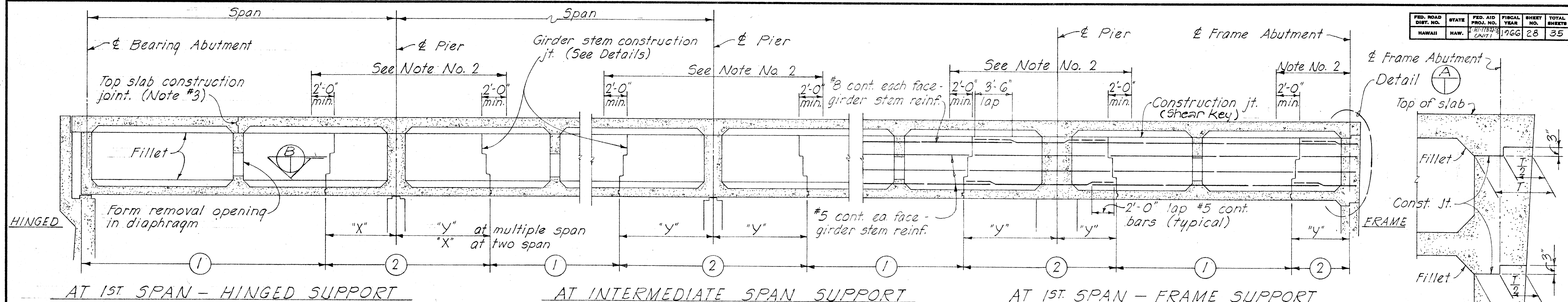


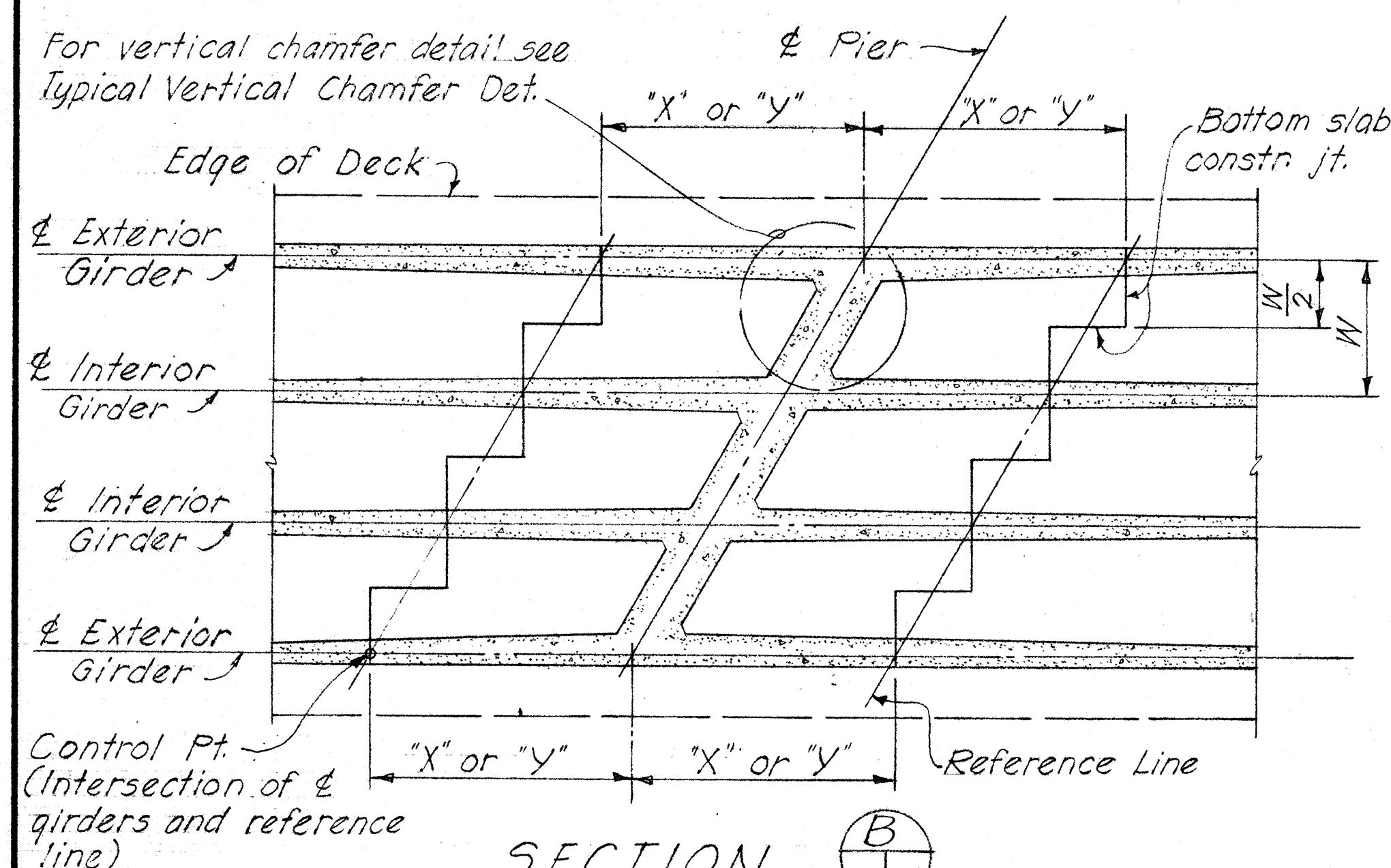
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-11-1132-5 UNIT 1	1966	28	35



NOTE:

- No. 1 - Numbers ① & ② indicate sequence of placing bottom slab & girder stem concrete. ② may be placed with ① when approved by the Engineer provided that the ① sections adjoining the ② sections are placed in this pour. For any deviation from the above the Contractor shall submit a diagram to the Engineer for approval.
- No. 2 - No top slab construction joint or form removal opening shall be located in the region over the piers as noted.
- No. 3 - When top slab forms are not removed, construction joint in top slab shall be located over an intermediate diaphragm.
- No. 4 - Dimension "X" = $\frac{1}{4}$ span "Y" = $\frac{1}{5}$ span
- No. 5 - No lapping of main girder bars shall be permitted at construction joints.

PLACING DIAGRAM FOR SUPERSTRUCTURE CONCRETE

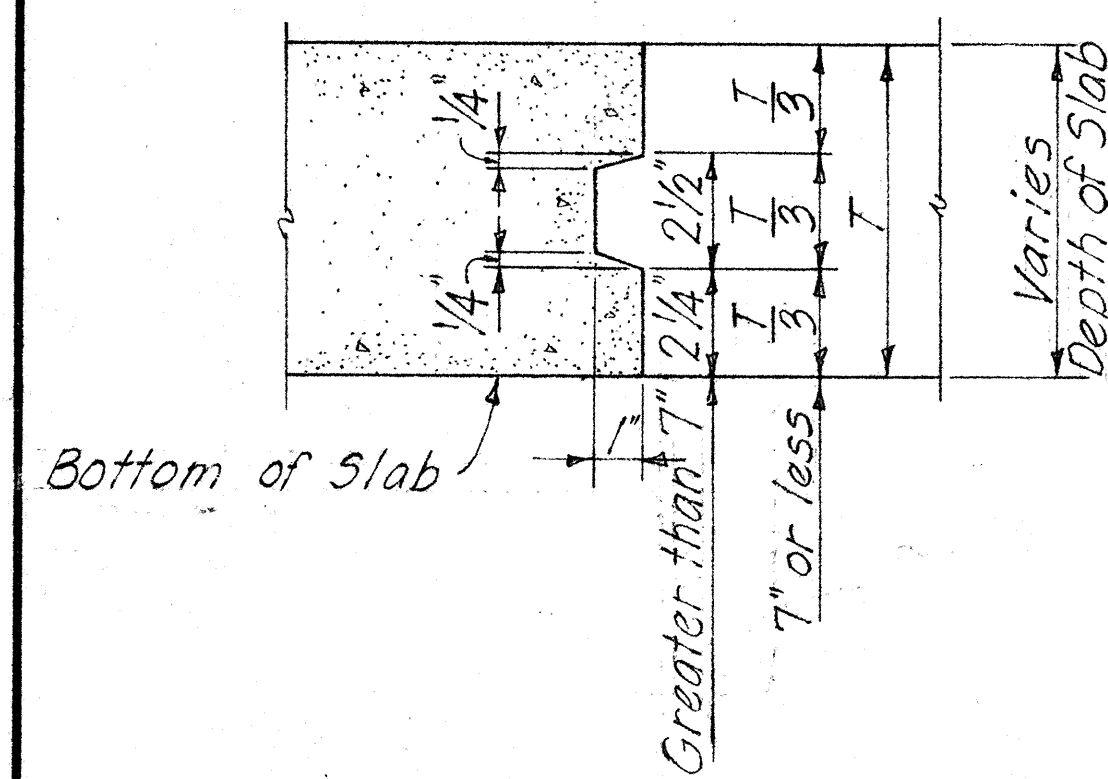


reference

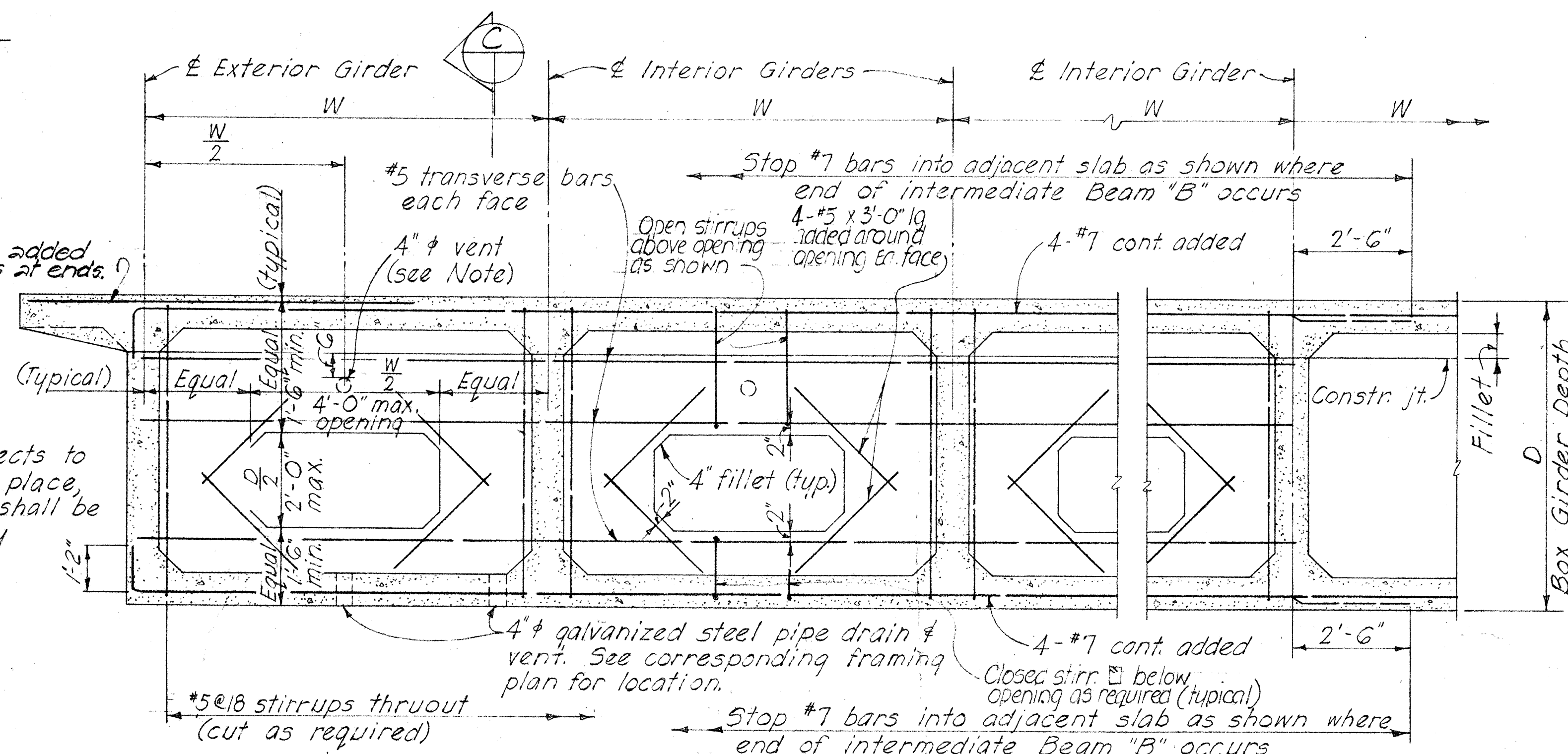
SECTION

TREATMENT OF CONSTRUCTION JOINT

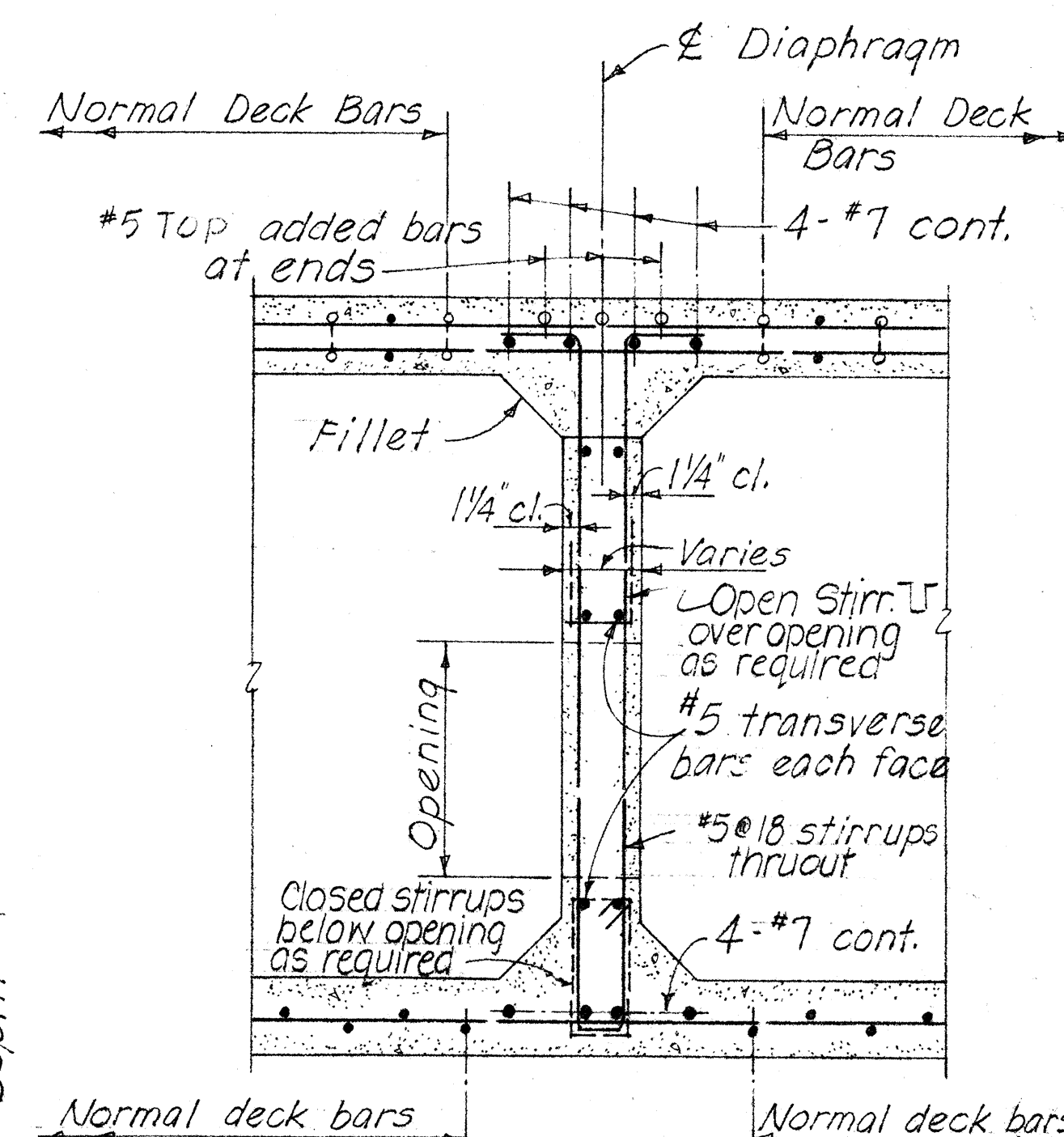
BRIDGES ON SKEW #5



TYPICAL SLAB CONSTRUCTION
JOINT DETAIL



AT NON-CONTINUOUS ENDS TYPICAL INTERIOR SPAN
TYPICAL BEAM "B" DETAILS



SECTION

**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION**

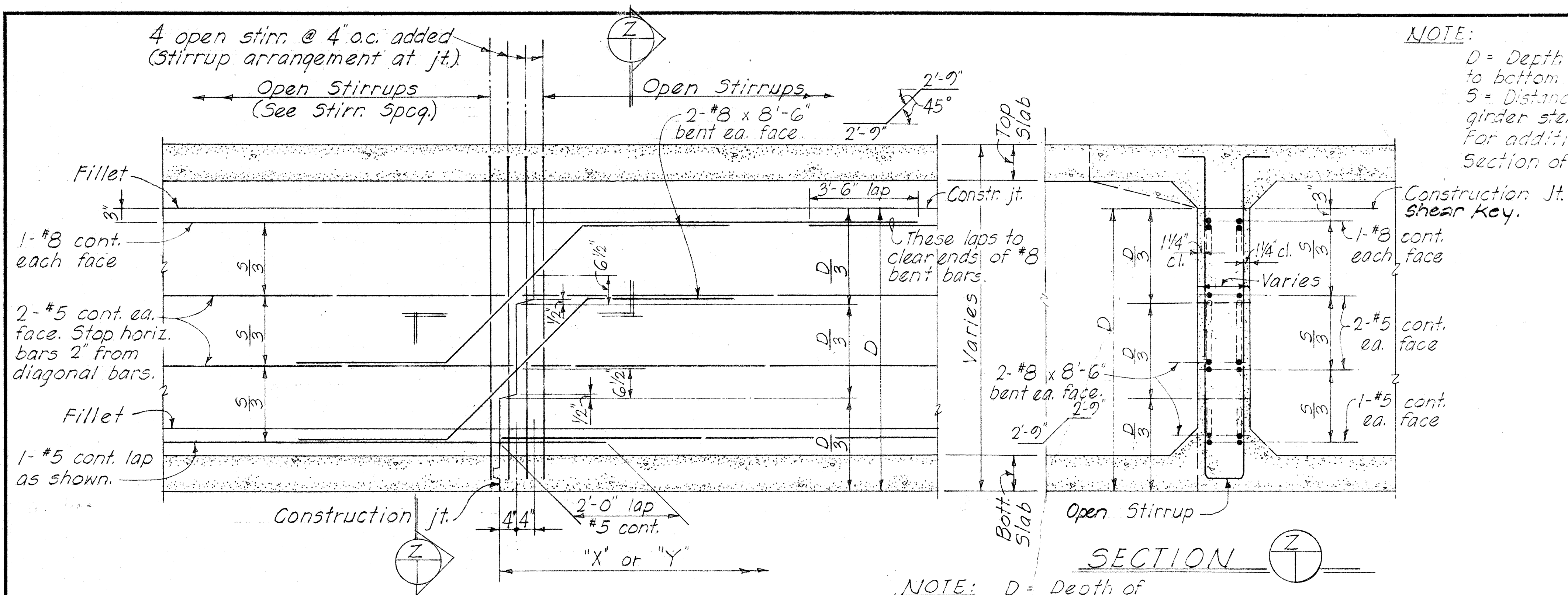
STANDARD DETAILS CONCRETE BOX GIRDER

SHEET No. 52 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-11-1966	1966	27	35

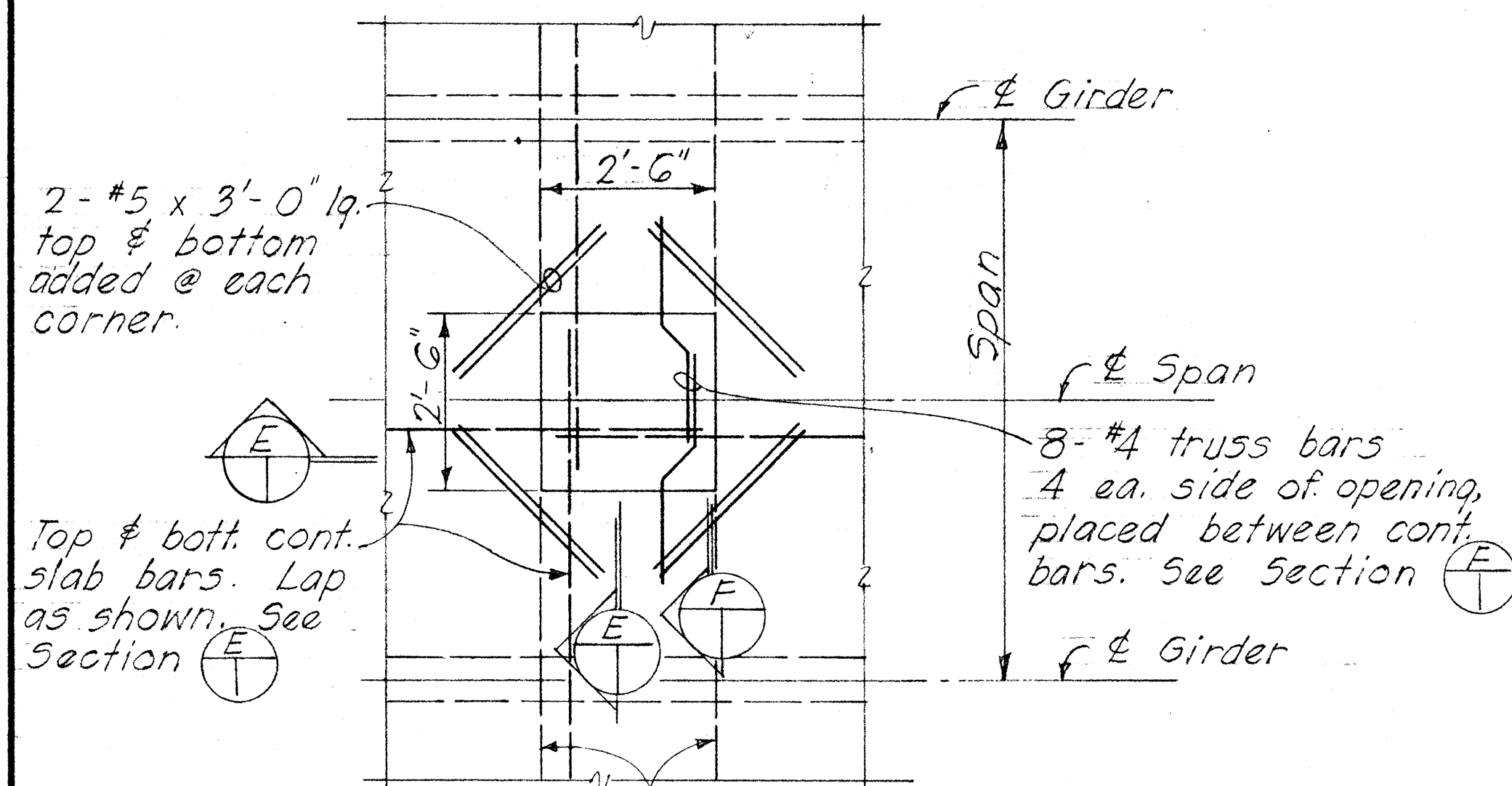
NOTE:

D = Depth of girder stem to bottom of slab.
S = Distance between top & bott. cont. girder stem longitudinal bars.
For additional details see Normal Section of the Plans.



GIRDER STEM CONSTRUCTION JOINT

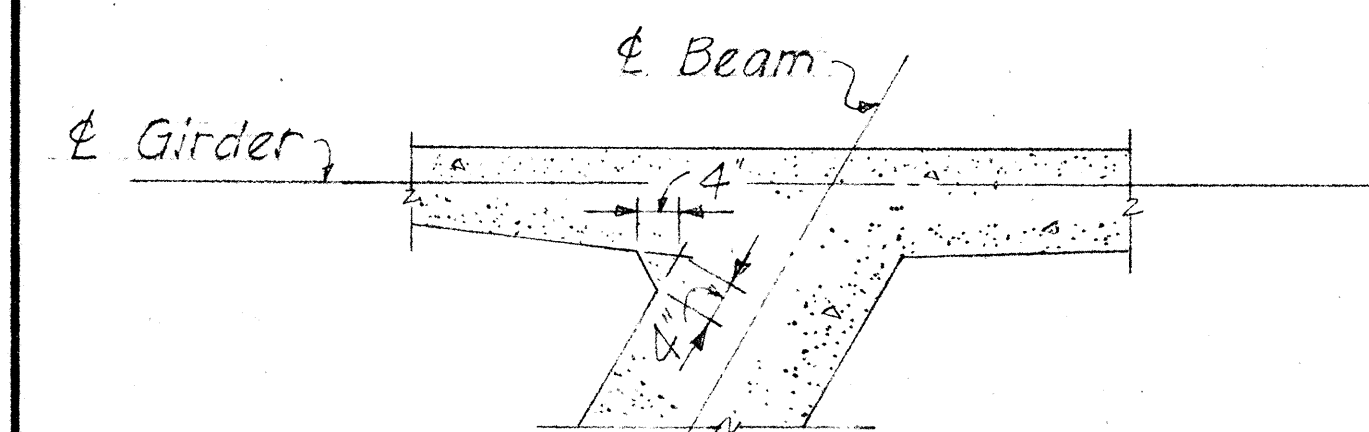
NOTE: D = Depth of girder stem to bott. of slab.



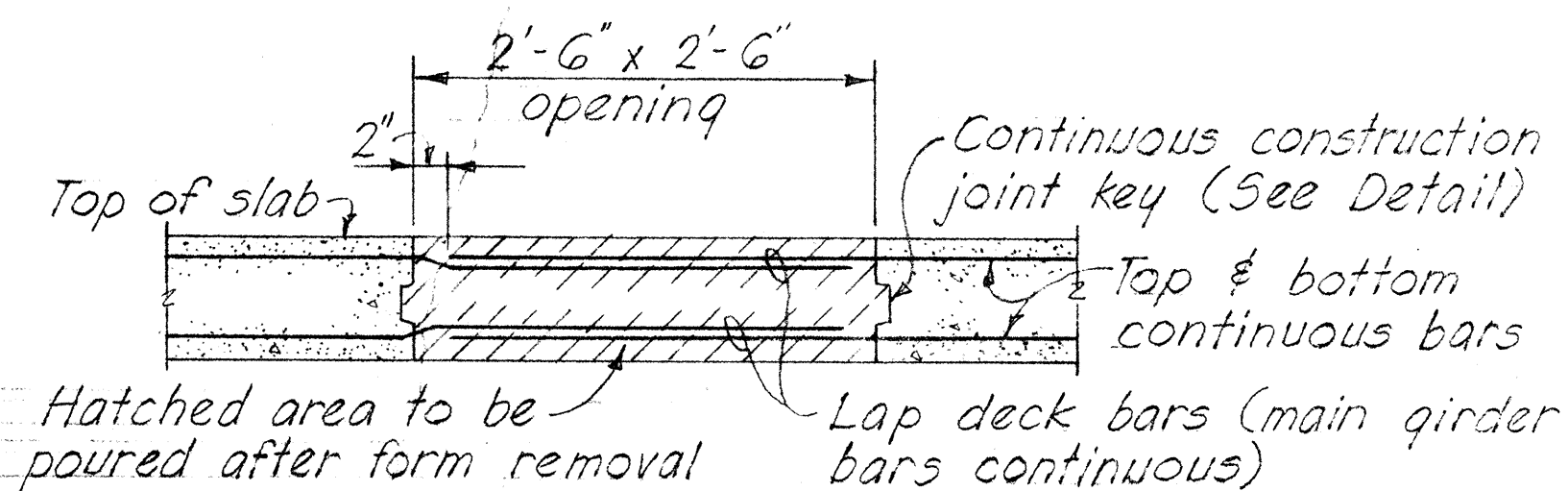
Note: Final location of opening shall be determined by the Engineer.

Form removal opening may extend from edge of deck to edge of deck with approval of the Engineer. Lap small longitudinal deck bars as shown on Section E

PART PLAN - DECK SHOWING FORM REMOVAL OPENING

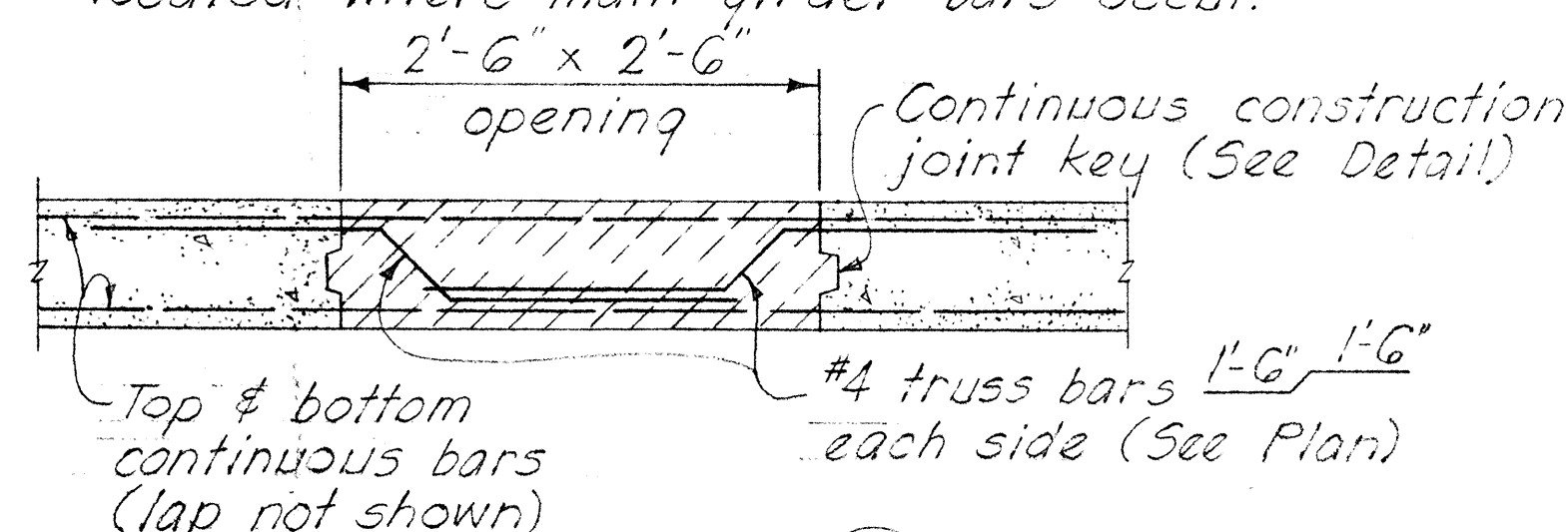


TYPICAL DETAIL OF VERTICAL CHAMFER AT ACUTE INTERSECTION OF SKEWED CONCRETE MEMBER



SECTION E

Note: Form removal opening at top slab shall not be located where main girder bars occur.

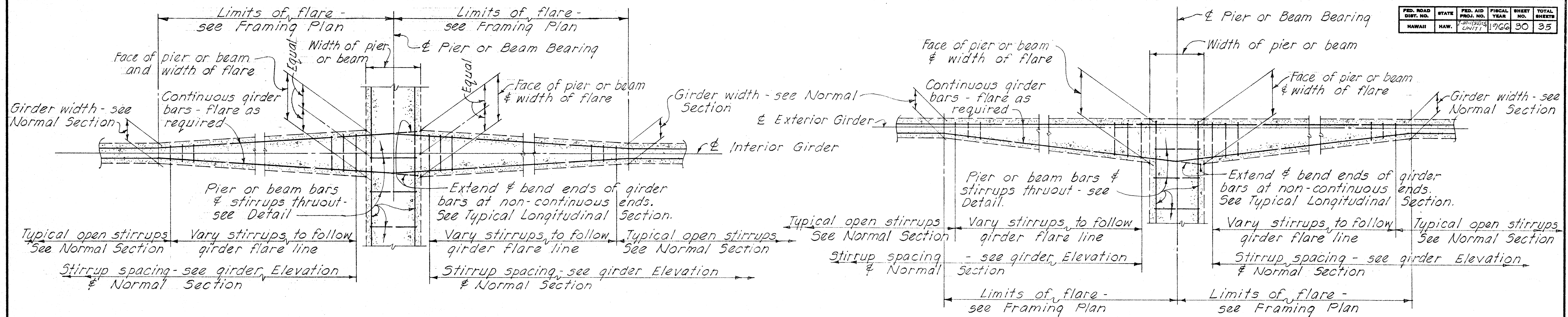


SECTION F

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS CONCRETE BOX GIRDER

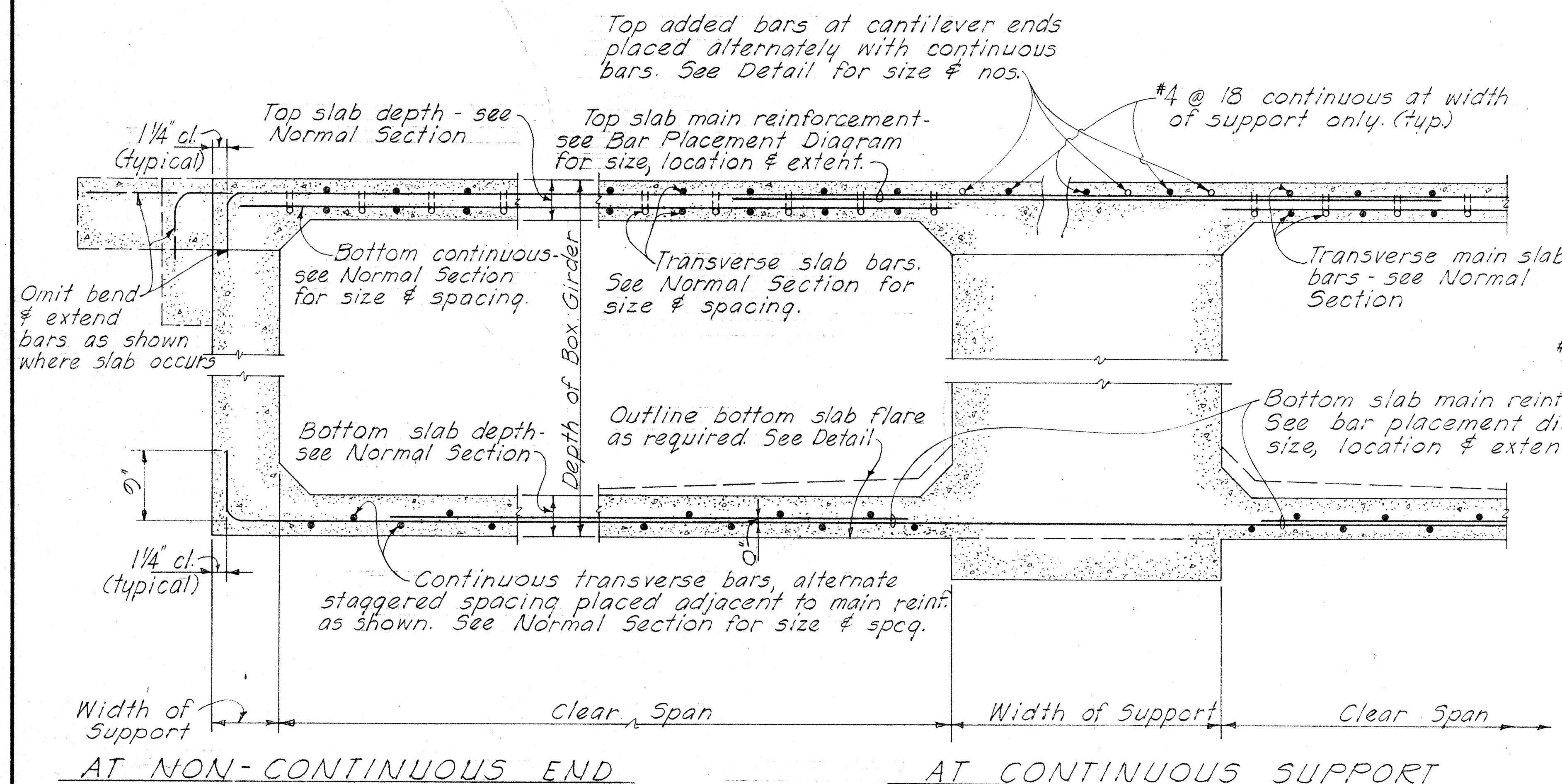
SHEET No. 53 OF 9 SHEETS



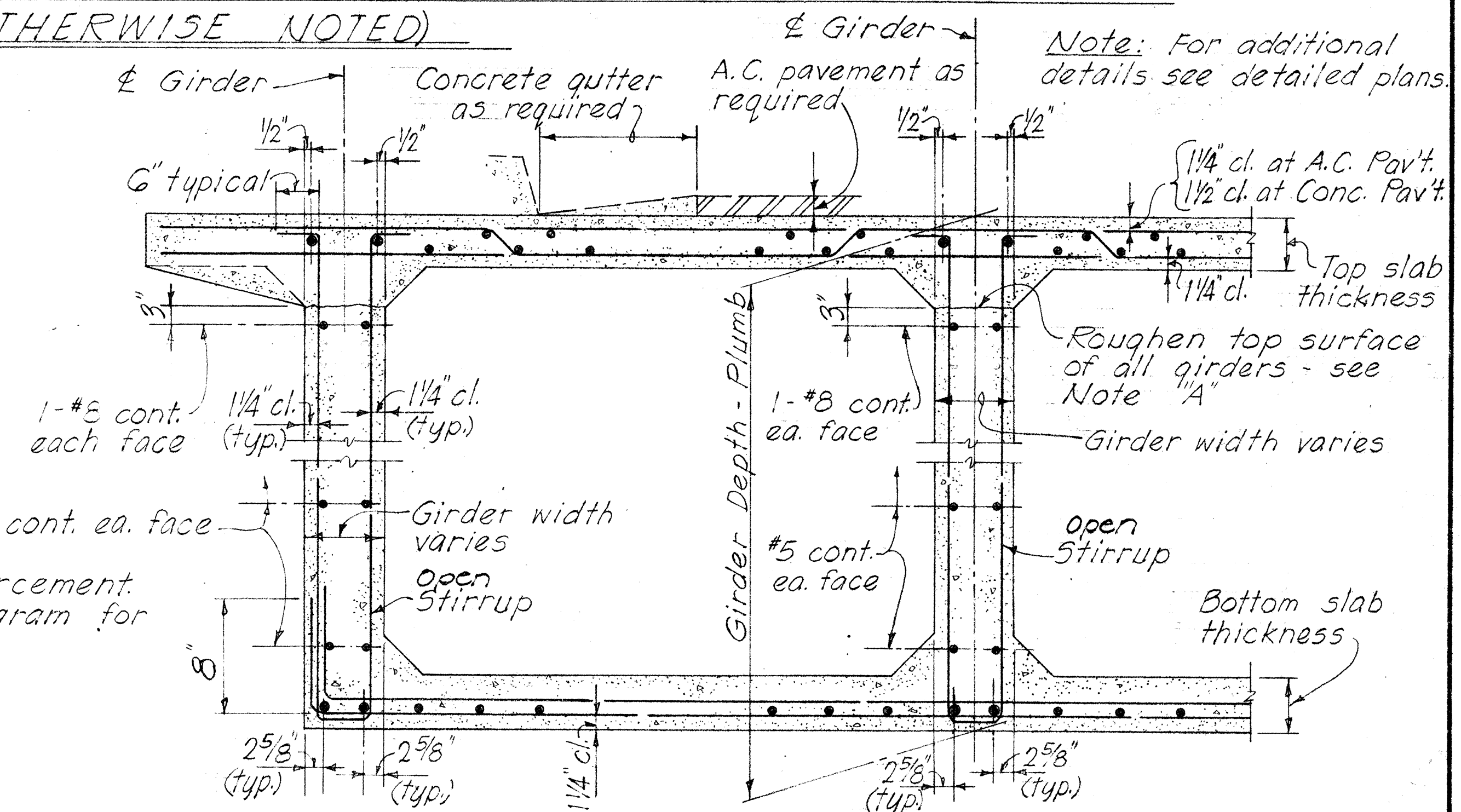
INTERIOR GIRDER

EXTERIOR GIRDER

TYPICAL DETAILS OF GIRDER FLARE AT NORMAL OR RADIAL SUPPORTS - CONTINUOUS ENDS AS SHOWN (NON-CONTINUOUS ENDS SIMILAR EXCEPT AS OTHERWISE NOTED)



TYPICAL LONGITUDINAL DECK SECTION ALONG GIRDER AT NORMAL OR RADIAL SUPPORTS

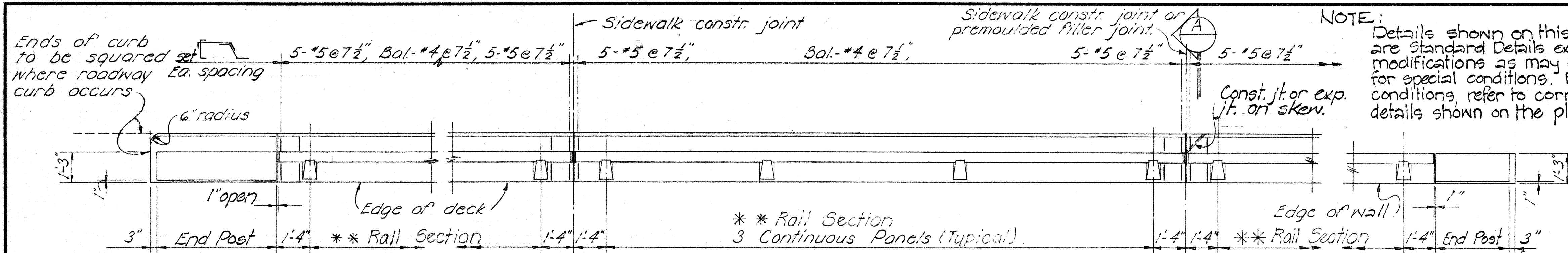


EXTERIOR GIRDER TYPICAL NORMAL BOX GIRDER SECTION

NOTE "A" - The entire surface of the joint shall be thoroughly cleaned of surface laitance, curing compound, and other material foreign to the concrete, and clean aggregate is exposed by abrasive blast cleaning after the curing period or immediately before placing concrete at the joint.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
CONCRETE BOX GIRDER

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-1 (18) UNIT 3	1966	31	35
		1-H-1 (32) 3 UNIT 1			



AT BRIDGE END POST

INTERMEDIATE

AT RFT WALL END POST

**** NOTE !!**

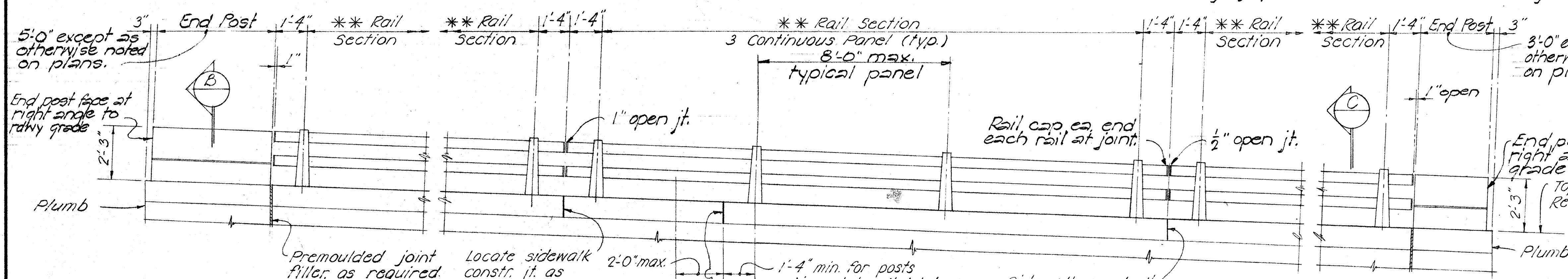
The contractor shall layout the railing to provide 3 cont. panels whenever possible. 2 or 4 cont. panels will be permitted to complete the layout when 3 cont. panels cannot be made. Single panels will not be permitted.

RAILING PLAN

Scale: $\frac{3}{8}" = 1'-0"$

NOTES !!

1. Rail Posts shall be normal to grade.
2. Provide double posts at each expansion jt, fixed bridge jt & as shown on detailed drawings.



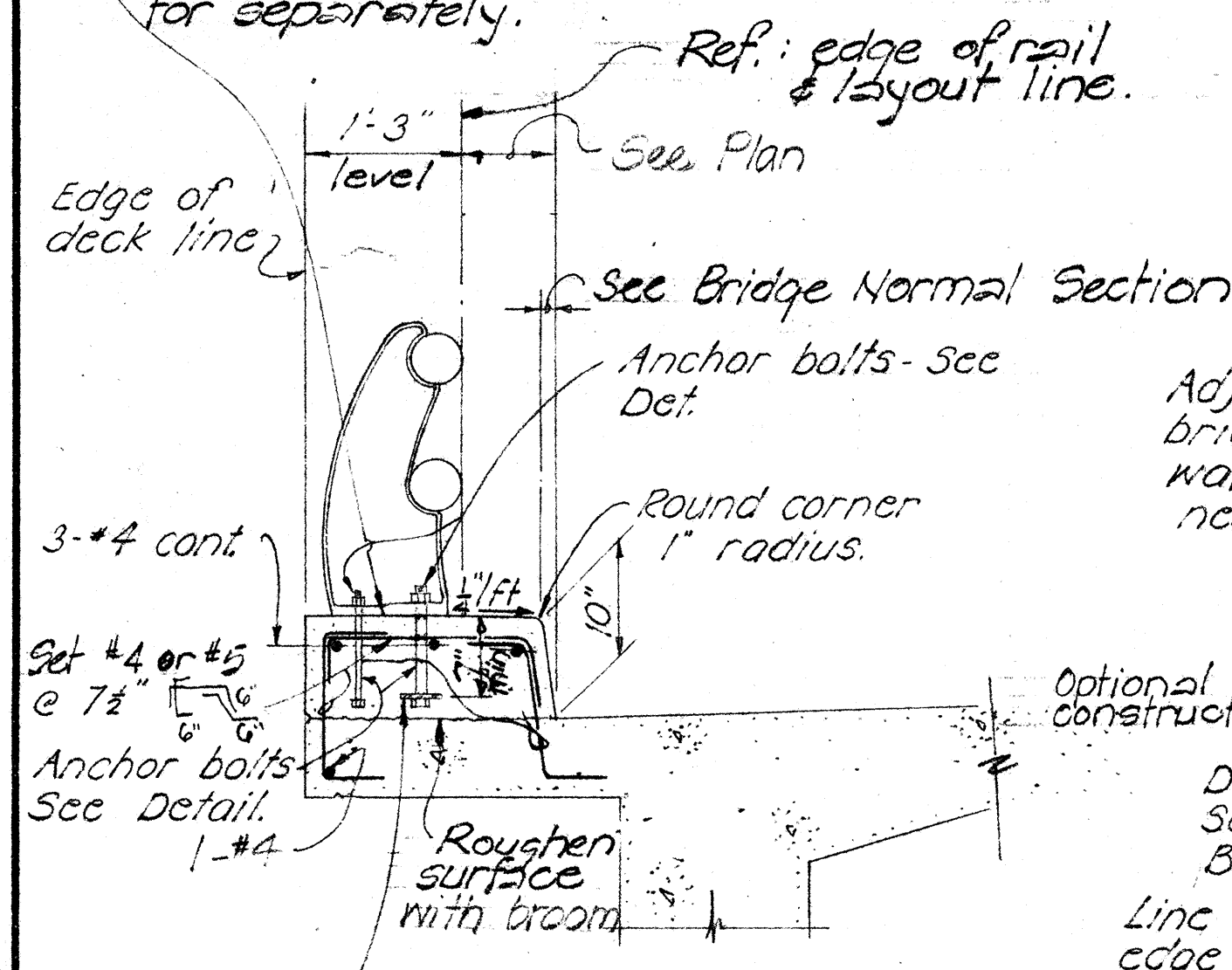
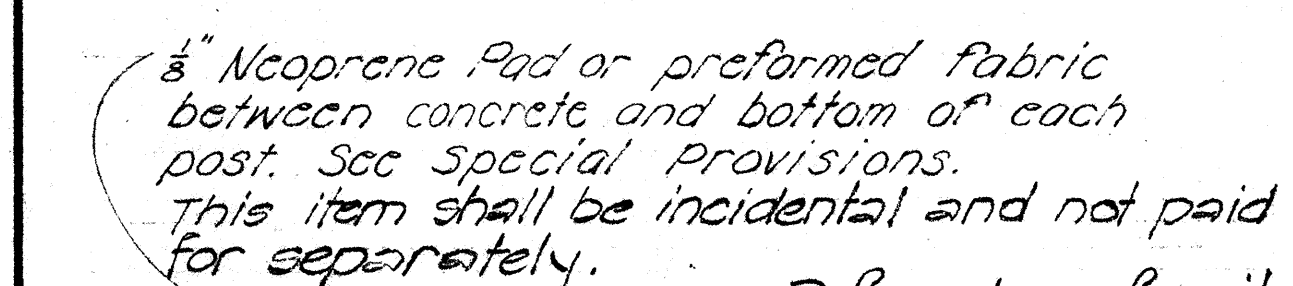
AT BRIDGE END POST

INTERMEDIATE

AT RET WALL END POST

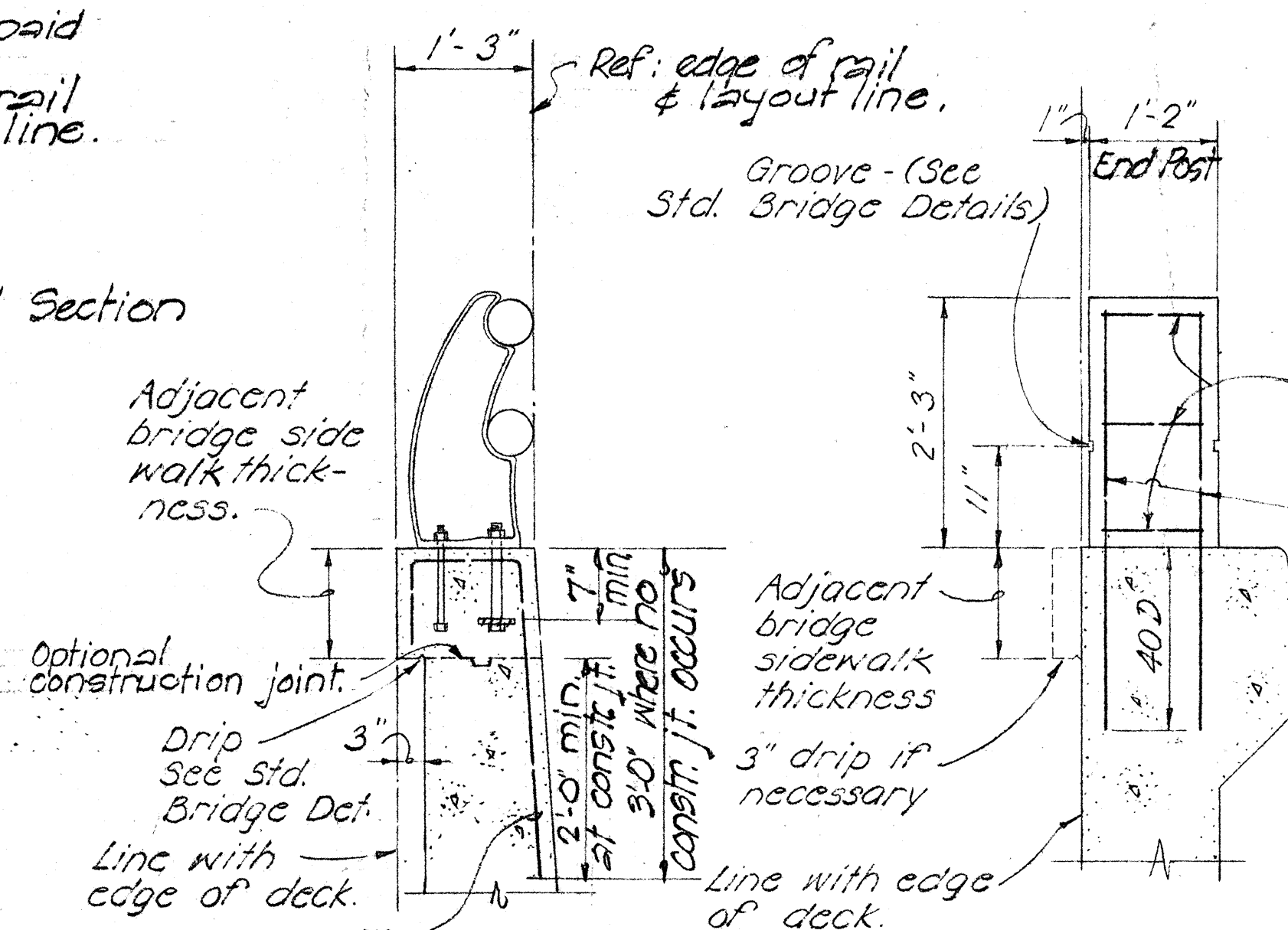
EXTERIOR RAILING ELEVATION

Scale: $\frac{3}{8}'' = 1' - 0''$



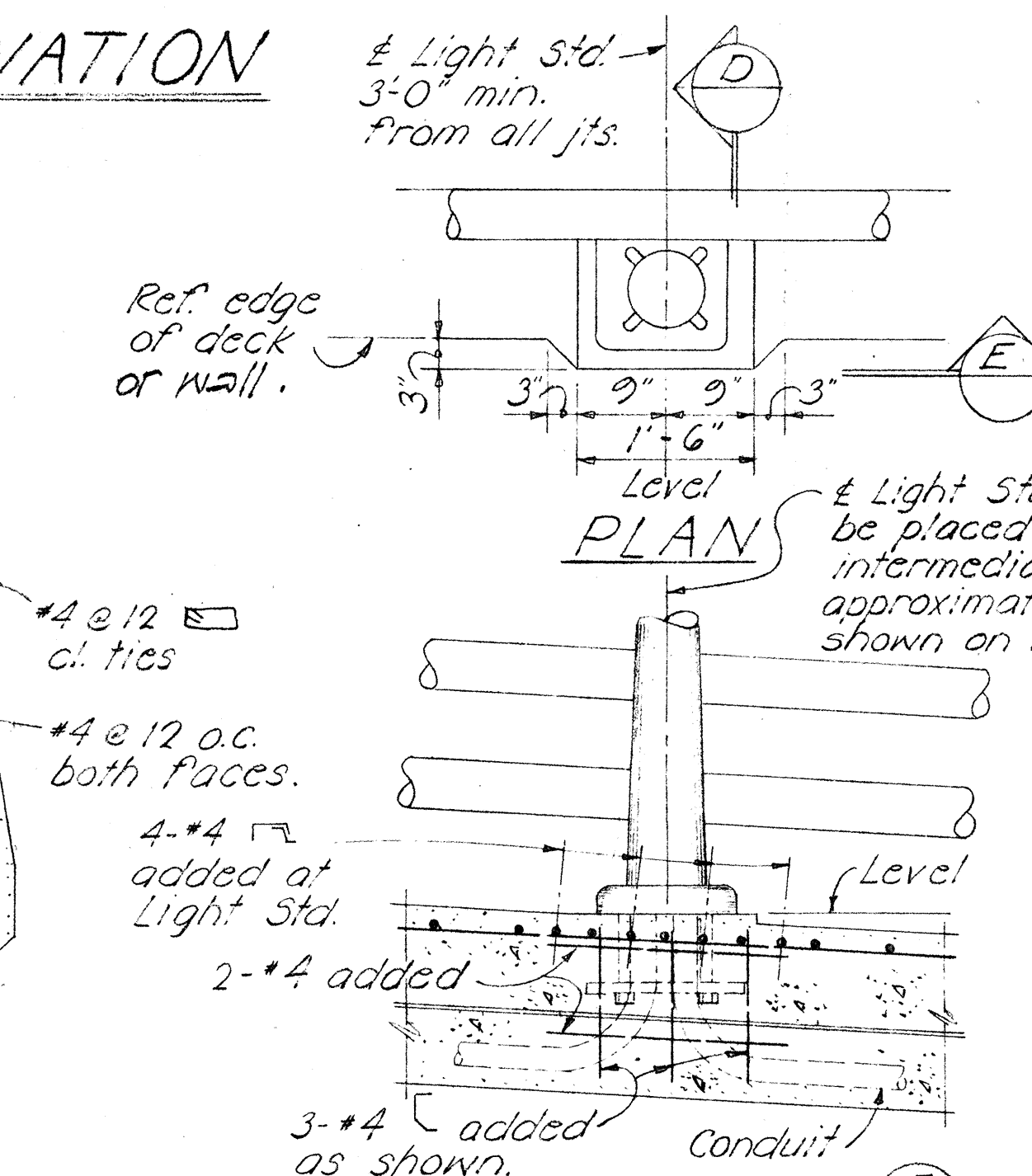
TYPICAL SECTION

Scale: $\frac{3}{4}" = 1' - 0"$

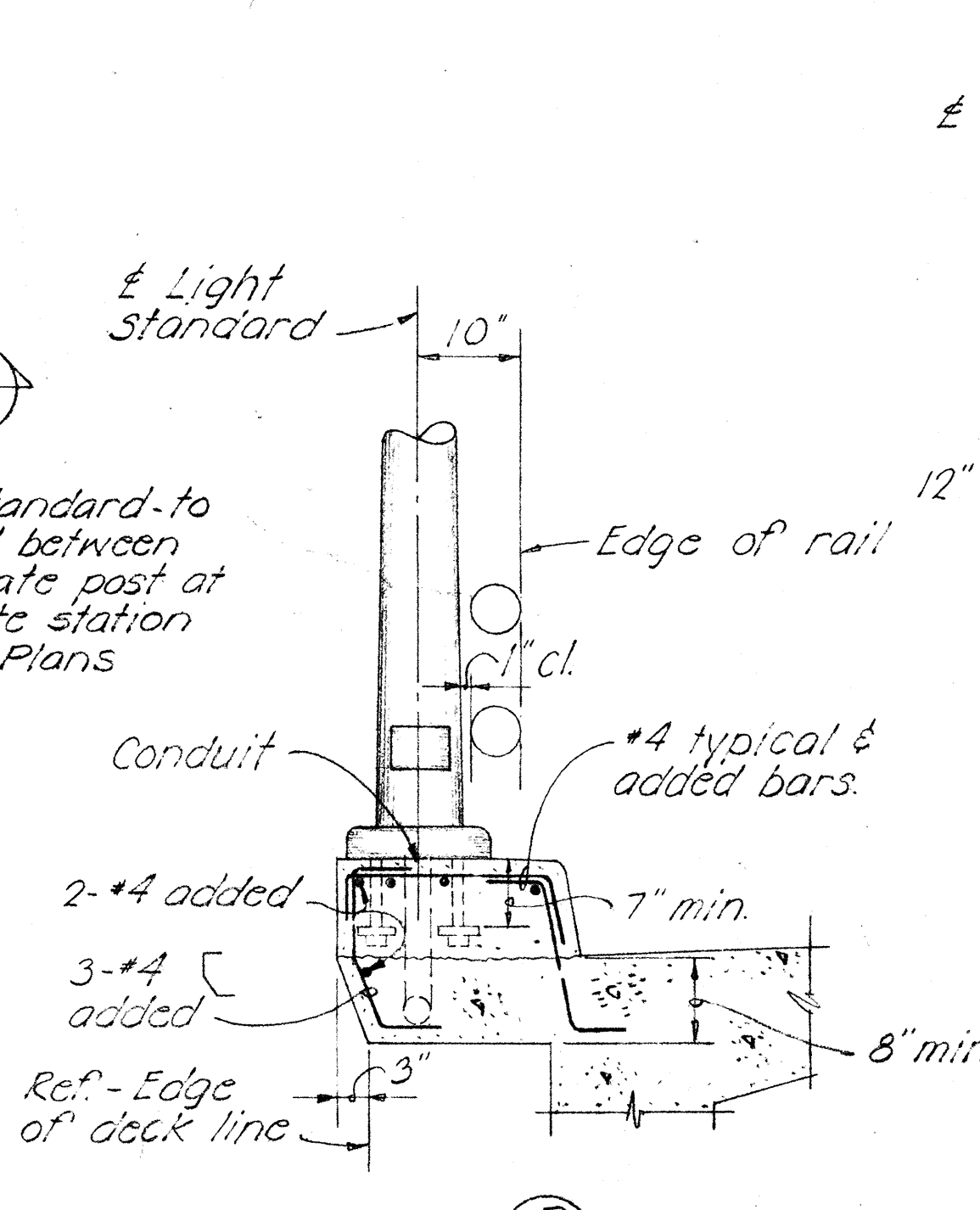


SECTION (C)

Scale: $\frac{3}{4}" = 1'-0"$

SECTION 

Scale: $\frac{3}{4}" = 1' - 0"$



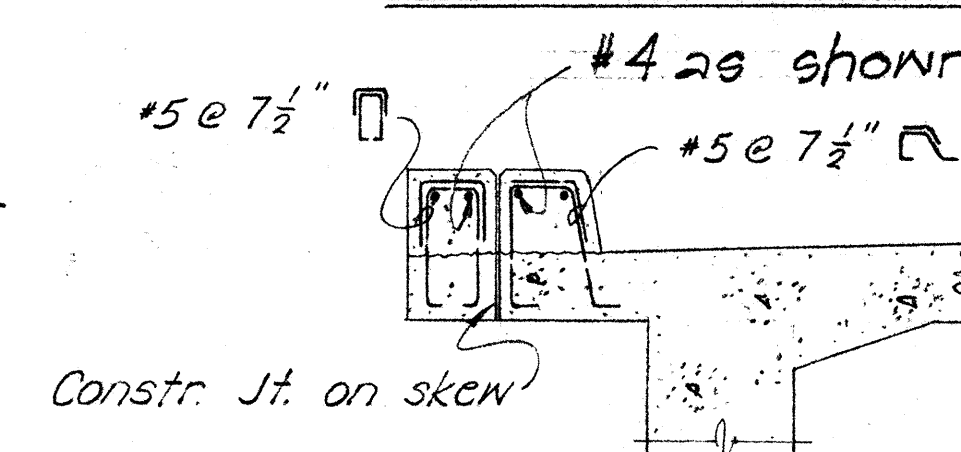
DETAILS OF RAILING AT LIGHT STANDARD

Scq/e: $3/4'' = 1' - 0''$



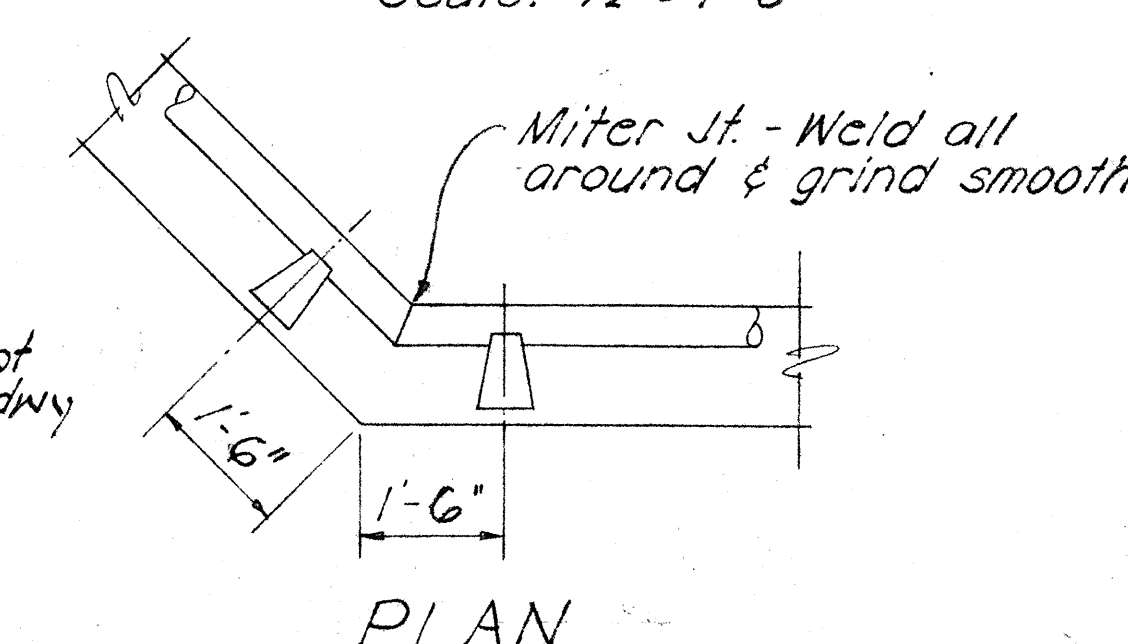
JOINT DETAIL Scale: $\frac{1}{2}" = 1'-0"$

Scale: $\frac{1}{2}" = 1'-0"$



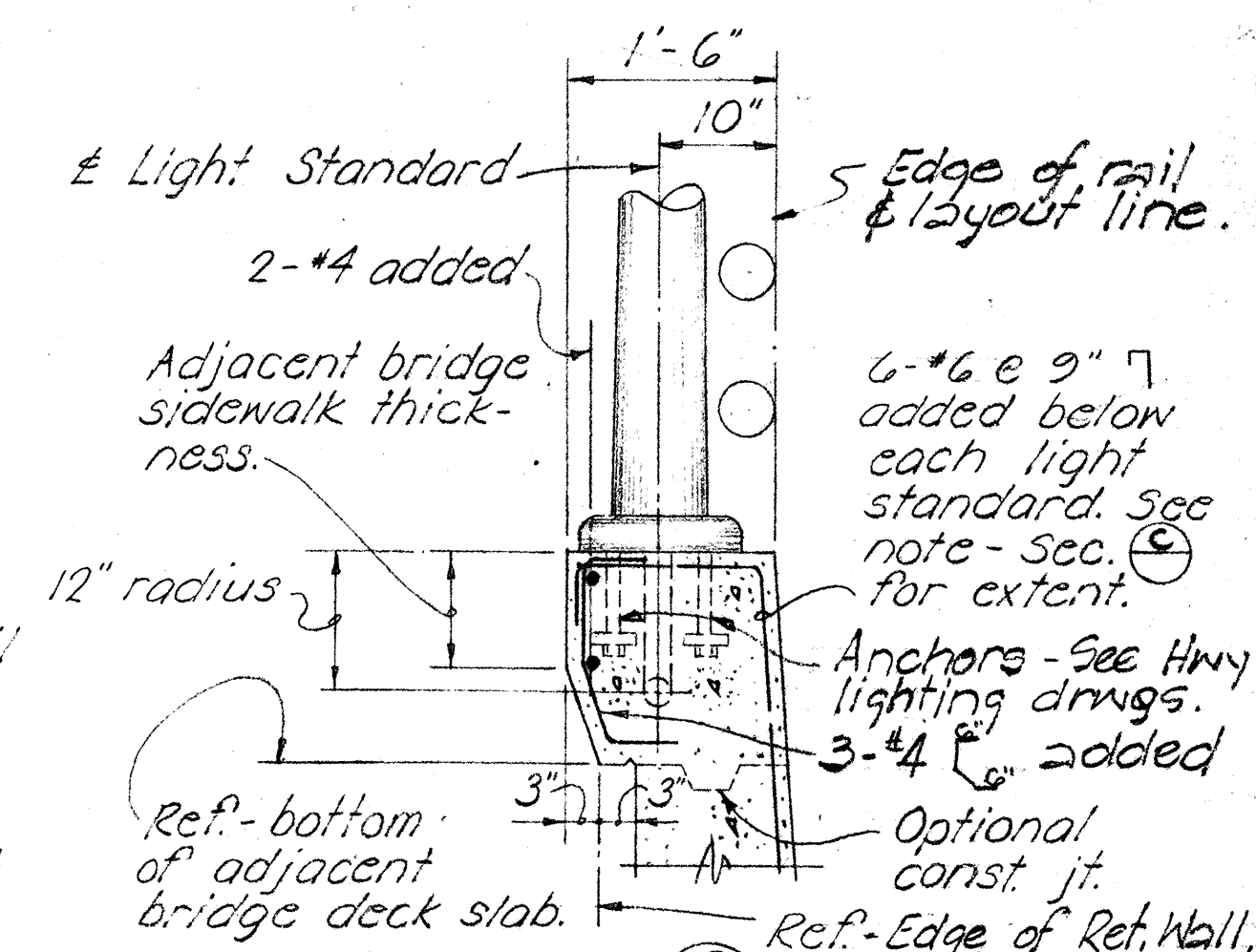
SECTION  AT SKEW

Scale: $\frac{1}{2}" = 1'-0"$



TREATMENT OF RAILING AT SKEWED ENDS

Scale: $\frac{1}{2}" = 1' - 0"$



SECTION  AT RET. WALL

**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION**

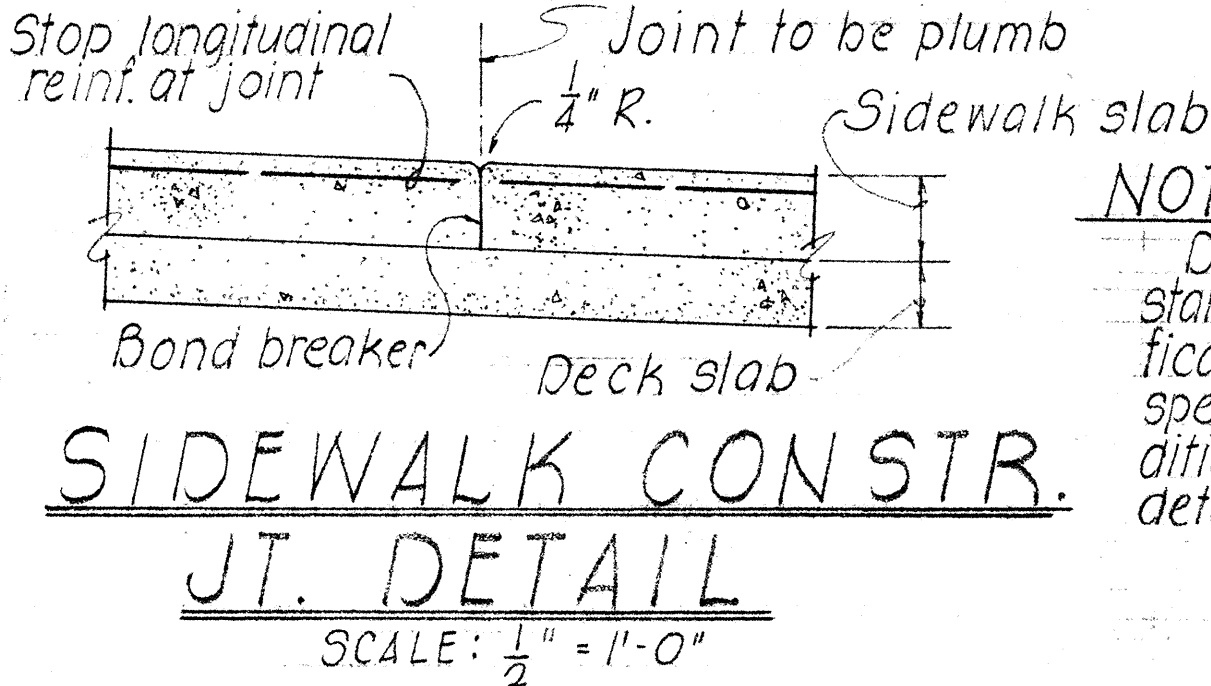
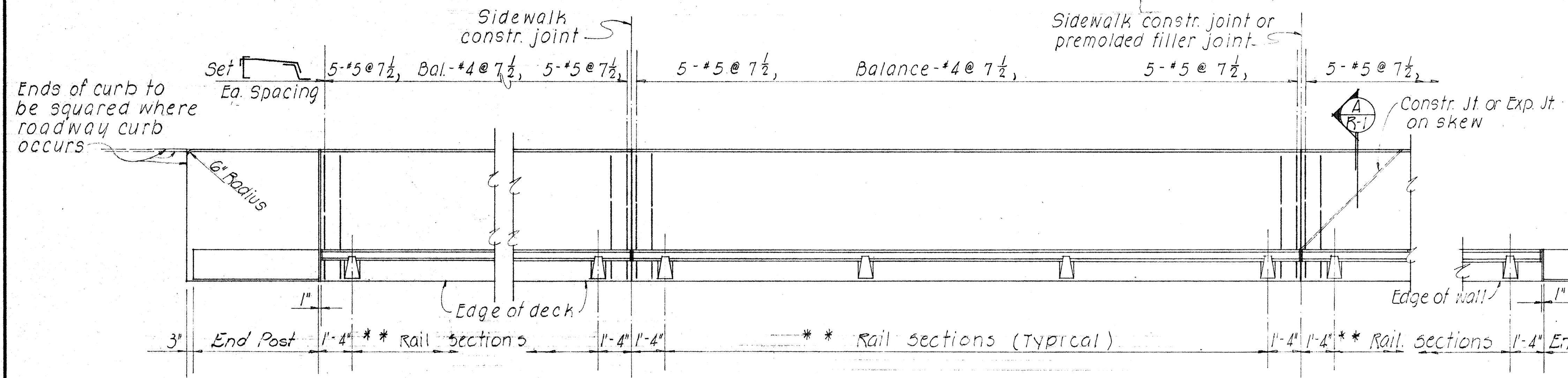
STANDARD DETAILS
METAL BRIDGE RAILING
TRAFFIC TYPE

SHEET No. 55 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(18), UNIT 3	1966	32	35
		I-HI-1(32):5, UNIT 1			

Scale: As Noted

SHEET No. 56 OF 9 SHEETS



NOTE!
Details shown on this sheet are standard details except for modifications as may be required for special conditions. For such conditions, refer to corresponding details shown on the plans.

AT BRIDGE END POST
**** NOTE!!**
The contractor shall layout the railing to provide 3 continuous panels whenever possible. 2 or 4 continuous panels will be permitted to complete the layout when 3 continuous panels cannot be made. Single panels will not be permitted.

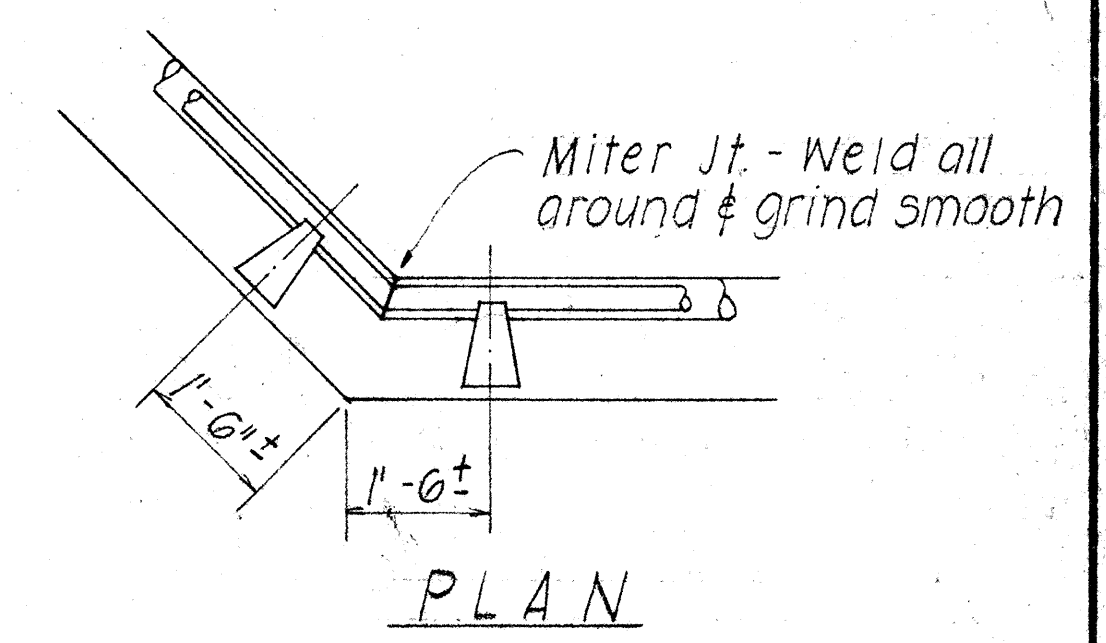
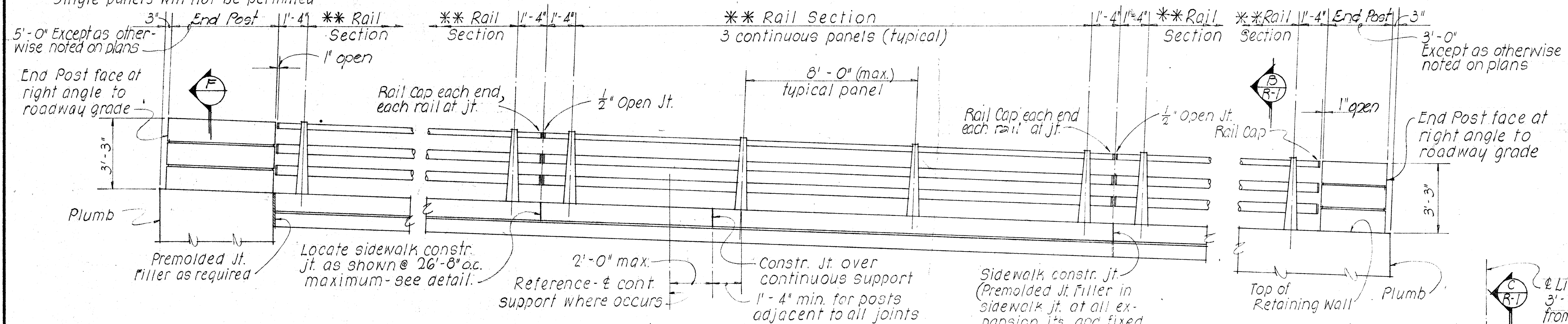
INTERMEDIATE RAILING PLAN

SCALE: 3/8" = 1'-0"

AT RETAINING WALL END POST
NOTES!!
1. Rail Posts shall be normal to grade
2. Provide double posts at each expansion jt., fixed bridge jt. & as shown on detailed drawings.

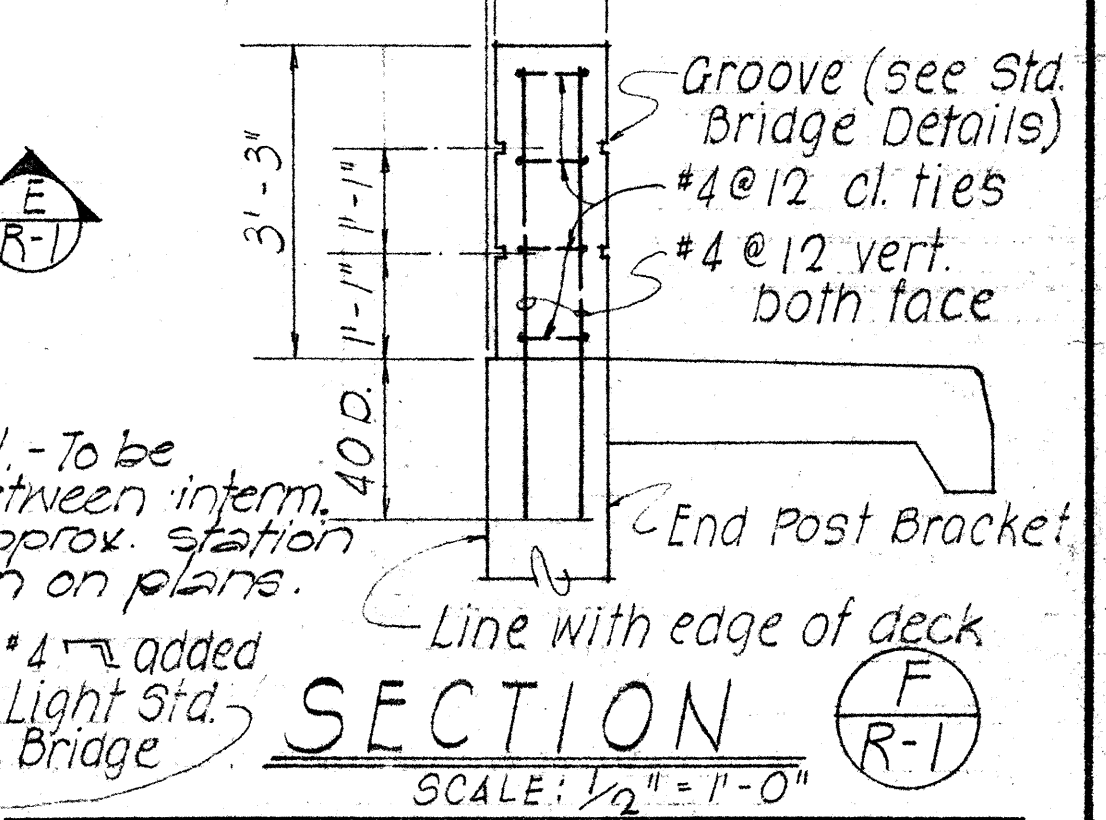
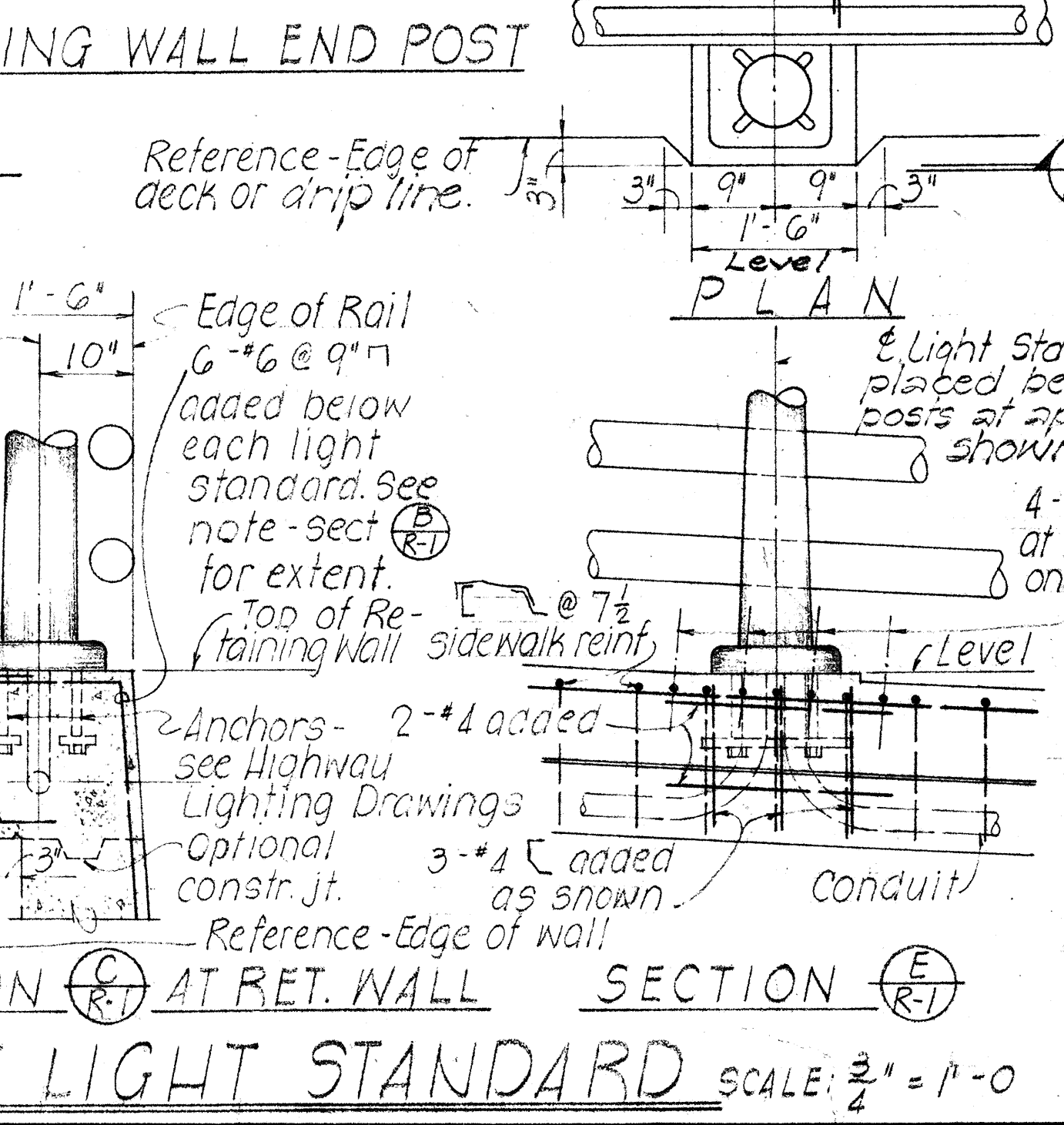
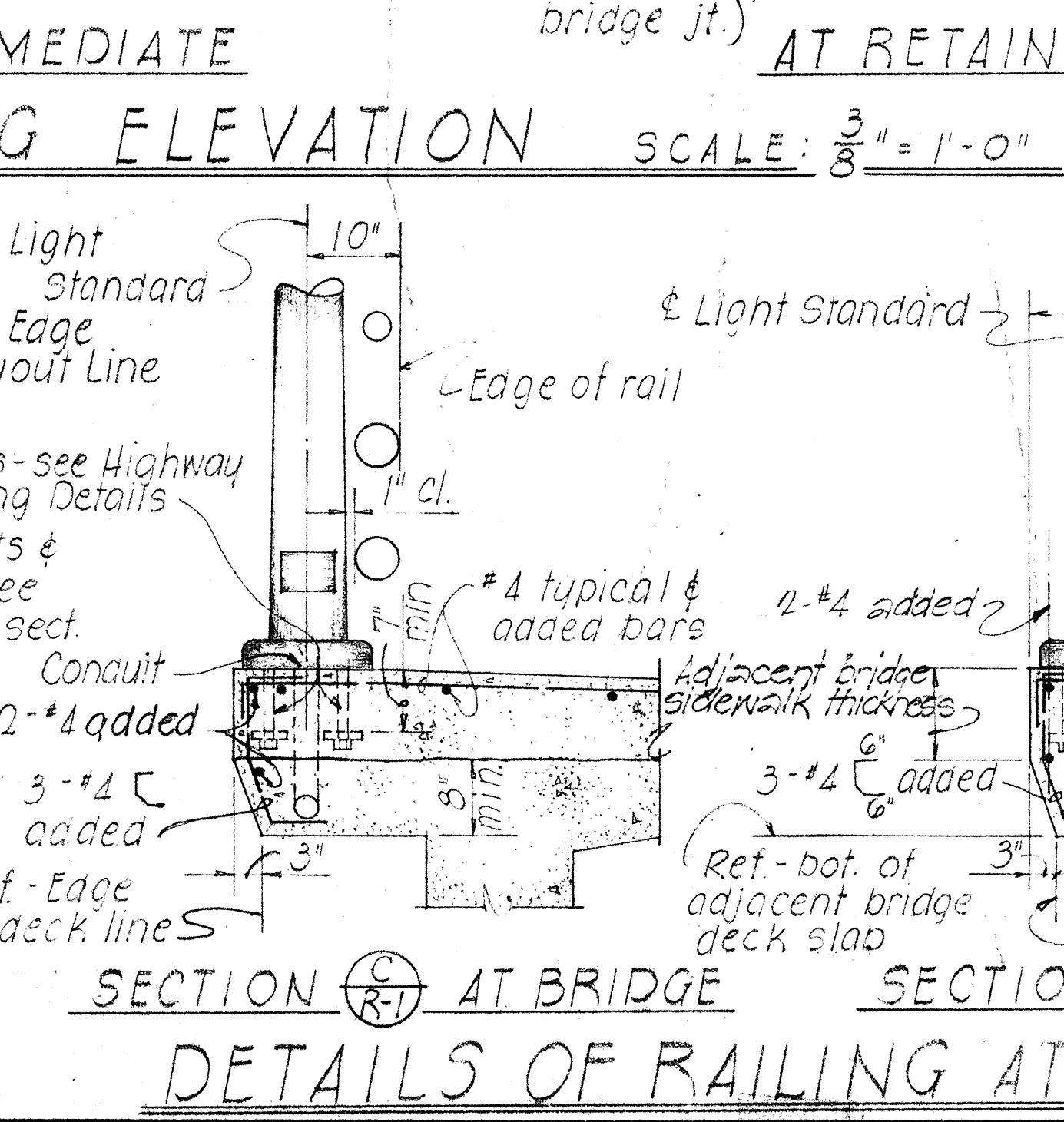
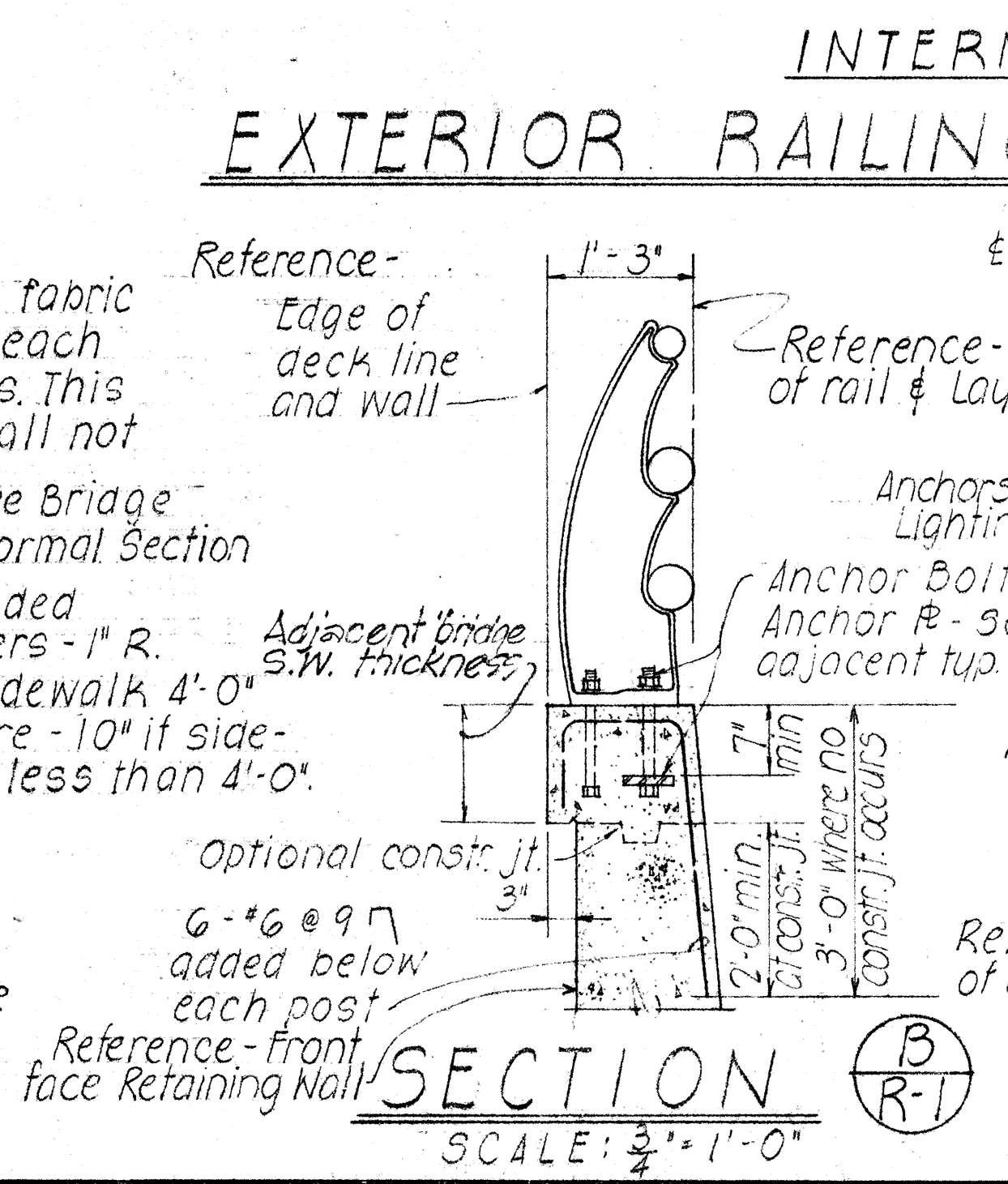
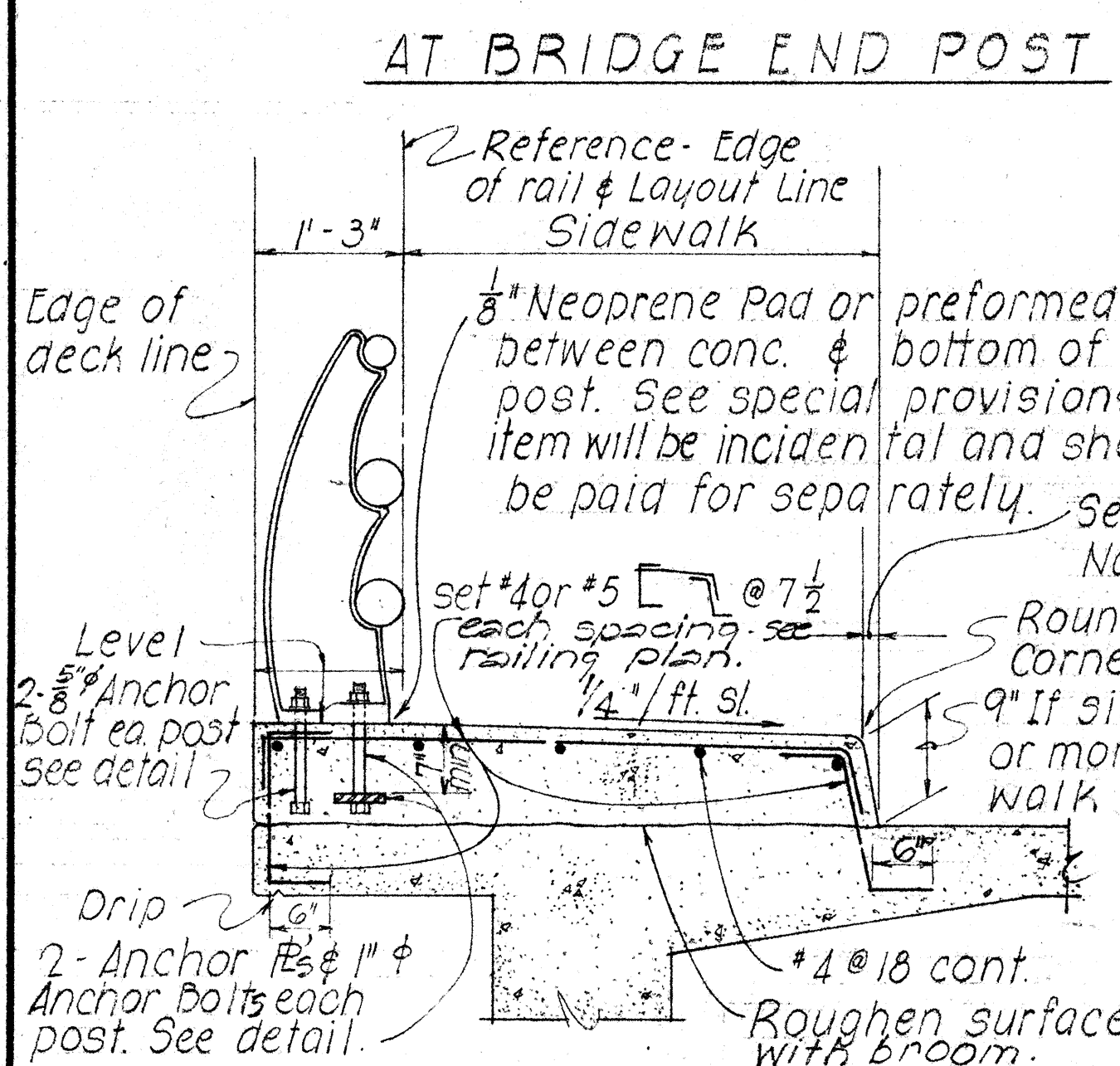
SECTION A AT SKEW

SCALE: 1/2" = 1'-0"



TREATMENT OF RAILING AT SKEWED ENDS

SCALE: 1/2" = 1'-0"



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
METAL BRIDGE RAILING
THREE RAIL COMBINATION TYPE
SHEET No. 57 OF 9 SHEETS

DATE
SURVEY PLOTTED BY
DRAWN BY
CHECKED BY
NOTE BOOK
ORIGINAL PLAN

