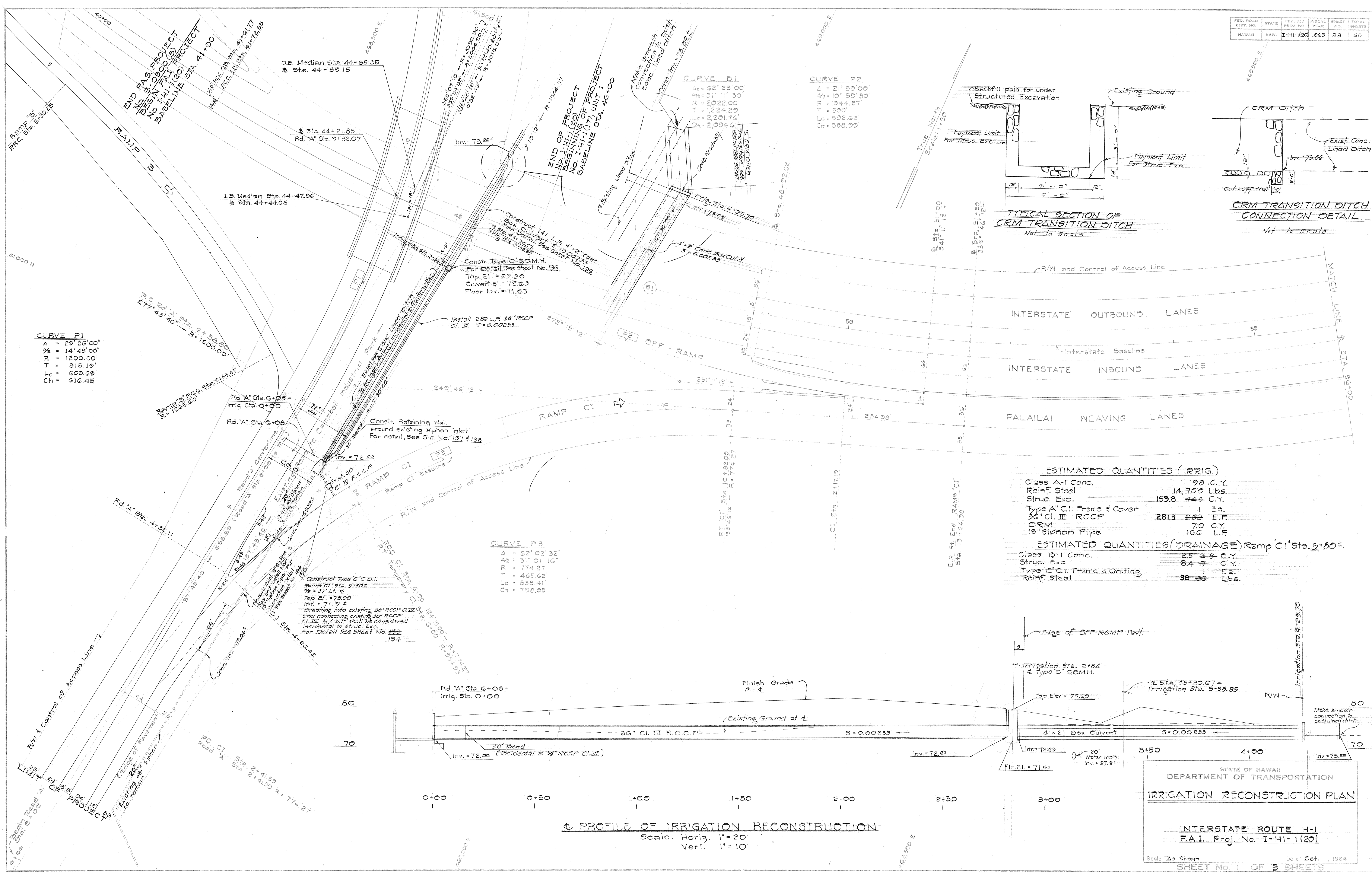
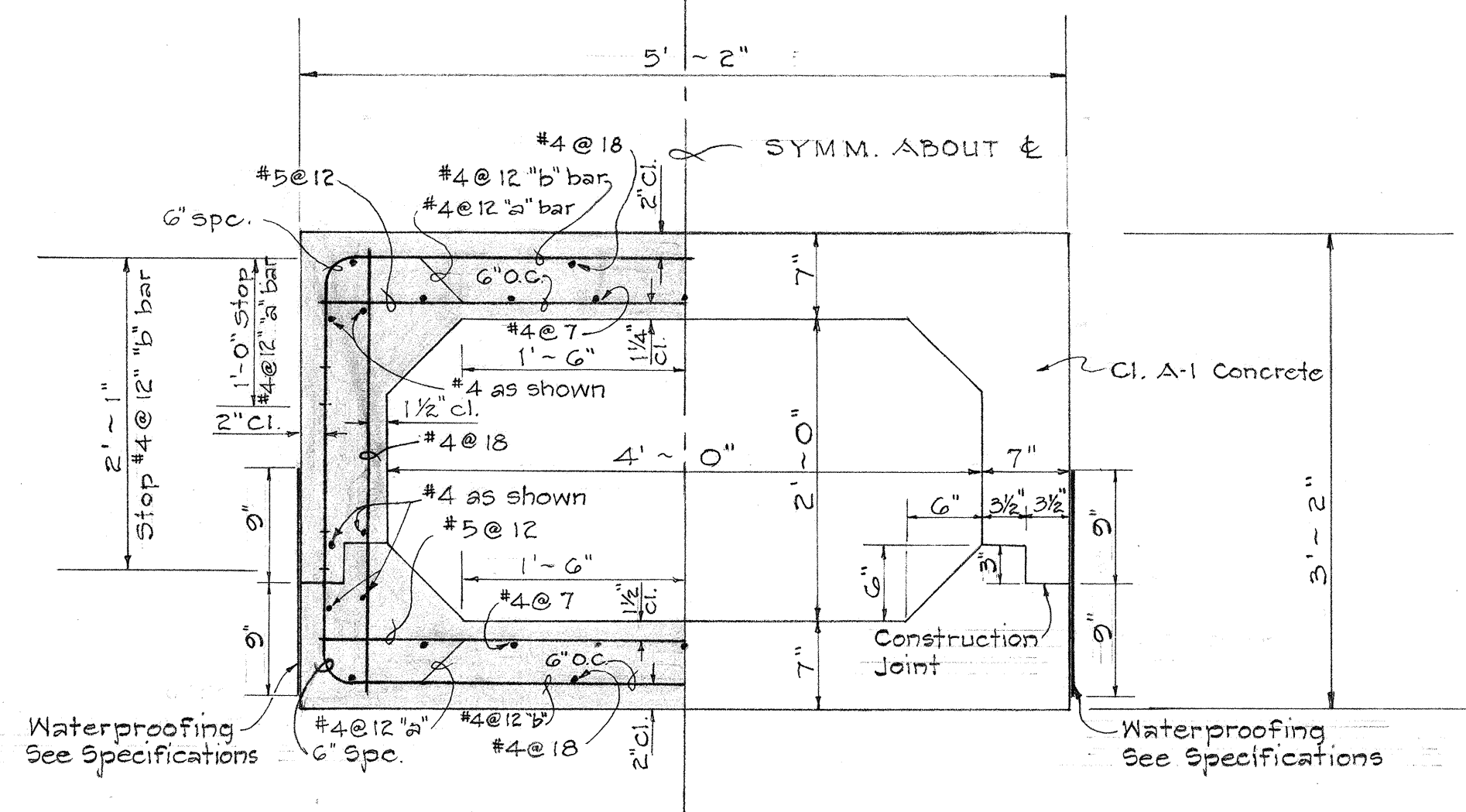
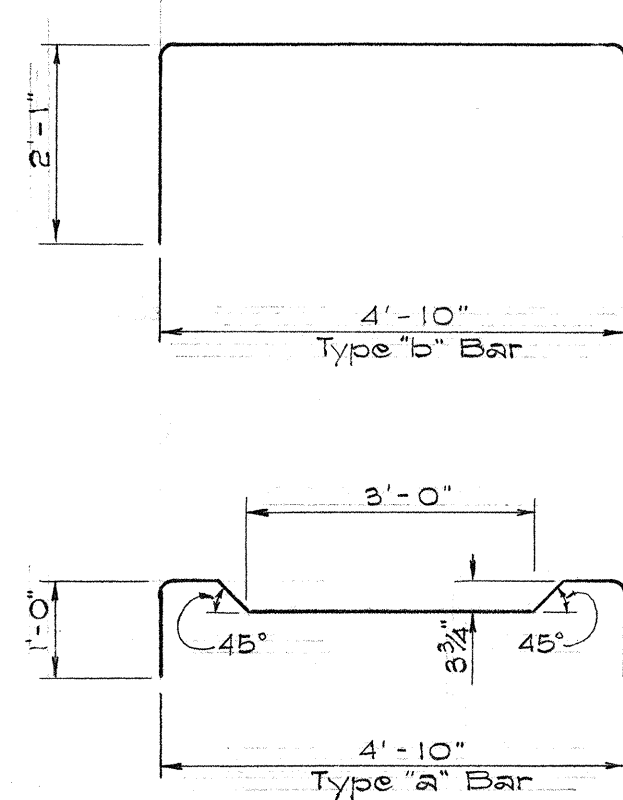


ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
	TRACED BY	
NOTE BOOK	DESIGNED BY	
	QUANTITIES BY	
No.	CHECKED BY	

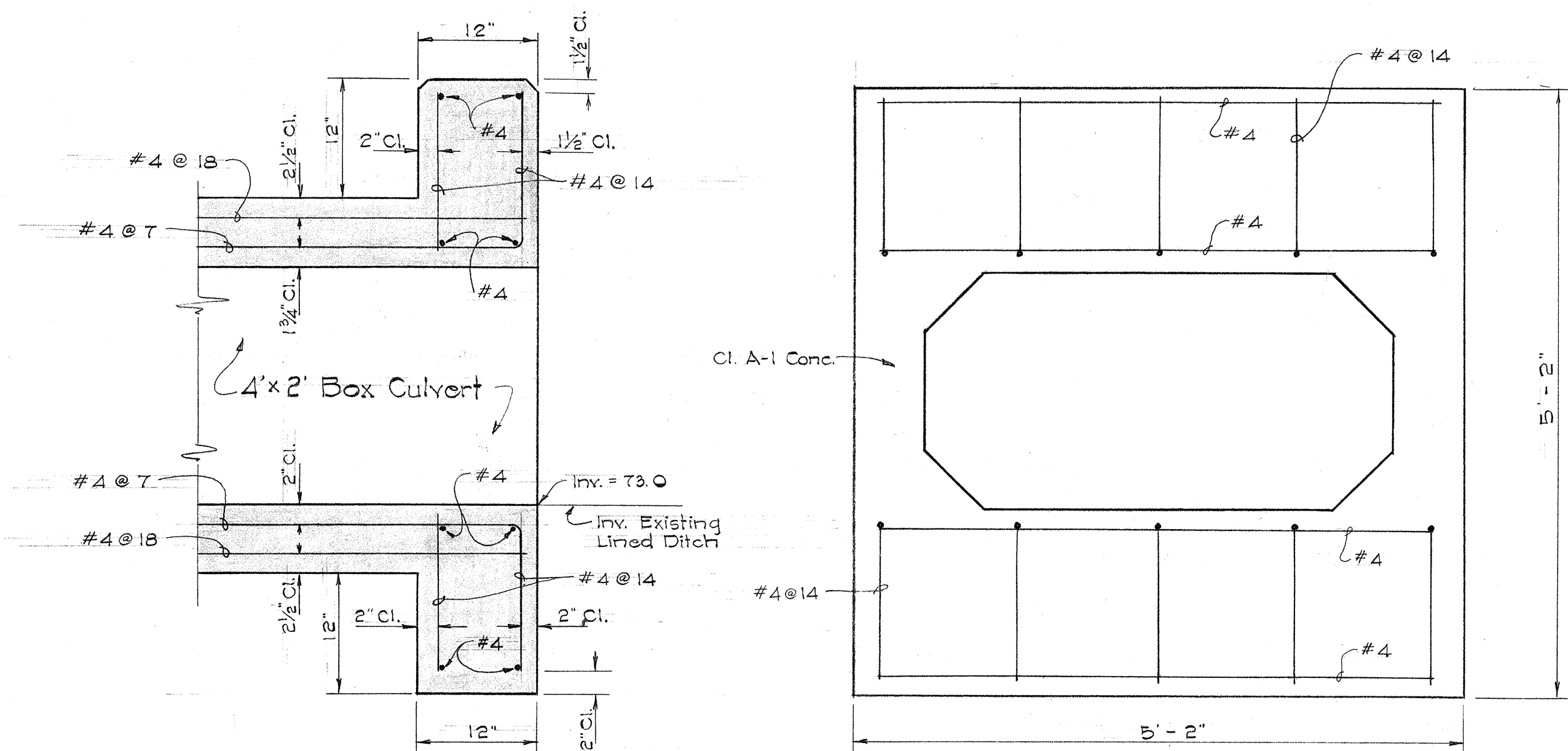




TYPICAL SECTION ~4' x 2' BOX CULVERT
Scale: 1" = 1'-0"



BAR DETAIL
Scale: 1/2" = 1'-0"



HEADWALL FOR 4' x 2' BOX CULVERT
Scale: 1" = 1'-0"

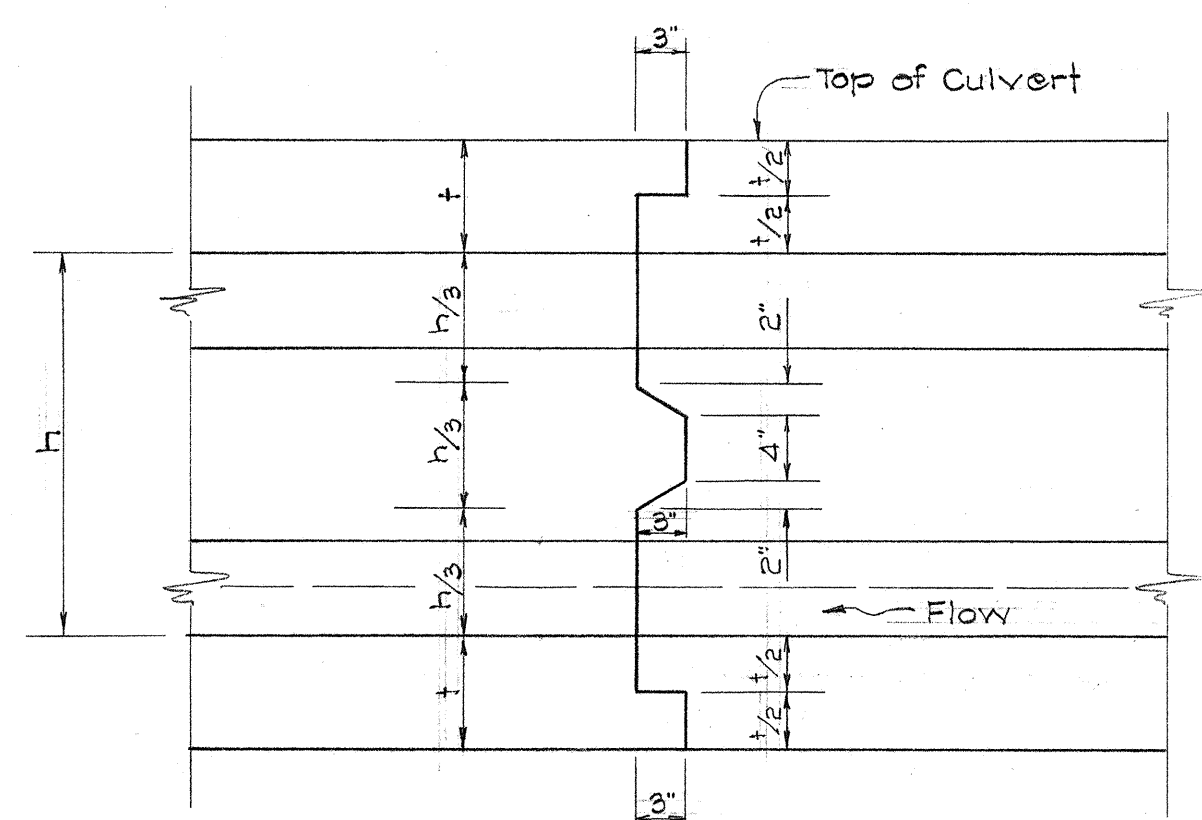
NOTE:
Chamfer Exposed Edges 1"

ESTIMATED QUANTITIES

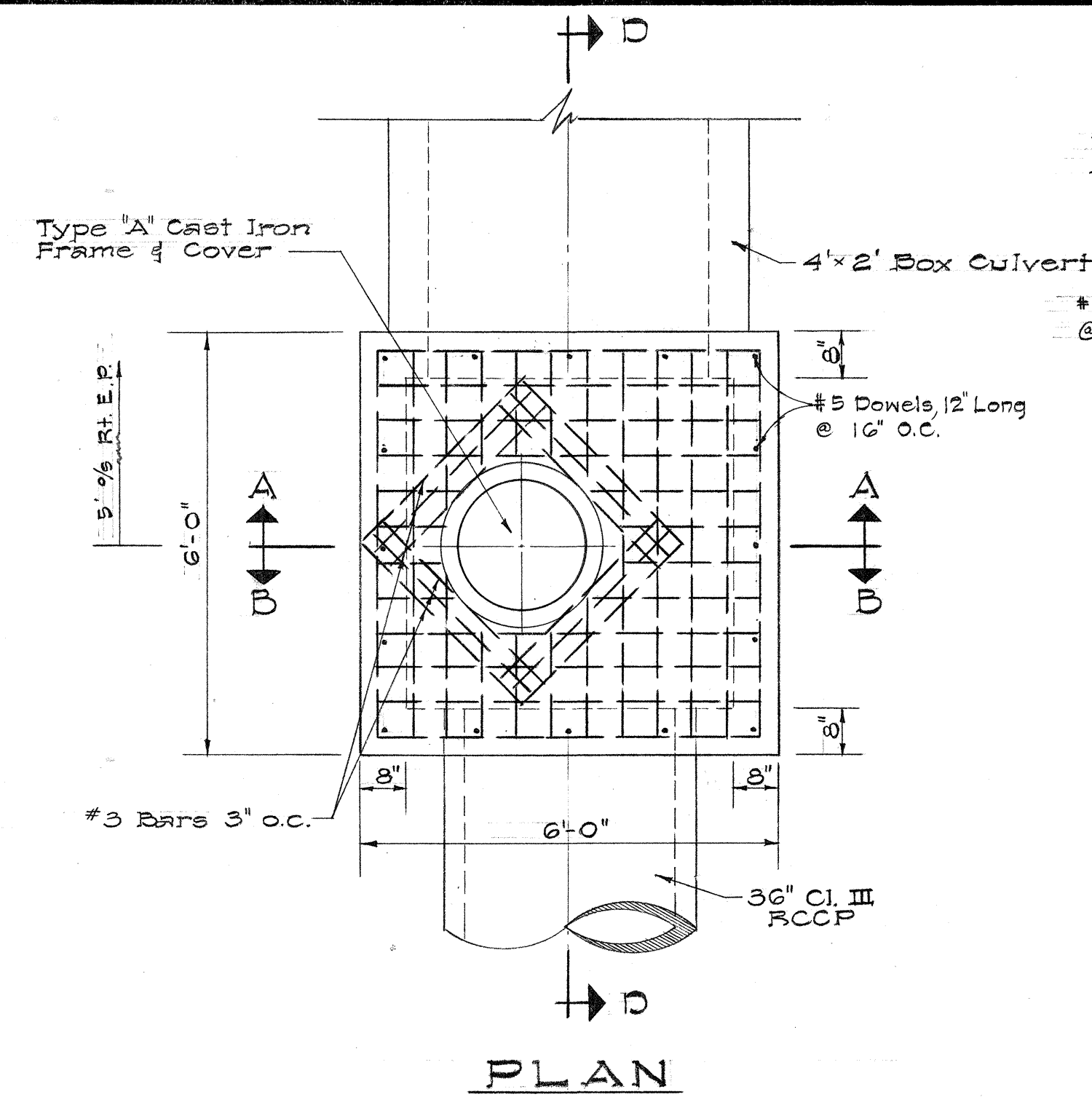
Class A-1 Conc.	0.327 C.Y./L.F.
Reinf. Steel	58 Lbs./L.F.
Class A-1 Conc. (Head wall)	0.4 C.Y.
Reinf. Steel (Head wall)	25 Lbs.

NOTE:

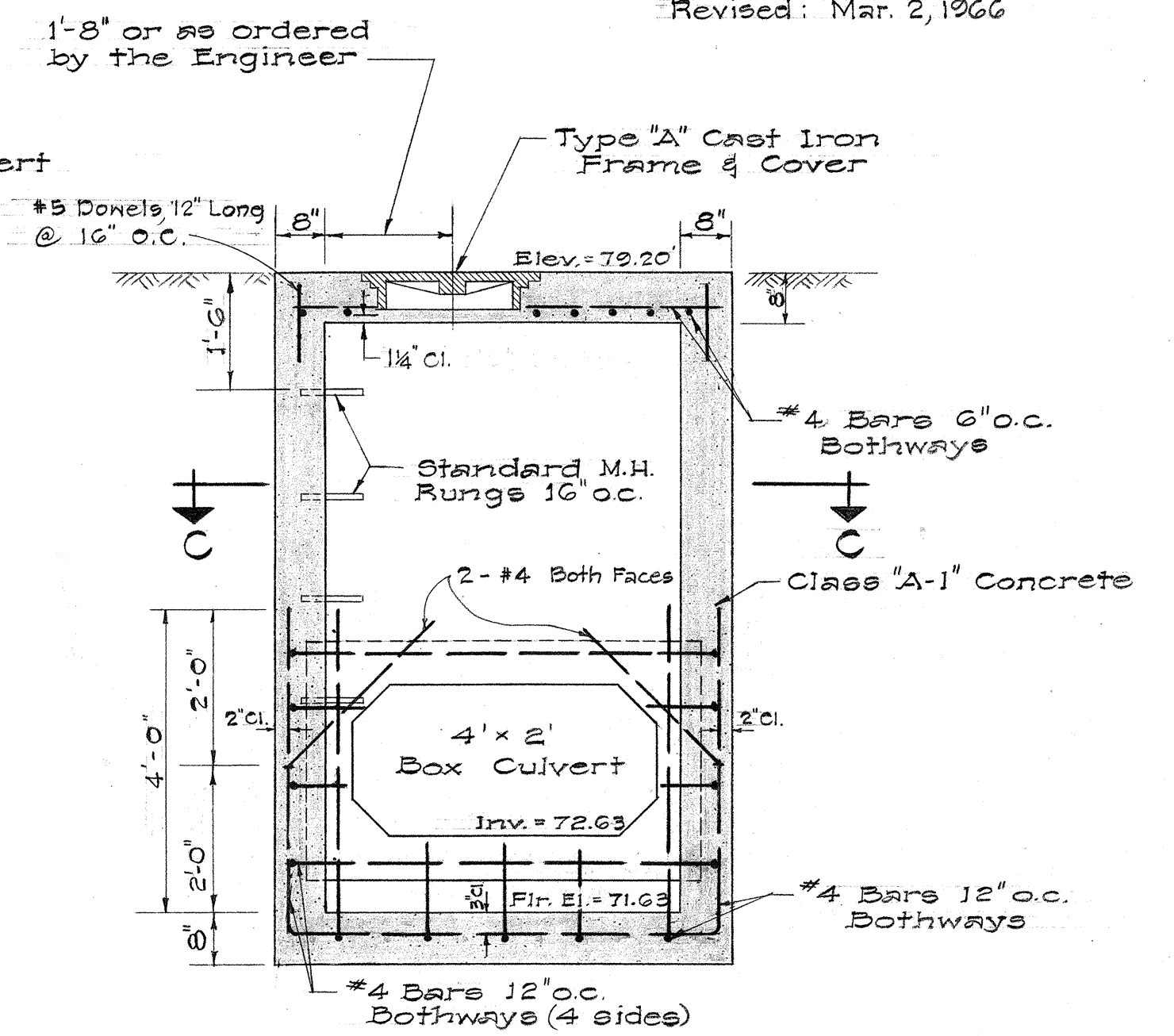
- The Engineer shall determine the location of all joints. Maximum spacing of joints shall be 30' o.c.
- Extend all longitudinal reinforcing bars through construction joints with a minimum of 32 x bar diameter.



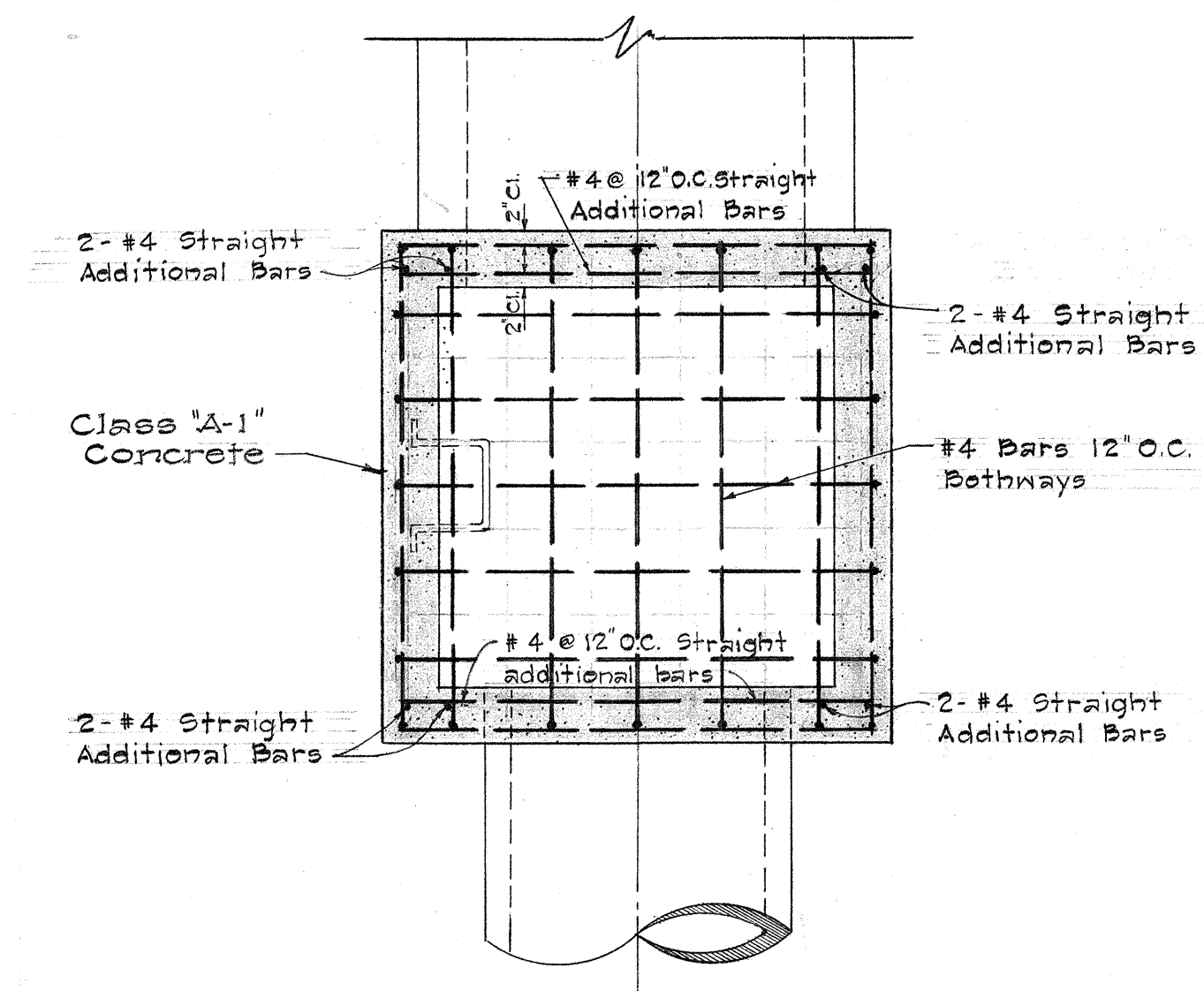
TYPICAL ELEVATION VIEW OF CONSTRUCTION JOINT DETAIL
Scale: 1" = 1'-0"



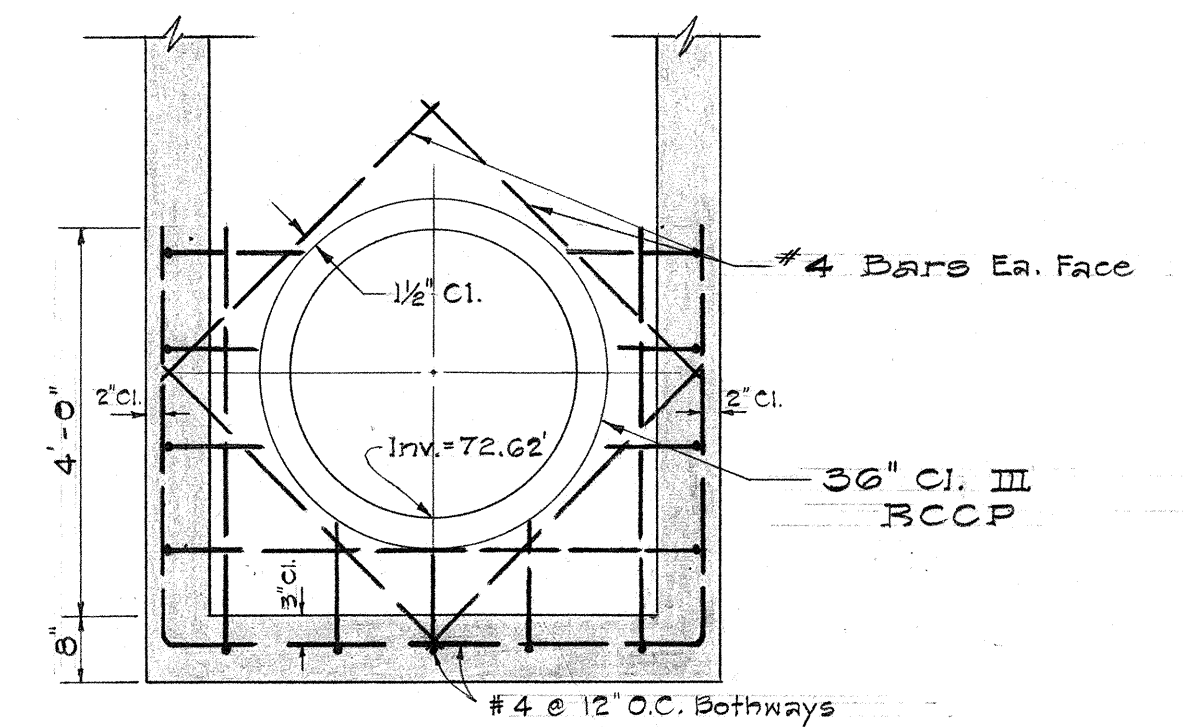
PLAN



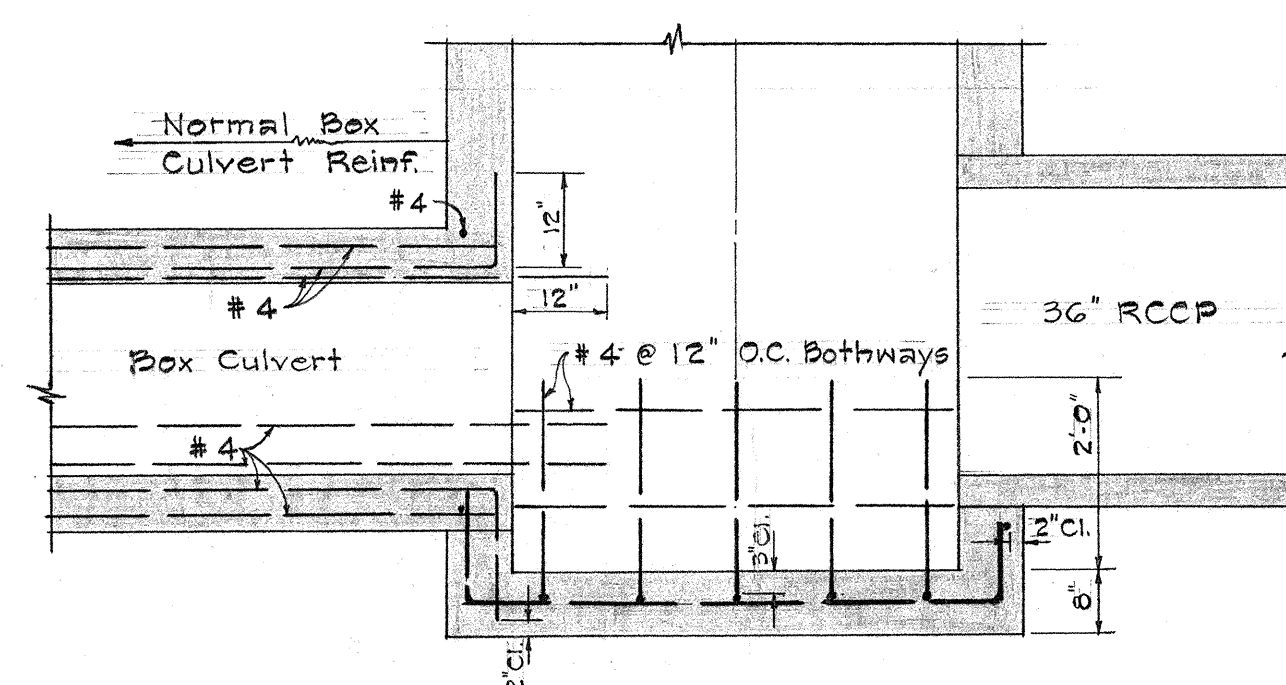
SECTION "A-A"



SECTION "C-C"



SECTION "B-B"



SECTION "D-D"

DETAILS OF TYPE 'C' SDMH

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

IRRIGATION DETAILS

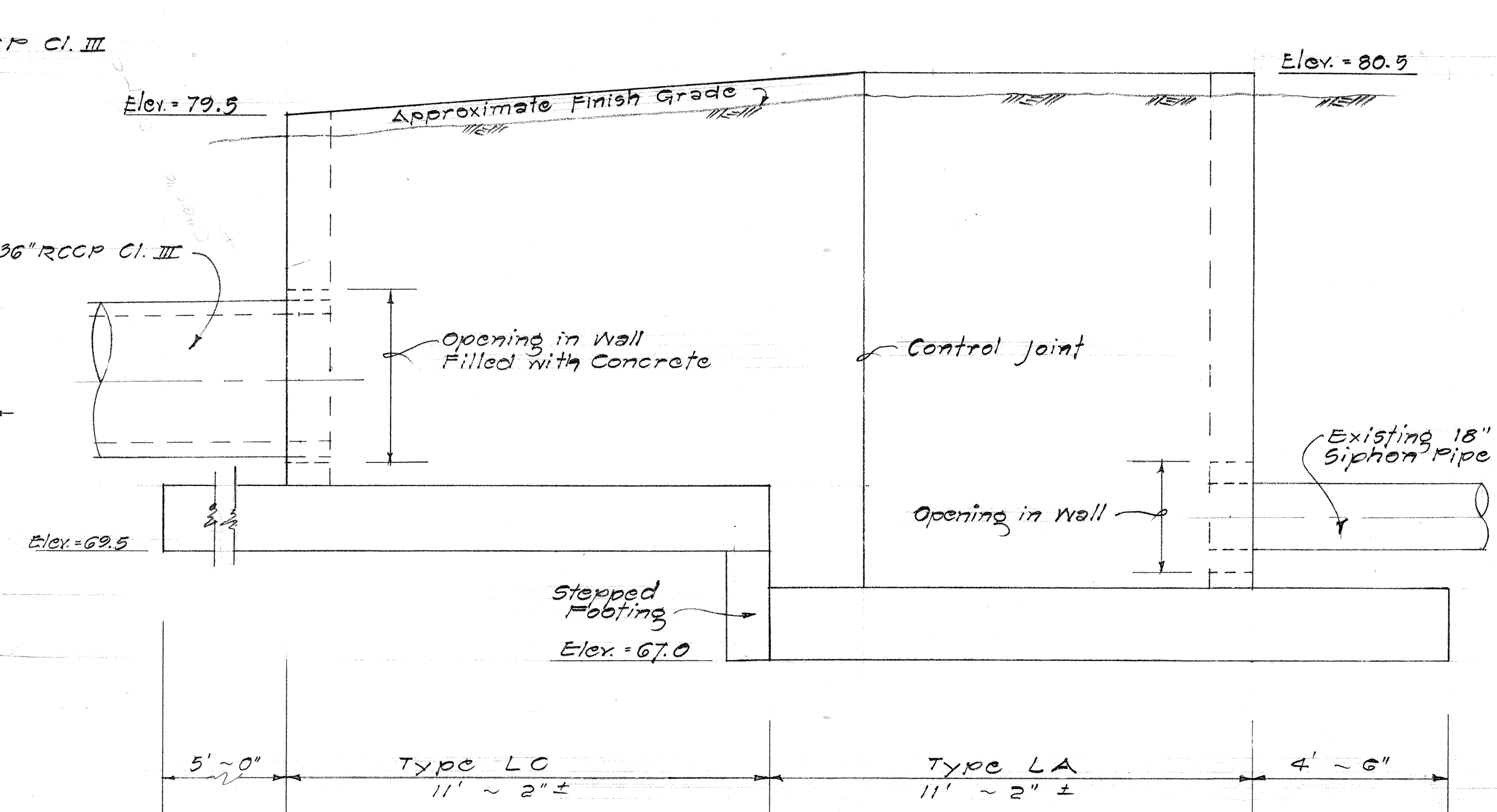
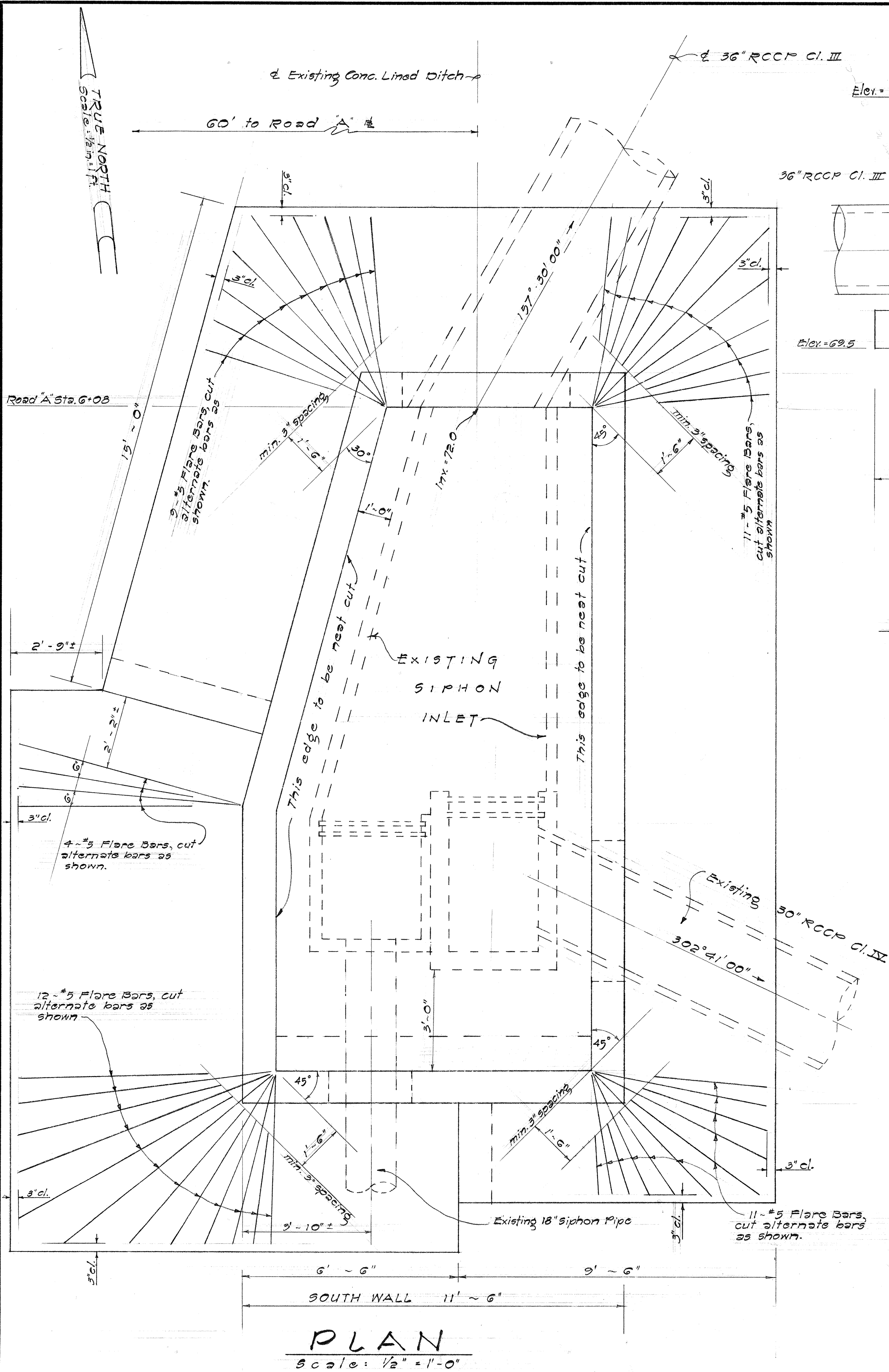
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-HI-1(20)

Scale As Shown Date: Oct. 1965

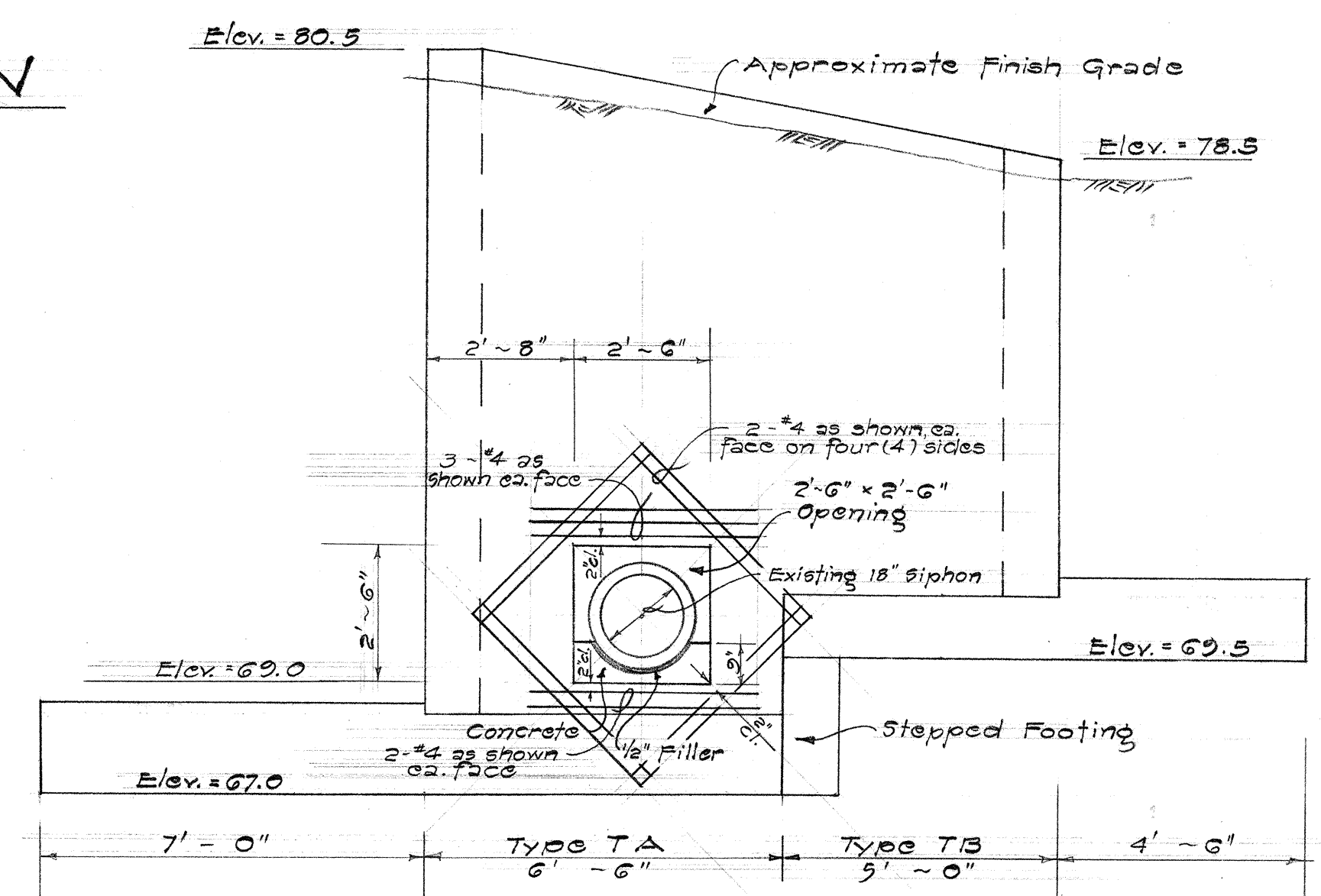
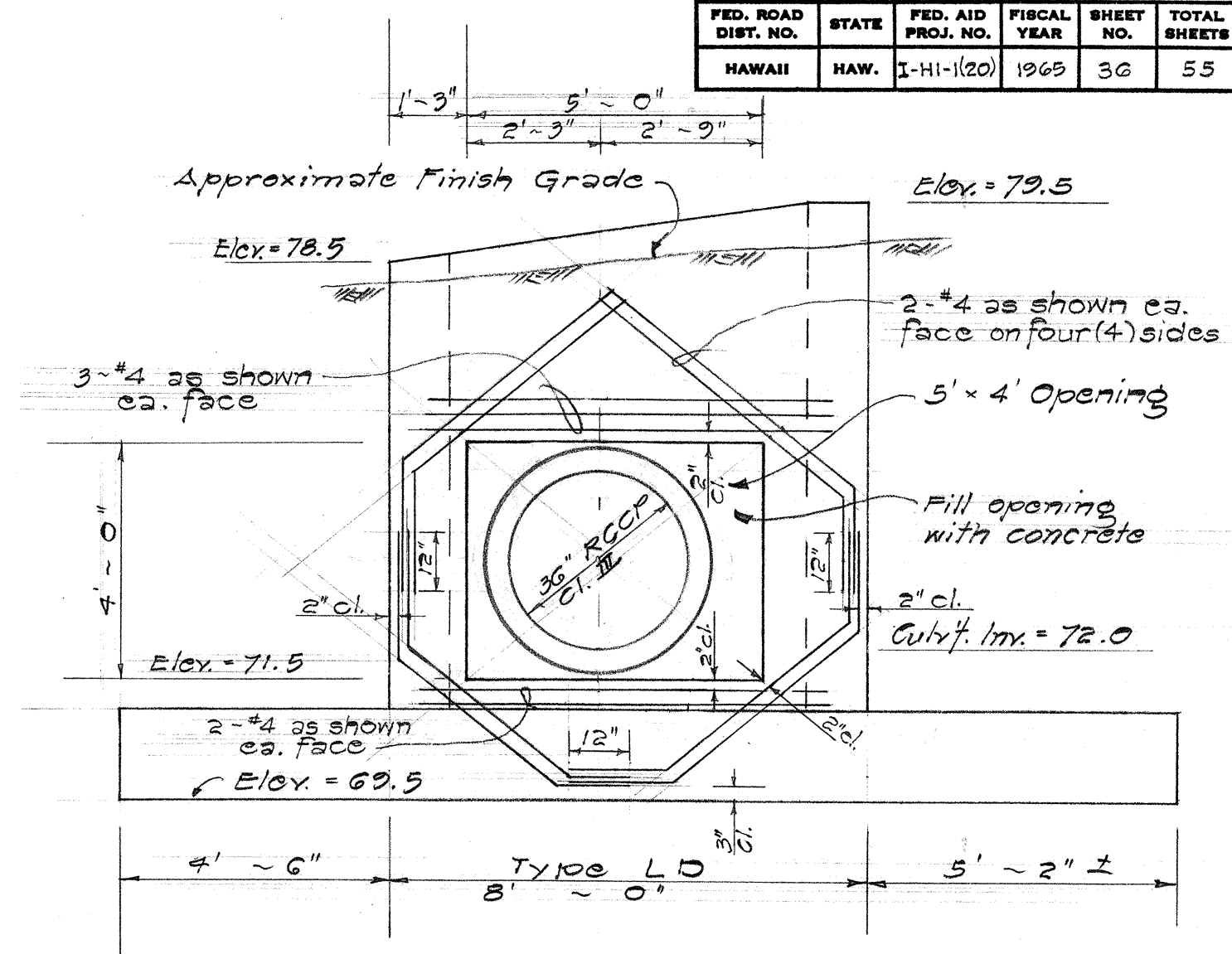
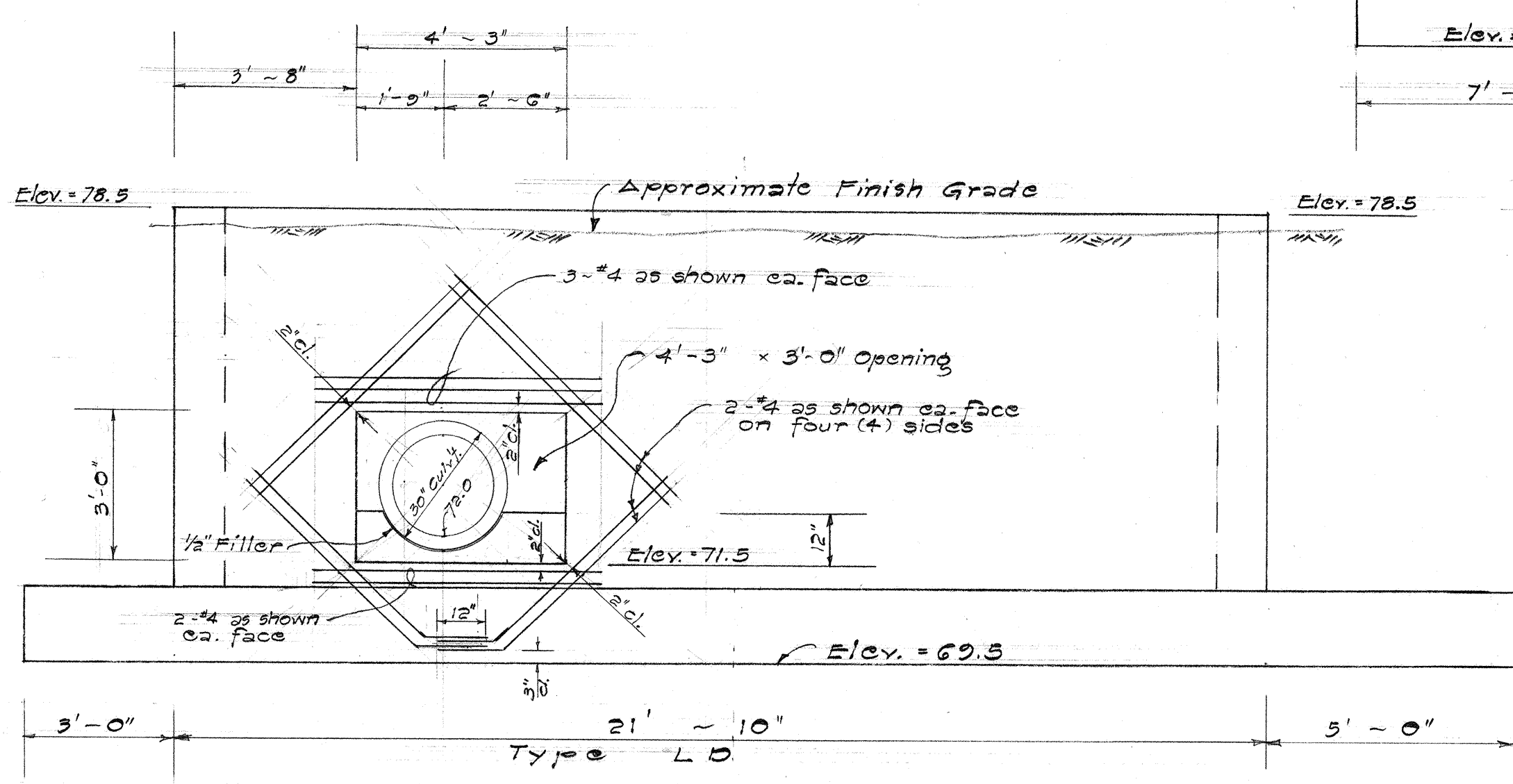
SHEET No. 3 OF 5 SHEETS

35 A 197 A

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H1-1(20)	1965	36	55



- NOTES:
1. For reinforcing at step up footing, see detail on Sheet No. 135.
 2. Longitudinal reinforcing bars in each footing shall be extended to the edge of the footing.
 3. Concrete shall be Class 'A-1'.
 4. Exact location and grade of existing pipes shall be verified by the Contractor.
 5. Concrete placed in wall openings as shown shall be paid for under Cl. 'A-1' Concrete.

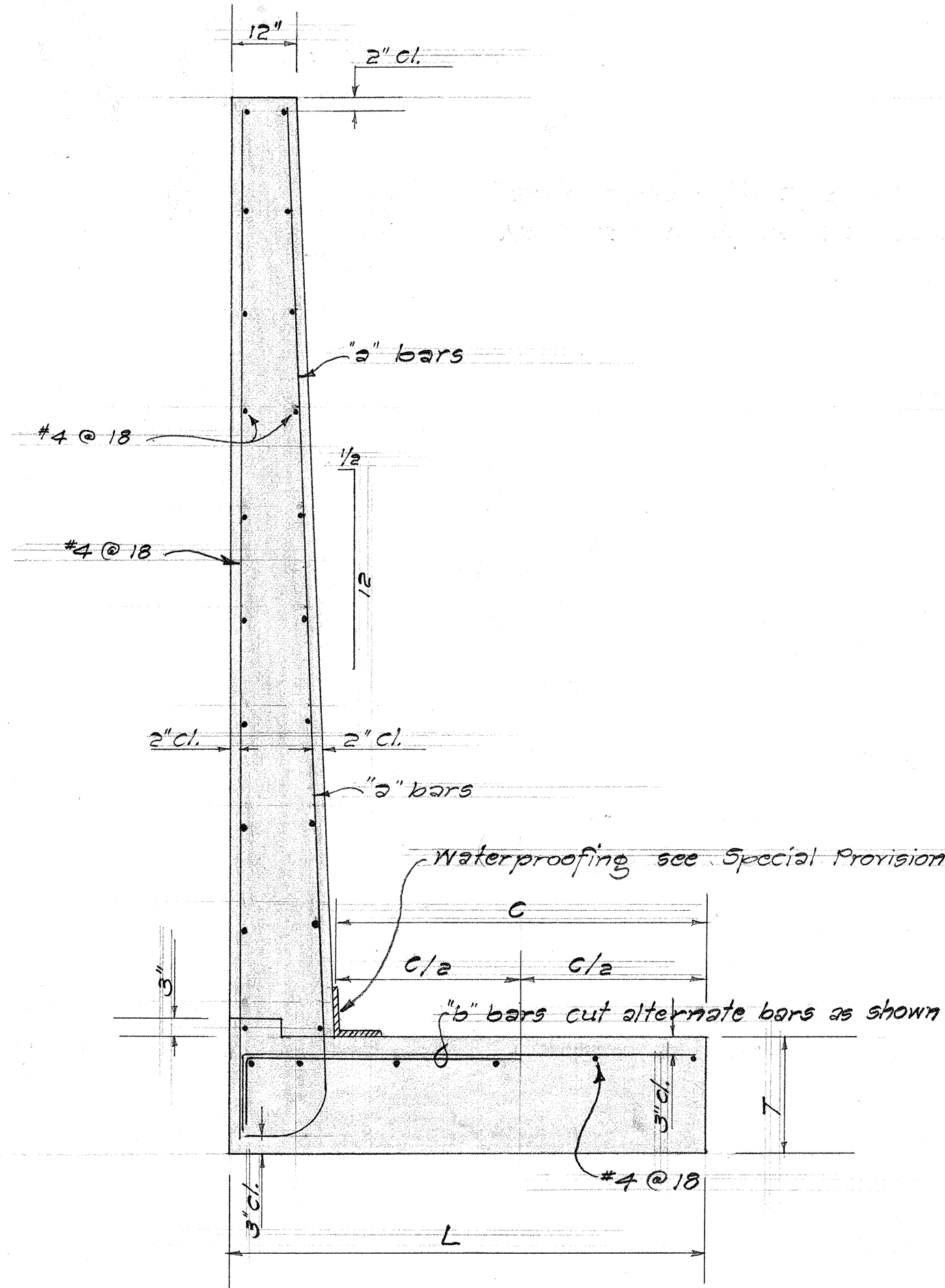


ESTIMATED QUANTITIES	
Class 'A-1' Conc.	46 c.y.
Reinforcing Steel	6,200 Lbs.
Structure Exc.	150 c.y.

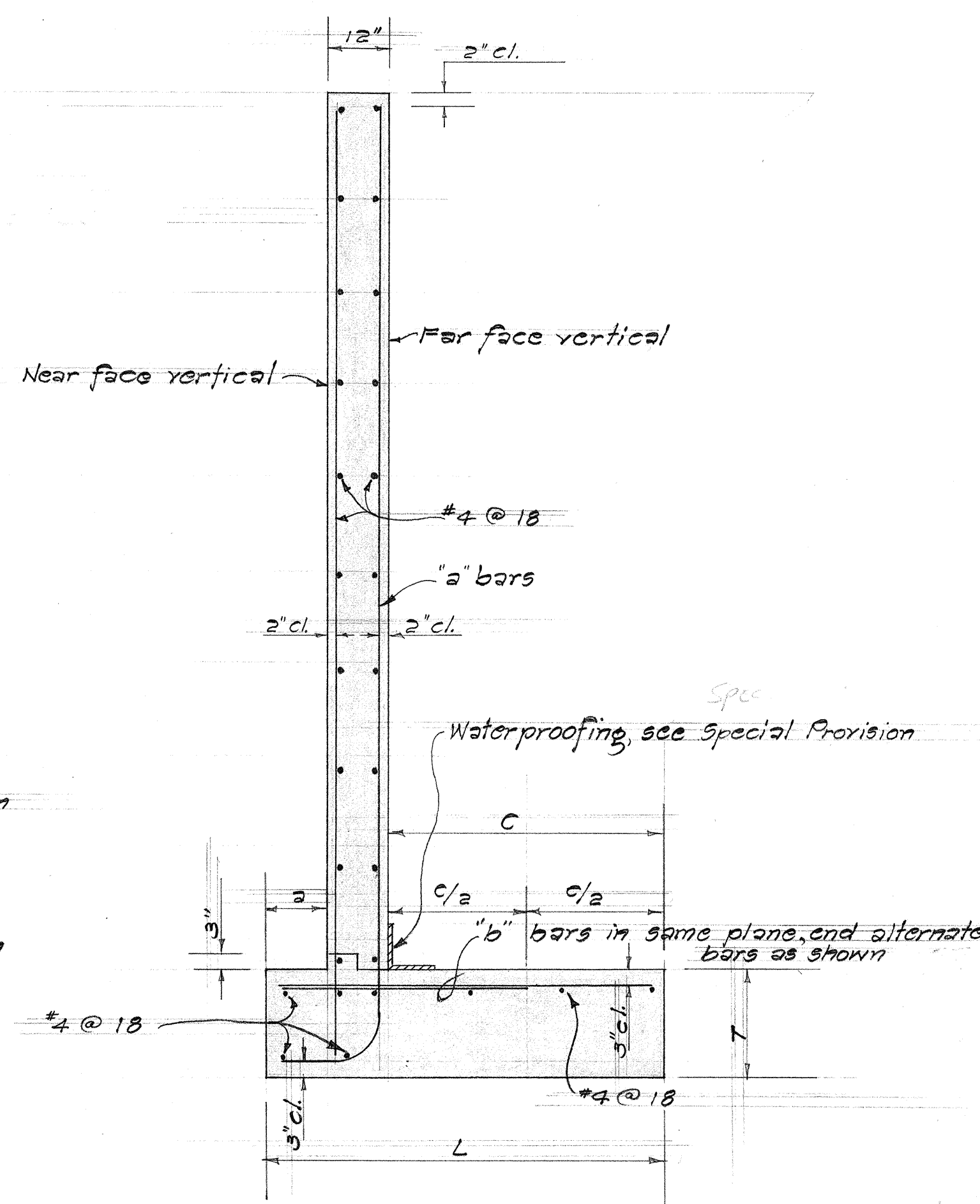
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

IRRIGATION DETAILS
RETAINING WALLS FOR EXISTING
SIPHON INLET AT RD. "A" STA. 6+08
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-H1-1(20)
Scale: As Noted Date: Oct. 1965
SHEET No. 4 OF 5 SHEETS

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	



SECTION RETAINING WALL
TYPE L
Not to scale

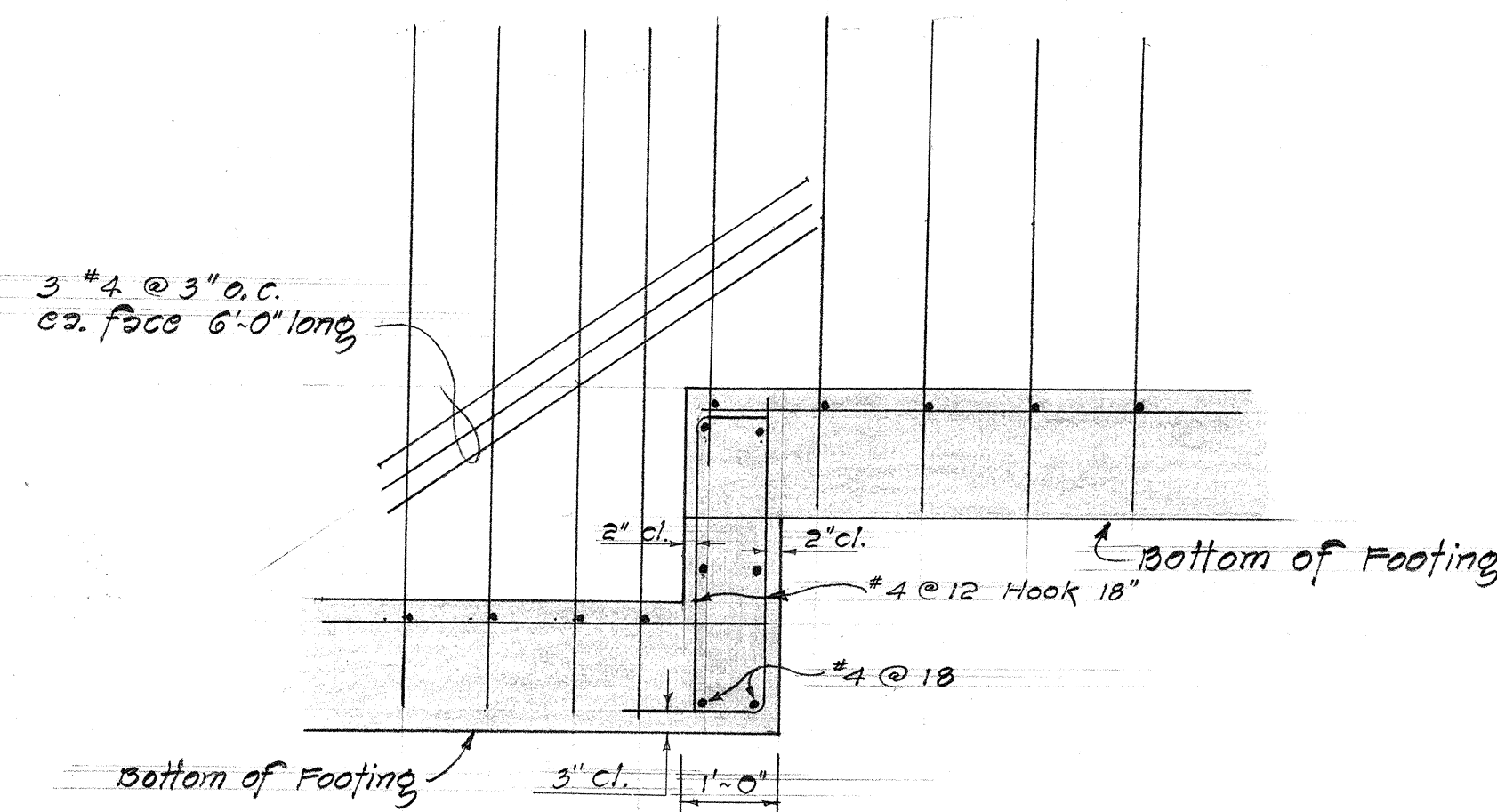


SECTION RETAINING WALL
TYPE T
Not to scale

RETAINING WALL TYPE L			
TYPES	LA	LC	LD
L	8'-0"	6'-0"	5'-6"
T	20"	18"	18"
"a" bars	#6 @ 8"	#5 @ 6"	#6 @ 5 1/2"
"b" bars	#8 @ 8"	#5 @ 6"	#4 @ 5 1/2"

RETAINING WALL TYPE T		
TYPES	TA	TB
L	6'-6"	5'-0"
T	18"	14"
"a" bars	#8 @ 6"	#4 @ 5 1/2"
"b" bars	#5 @ 6"	#4 @ 11"

TABLES OF DIMENSION



TYPICAL DETAIL SECTION OF FOOTING STEP UP
Not to scale

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

IRRIGATION DETAILS
RETAINING WALL DETAILS
AT ROAD "A" STA. 6+08
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-HI-1(20)
Scale As Shown Date: Oct. 1965
SHEET No. 37 OF 5 SHEETS