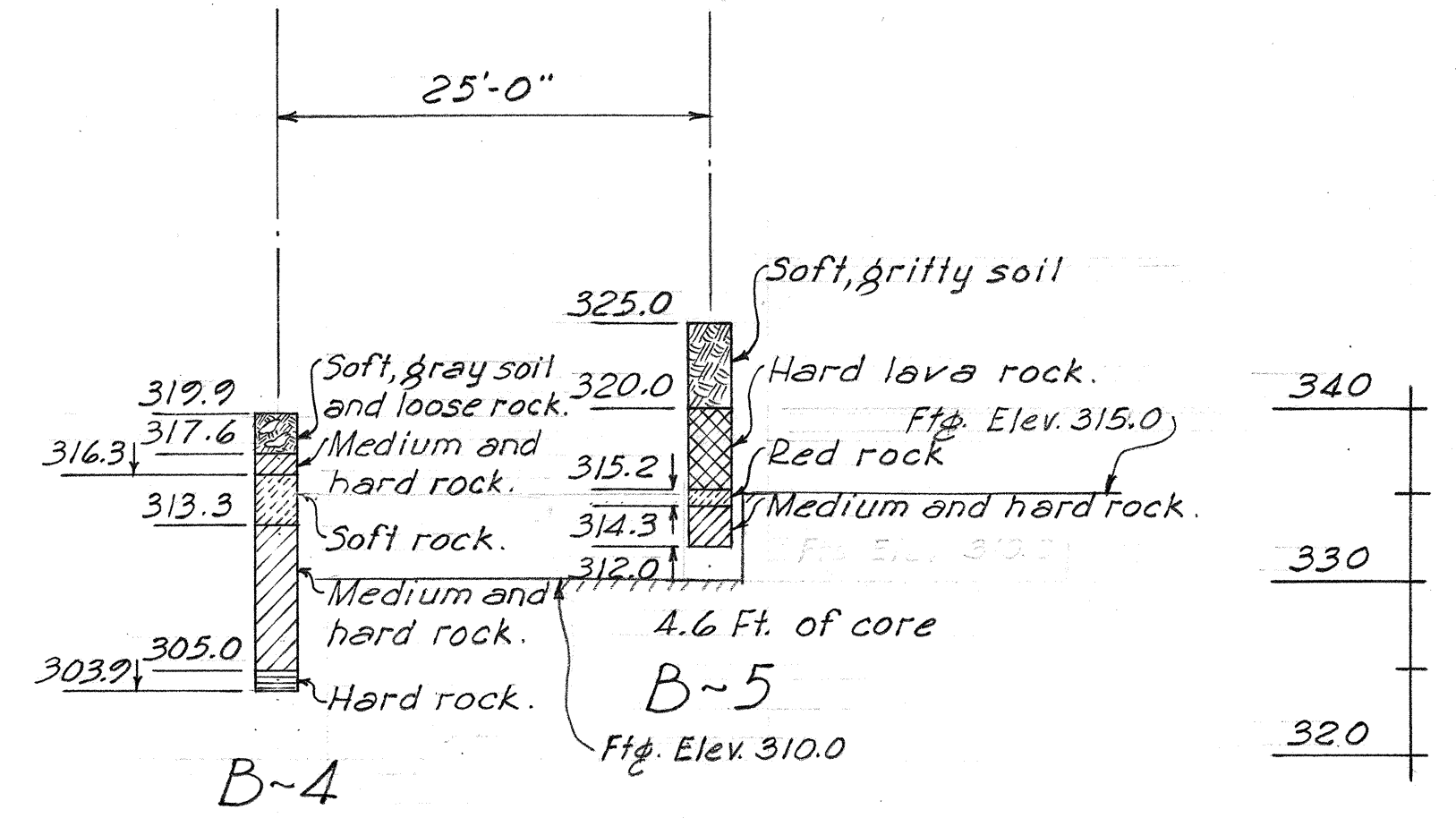
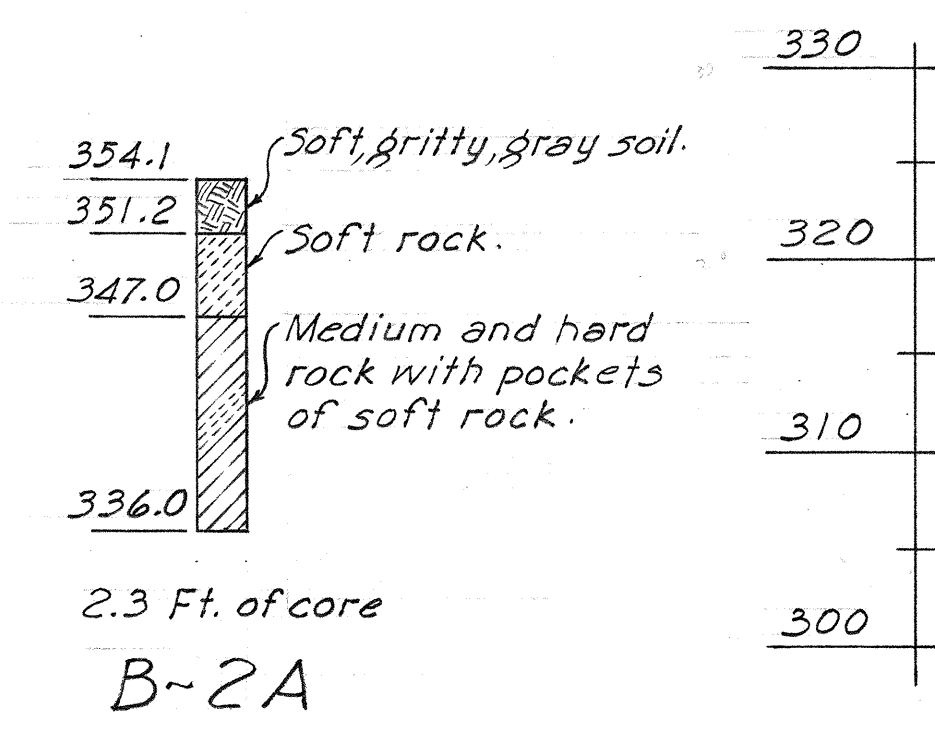
SHEET No. 1 OF 15 SHEETS

5845.24

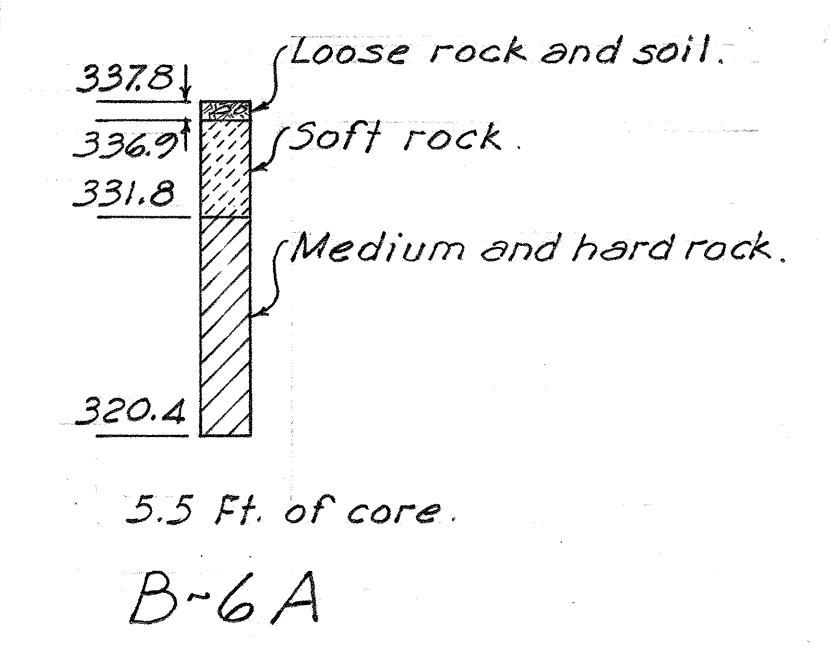
FOR CONTRACT SET ONLY



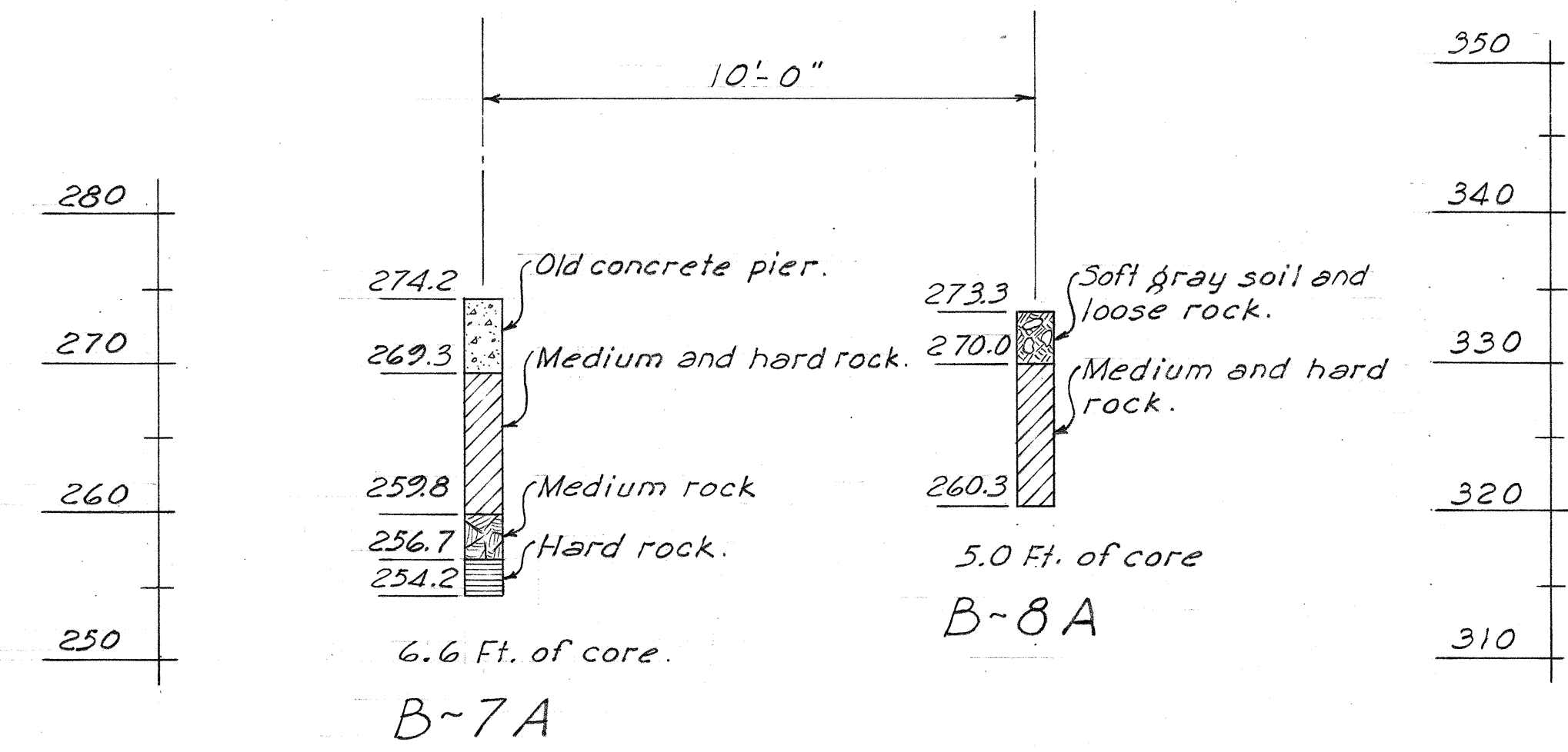
ABUTMENT NO. 1
Vert. & Horiz. Scale = 1" = 10'-0"



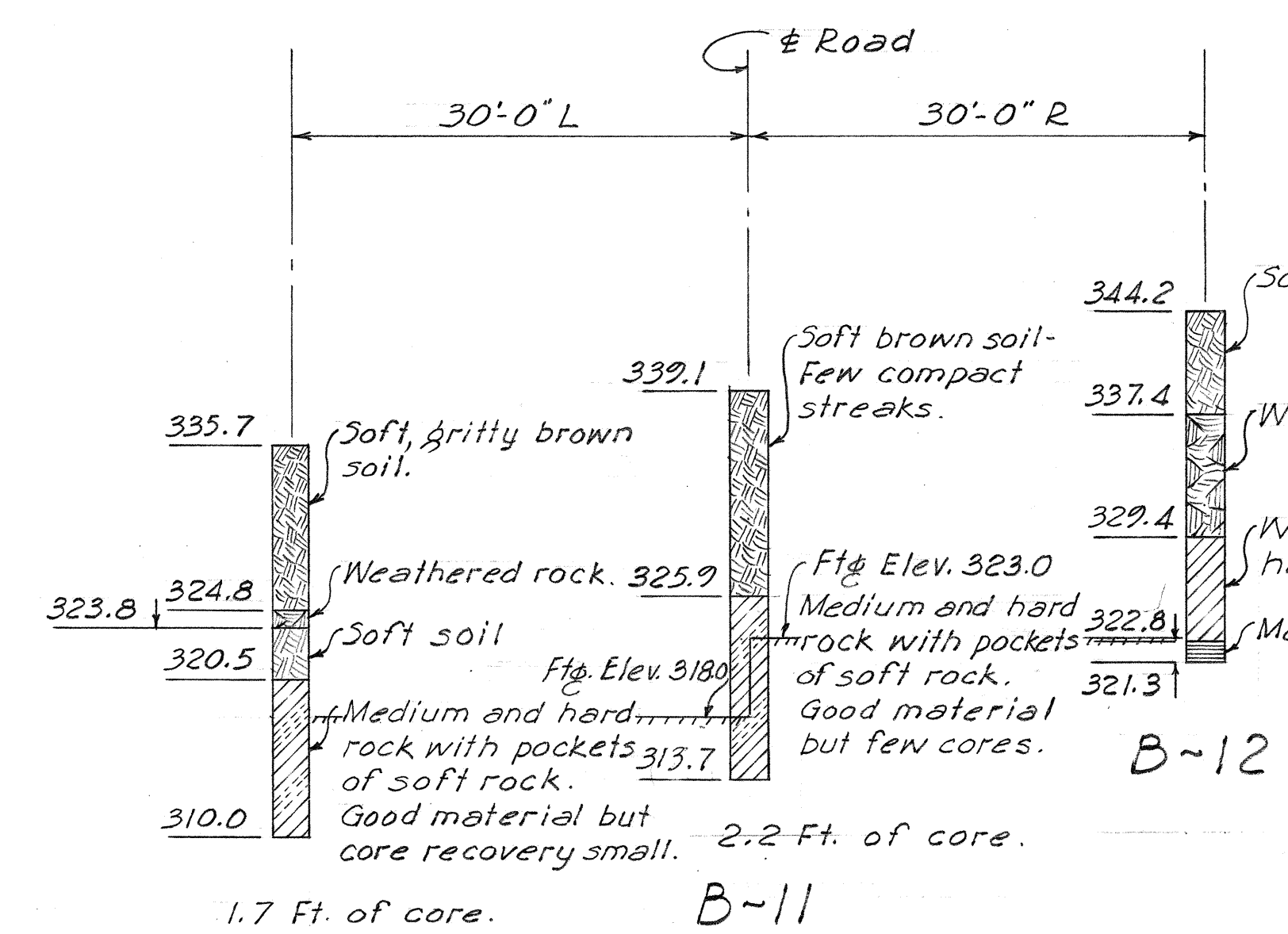
PIER NO. 1
Vert. & Horiz. Scale = 1" = 10'-0"



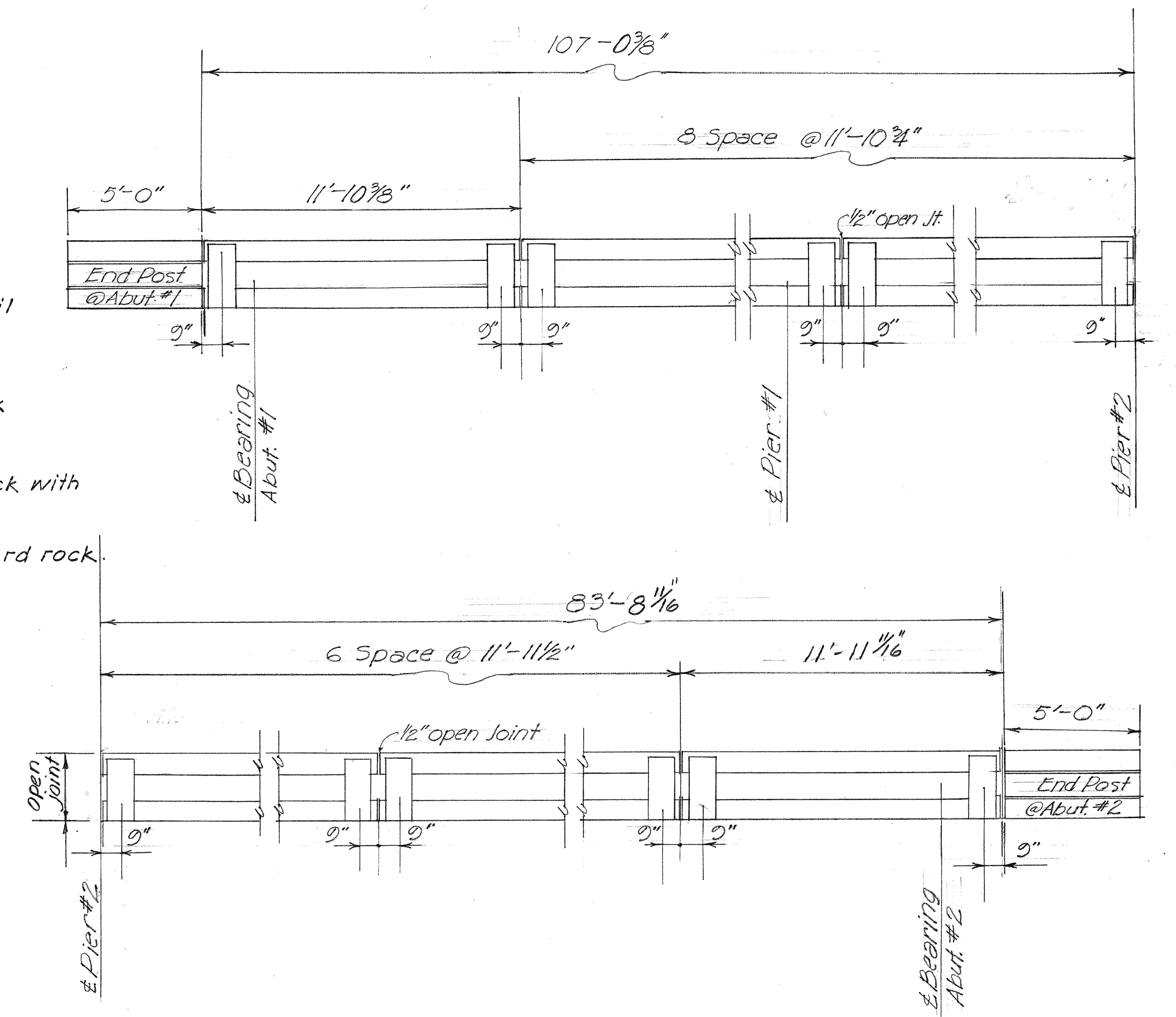
BORING DATA



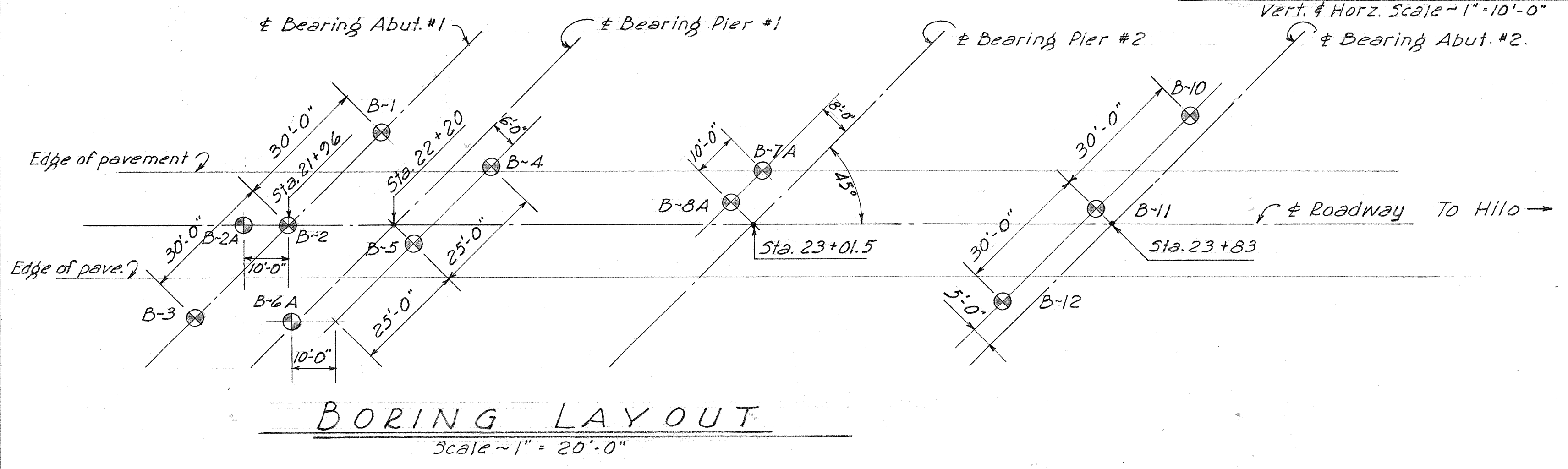
PIER NO. 2
Scale - Vert. 1" = 10'-0" Horiz. 3/8" = 1'-0"



ABUTMENT NO. 2
Vert. & Horiz. Scale = 1" = 10'-0"



Note! For end post, railing, and railing posts details - see Std. Bridge Detail



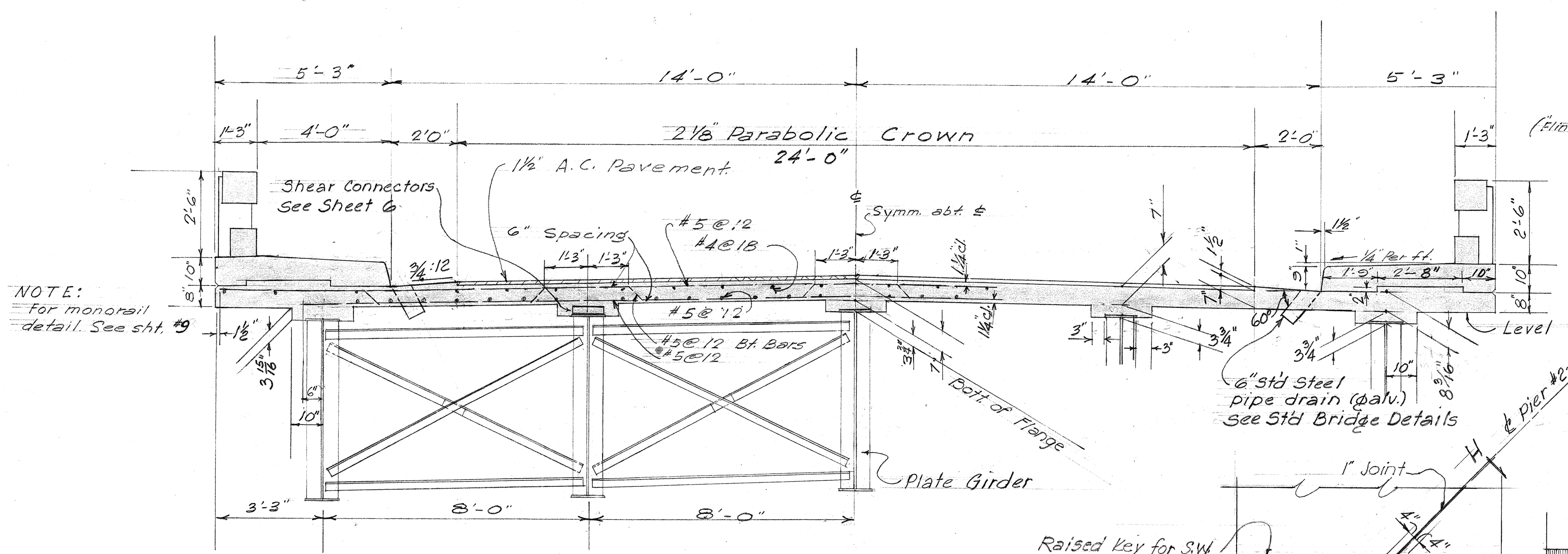
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

KUWAIKAAHI BRIDGE
Sta. 21+92.46 to Sta. 23+86.52

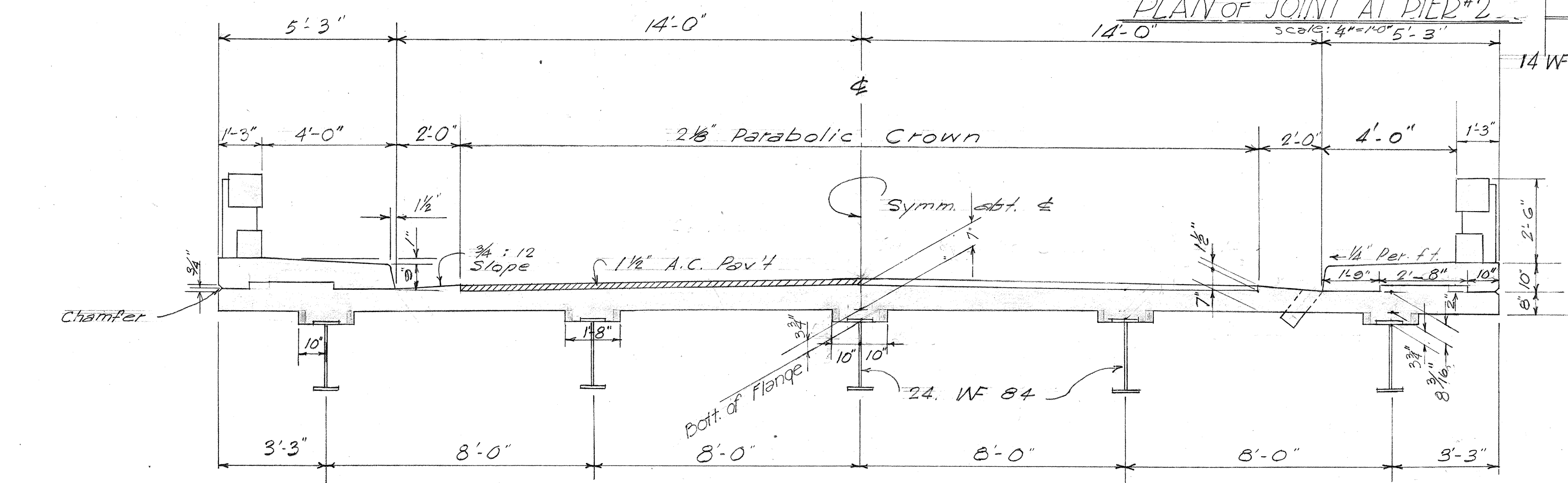
HAWAII BELT RD. Proj. F-019-2 (3)
Aug. 1955

SHEET NO. 2 OF 15 SHEETS

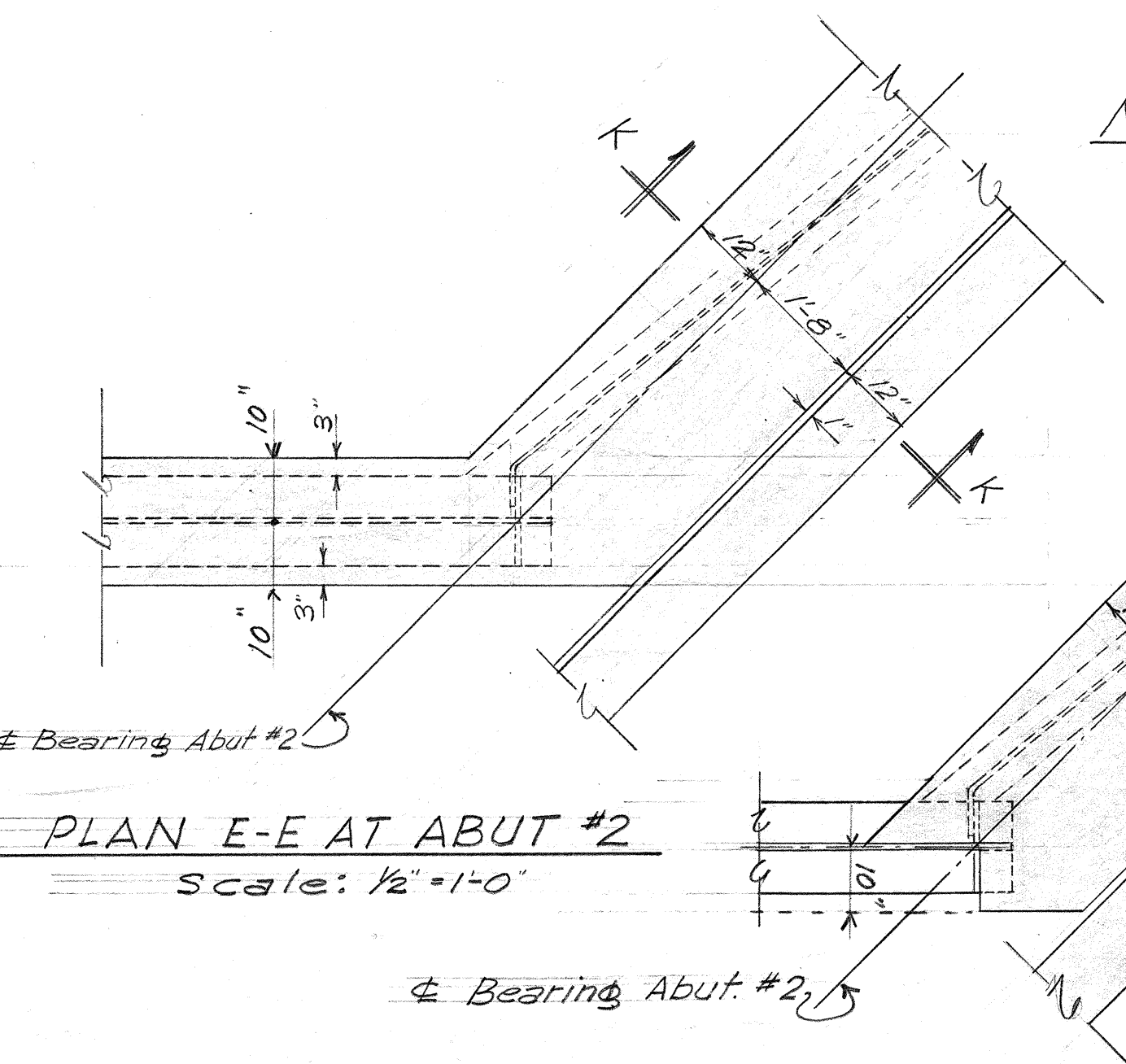
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F019-2(3)	1954	26	45



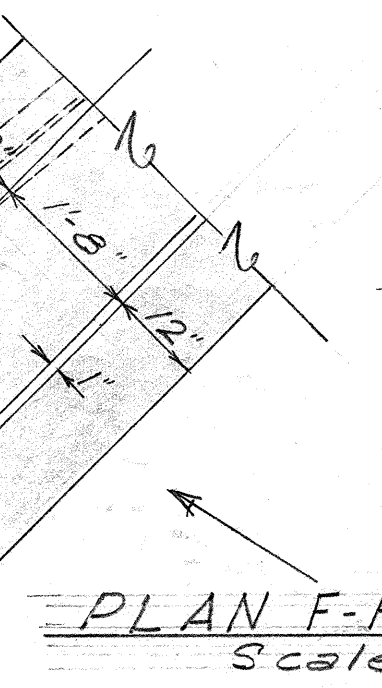
NORMAL SECTION IN SPAN 2 & 3
SCALE: 3/8" = 1'-0"



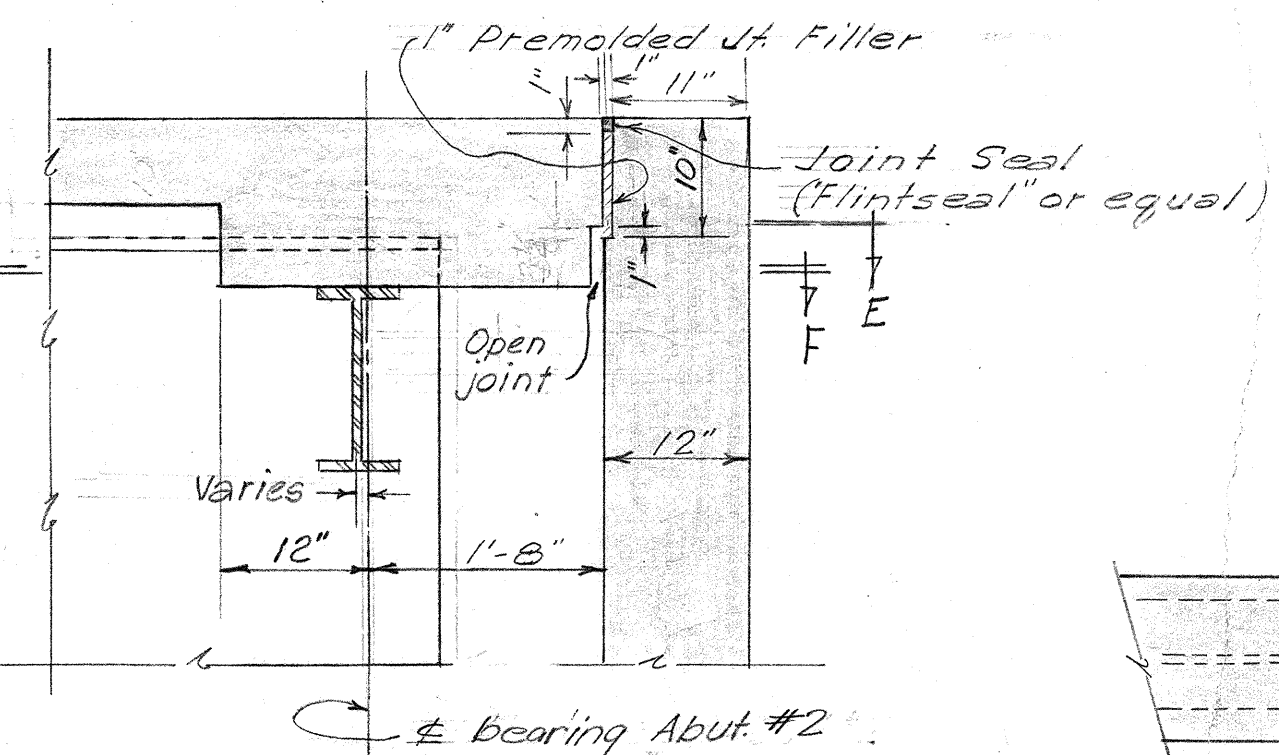
NORMAL SECTION IN SPAN 1
SCALE: 3/8" = 1'-0"



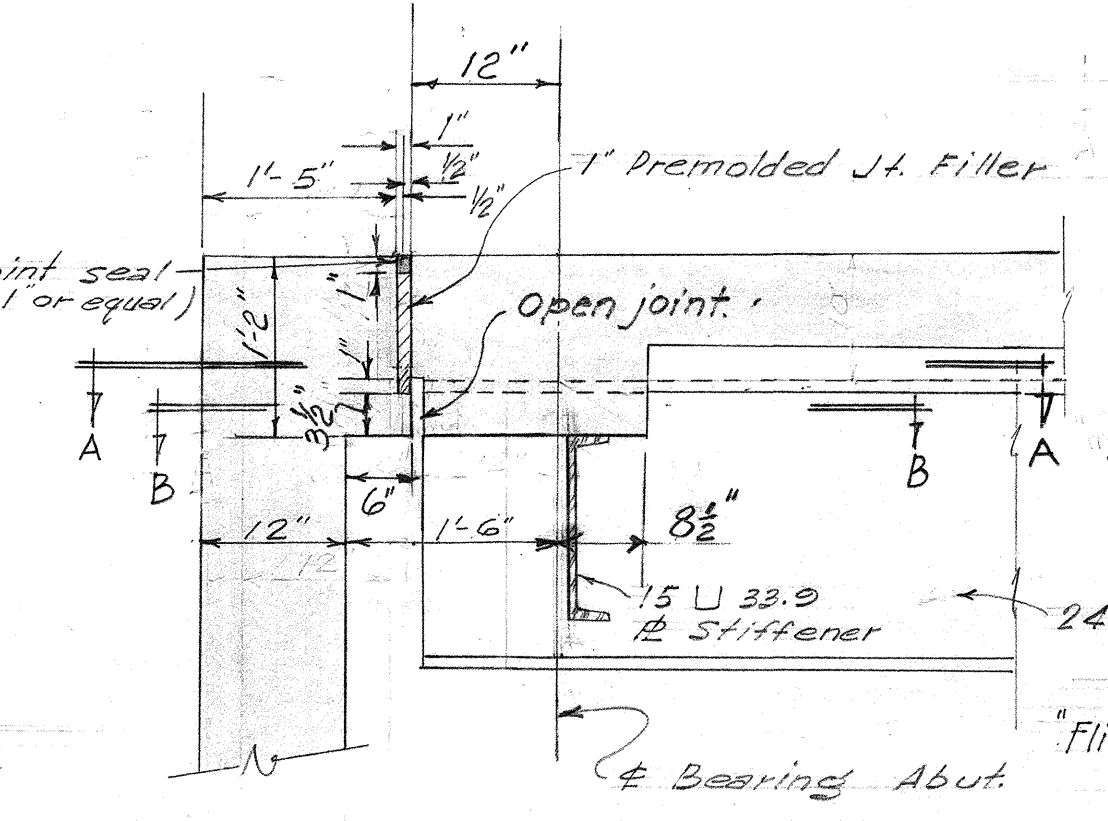
PLAN E-E AT ABUT #2
Scale: 1/2" = 1'-0"



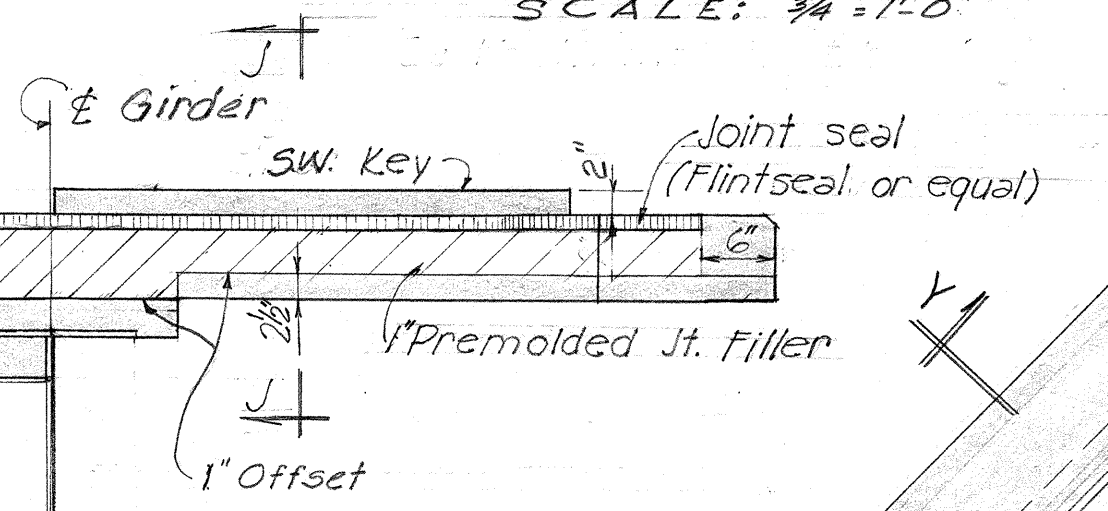
PLAN F-F AT ABUT #2
Scale: 1/2" = 1'-0"



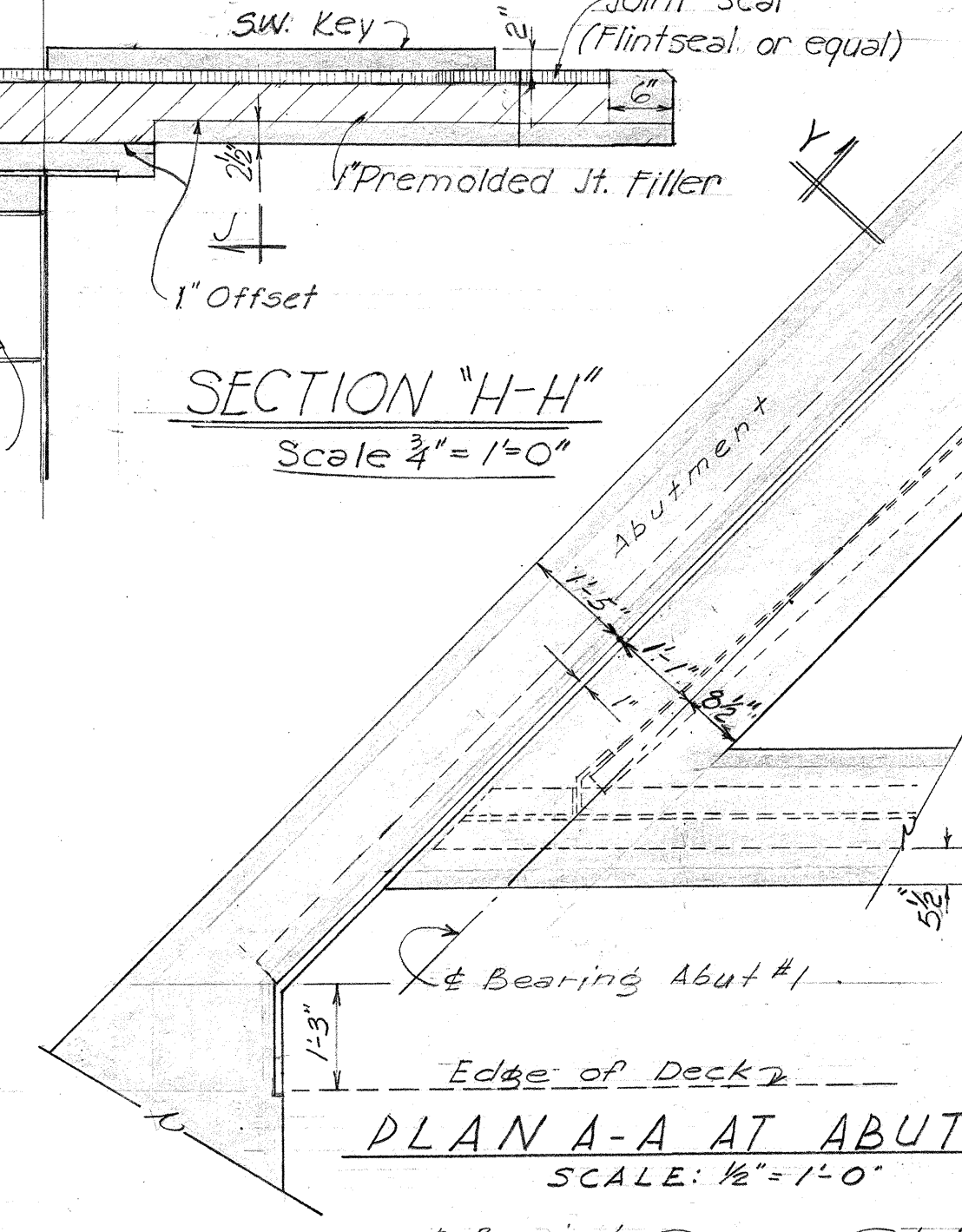
SECTION "KK" (AT ABUT #2)
SCALE: 3/4" = 1'-0"



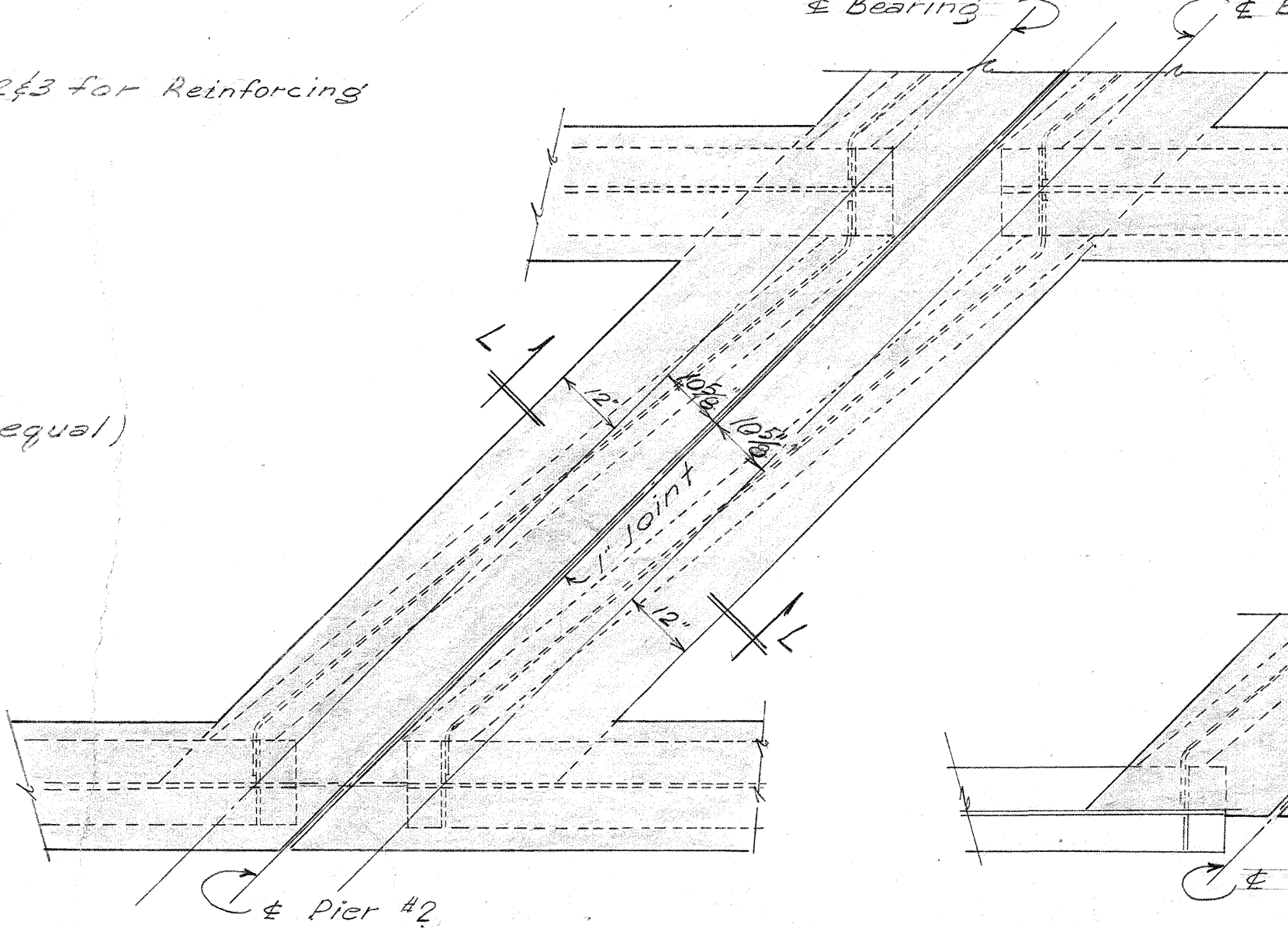
SECTION "YY" (ABUT #1)
SCALE: 3/4" = 1'-0"



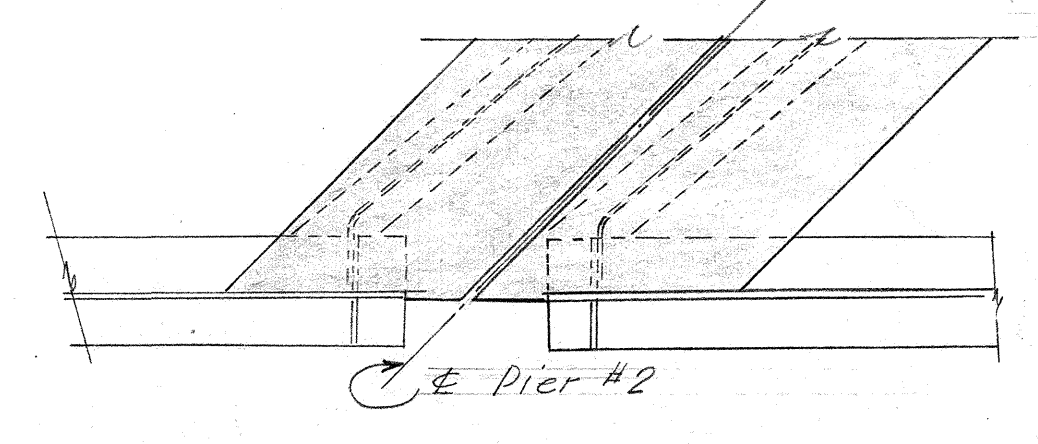
SECTION "H-H"
Scale 3/4" = 1'-0"



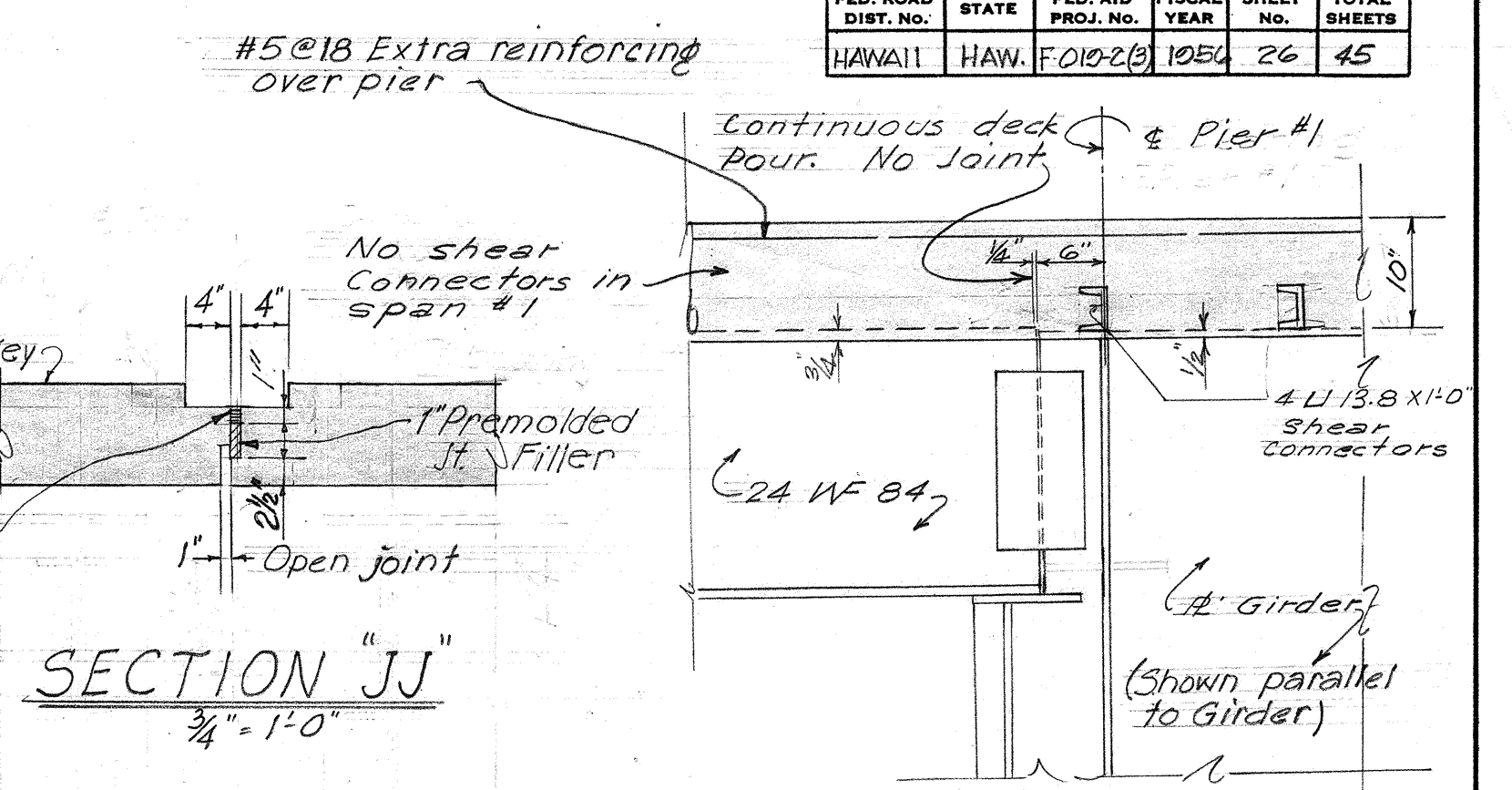
PLAN A-A AT ABUT #1
SCALE: 1/2" = 1'-0"



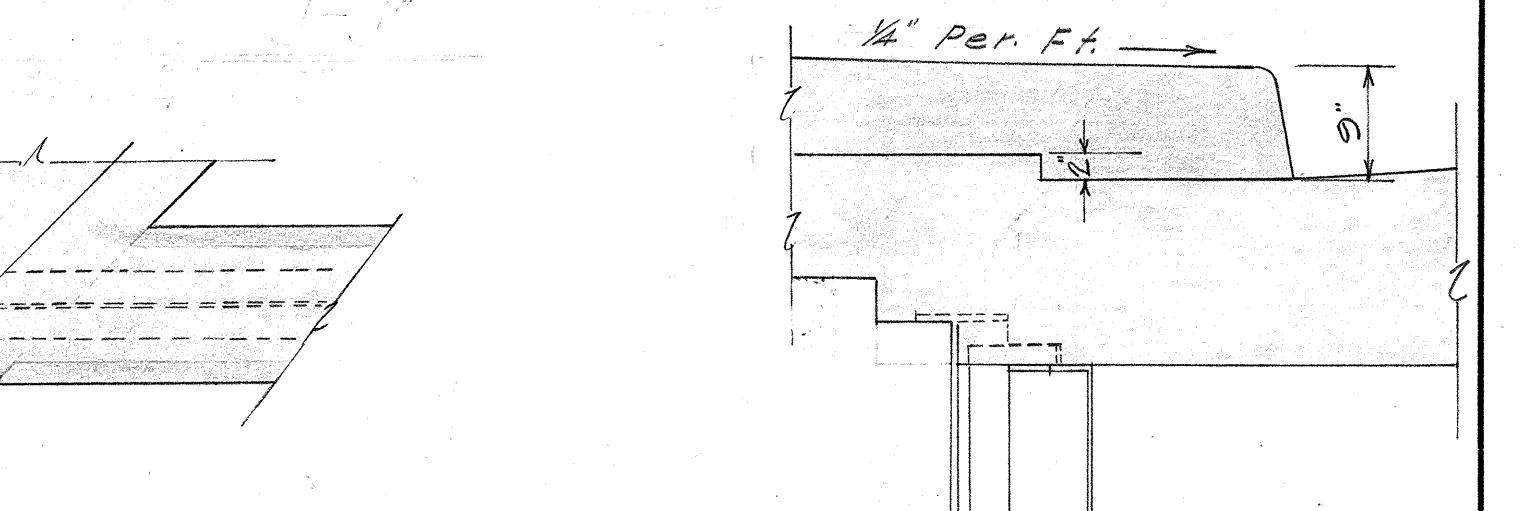
PLAN C-C AT PIER #2
SCALE: 1/2" = 1'-0"



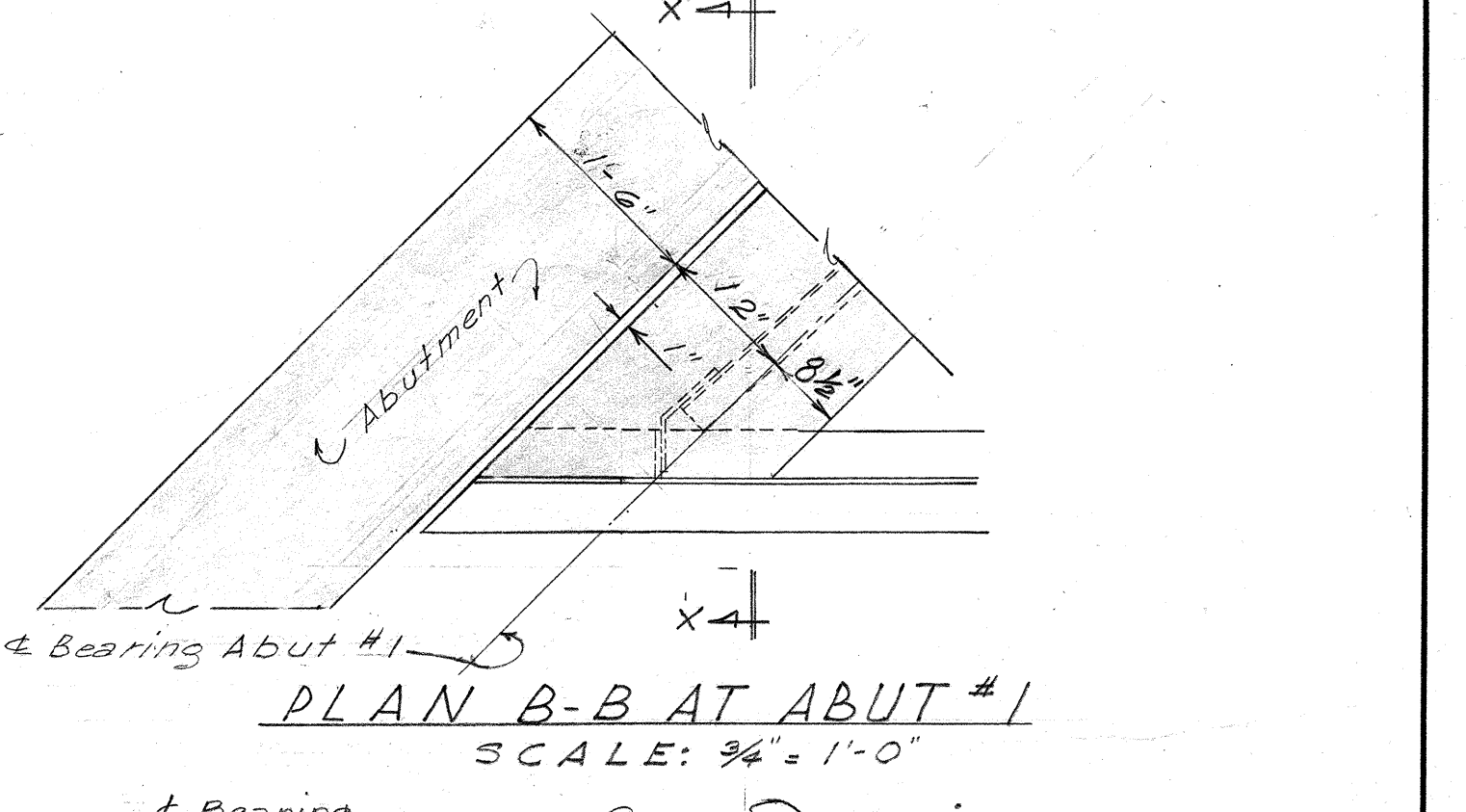
PLAN D-D AT PIER #2
SCALE: 1/2" = 1'-0"



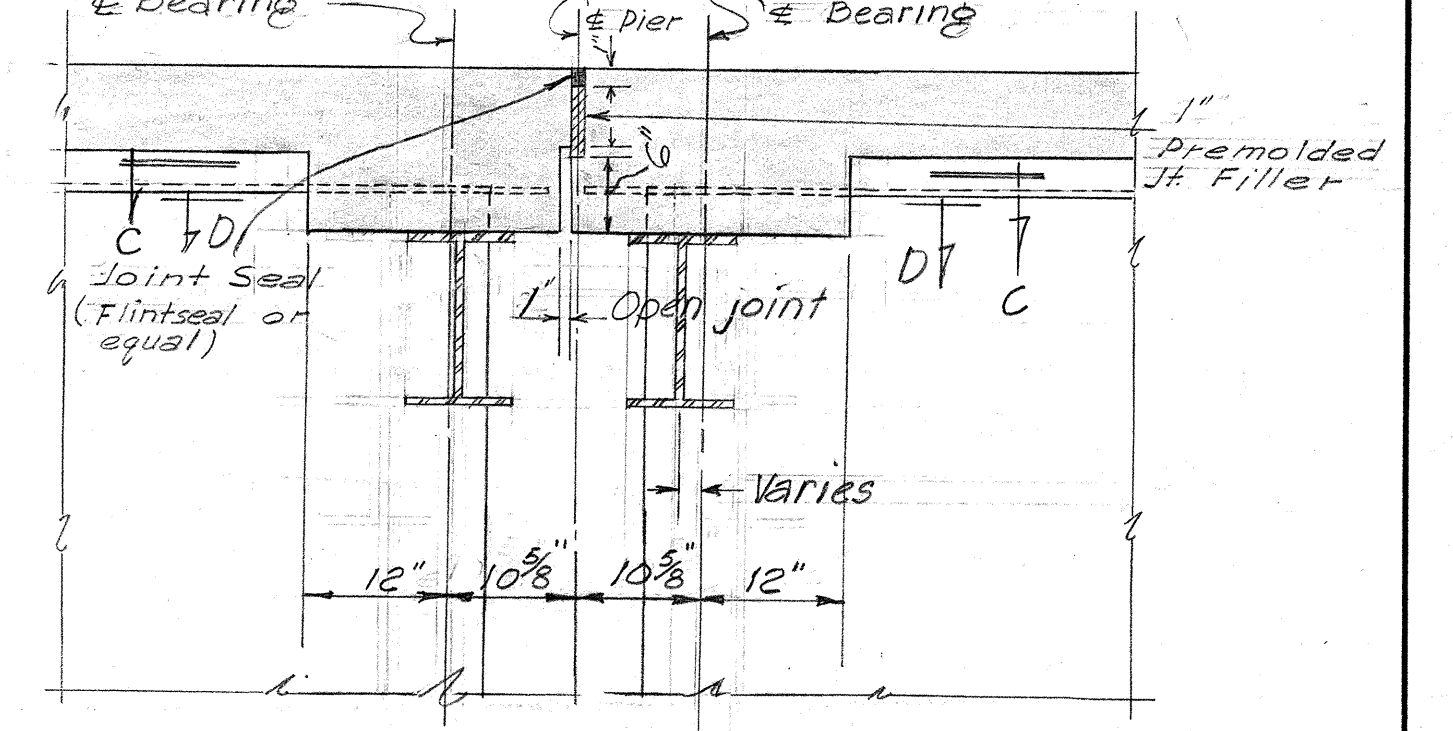
DETAIL AT PIER #1
SCALE: 3/4" = 1'-0"



SECTION X-X
SCALE: 3/4" = 1'-0"



PLAN B-B AT ABUT #1
SCALE: 3/4" = 1'-0"

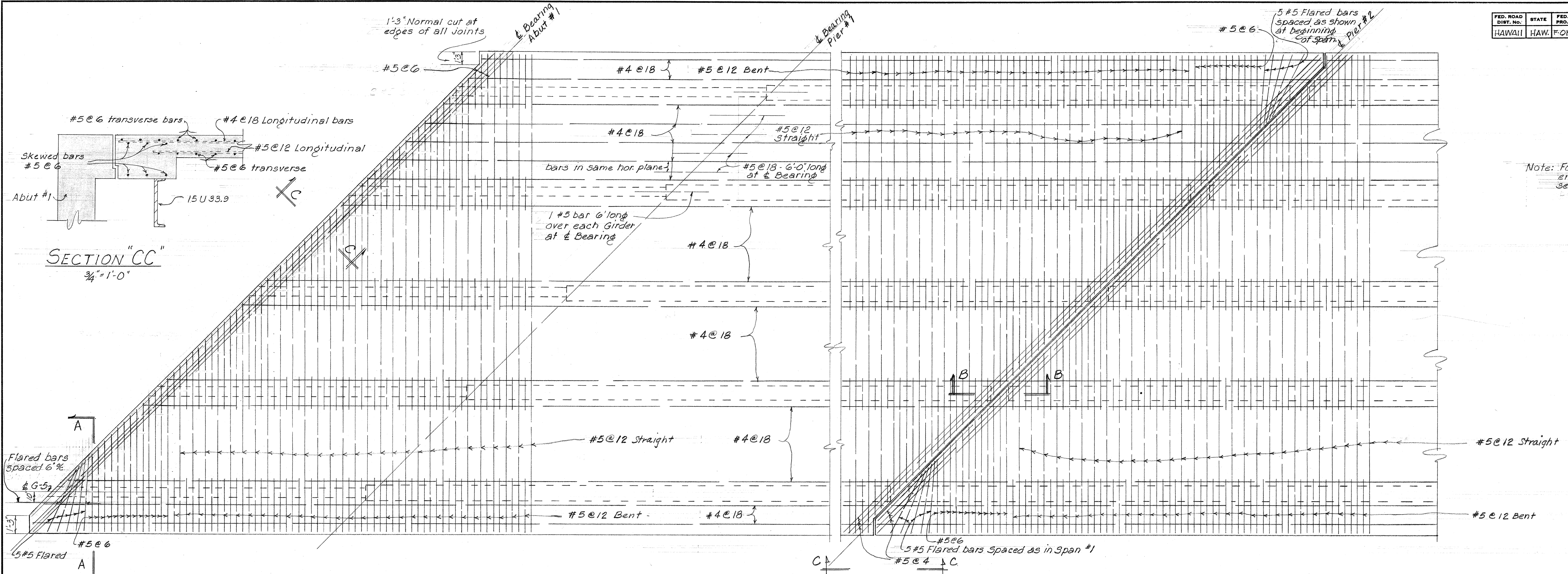


SECTION "LL" (AT PIER #2)
SCALE: 3/4" = 1'-0"

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KUWAIKAHI BRIDGE
Sta. 21+92.46 to Sta. 23+86.52
HAWAII BELT ROAD
F-019-2(3) Nov, 1955

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

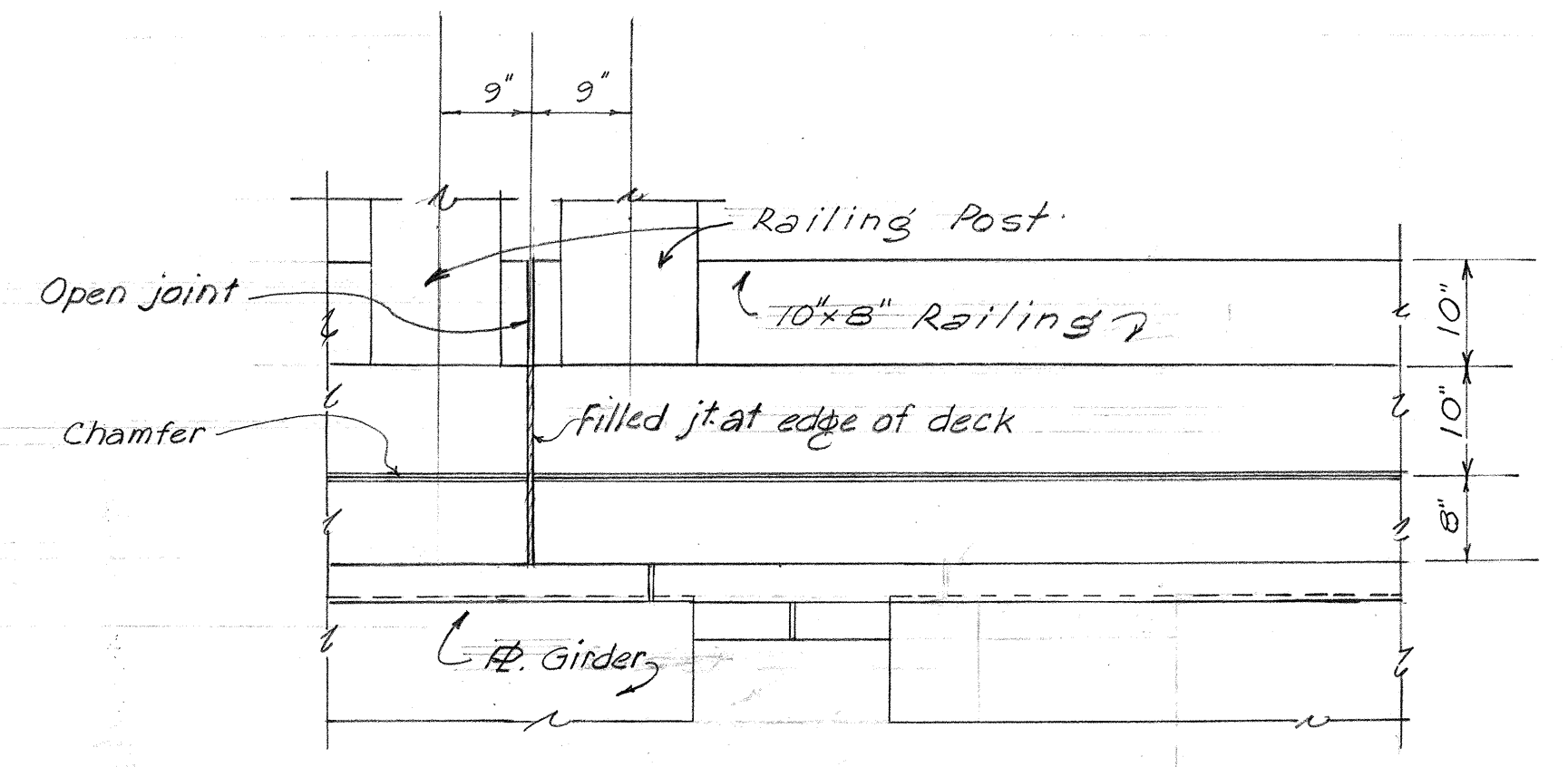
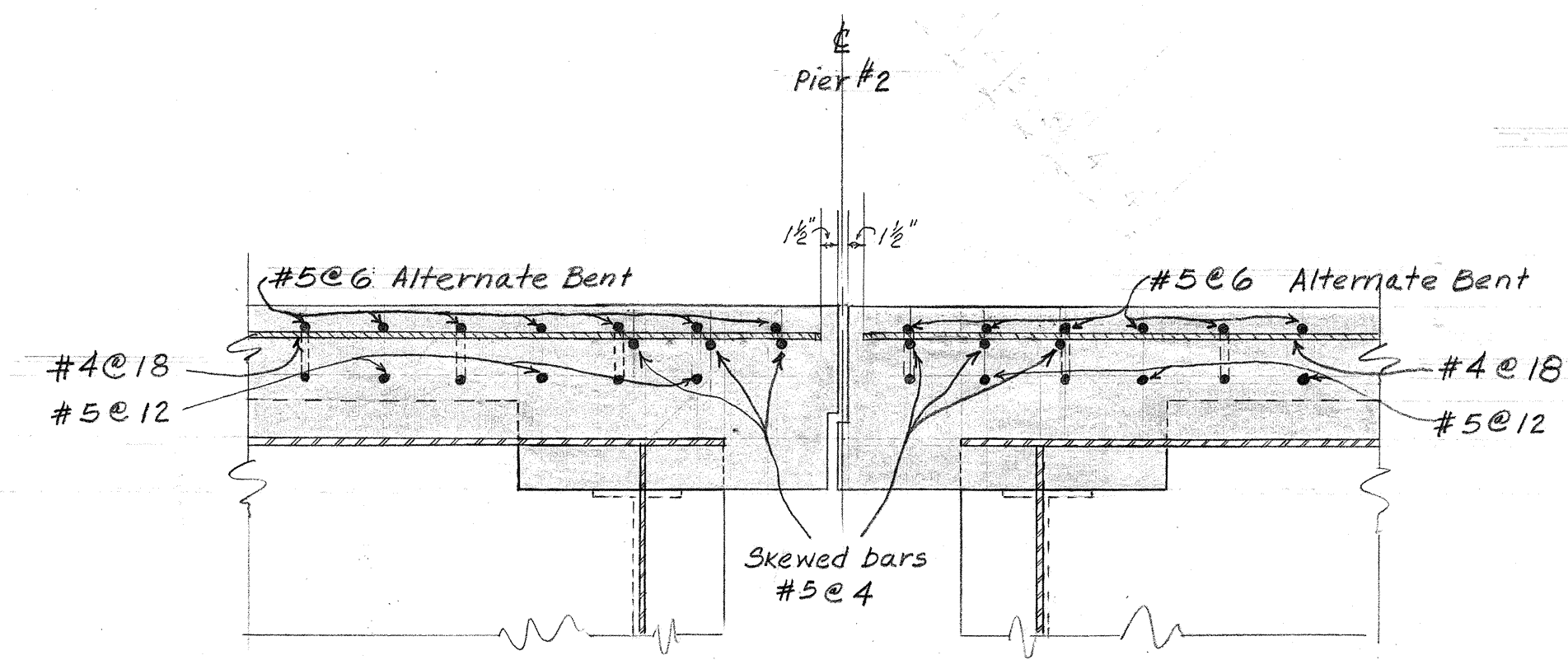
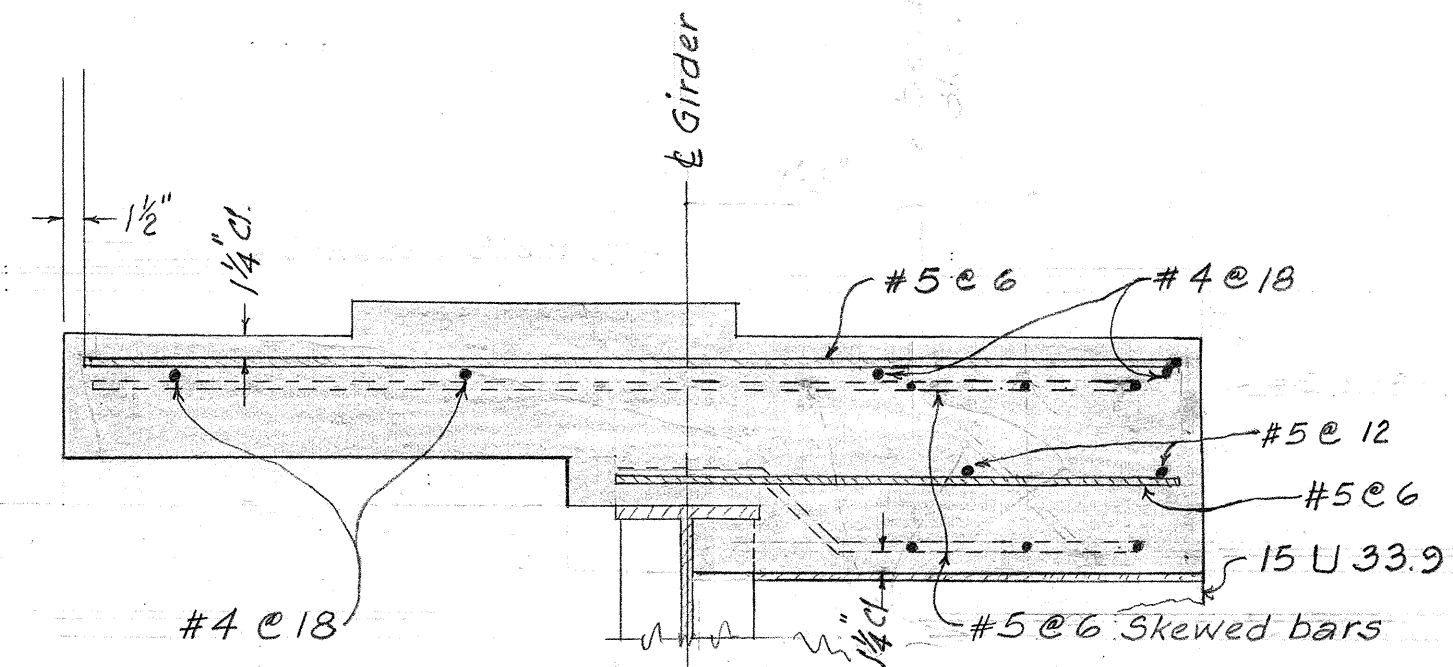
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-019-2(3)	1954	27	45



Note: For reinforcing at end of span #3, see sheet No. 5.

TOP REINFORCEMENT OF DECK

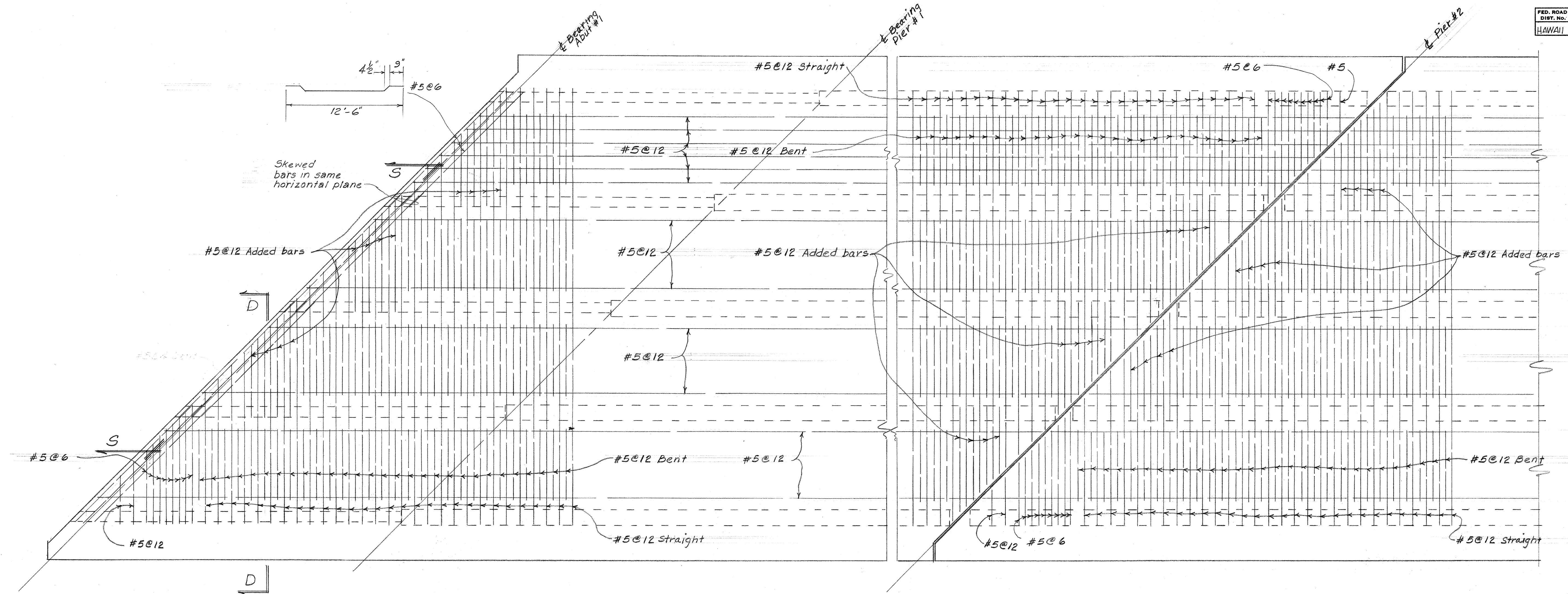
1/4" = 1'-0"



DESIGNED BY	DATE
DRAWN BY	11/55
CHECKED BY	
QUANTITIES CHECKED BY	
NOTE BOOK	
No.	

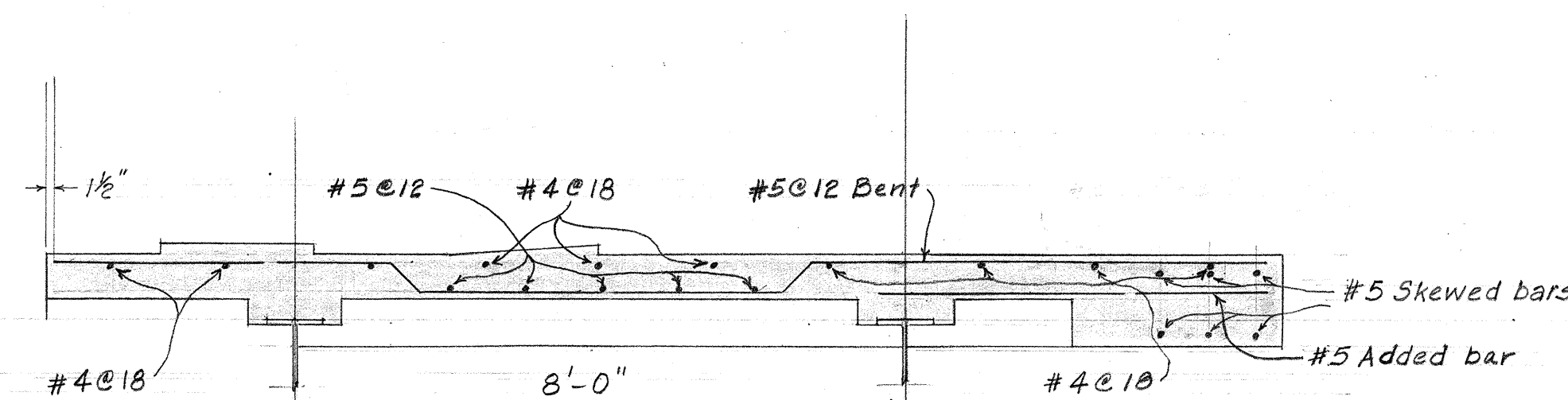
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KUWAIKAHI BRIDGE
Sta. 21+02.46 to Sta. 23+86.52
HAWAII BELT ROAD
F-019-2(3) Nov, 1955

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-019-2(3)	1956	28	45



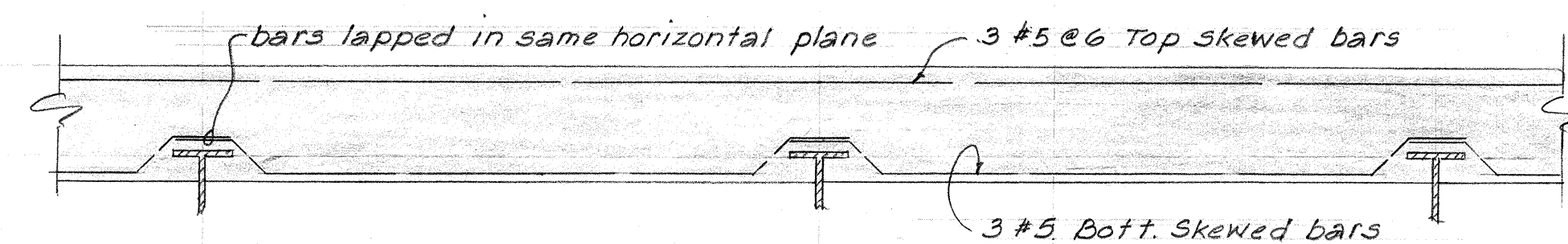
BOTTOM REINFORCEMENT OF DECK

$\frac{1}{4}'' = 1'-0''$



SECTION "DD"

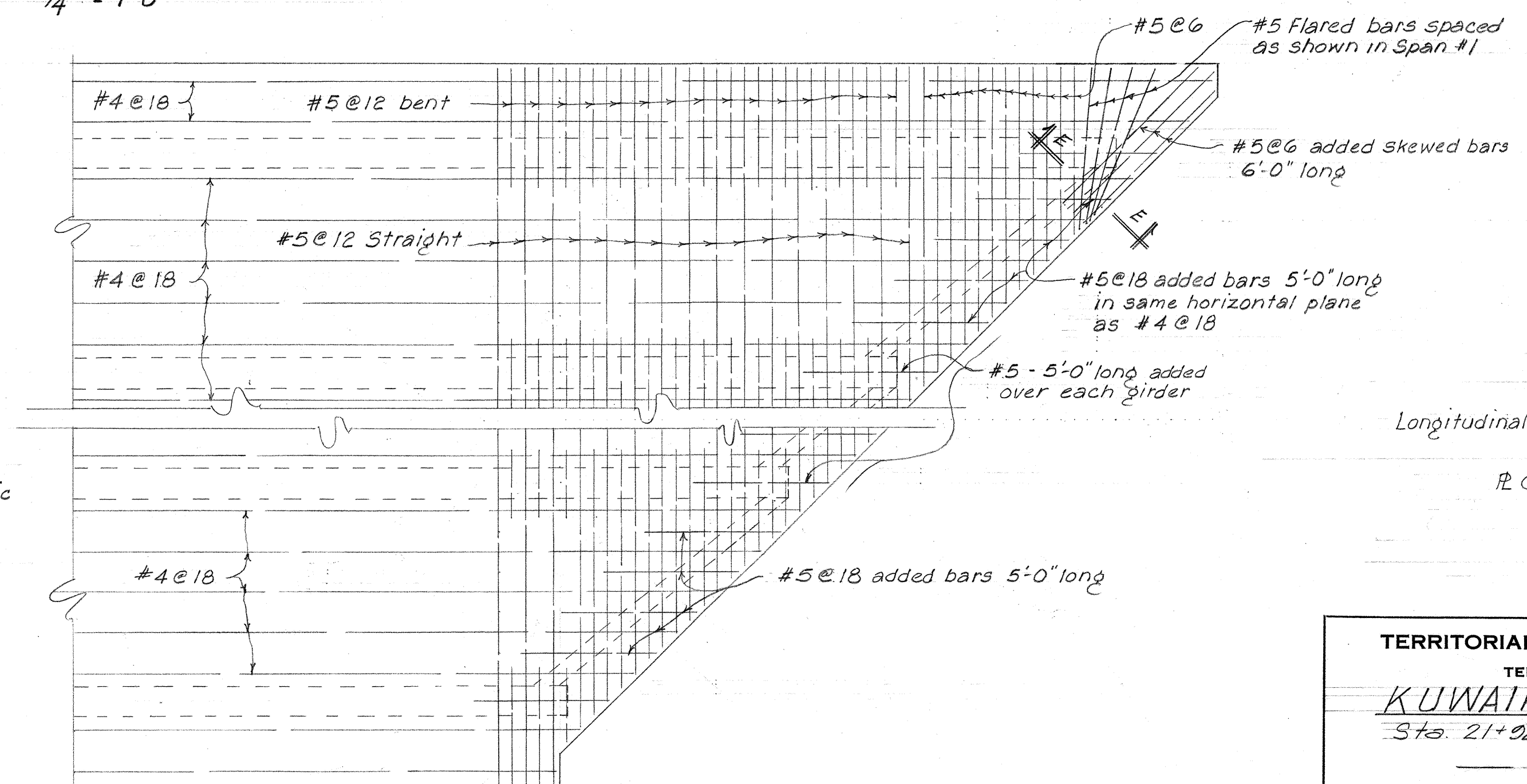
$\frac{1}{2}'' = 1'-0''$



SECTION "SS"

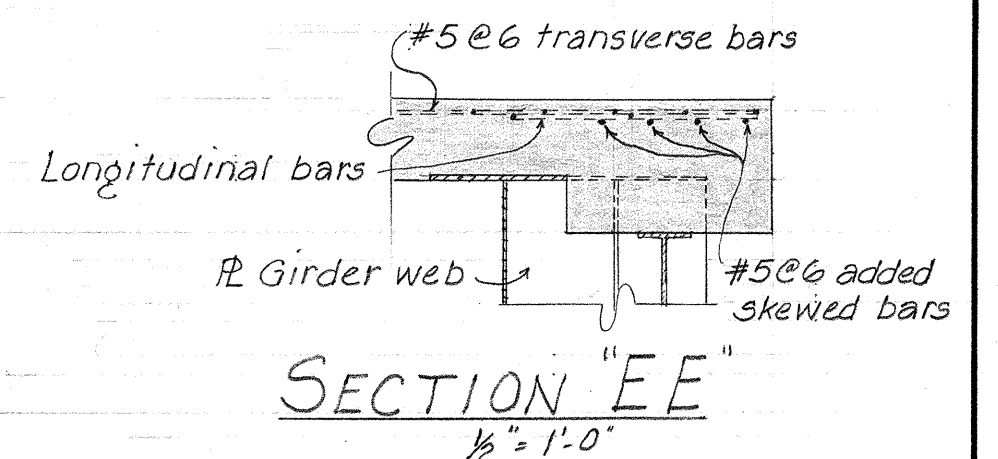
$\frac{1}{2}'' = 1'-0''$

Note: Top reinforcement at end of span #3 is antisymmetric with the beginning except as shown otherwise. Bottom reinforcement is antisymmetric without exception.



TOP REINF. - END OF SPAN #3

$\frac{1}{4}'' = 1'-0''$



SECTION "EE"

$\frac{1}{2}'' = 1'-0''$

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KUWAIKAHI BRIDGE
Sta. 21+02.46 to Sta. 23+86.52

HAWAII BELT ROAD
F-019-2(3) Nov. 1955

SHEET NO. 5 OF 15 SHEETS

5845.28

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
NO.	

NOTE: Framing Plan for Span #3 identical except that Type B end frame is required at both ends.

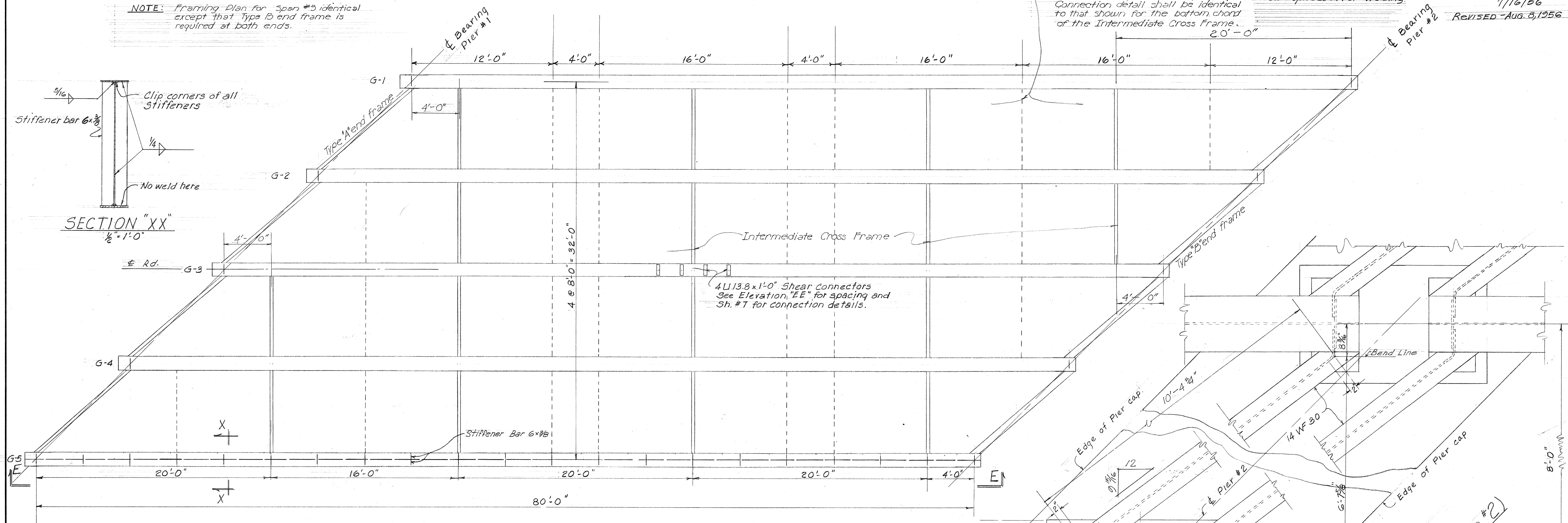
REVISION - AUG. 8, 1956

Note added calling for grinding of flange and web splices after welding.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-019-2(3)	1956	29	45

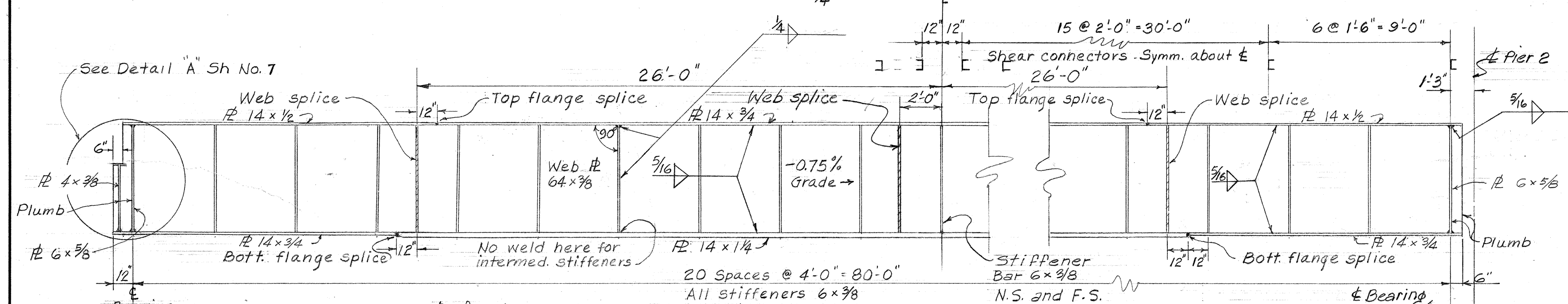
7/16/56

REVISED - AUG. 8, 1956



FRAMING PLAN - SPAN #2

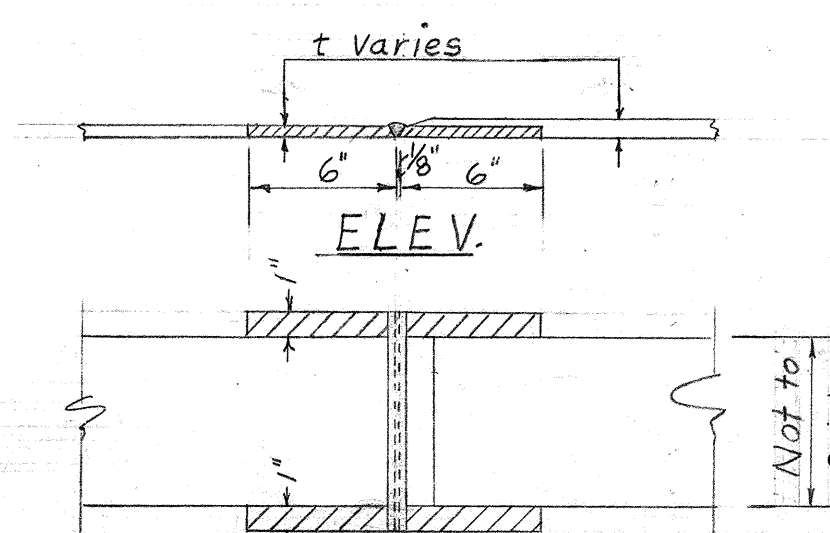
1/4" = 1'-0"



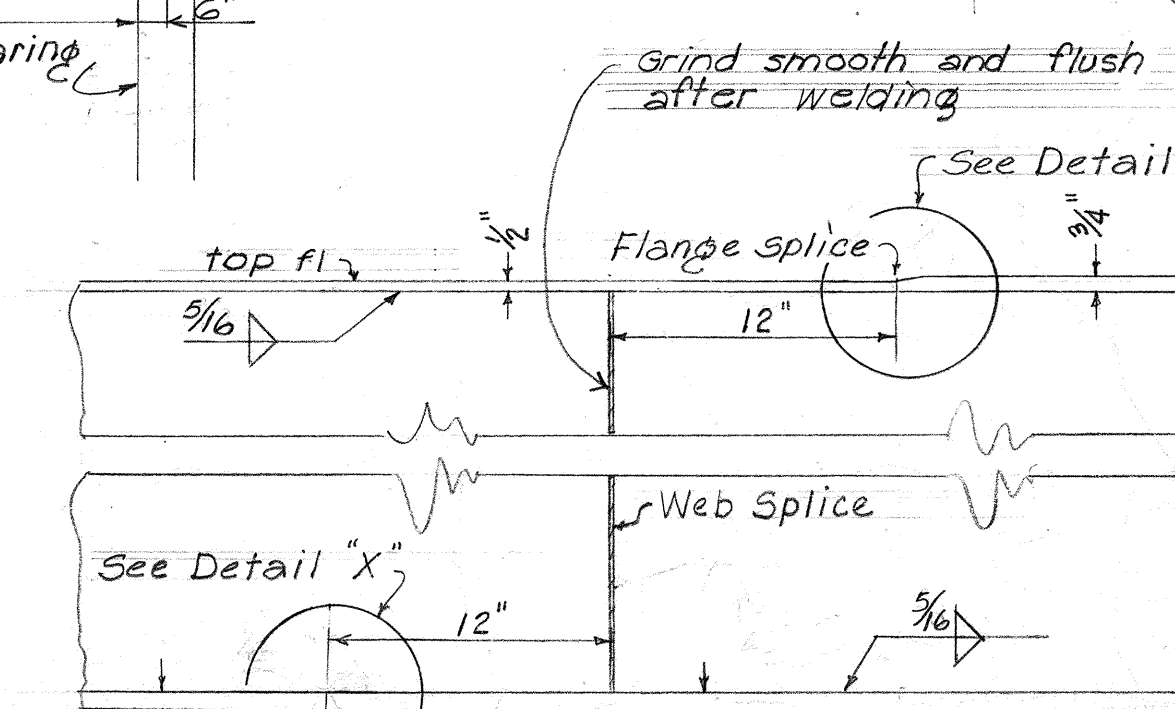
ELEVATION "EE"

1/4" = 1'-0"

For Welding of Plate Girder - see Special Provisions.

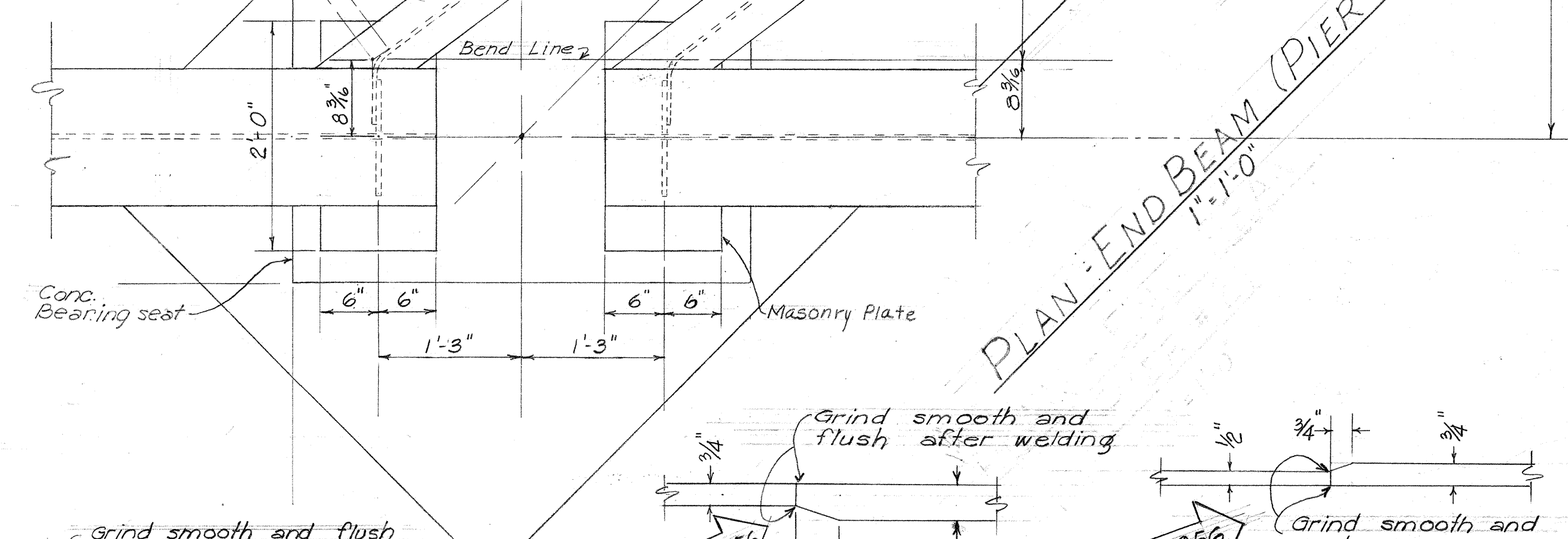


END TREATMENT - BUTT WELDS

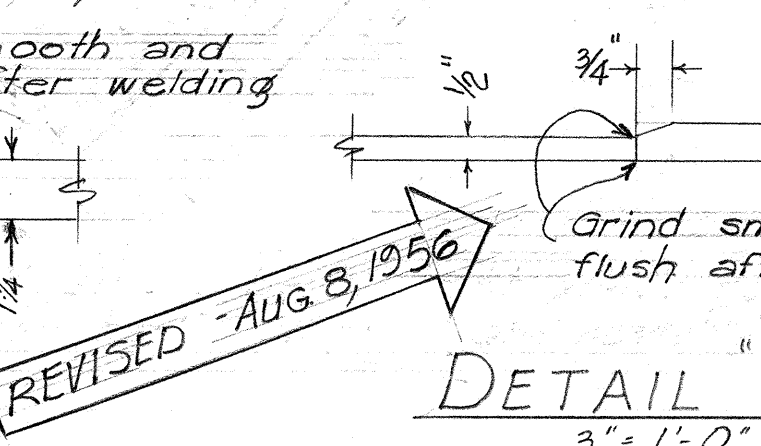


SPICE DETAIL - SHOP

1 1/2" = 1'-0"



PLAN-END BEAM (PIER #2)

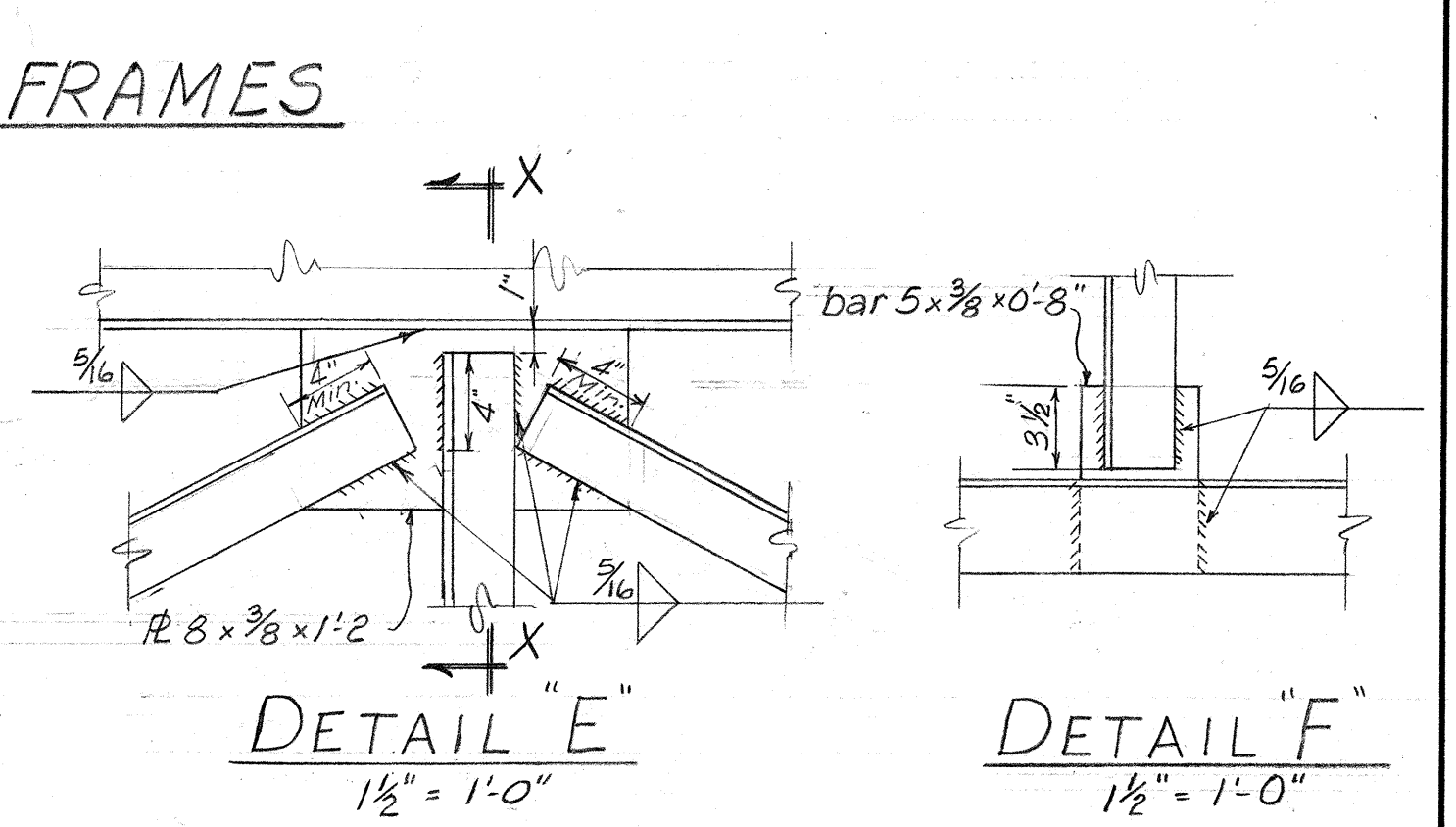
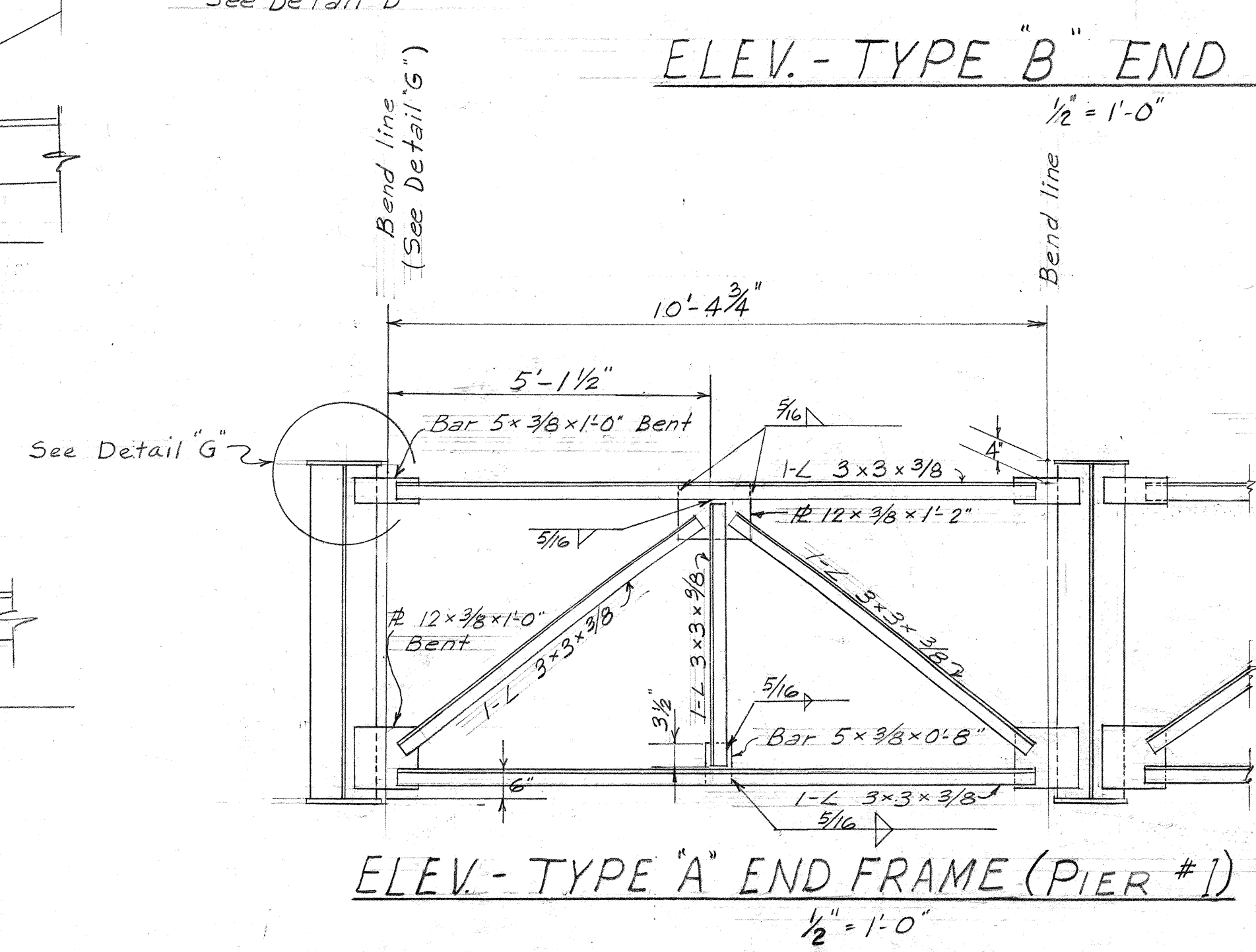
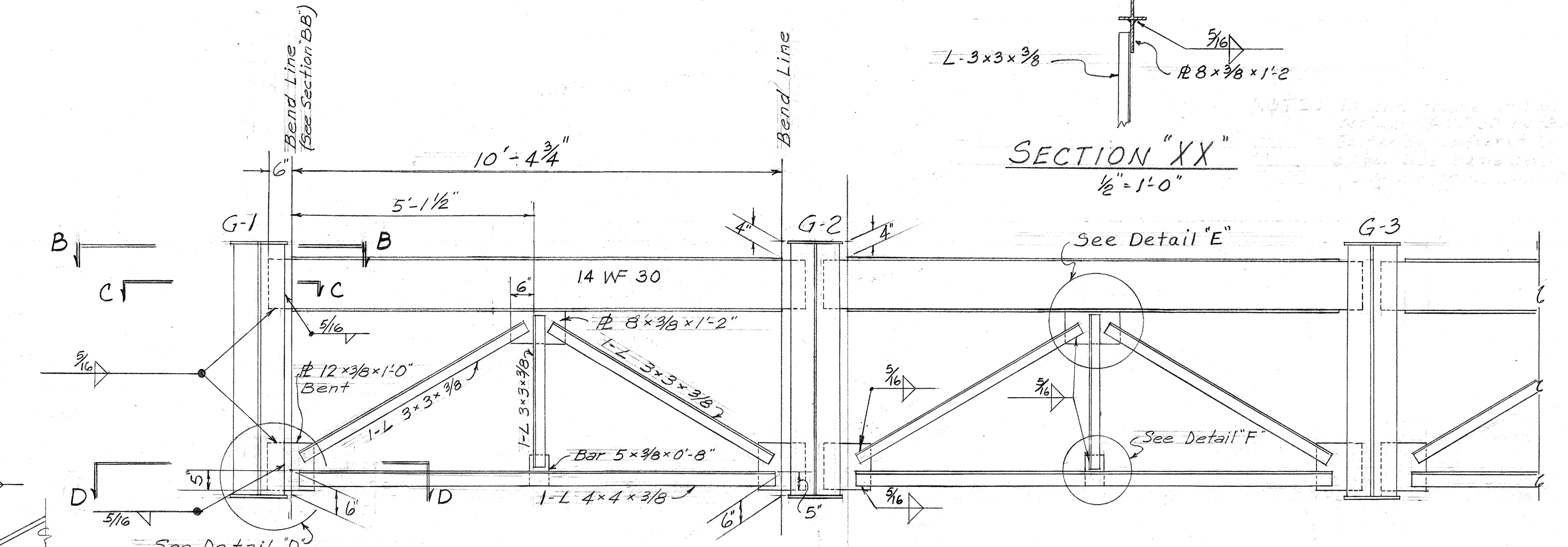
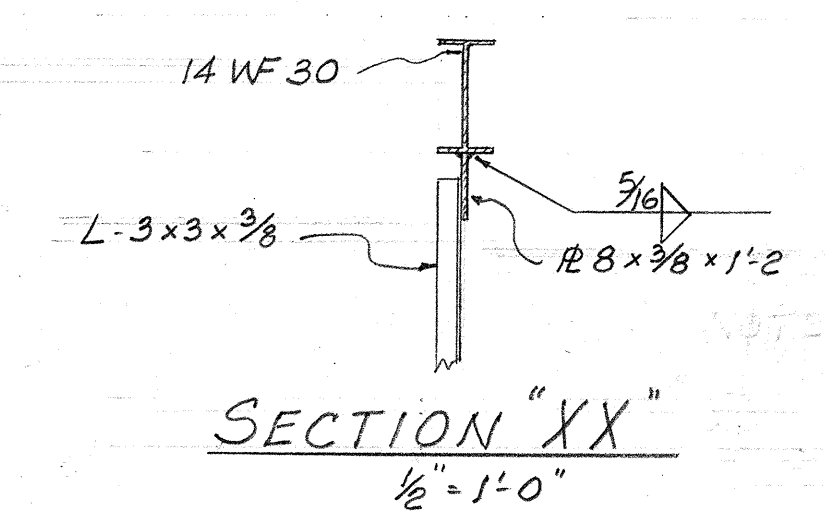
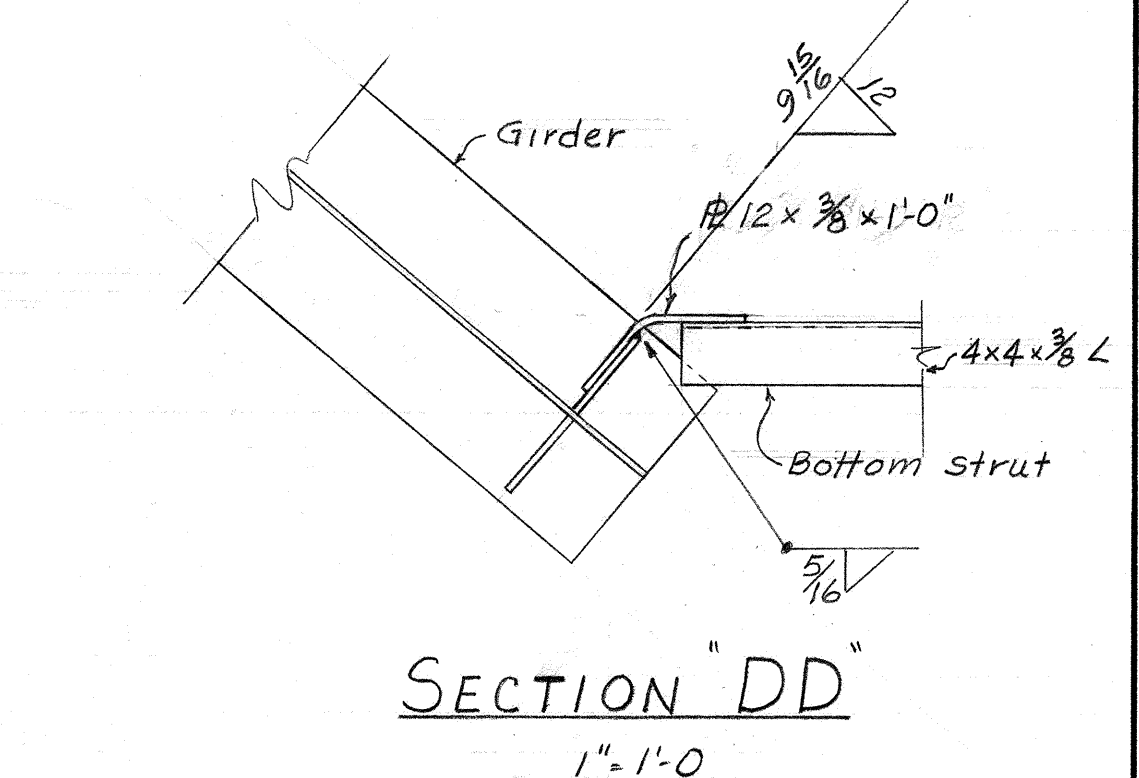
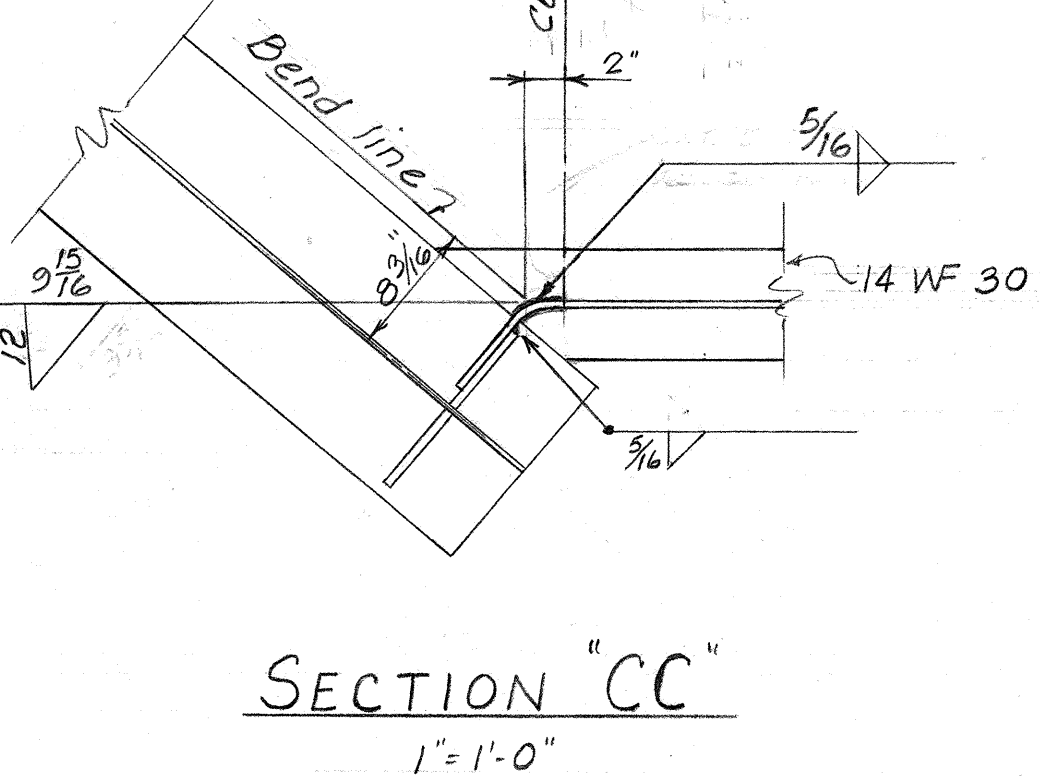
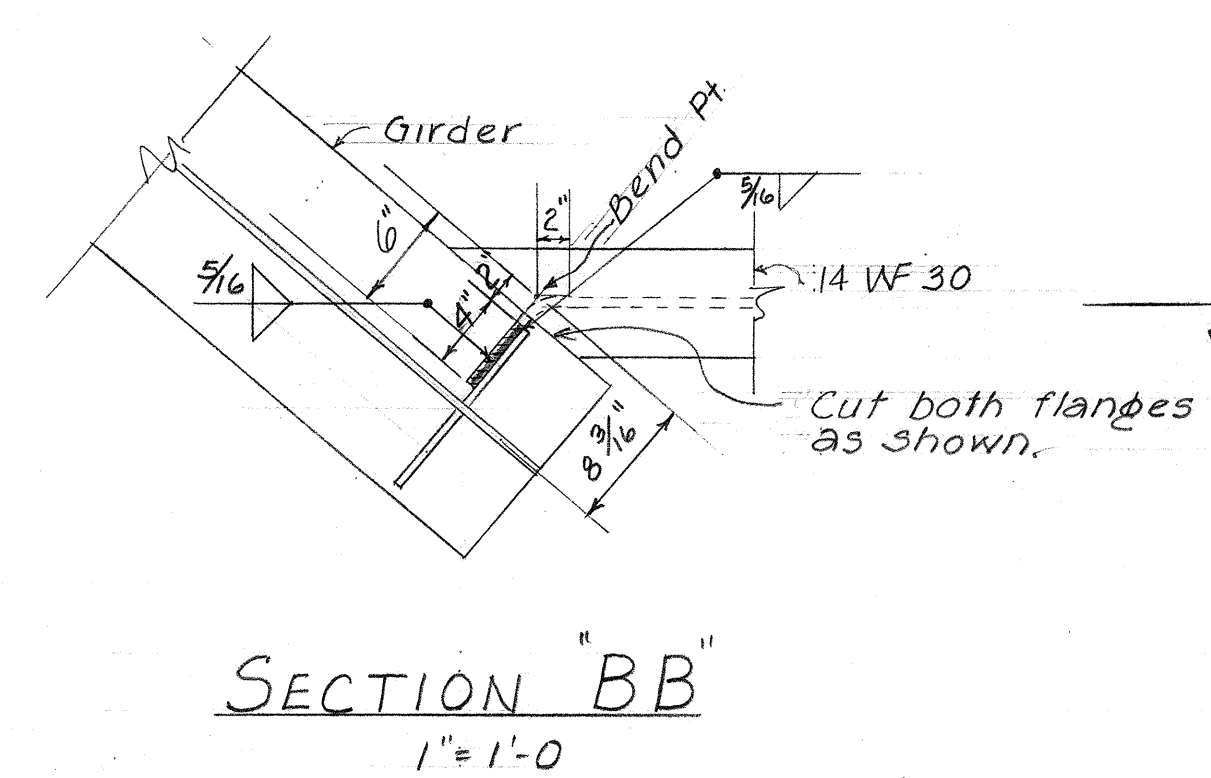
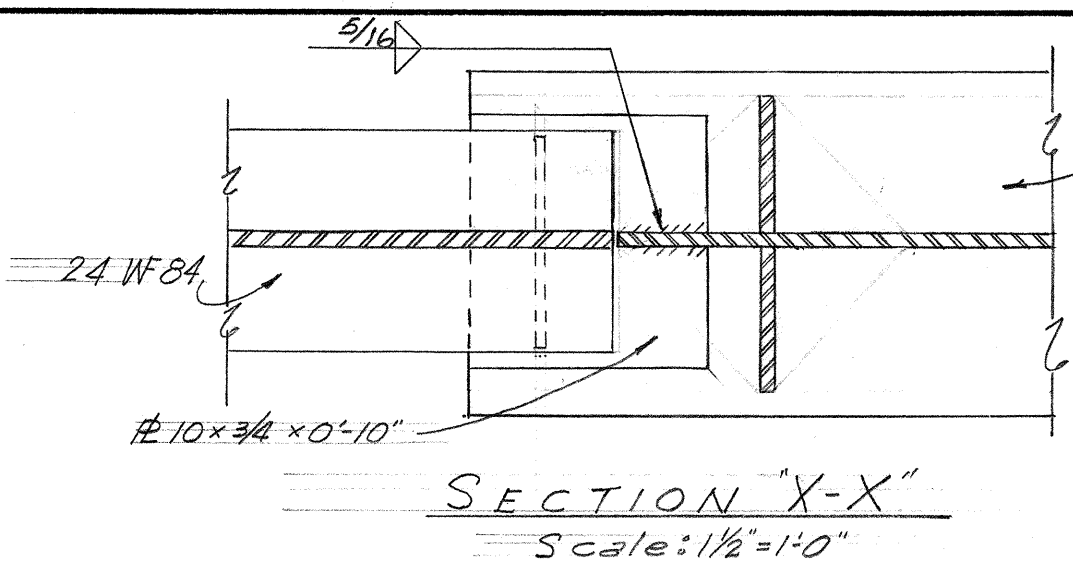
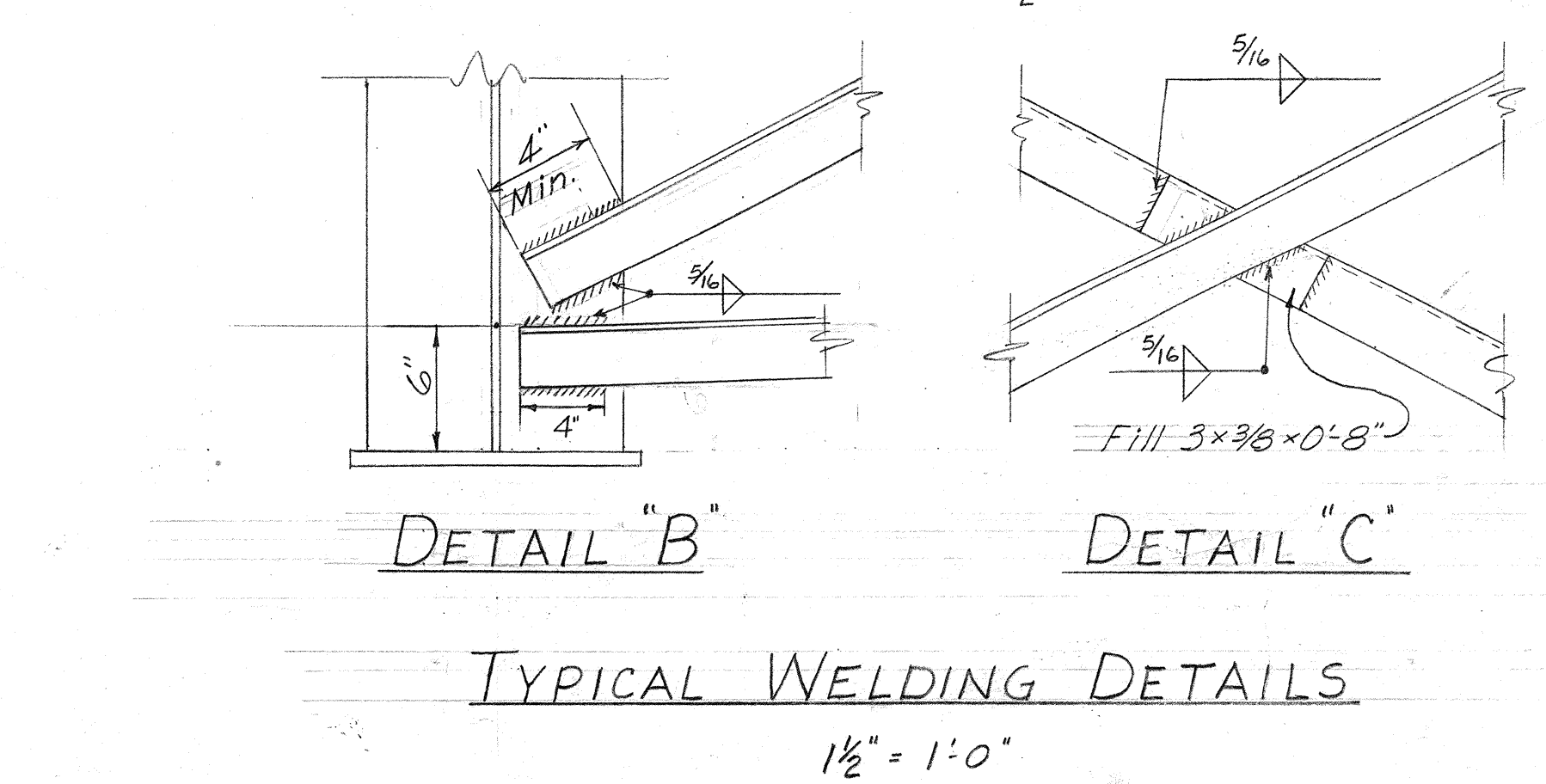
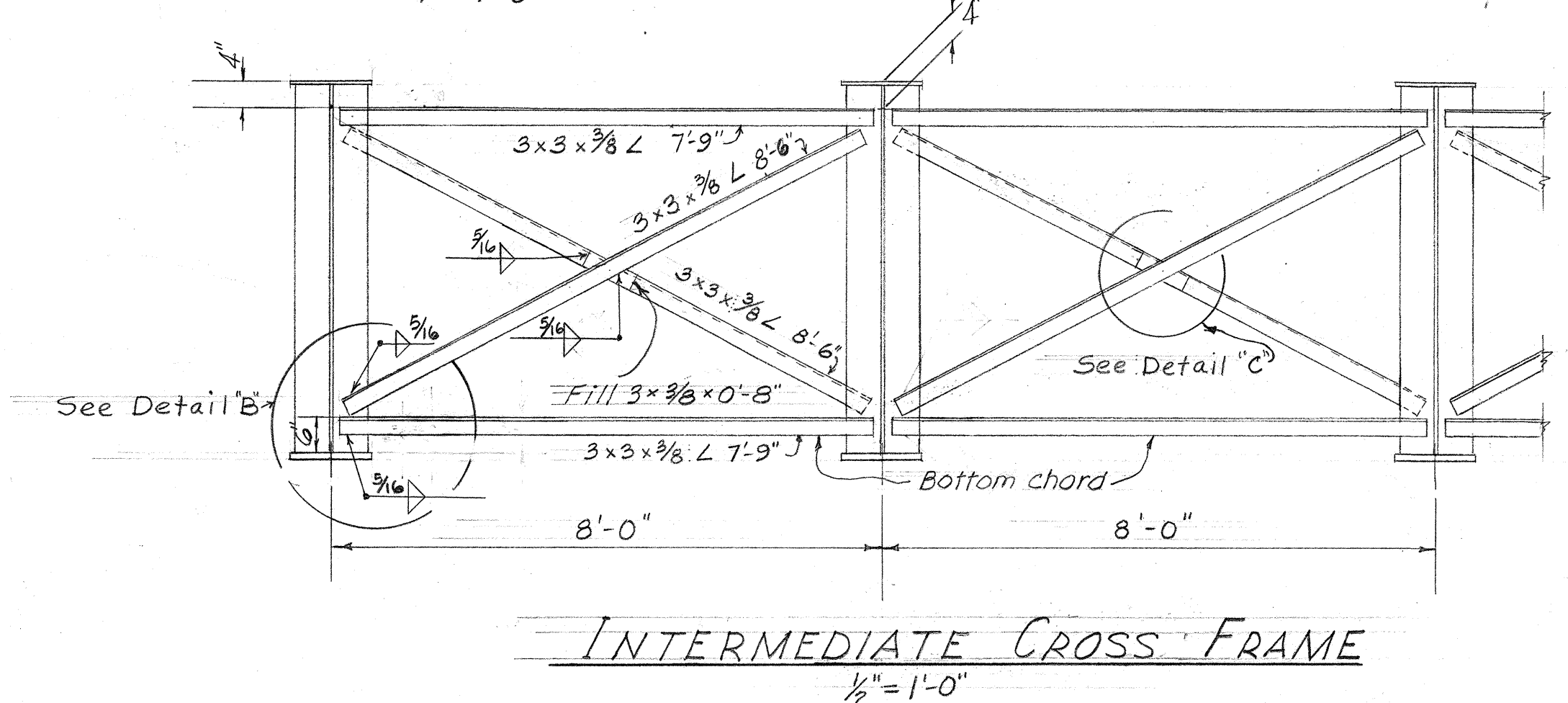
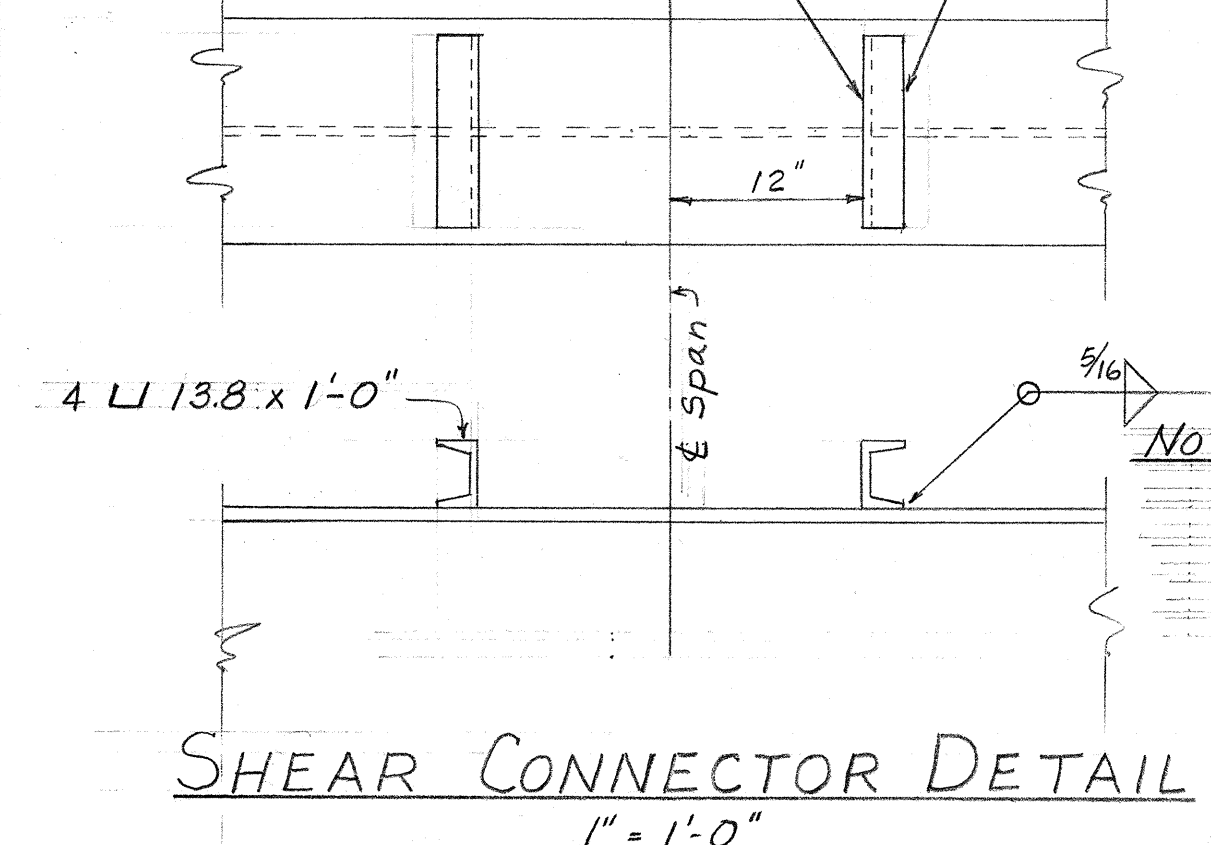
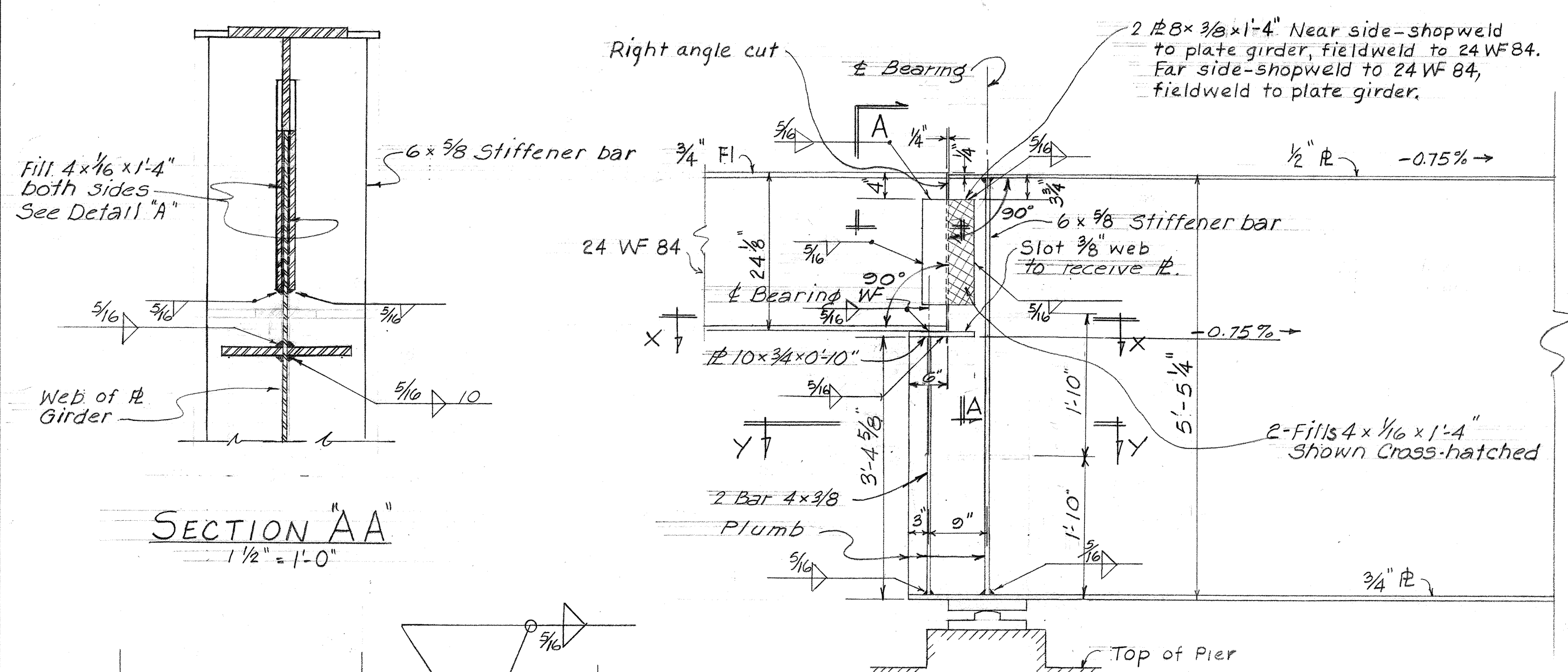


TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KUWAIKAAHI BRIDGE
Sta 21+92.46 to Sta 23+86.52
HAWAII BELT RD. PROJ. F-019-2(3)
Nov. 1955

SHEET NO. 6 OF 15 SHEETS

5845.29

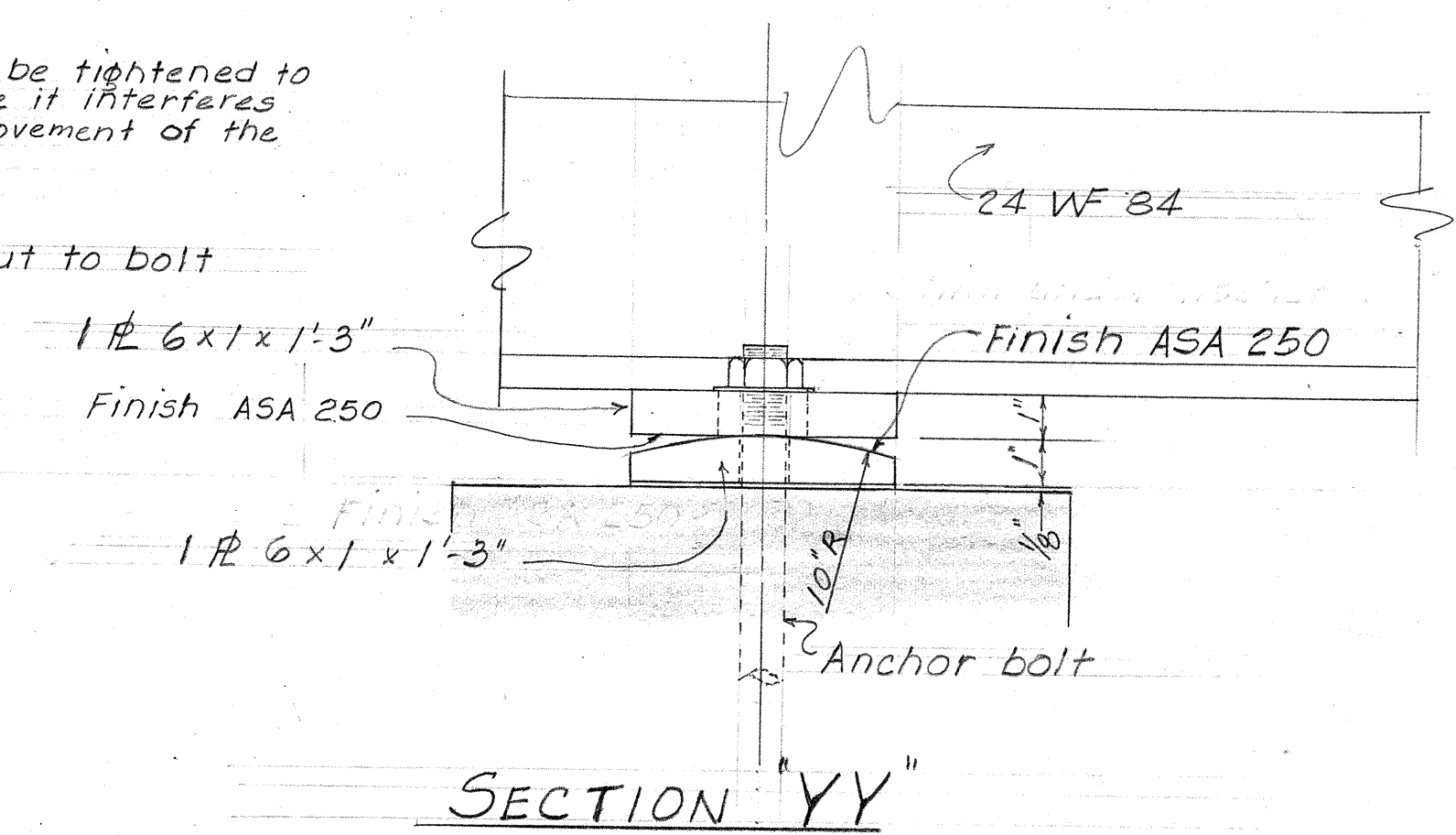
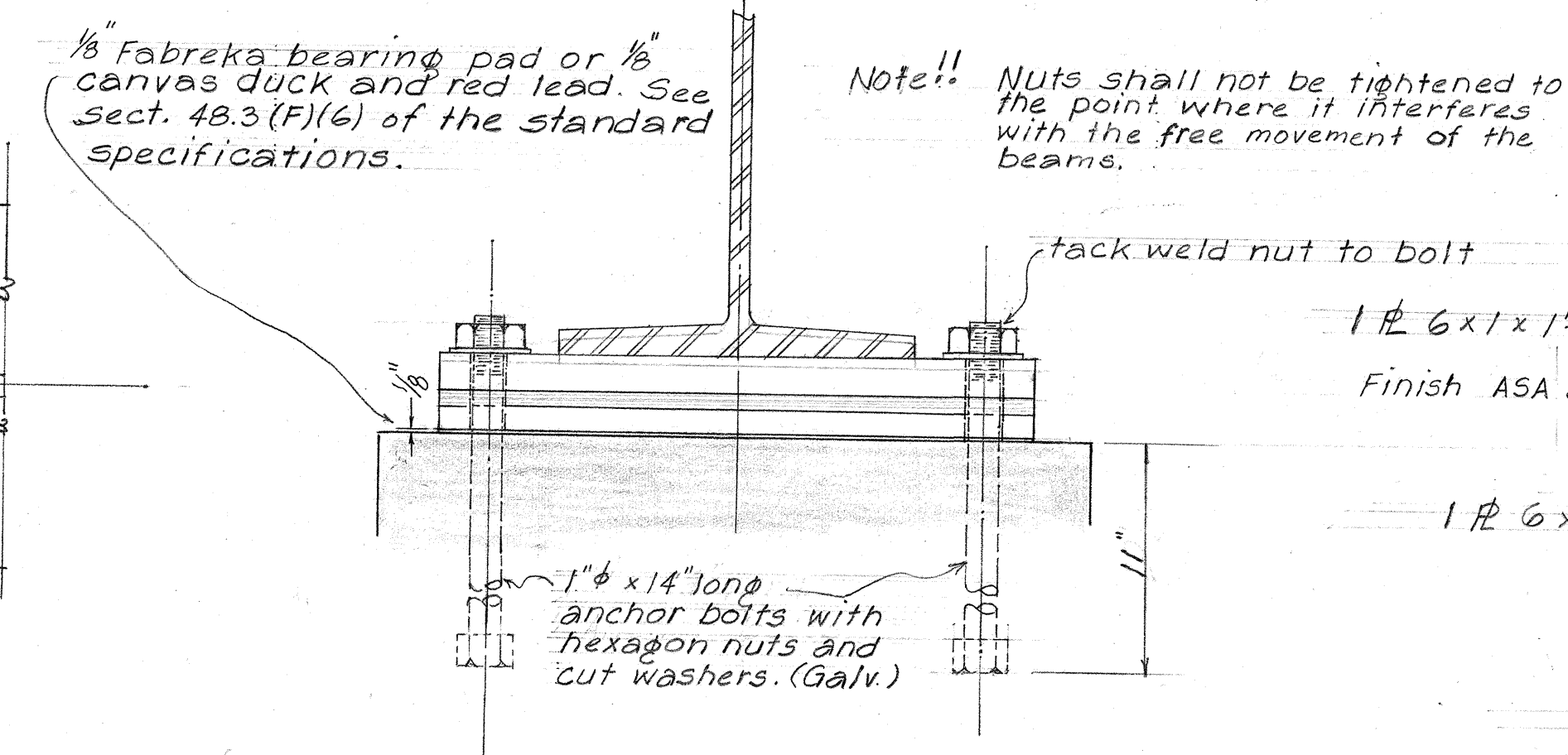
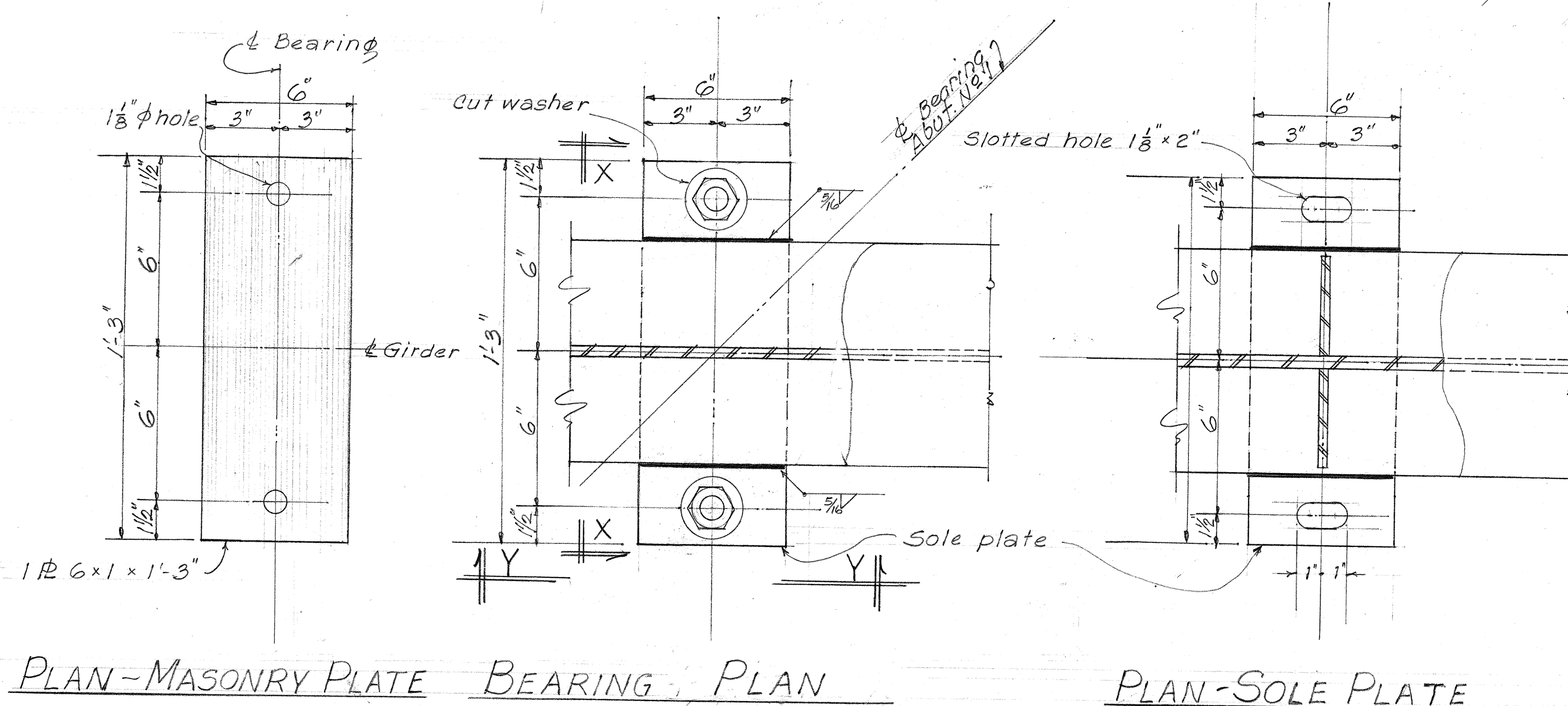
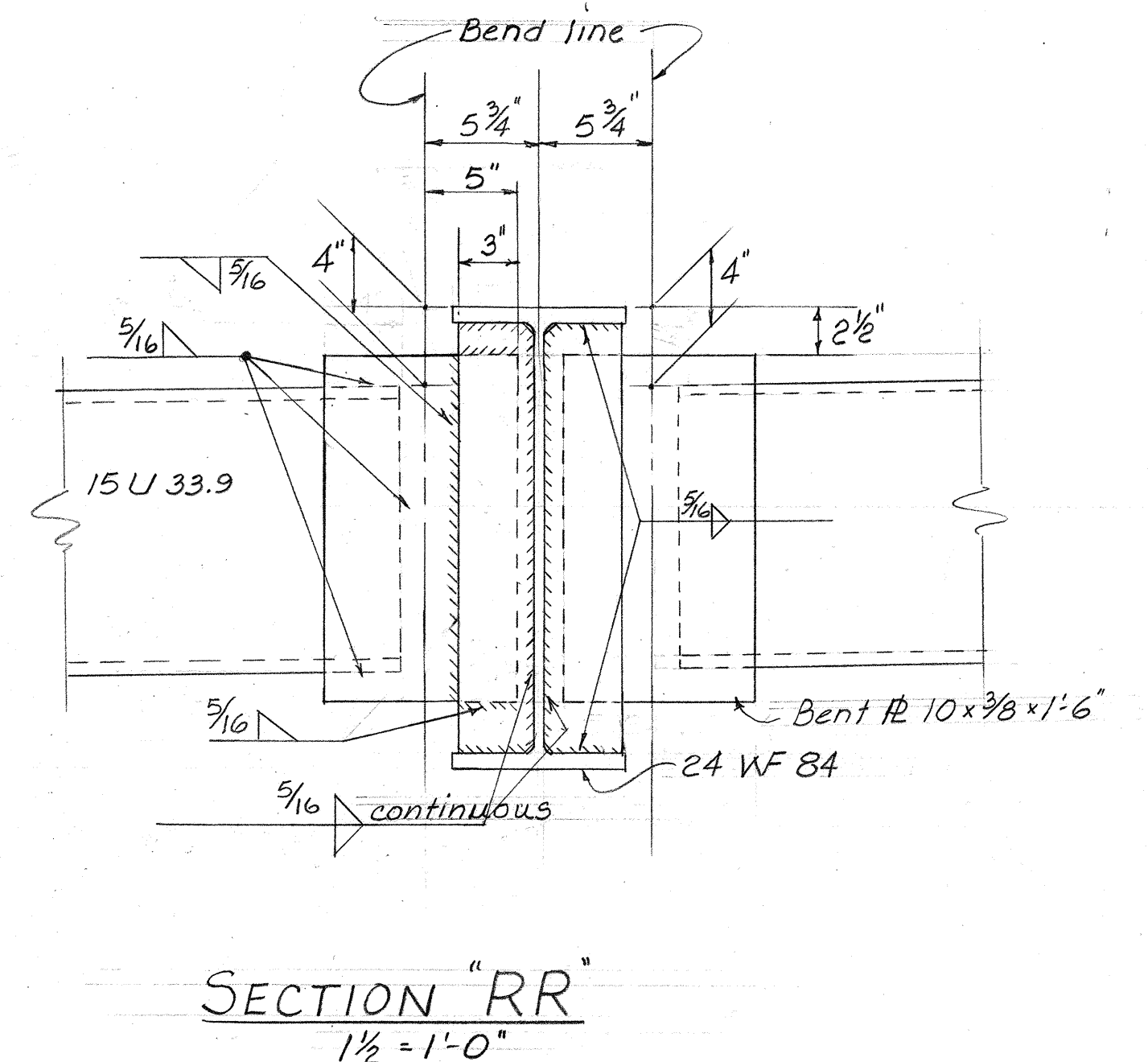
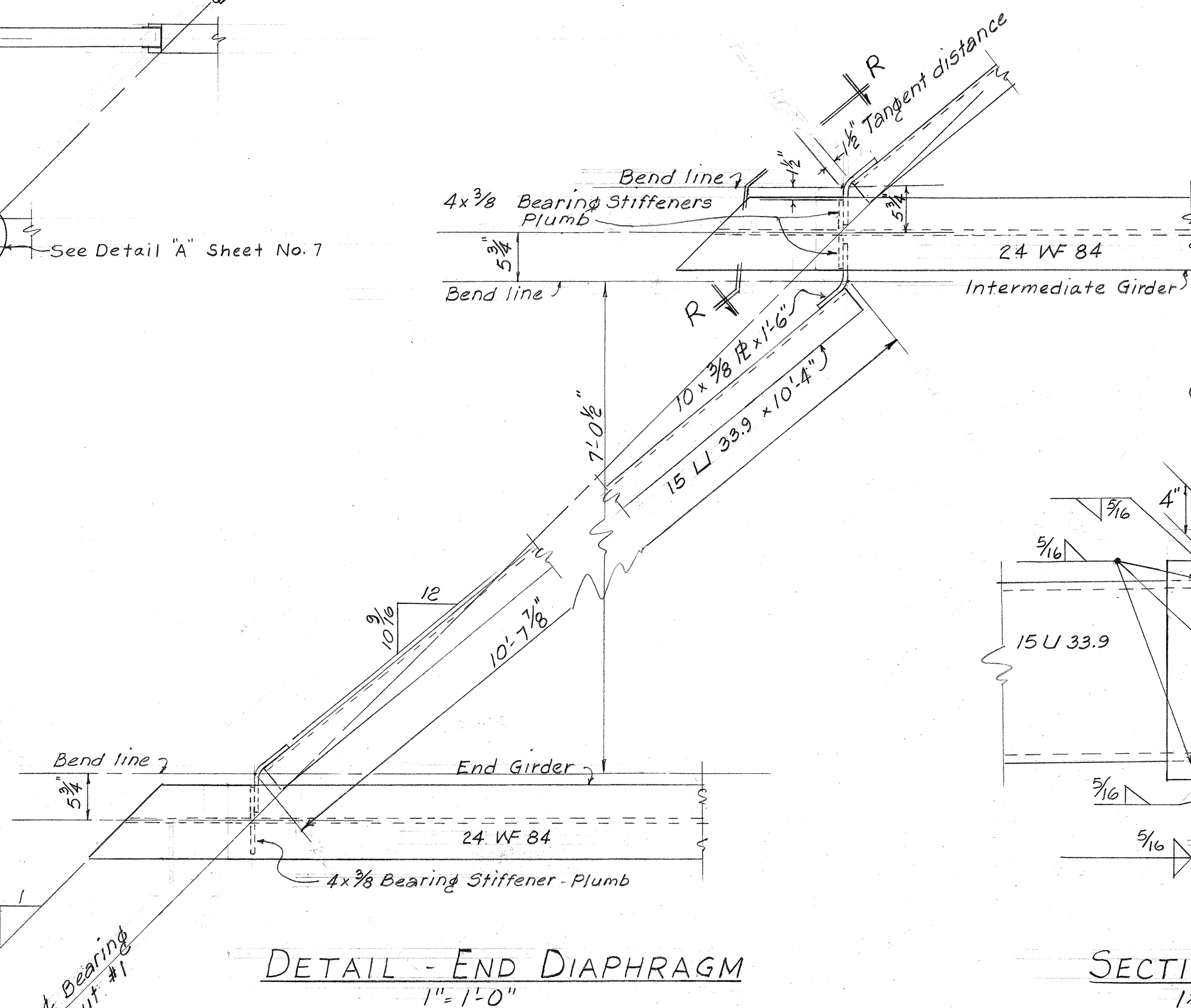
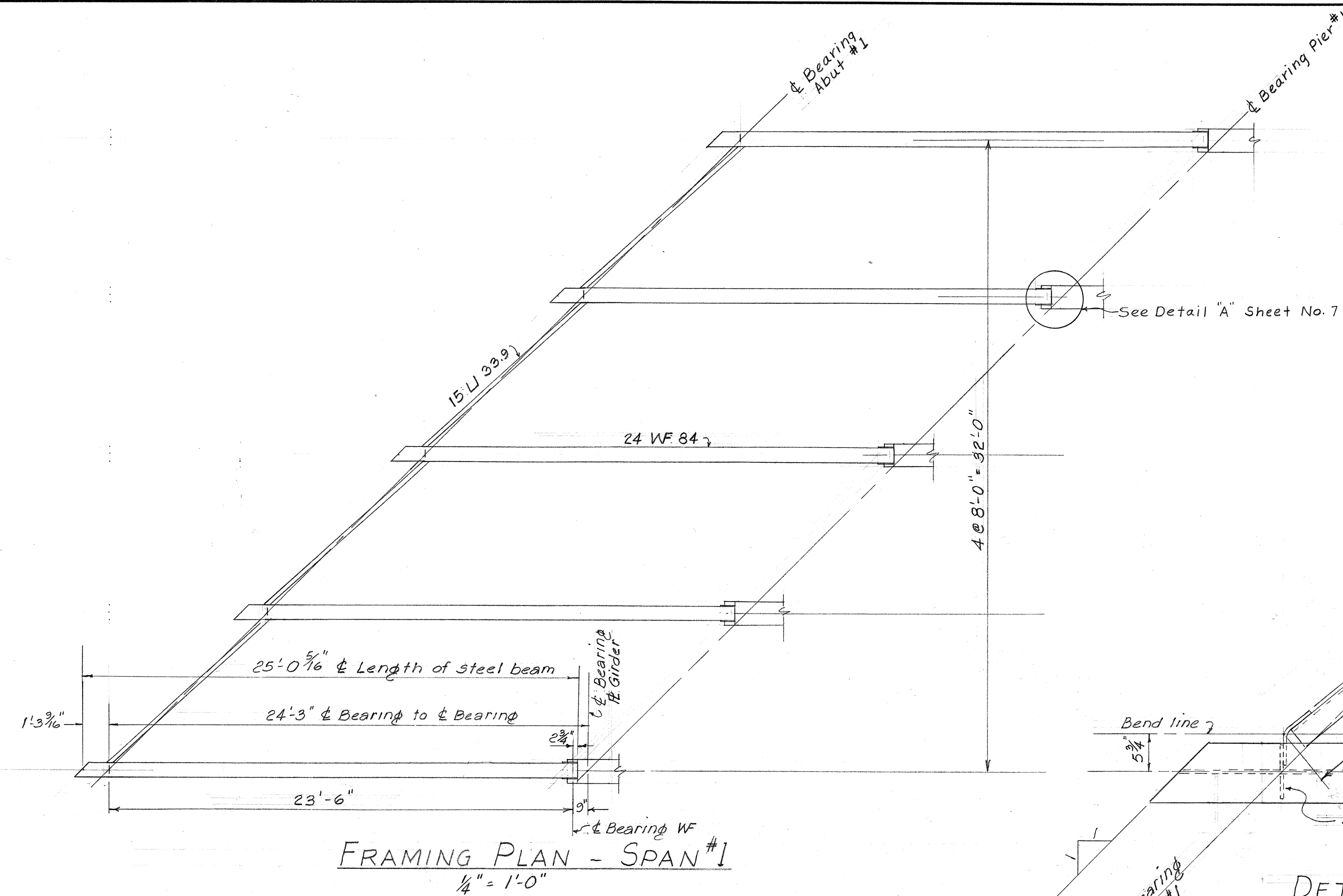
DATE	7/16/56
DESIGNED BY	K. B. B. B.
TRACED BY	K. B. B. B.
QUANTITIES BY	K. B. B. B.
CHECKED BY	K. B. B. B.
NOTE BOOK	No.



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KUWAIKAHI BRIDGE
Sta 21+92.46 to Sta 23+86.52
HAWAII BELT RD. PROJ. F-019-2(3)
NOV. 1955

DATE: 11/55
DESIGNED BY: J. B. BATES
TRACED BY: J. B. BATES
QUANTITIES BY: J. B. BATES
CHECKED BY: J. B. BATES
ORIGINAL PLAN: No.
NOTE BOOK: No.

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
HAWAII	HAW.	F-017-2(3)	1956	31	45



PLAN-MASONRY PLATE BEARING PLAN

PLAN-SOLE PLATE

SECTION "XX"

BEARING DETAIL - ABUT #1
3" = 1'-0"

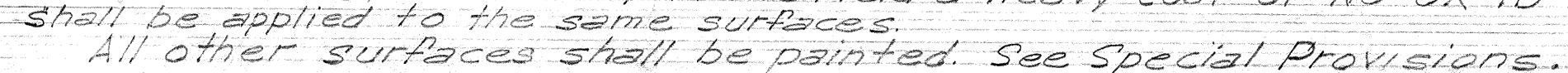
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

KUWAIKAHI BRIDGE
Sta 21+92.46 to Sta 23+86.52

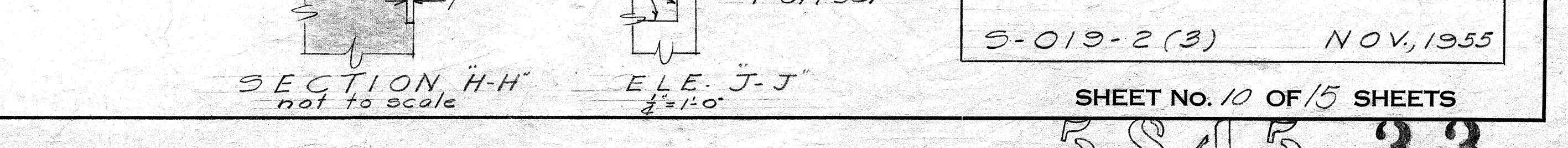
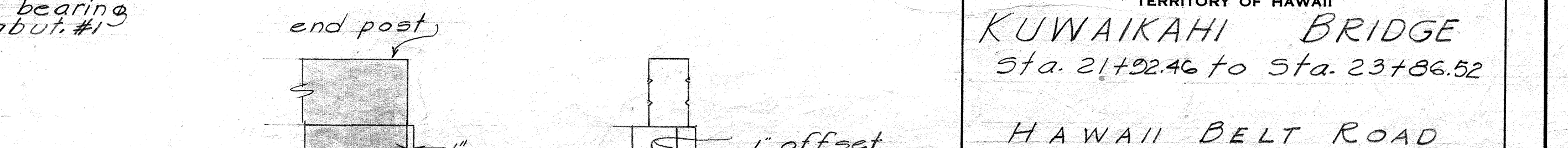
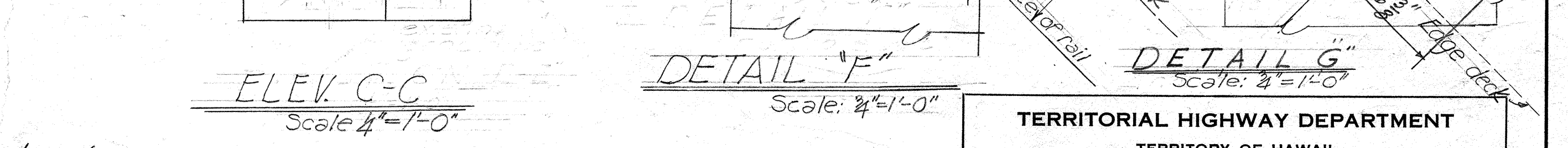
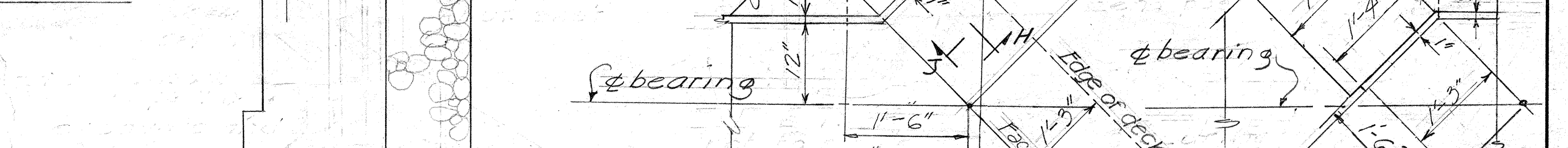
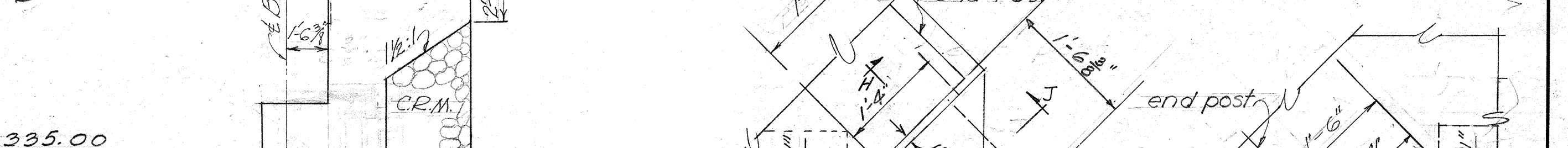
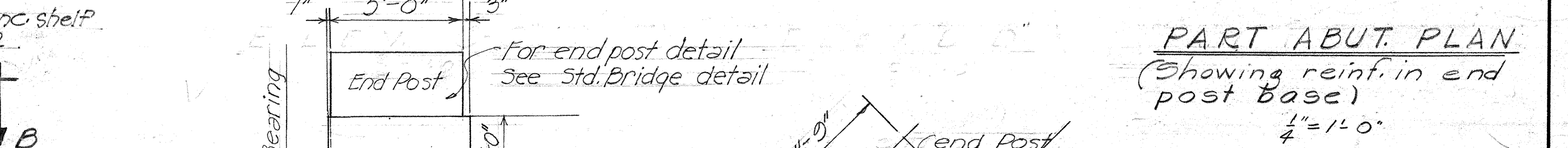
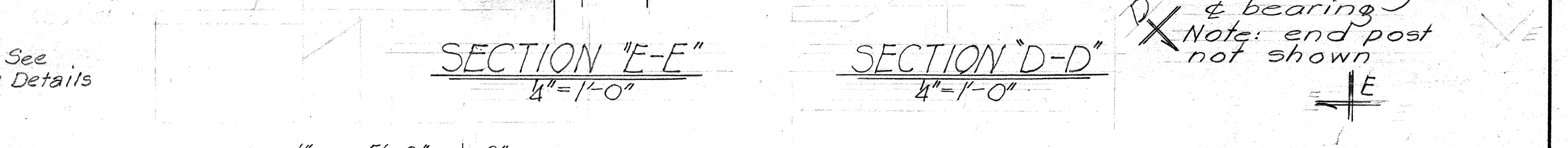
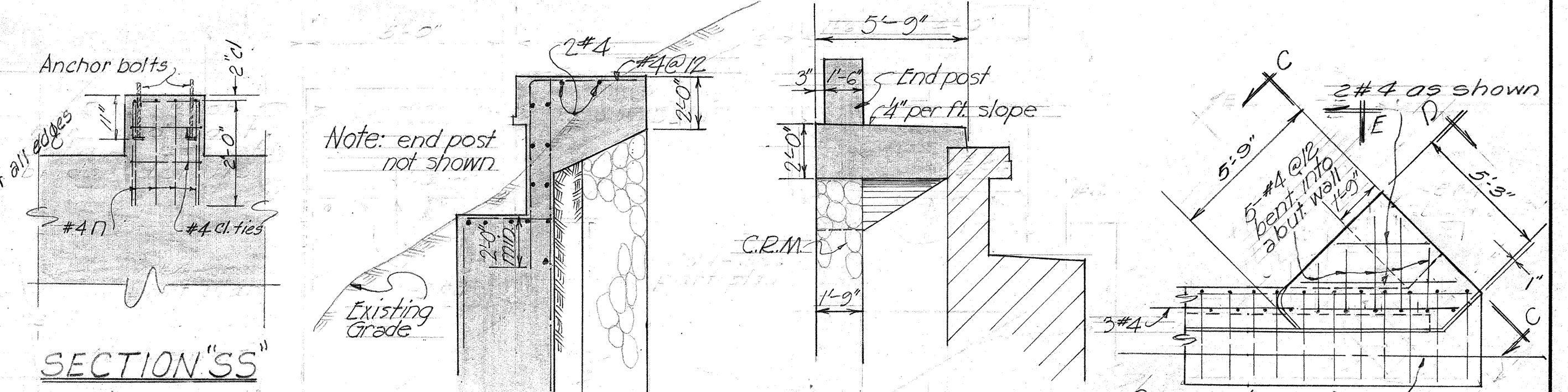
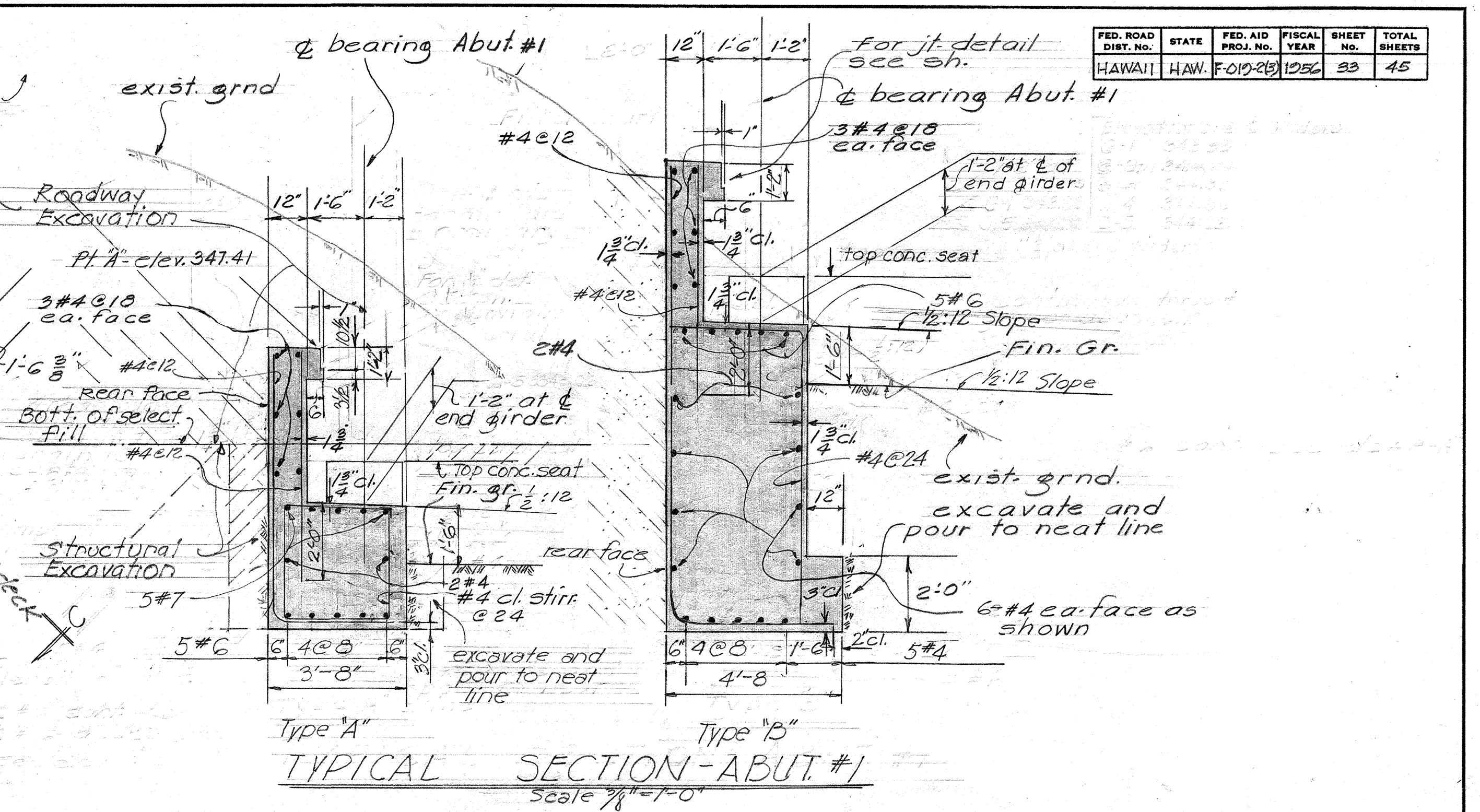
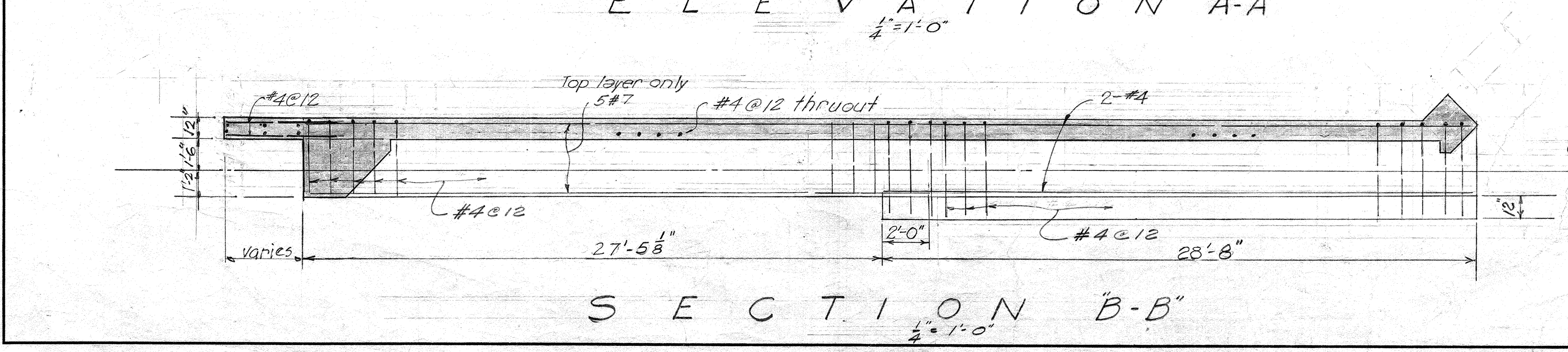
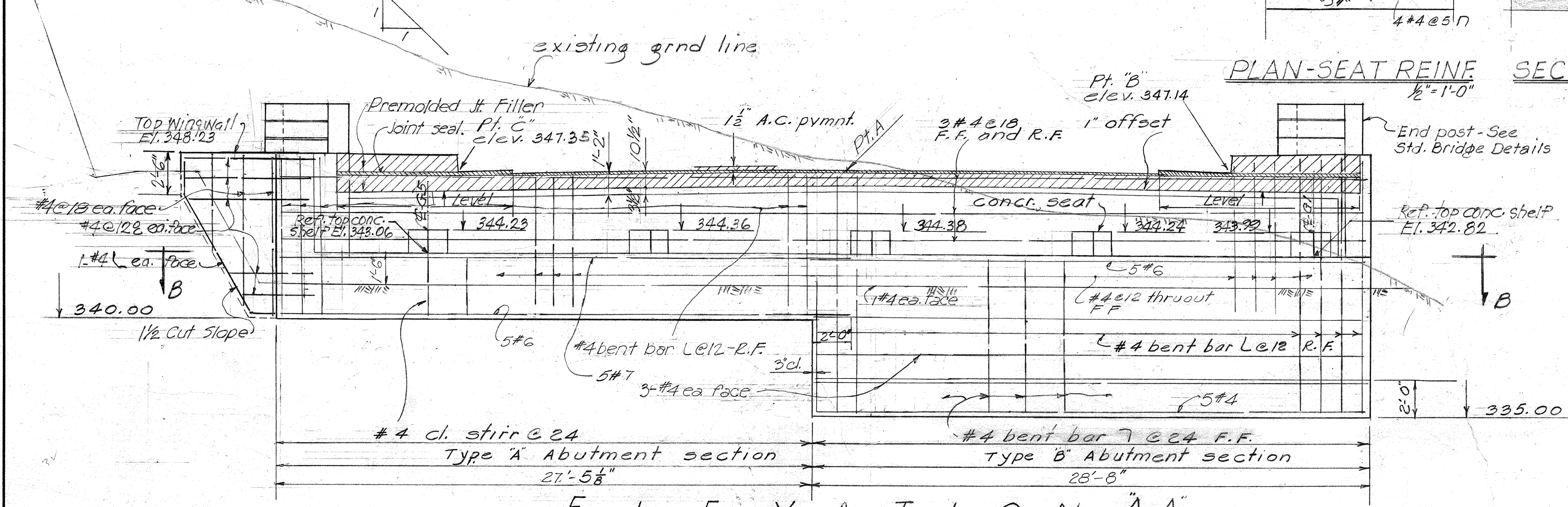
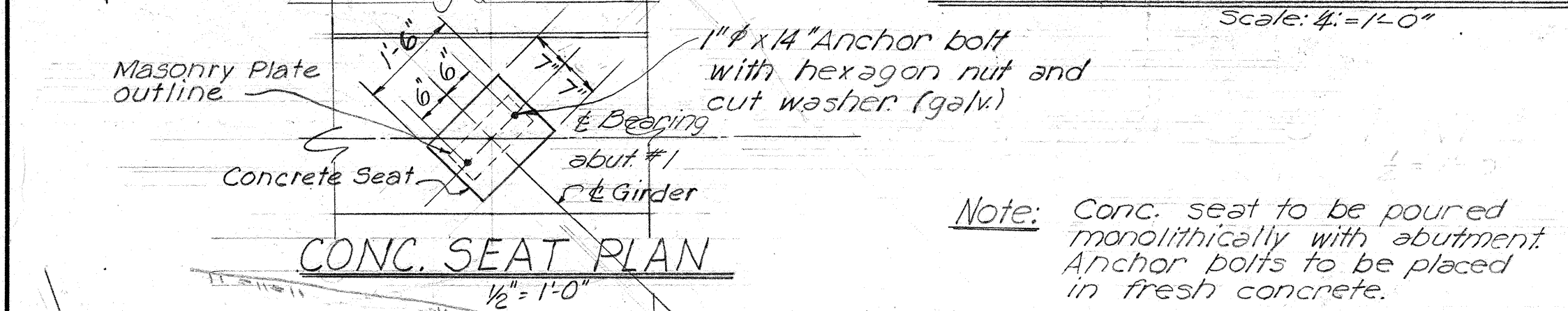
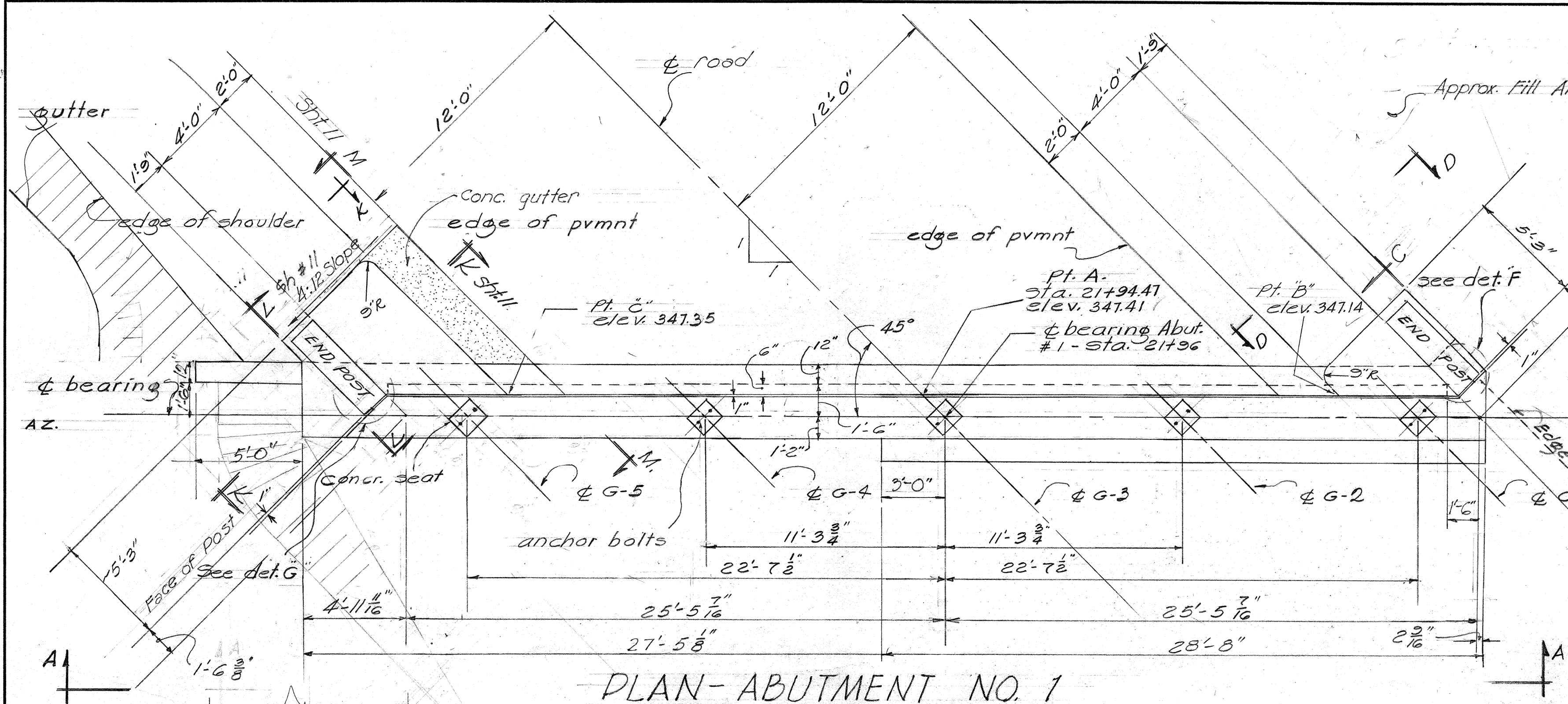
HAWAII BELT RD. PROJ. F-019-2(3)
NOV. 1955

SHEET No. 8 OF 15 SHEETS

5545.31



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F01028	1956	33	45



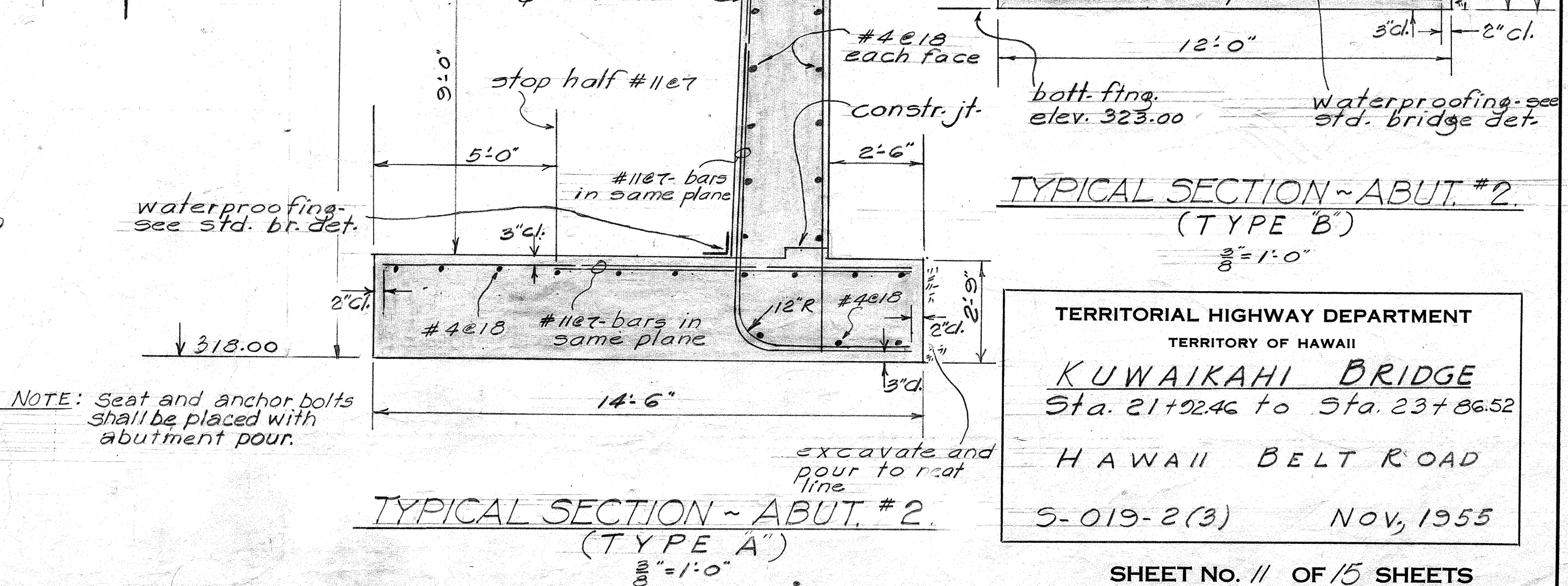
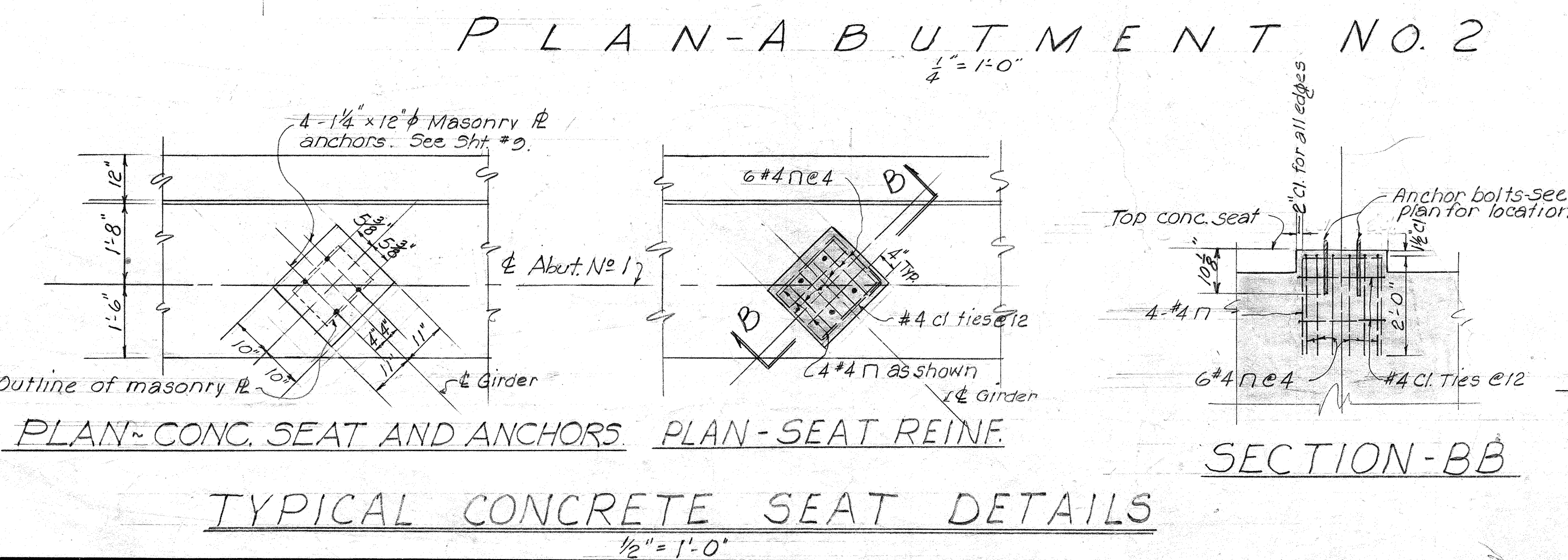
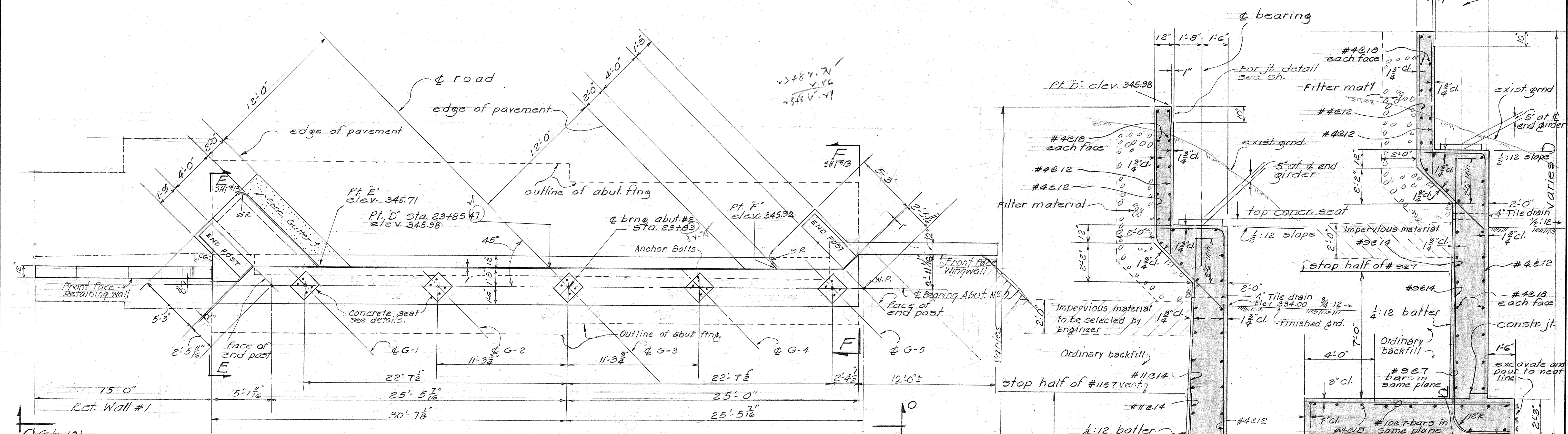
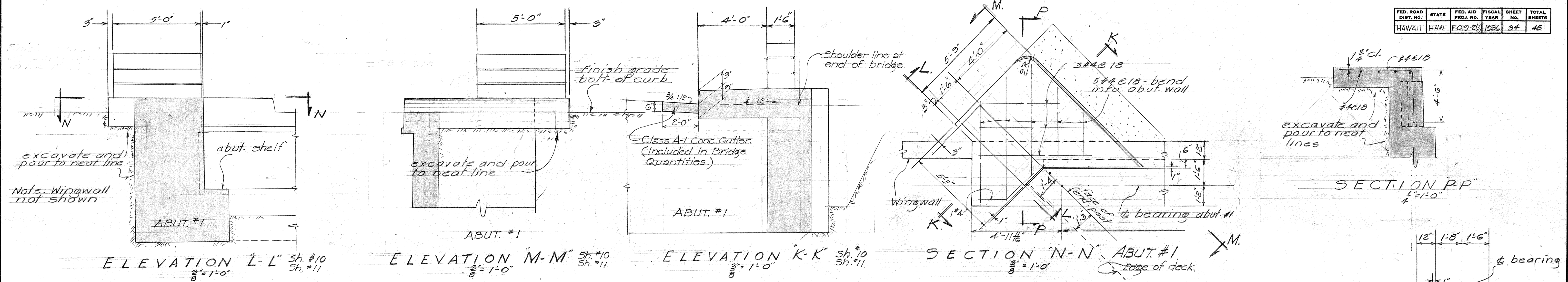
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KUWAIKAKI BRIDGE
Sta. 21+22.46 to Sta. 23+86.52
HAWAII BELT ROAD
S-019-2 (3) NOV. 1955

SHEET NO. 10 OF 15 SHEETS

5845.33

DATE: 11/55
DESIGNED BY: H. Chis
DRAWN BY: H. Chis
CHECKED BY: H. Chis
ORIGINAL PLAN
NOTE BOOK
NO.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FO19-26	1956	34	45

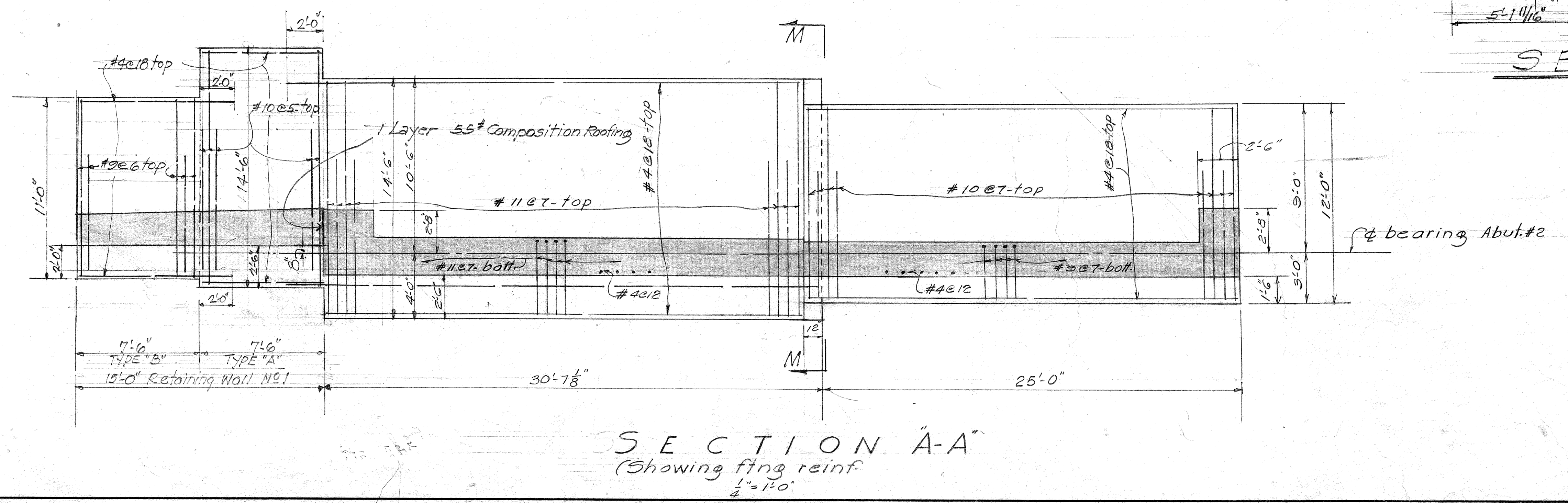
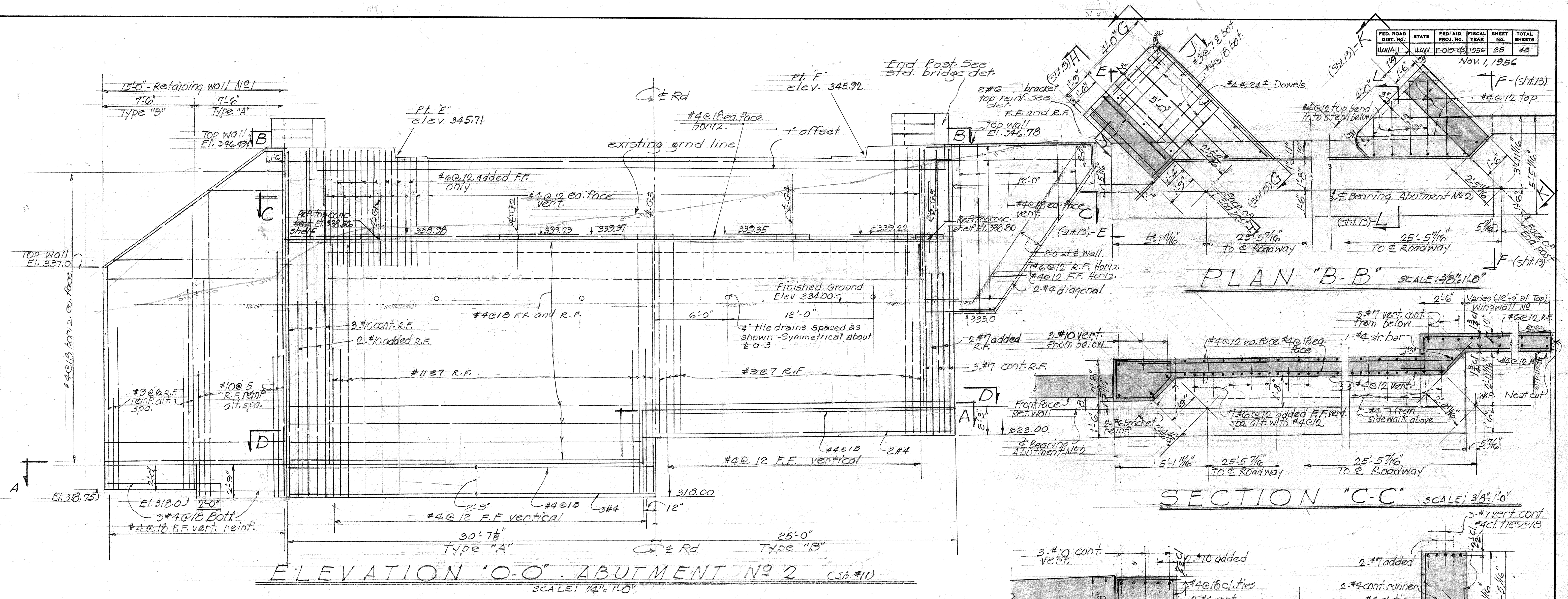


TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII
KUWAIKALI BRIDGE
 Sta. 21+22.46 to Sta. 23+86.52
 HAWAII BELT ROAD
 S-019-2(3) NOV, 1955

SURVEY PLOTTED BY: *John Chin*
 DATE: 11/55
 DESIGNED BY: *John Chin*
 TRACED BY: *John Chin*
 QUANTITIES BY: *John Chin*
 CHECKED BY: *John Chin*
 NO.:

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	F-010-23	1956	35	45

Nov. 1, 1956

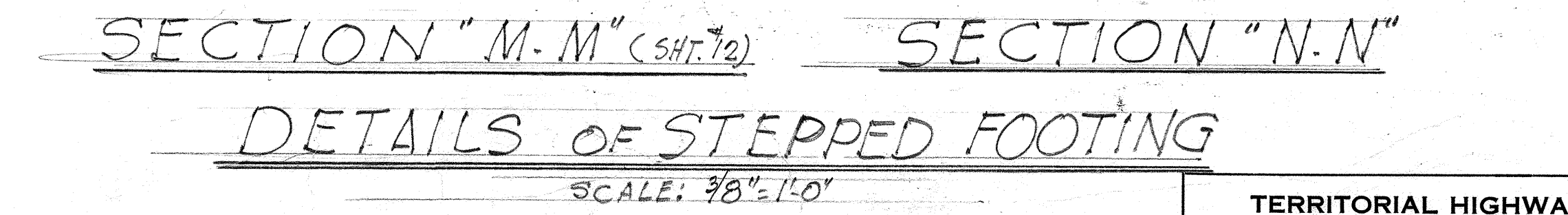
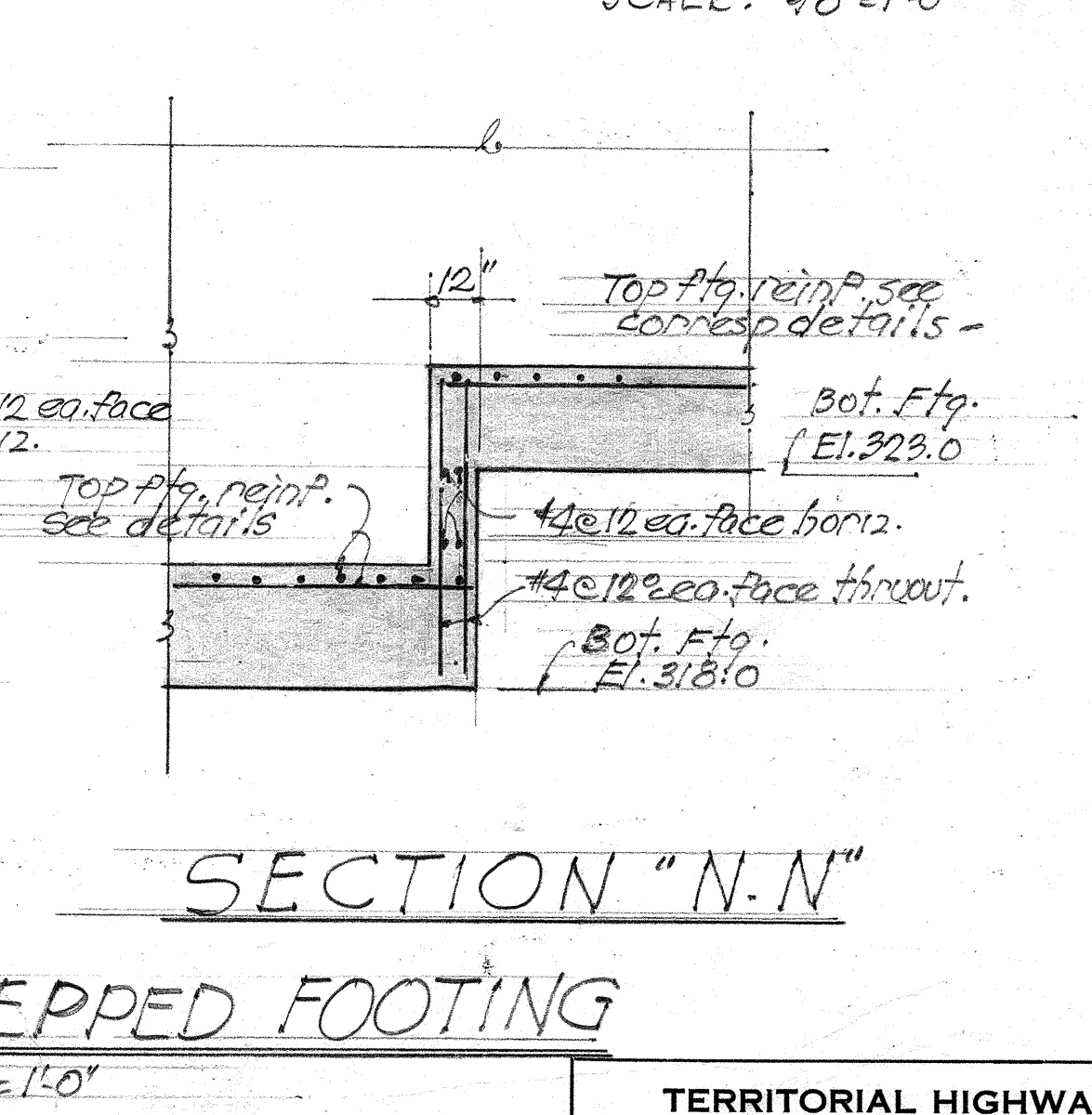
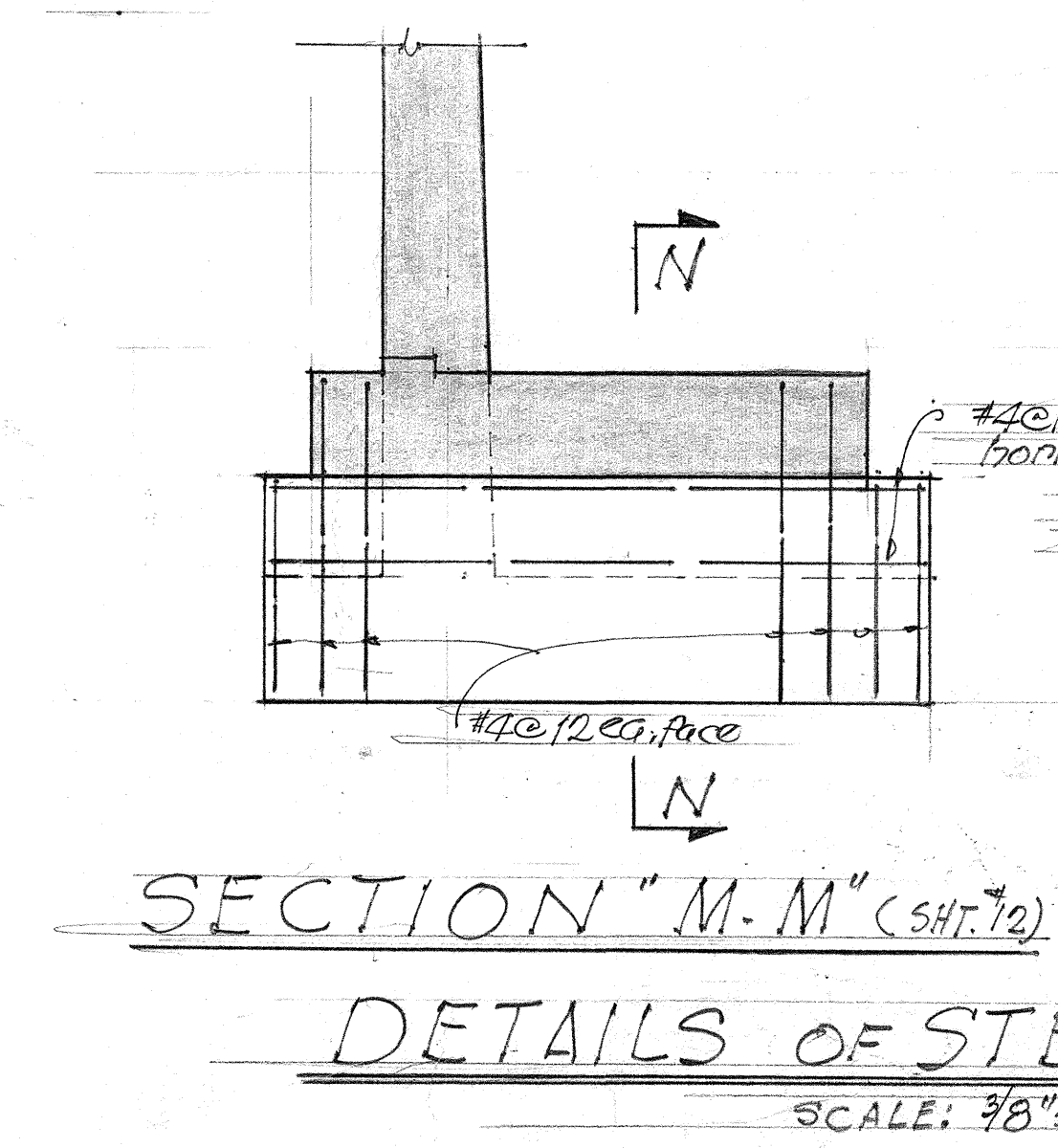
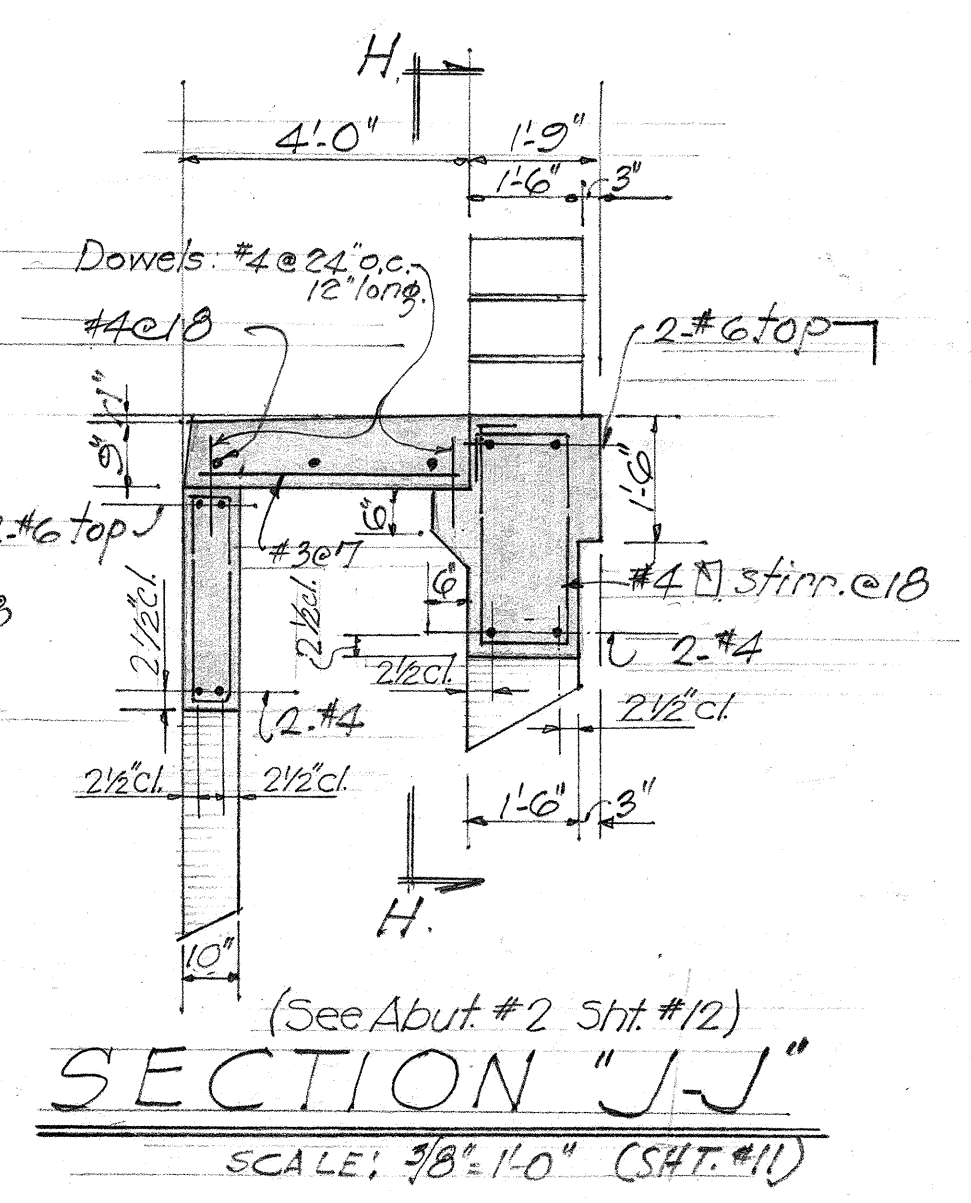
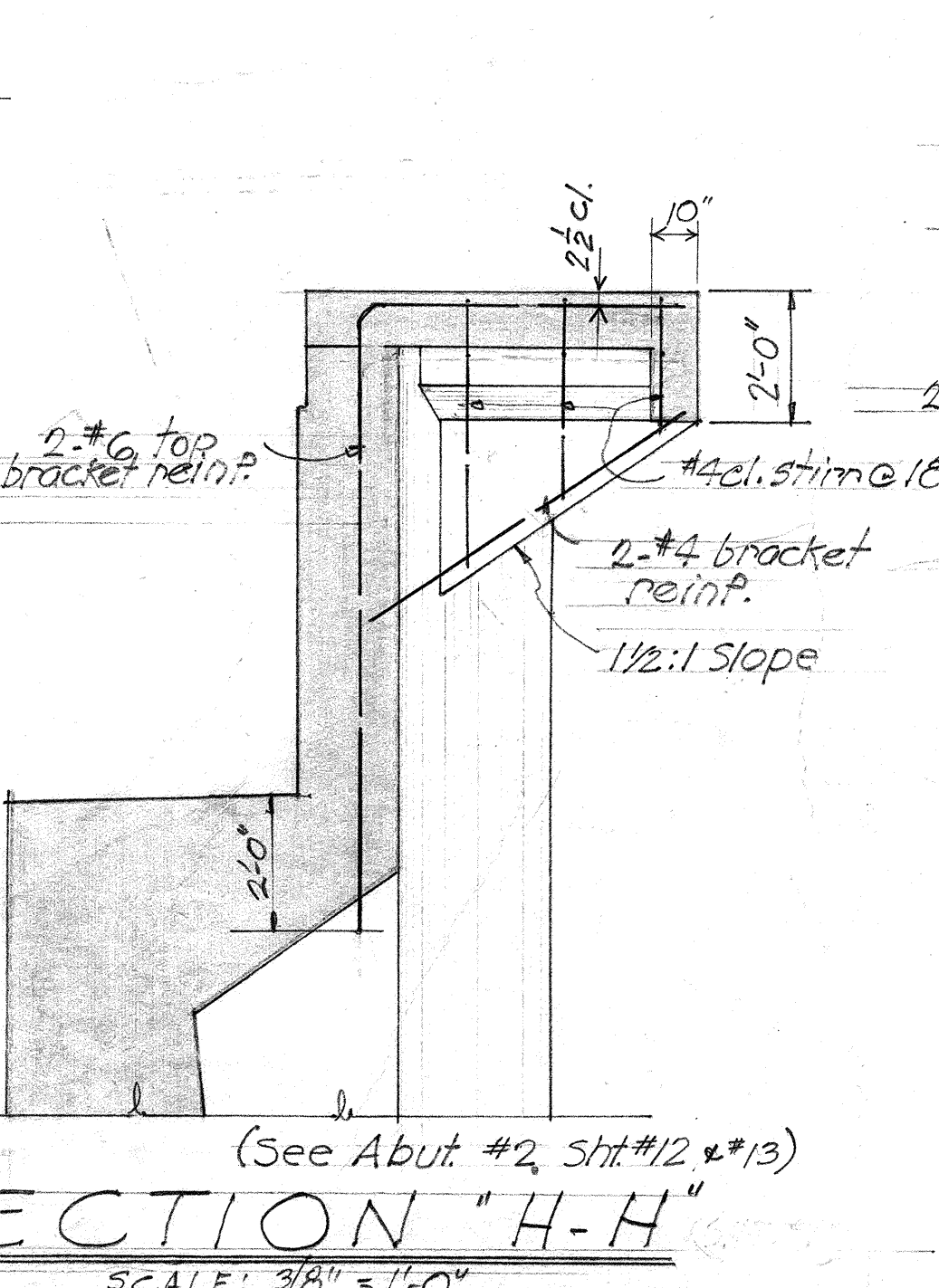
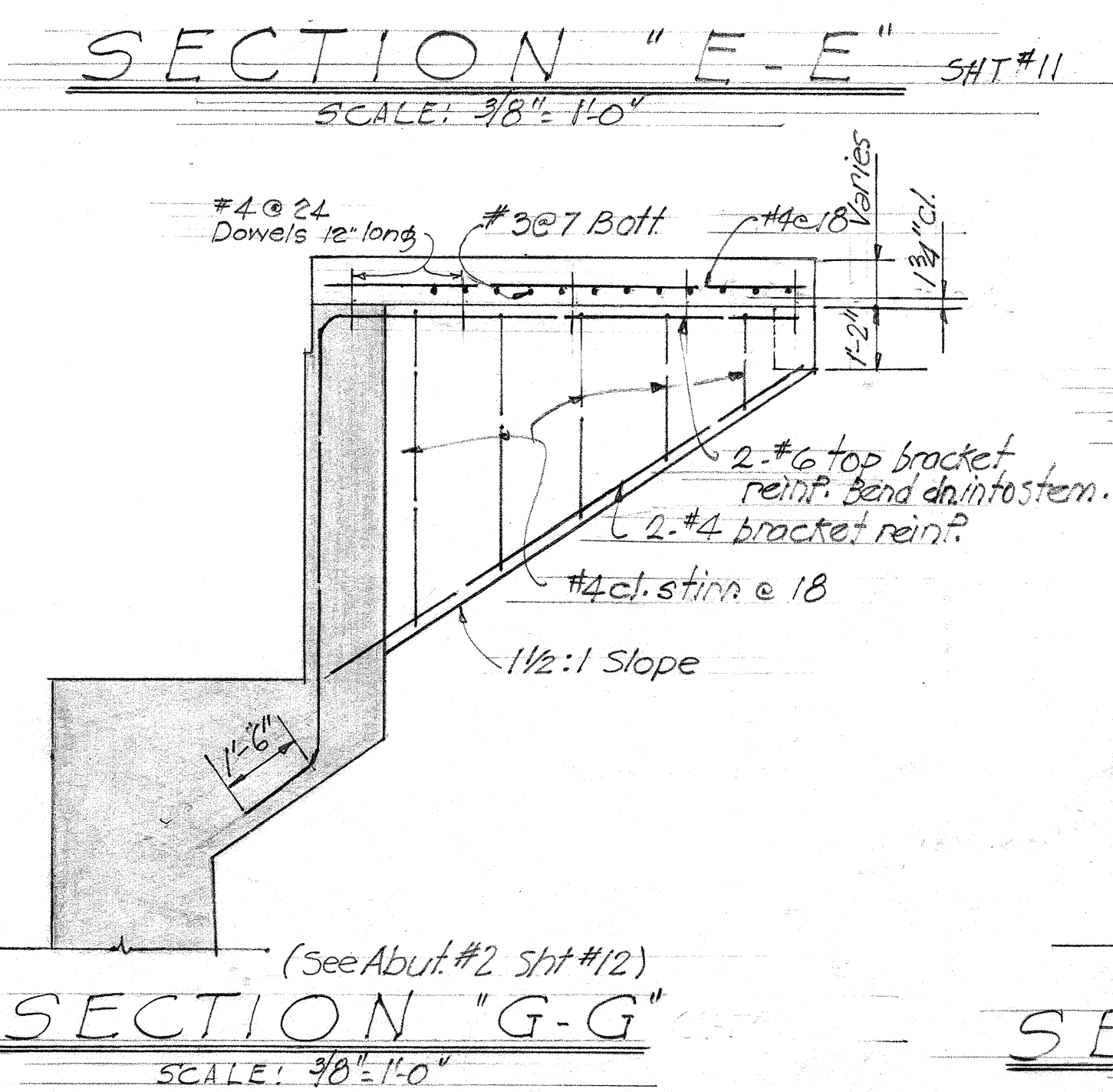
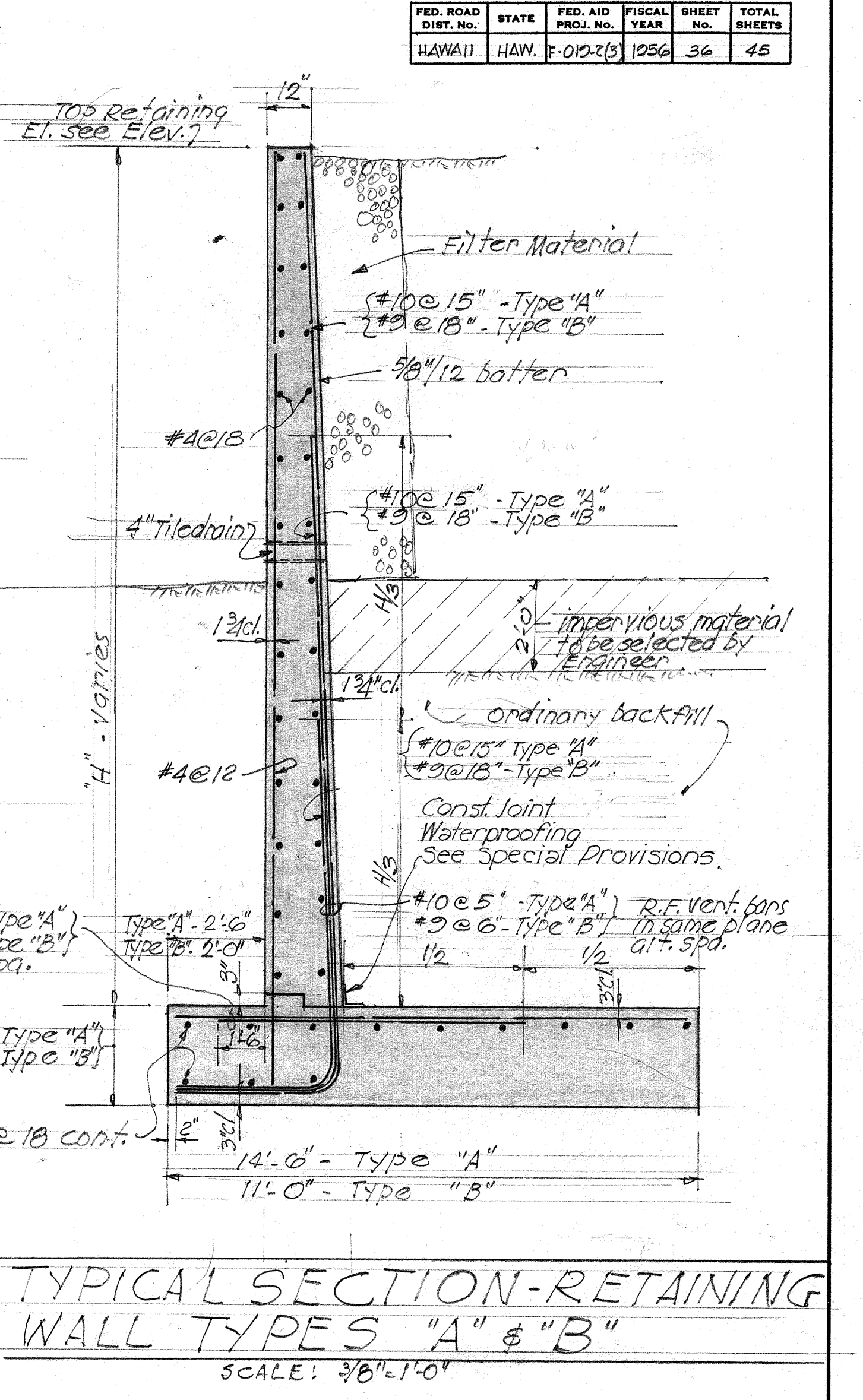
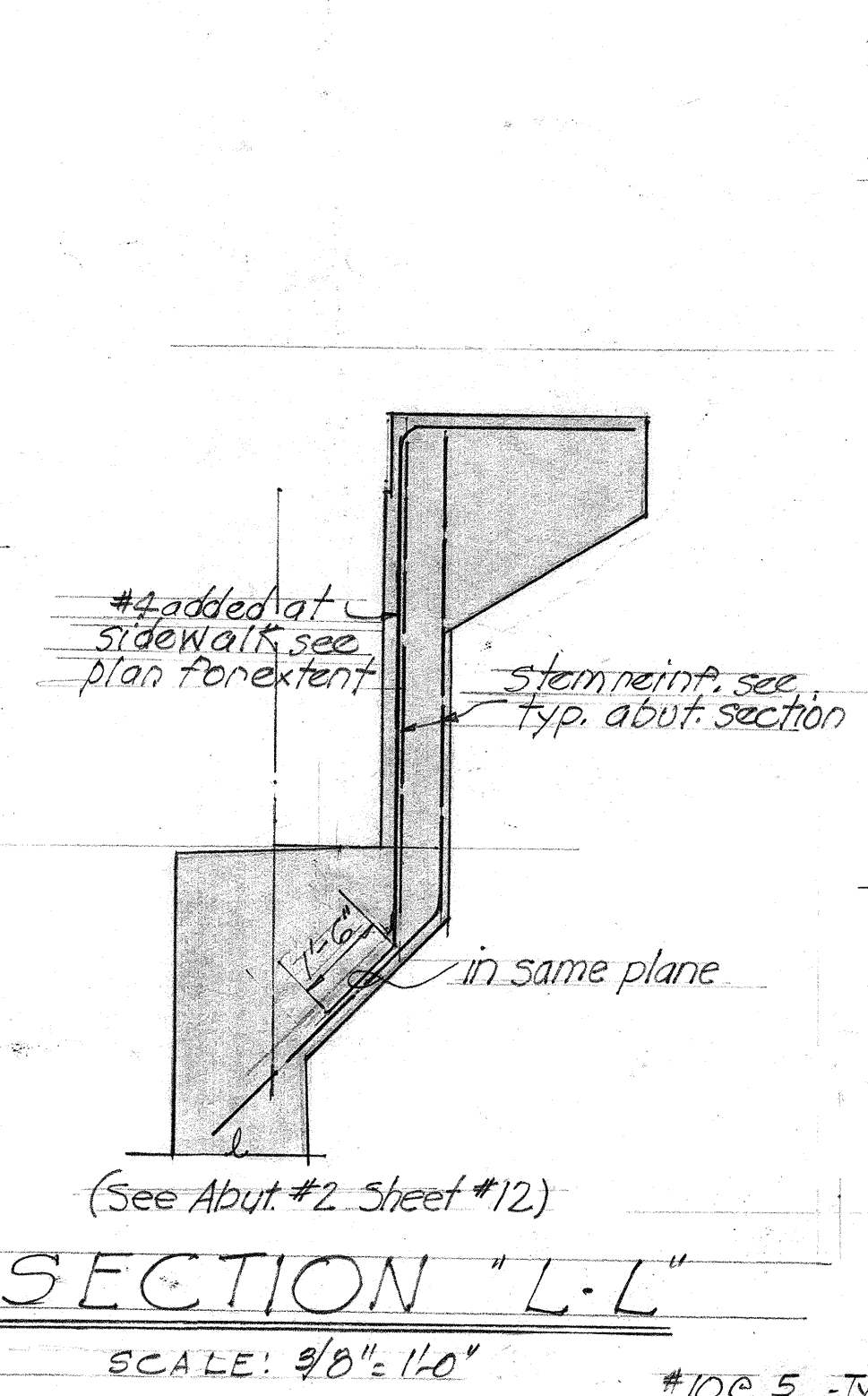
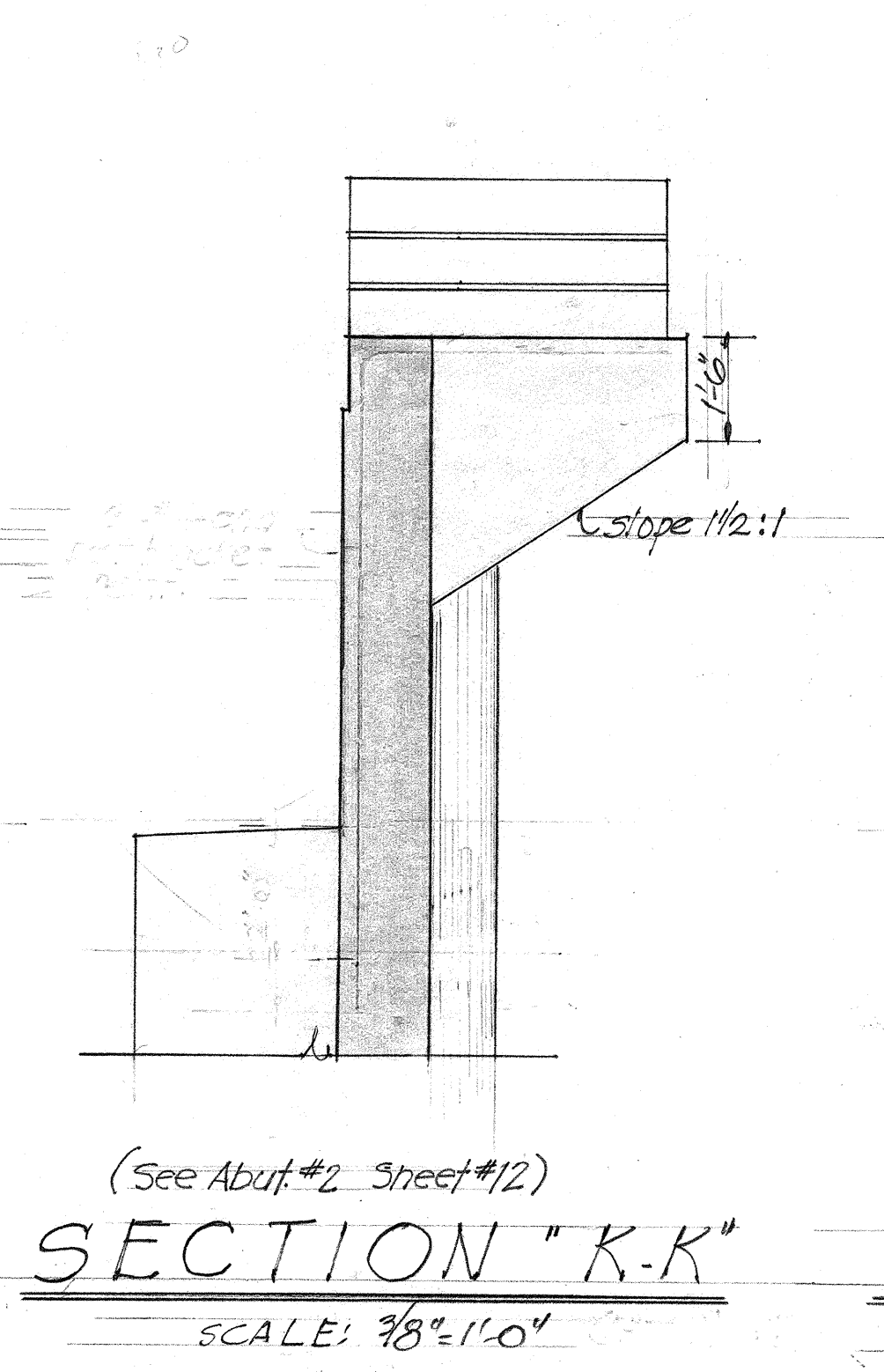
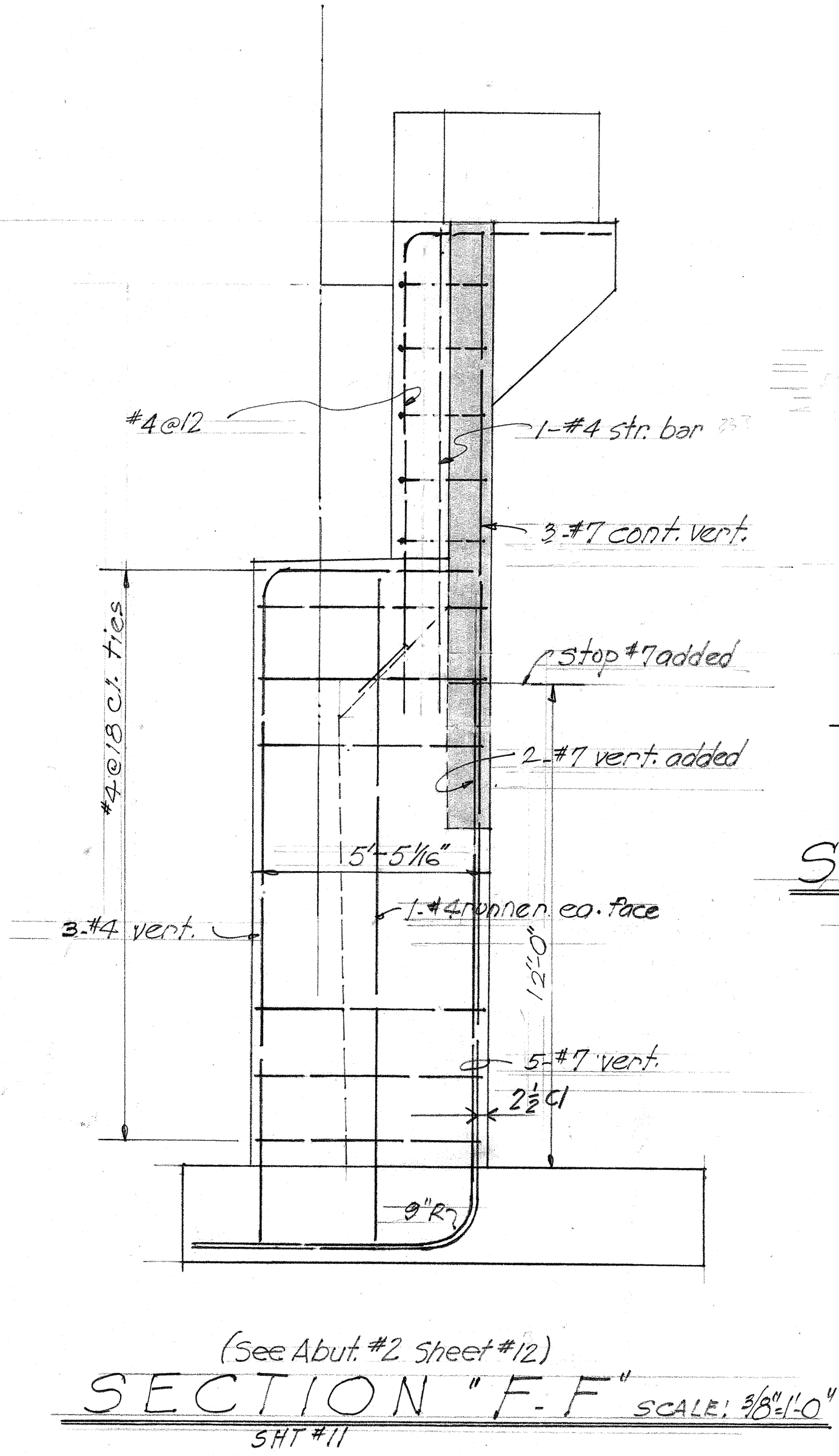
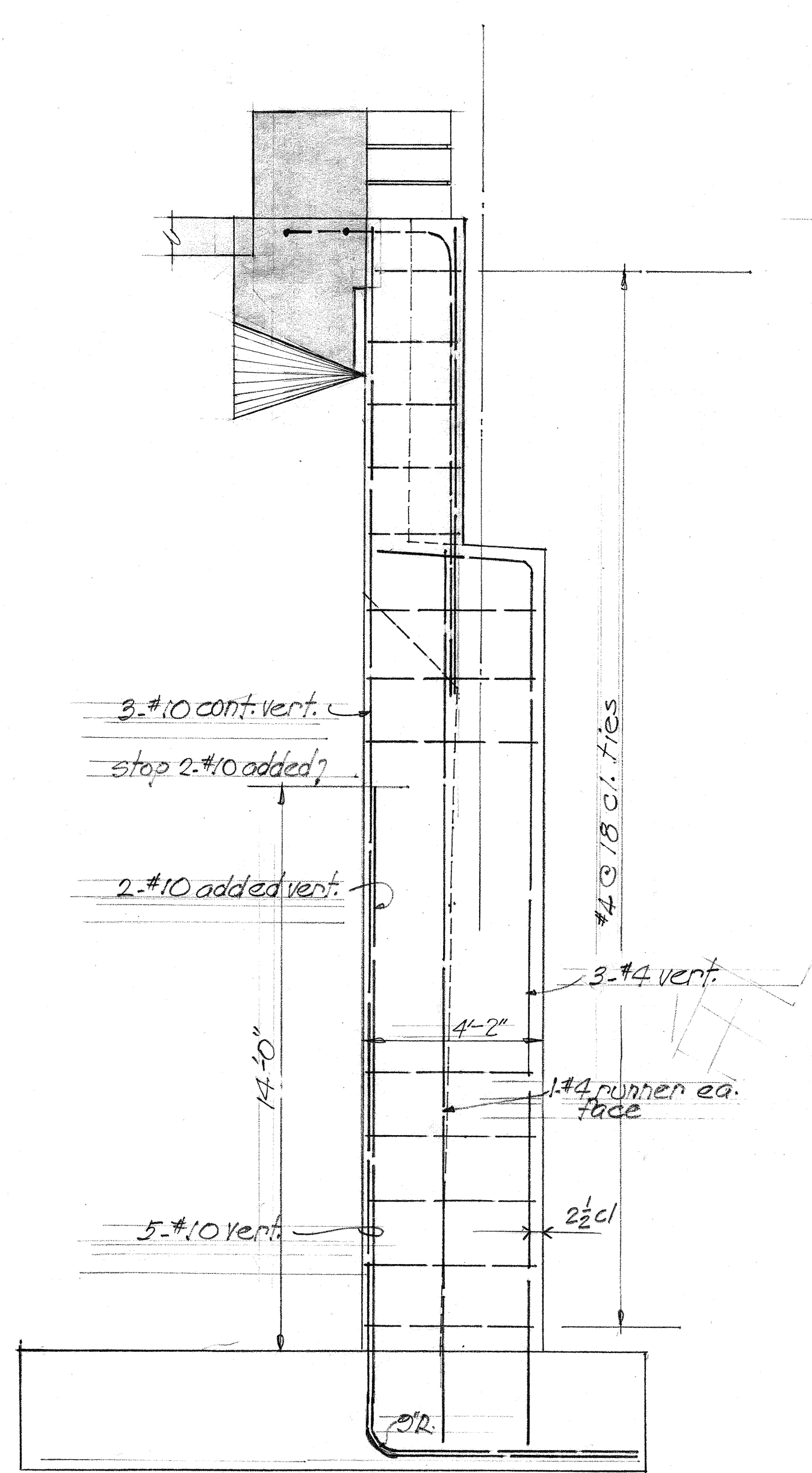


DATE	11/55
SURVEY PLOTTED BY	W. H. H. H.
DESIGNED BY	W. H. H. H.
TRACED BY	W. H. H. H.
QUANTITIES CHECKED BY	W. H. H. H.
CHECKED BY	W. H. H. H.
NOTE BOOK NO.	

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KUWAIKAKI BRIDGE
Sta. 21+22.46 to Sta. 23+56.52
HAWAII BELT ROAD
S-019-2(3) NOV, 1955

SHEET No. 12 OF 15 SHEETS

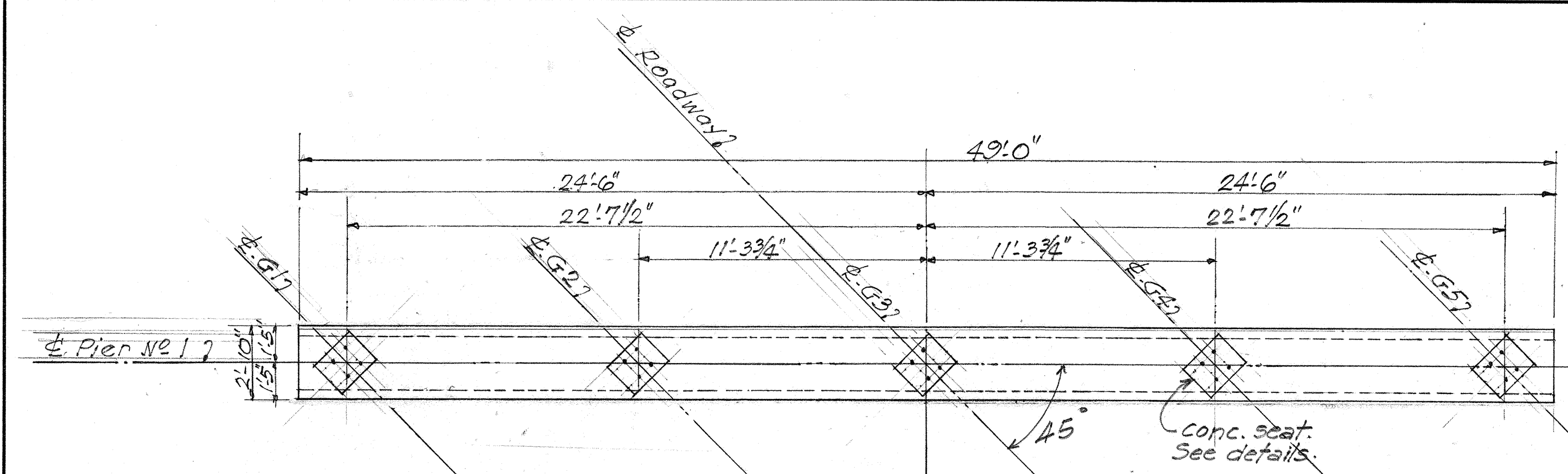
5845.35



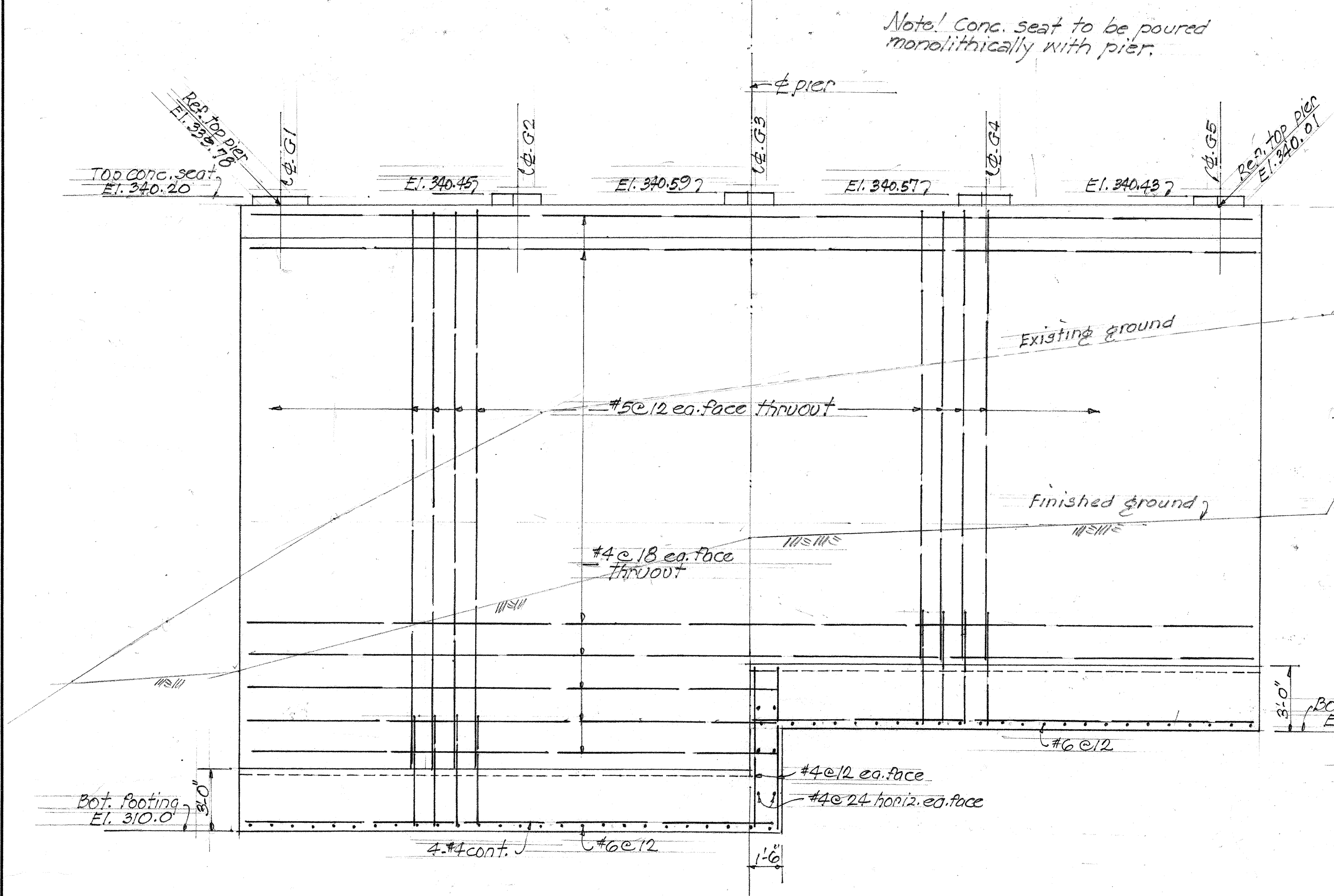
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KUWAIKAHI BRIDGE
STA. 21+92.46 to STA. 23+86.52
HAWAII BELT ROAD PROJ. F.O.D. 2(3)
JAN. 1956

DATE: 12-1-56
SURVEY PLOTTED BY: F. CHIAO
ORIGINAL PLAN: F. CHIAO
NOTE BOOK: F. CHIAO
CHECKED BY: F. CHIAO

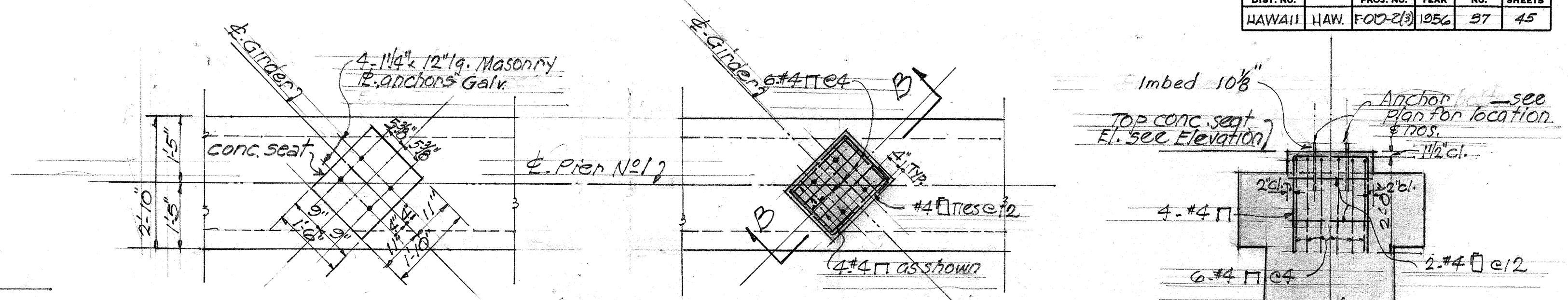
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F00-219	1956	37	45



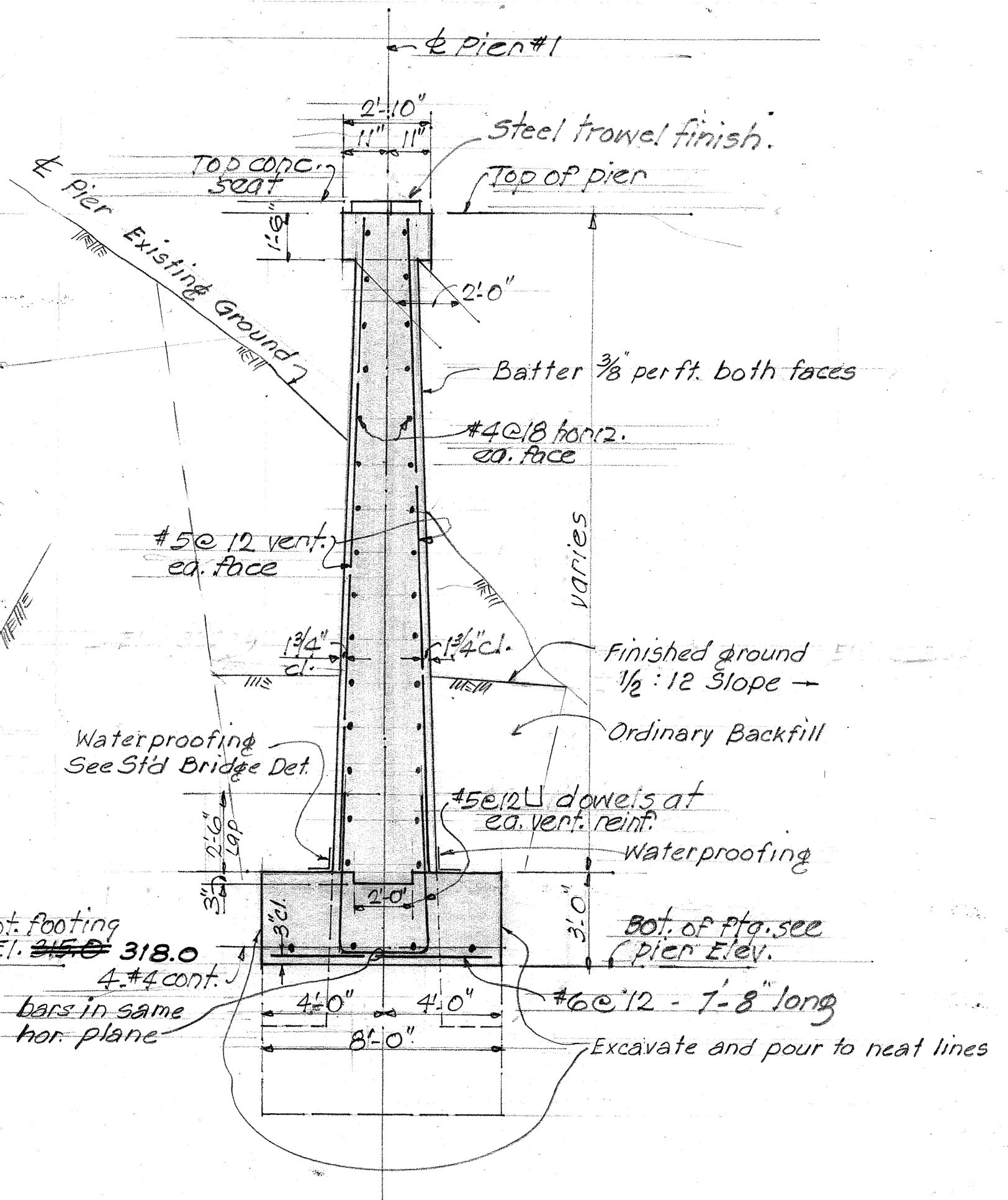
TOP PLAN - PIER NO 1
SCALE: 1/4" = 1'-0"



ELEVATION - PIER NO 1
SCALE: 1/4" = 1'-0"



TYPICAL CONCRETE SEAT DETAILS
SCALE: 1/2" = 1'-0"



TYPICAL PIER SECTION
SCALE: 1/4" = 1'-0"

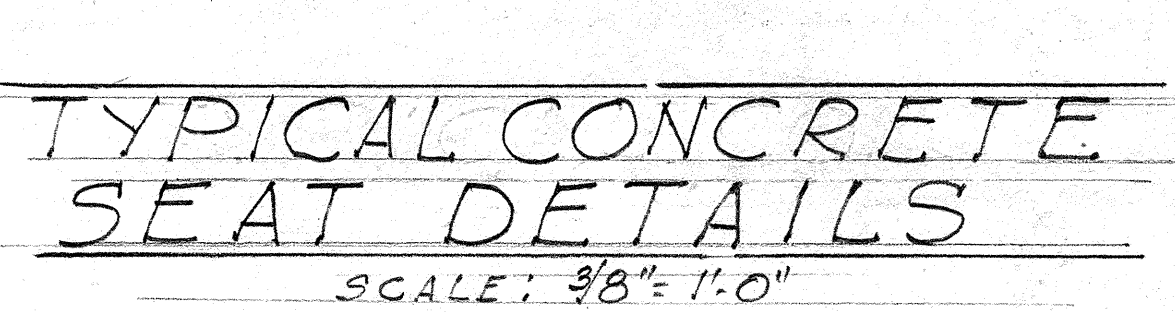
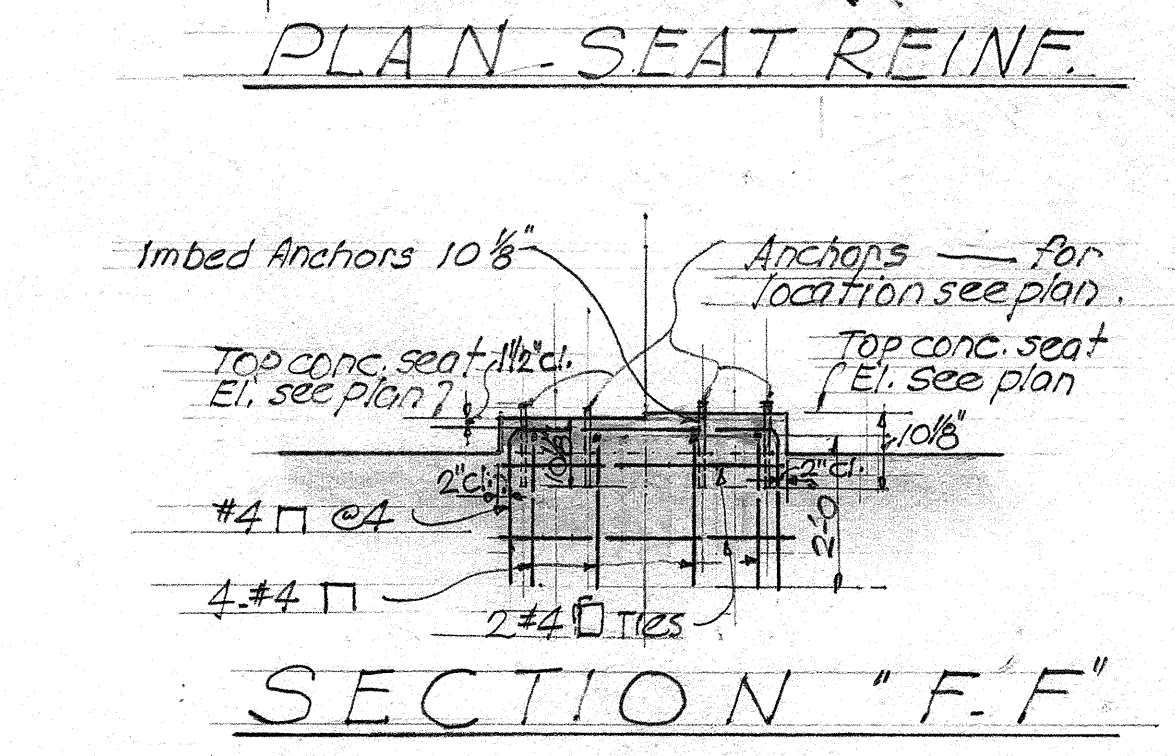
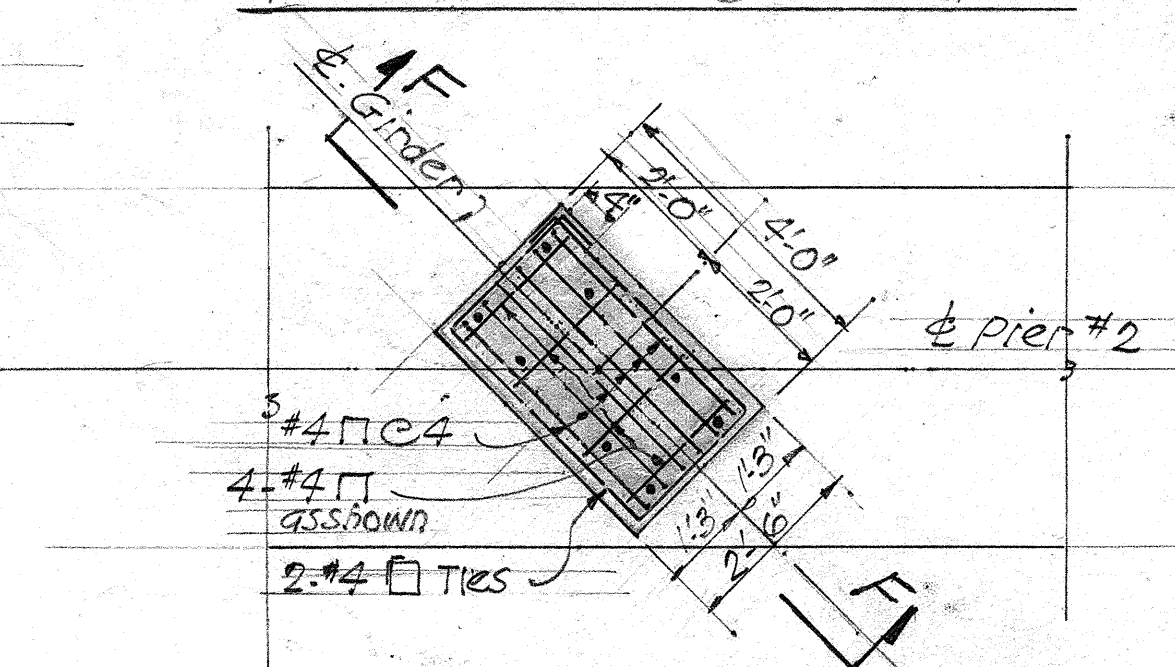
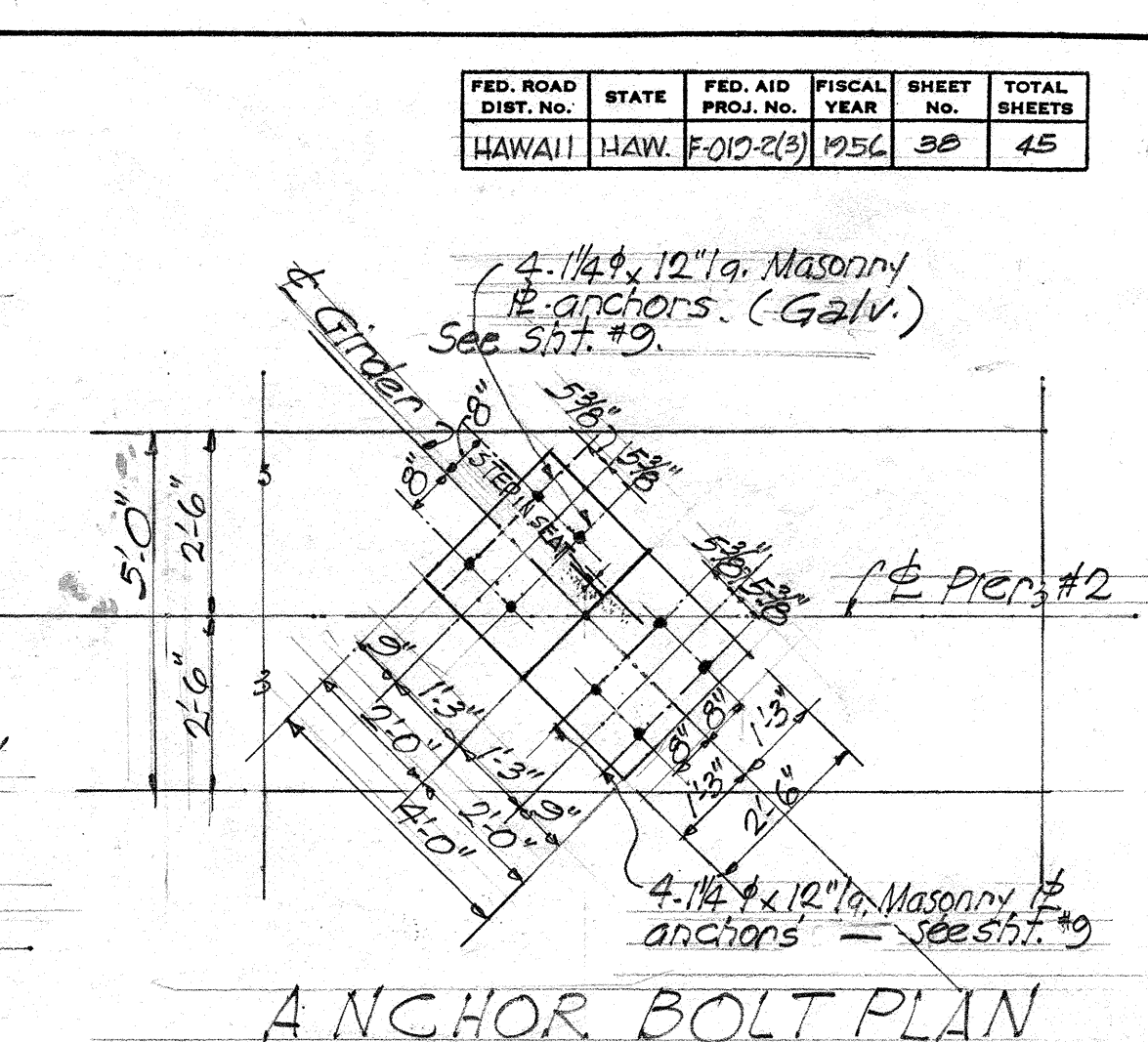
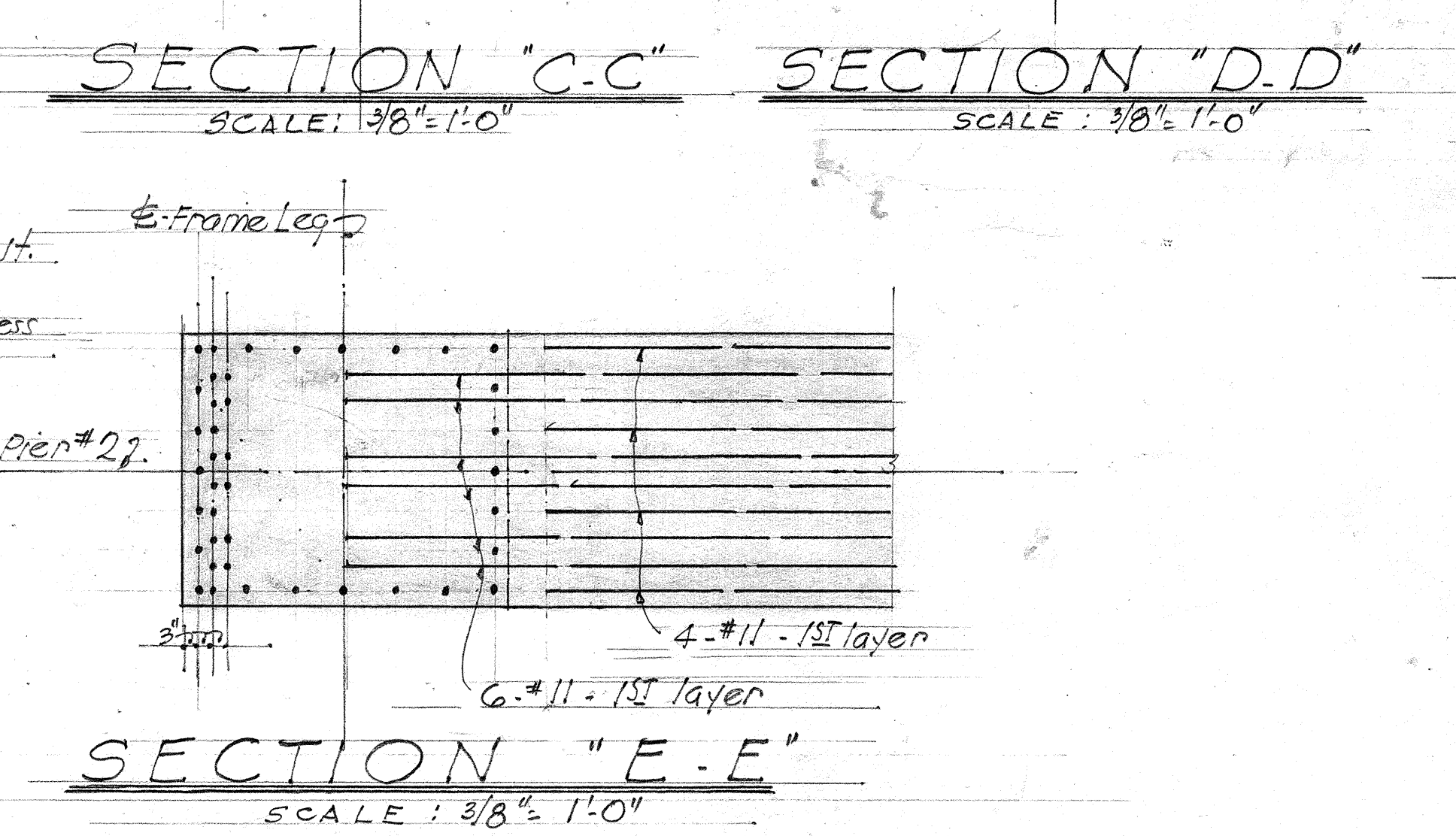
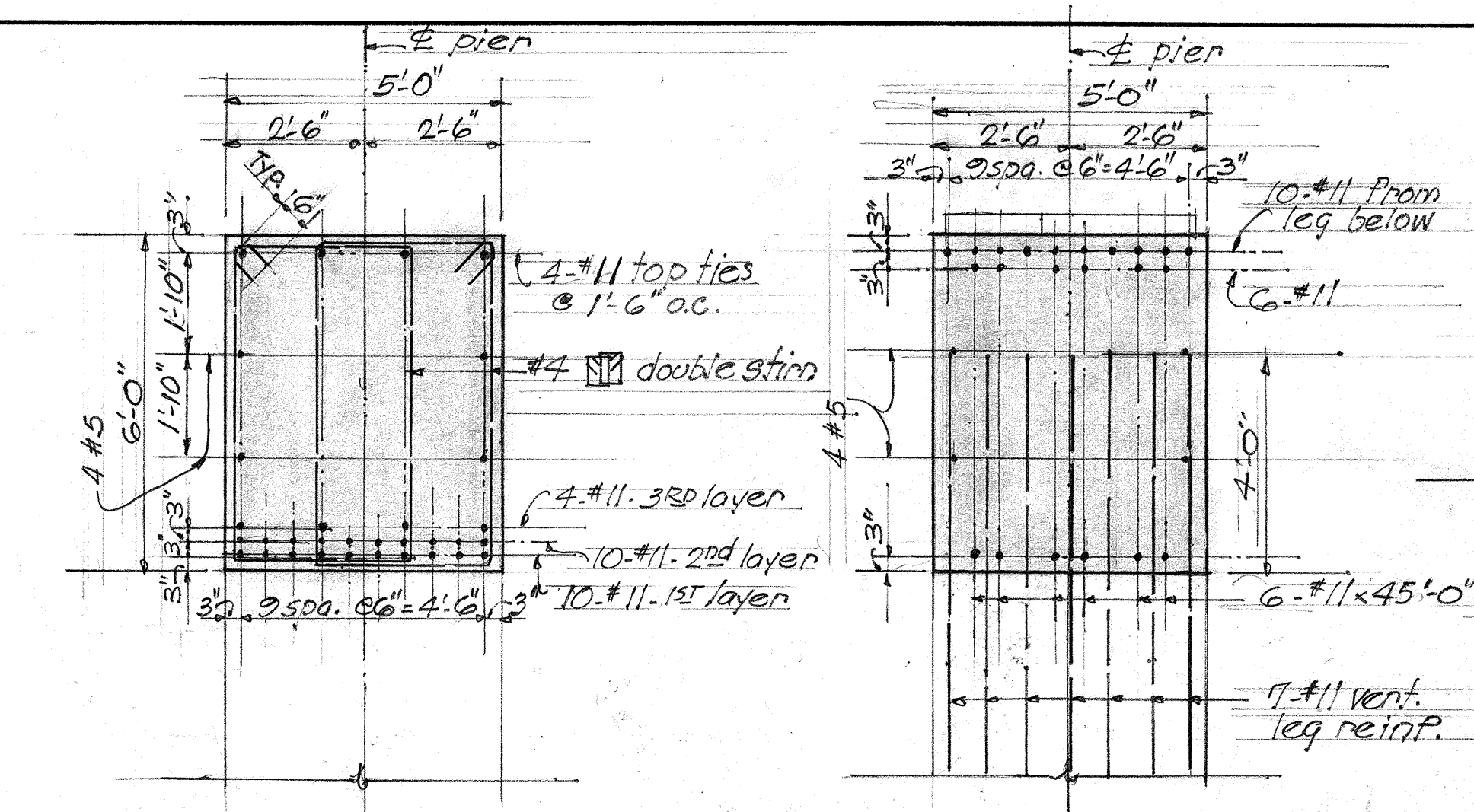
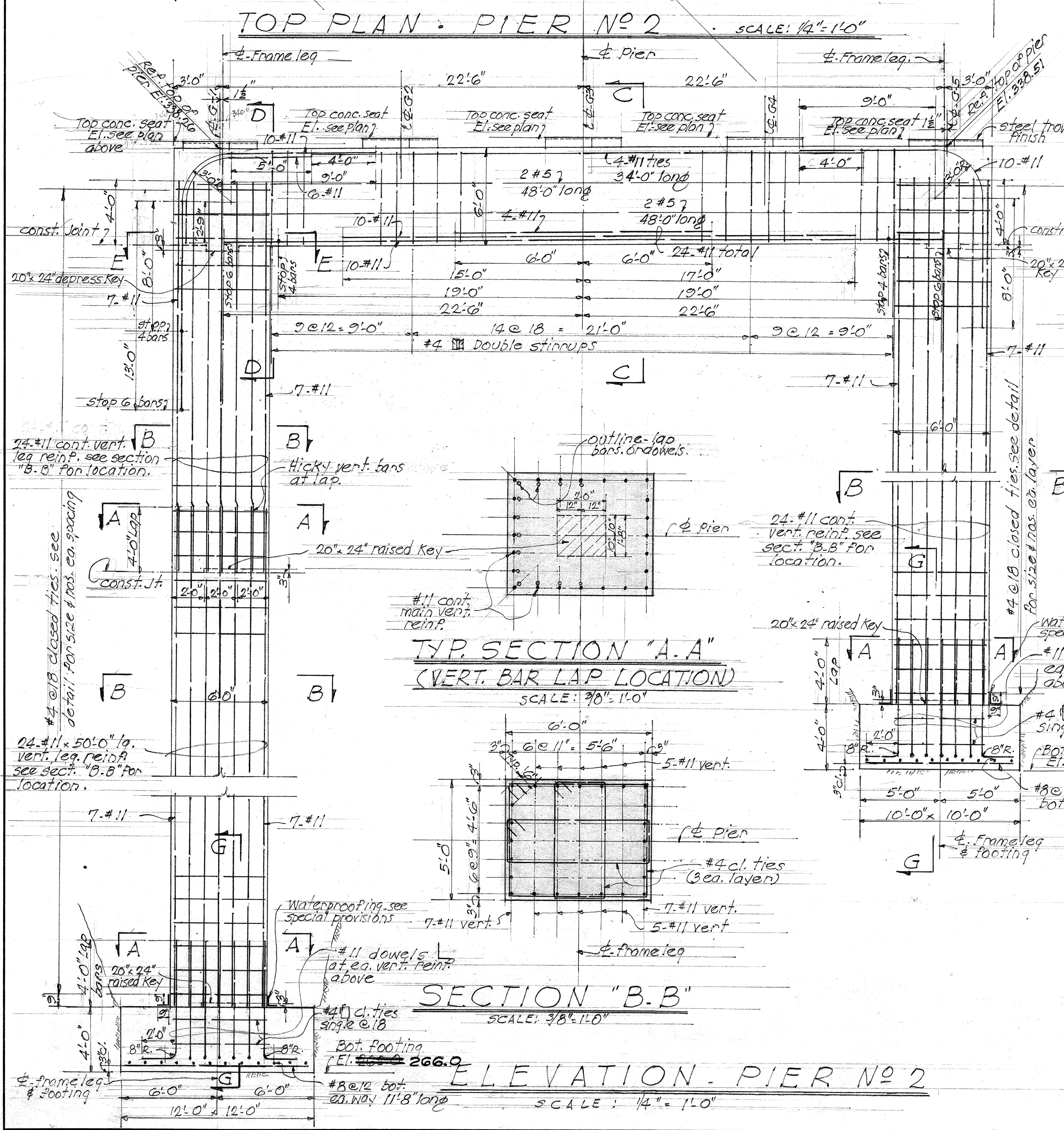
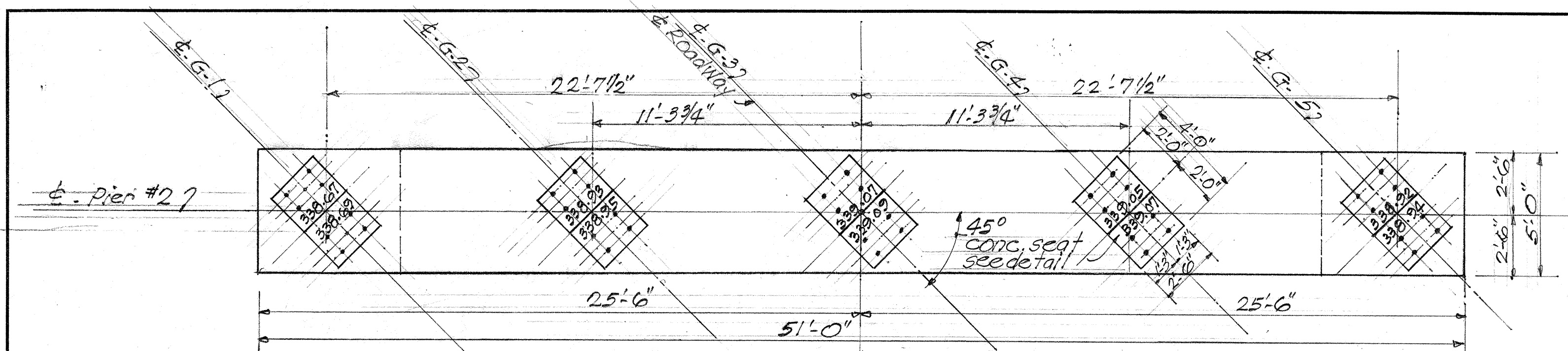
SURVEY PLOTTED BY	DATE
DESIGNED BY	" 12-50
DRAWN BY	" 12-50
QUANTITIES CHECKED BY	" 12-50
NOTE BOOK	" 12-50
NO.	" 12-50

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KUWAIKAHI BRIDGE
STA. 21+92.46 TO STA. 23+86.52
HAWAII BELT ROAD PROJ. F.O. 19-203
JAN. 1956

SHEET NO. 14 OF 15 SHEETS

5845.37

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F012-23	1956	35	45



DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KUWAIKAHI BRIDGE
STA. 21+92.46 TO STA. 23+86.52
HAWAII BELT ROAD PROJ. F.O. 12-20
JAN. 1956

SHEET NO. 15 OF 15 SHEETS

5845.38