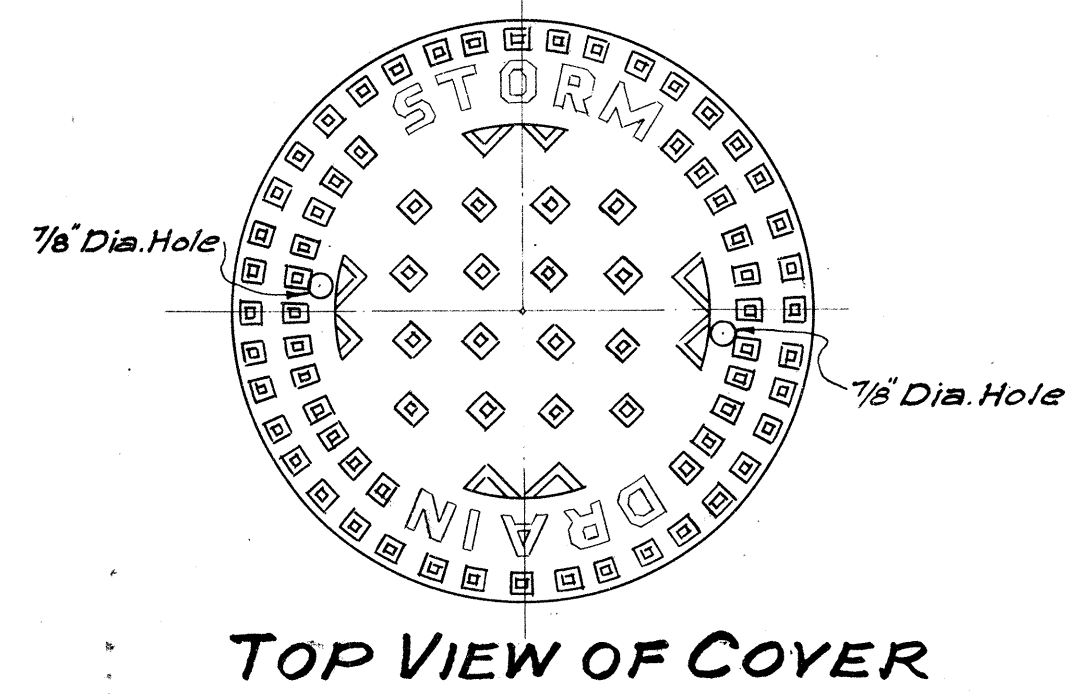
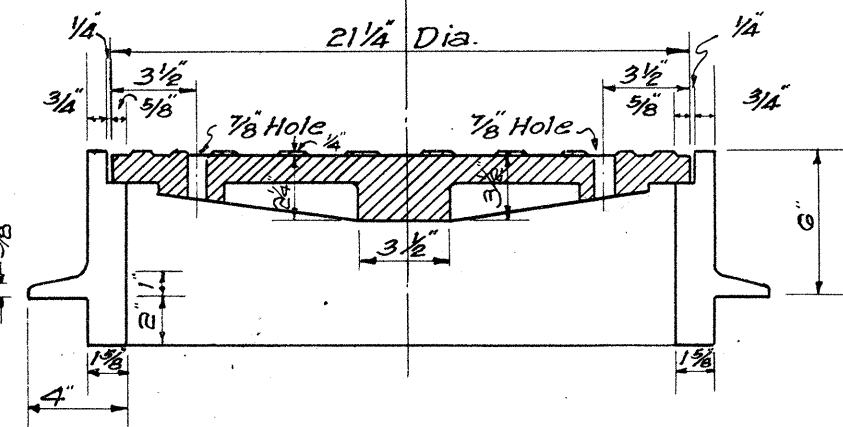
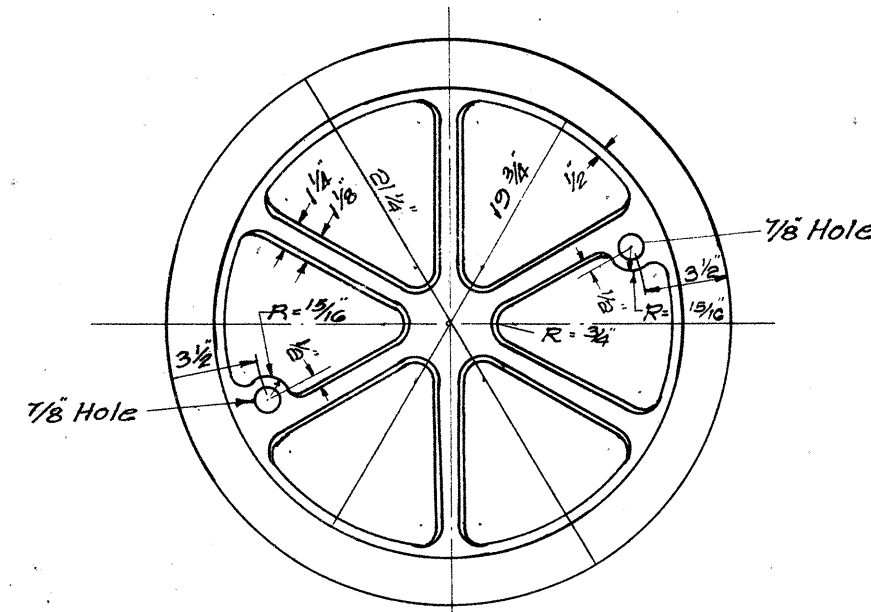




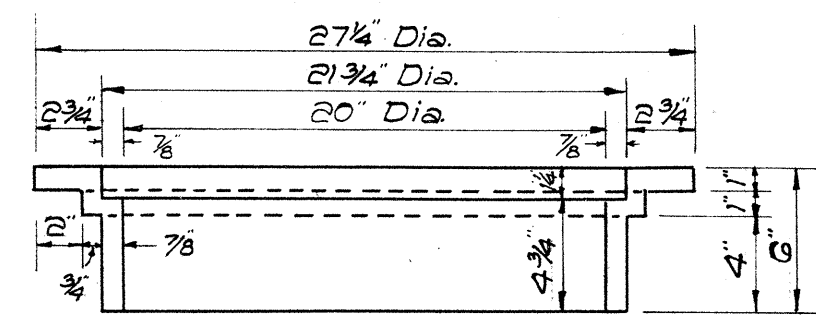
TOP VIEW OF COVER



SECTIONAL VIEW OF FRAME & COVER

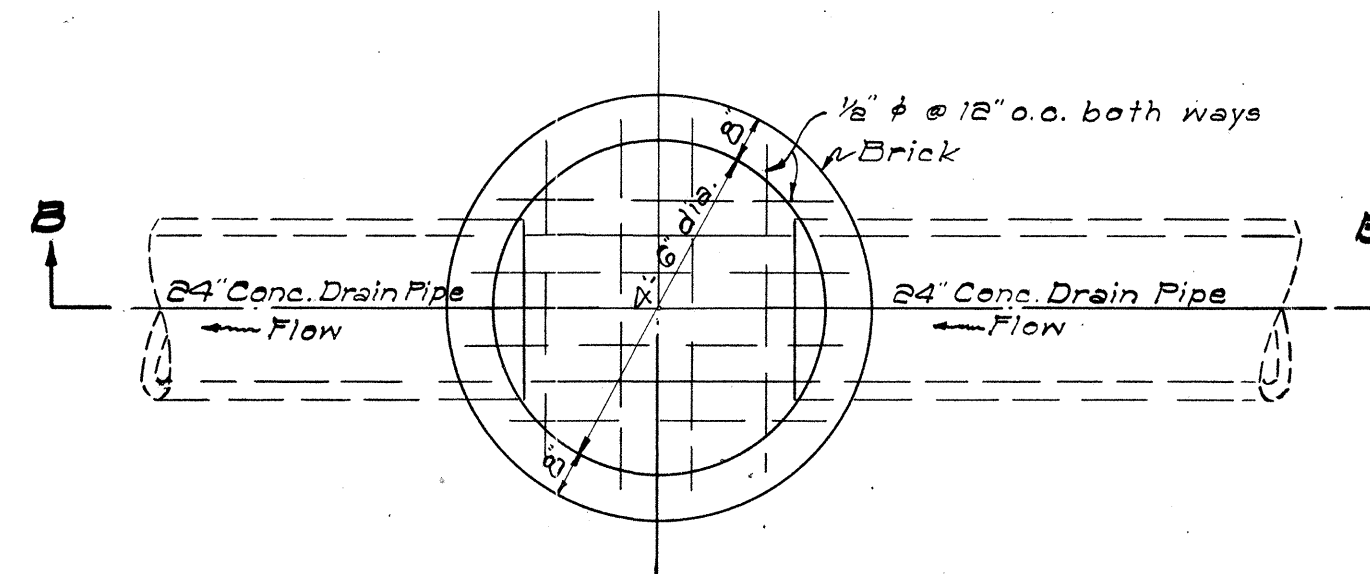


BOTTOM VIEW OF COVER
TYPE "D"
STANDARD MANHOLE CASTINGS
(STREET AREA)

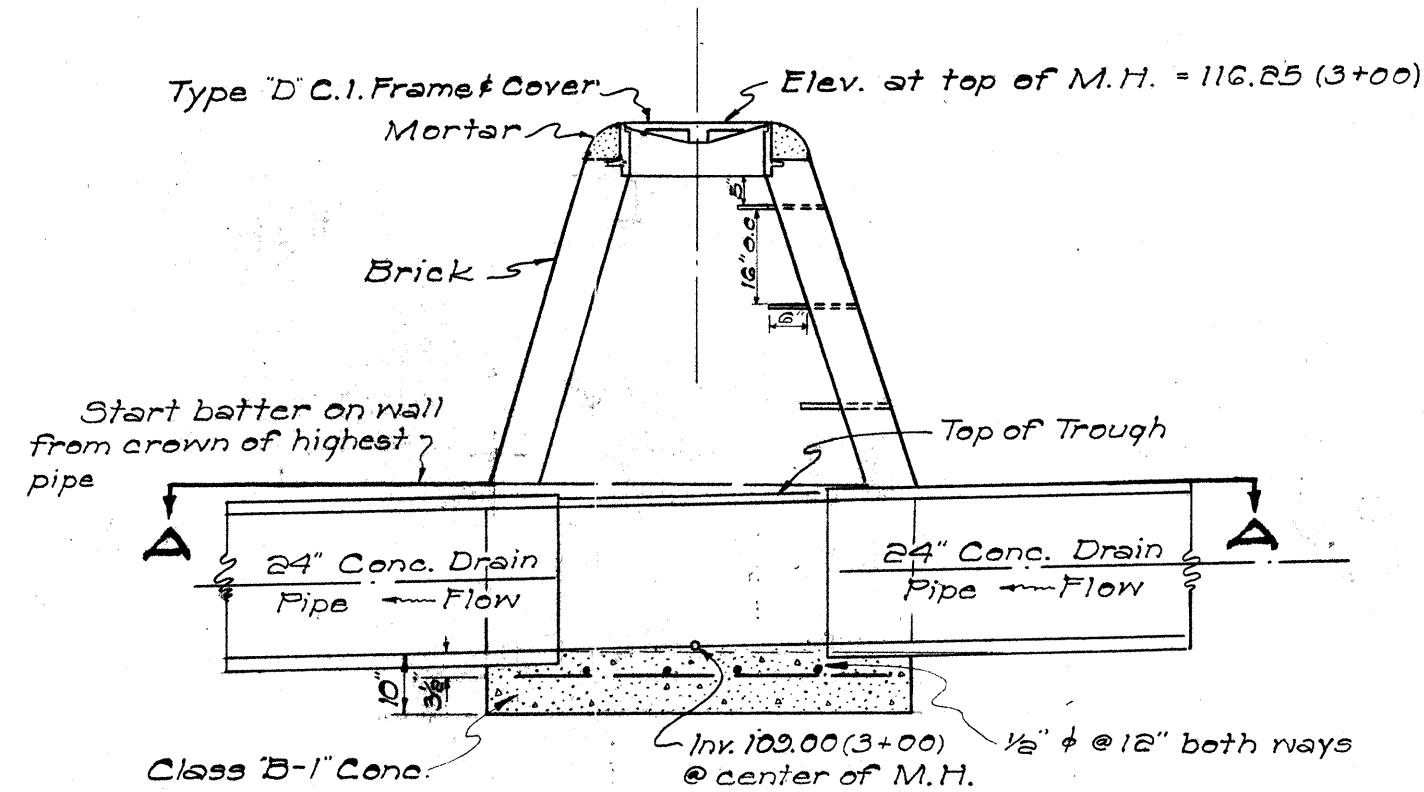


SECTIONAL VIEW OF FRAME
TYPE "E"

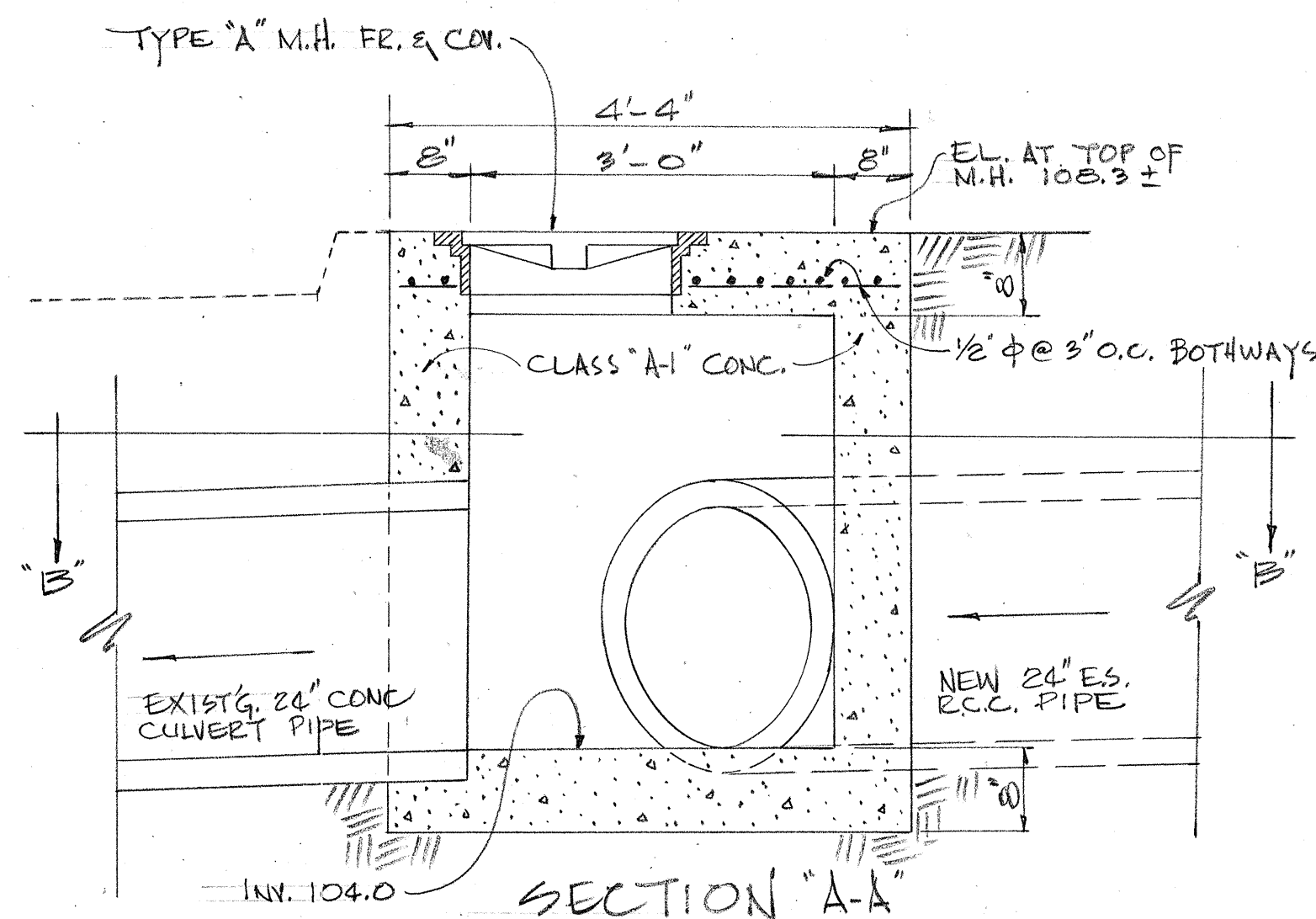
NOTE:
For other Manhole Casting Details
see Sheet No. 5567.84



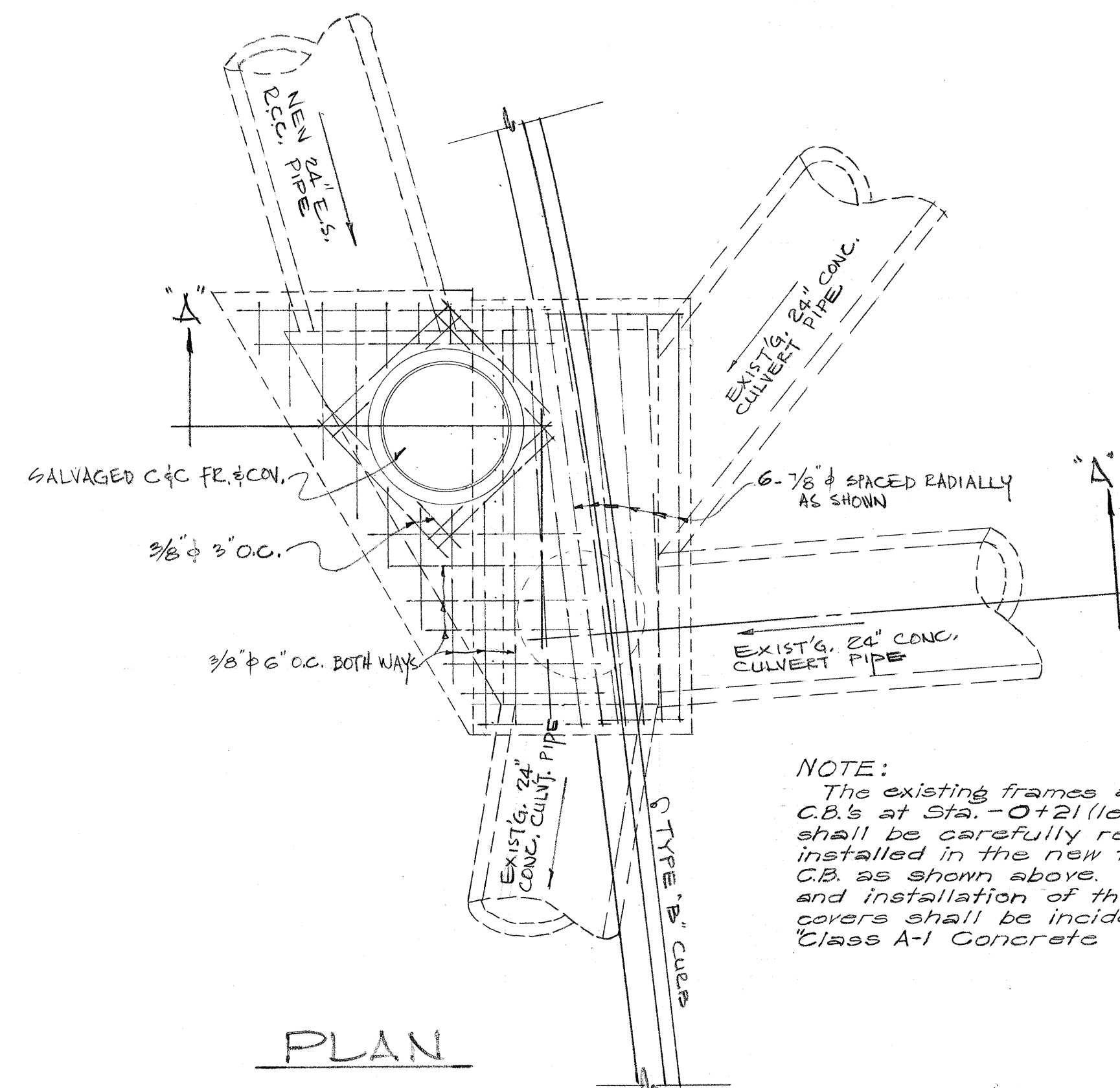
PLAN SECTION "A-A"
STORM DRAIN MANHOLE AT STA. 3+00, 5+39, 8+00,
17+30, 25+72
TYPE "B"
Scale: 3/8" = 1'-0"



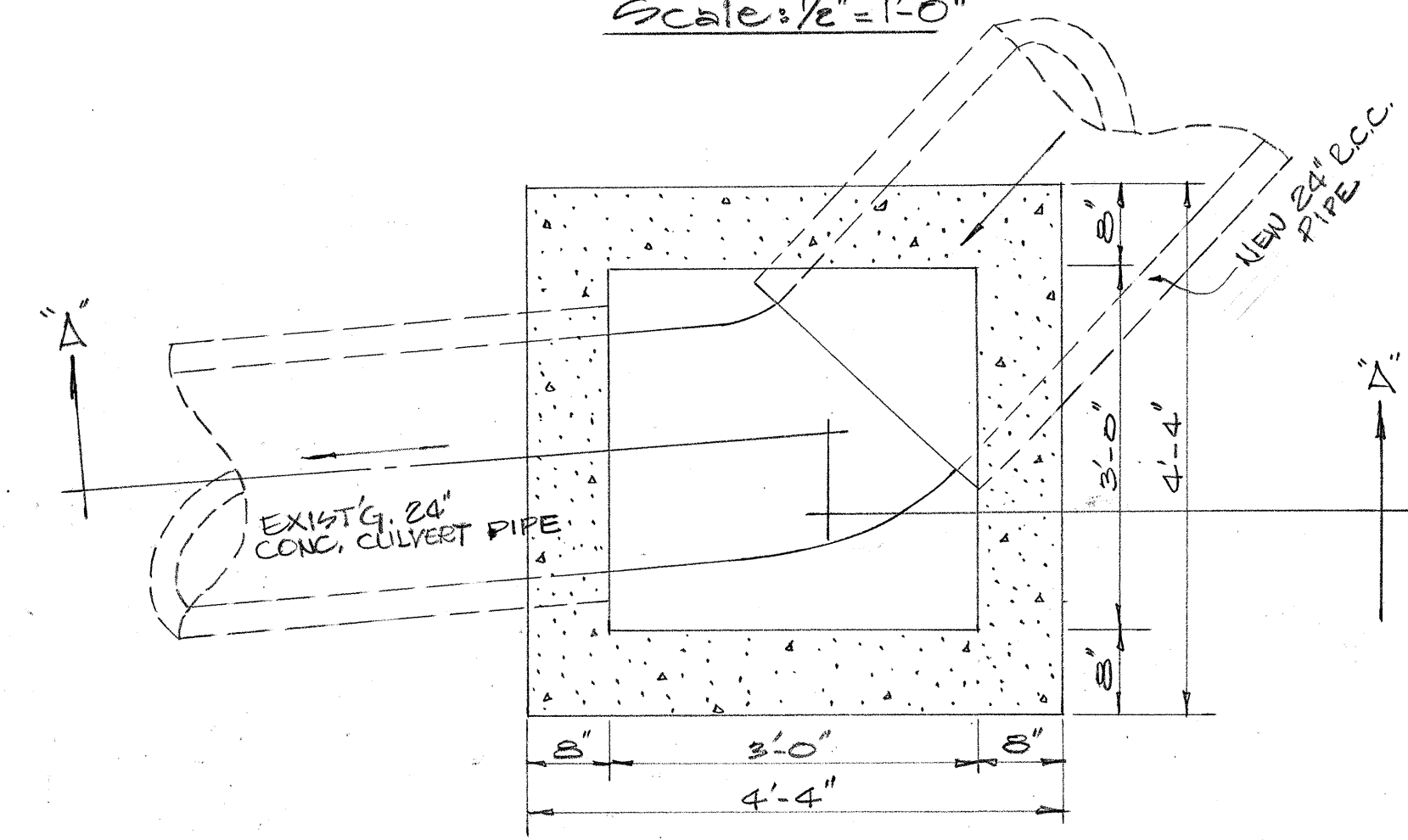
SECTION "B-B" OF STORM DRAIN MANHOLE
Scale: 3/8" = 1'-0"



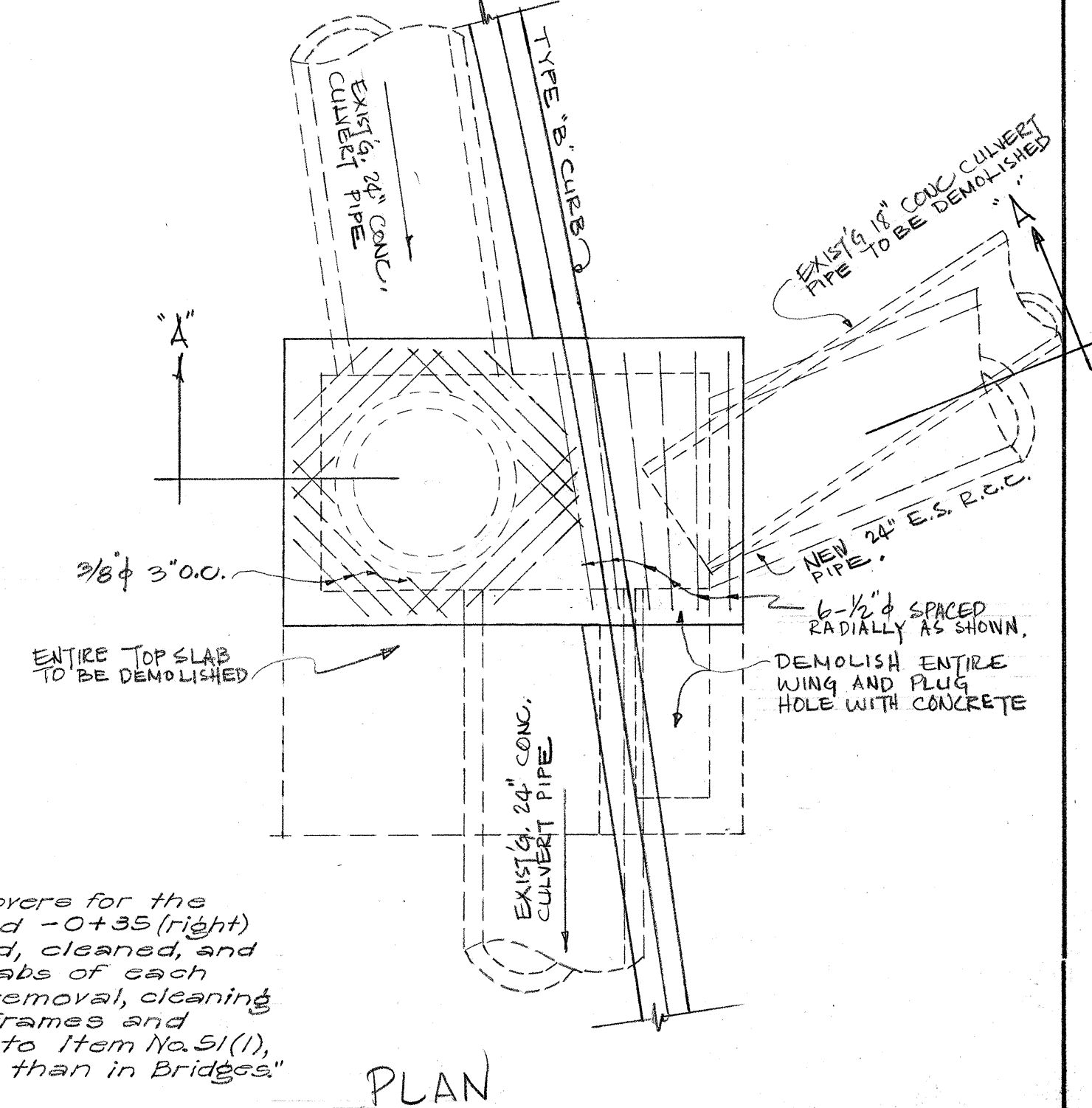
SECTION "A-A"
STORM DRAIN M.H. AT STA. 0+24 (L)
Scale: 3/8" = 1'-0"



SECTION "A-A"
RECONSTRUCTED C.B. AT STA. -0+21 (LEFT)
Scale: 1/2" = 1'-0"

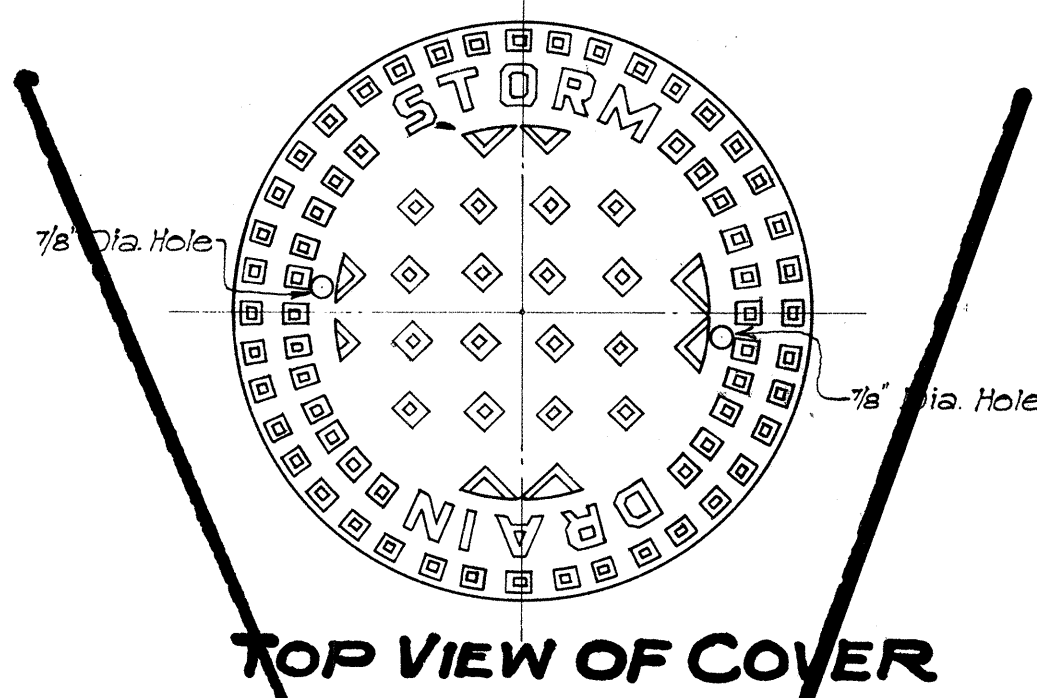


SECTION "B-B"

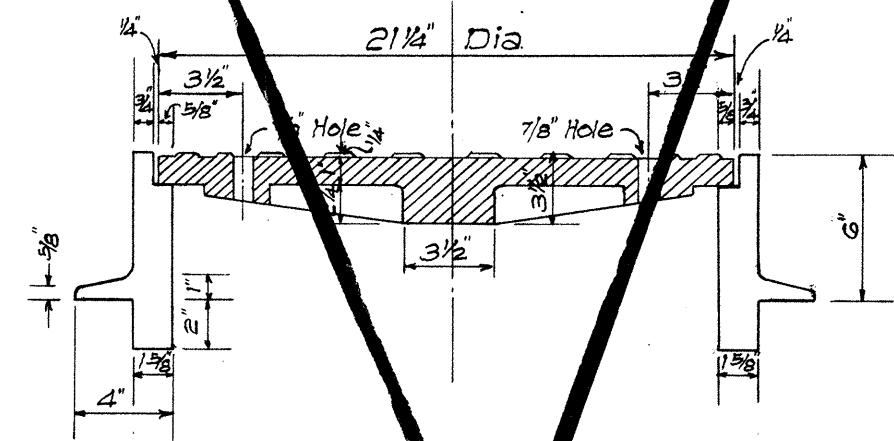


SECTION "A-A"
RECONSTRUCTED C.B. AT STA. -0+35 (RT)
Scale: 1/2" = 1'-0"

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
MANHOLE DETAILS
KALIHI VALLEY ROAD
FED. AID SECONDARY PROJ. NO. 155-0630(1)
Scale: As Shown Above August 1955

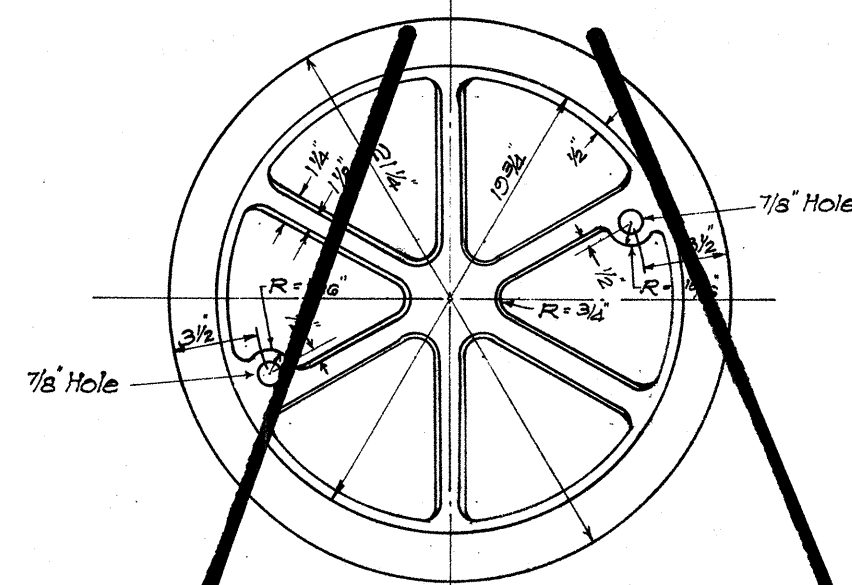


TOP VIEW OF COVER



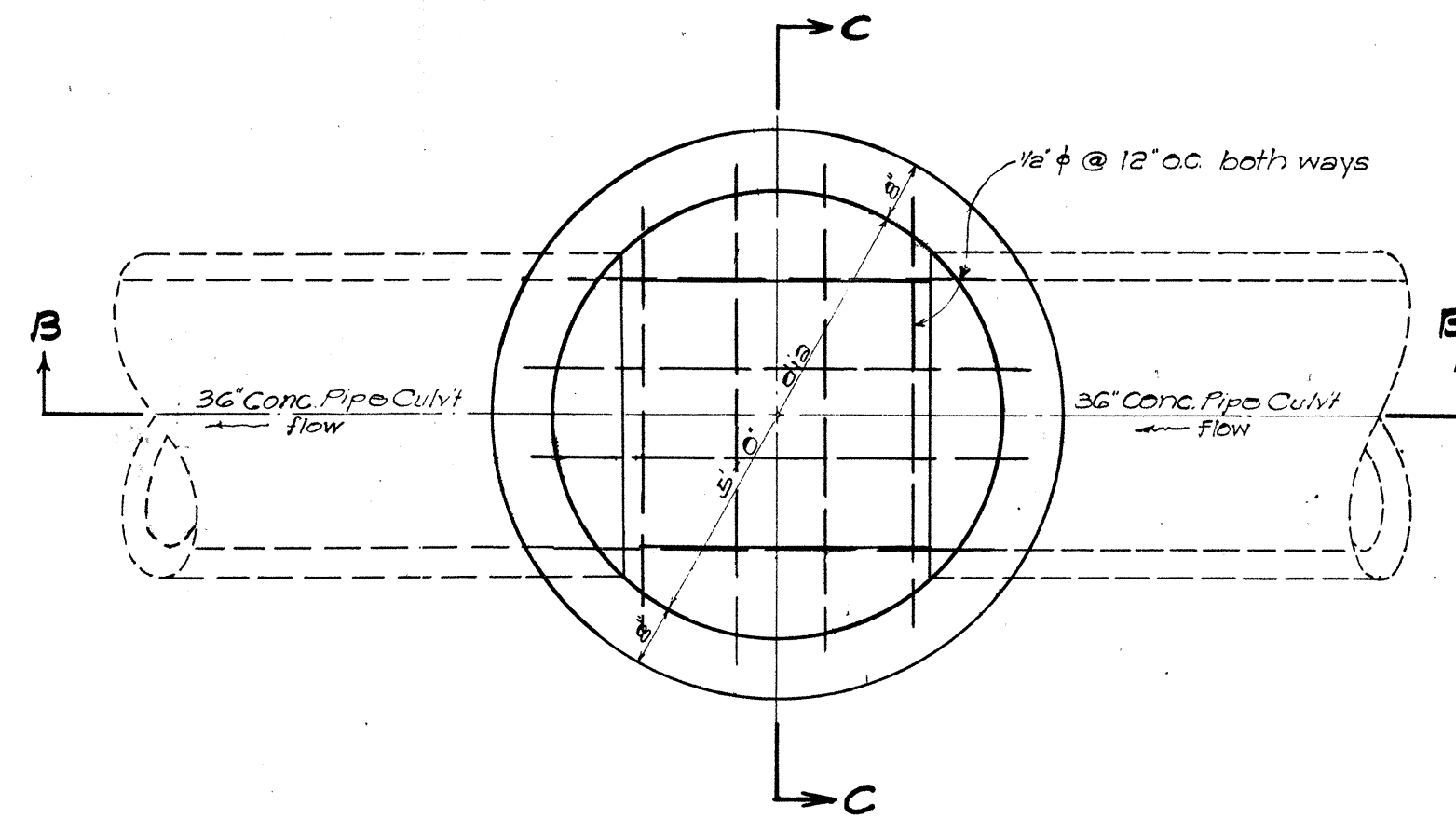
SECTIONAL VIEW OF FRAME & COVER

OMIT

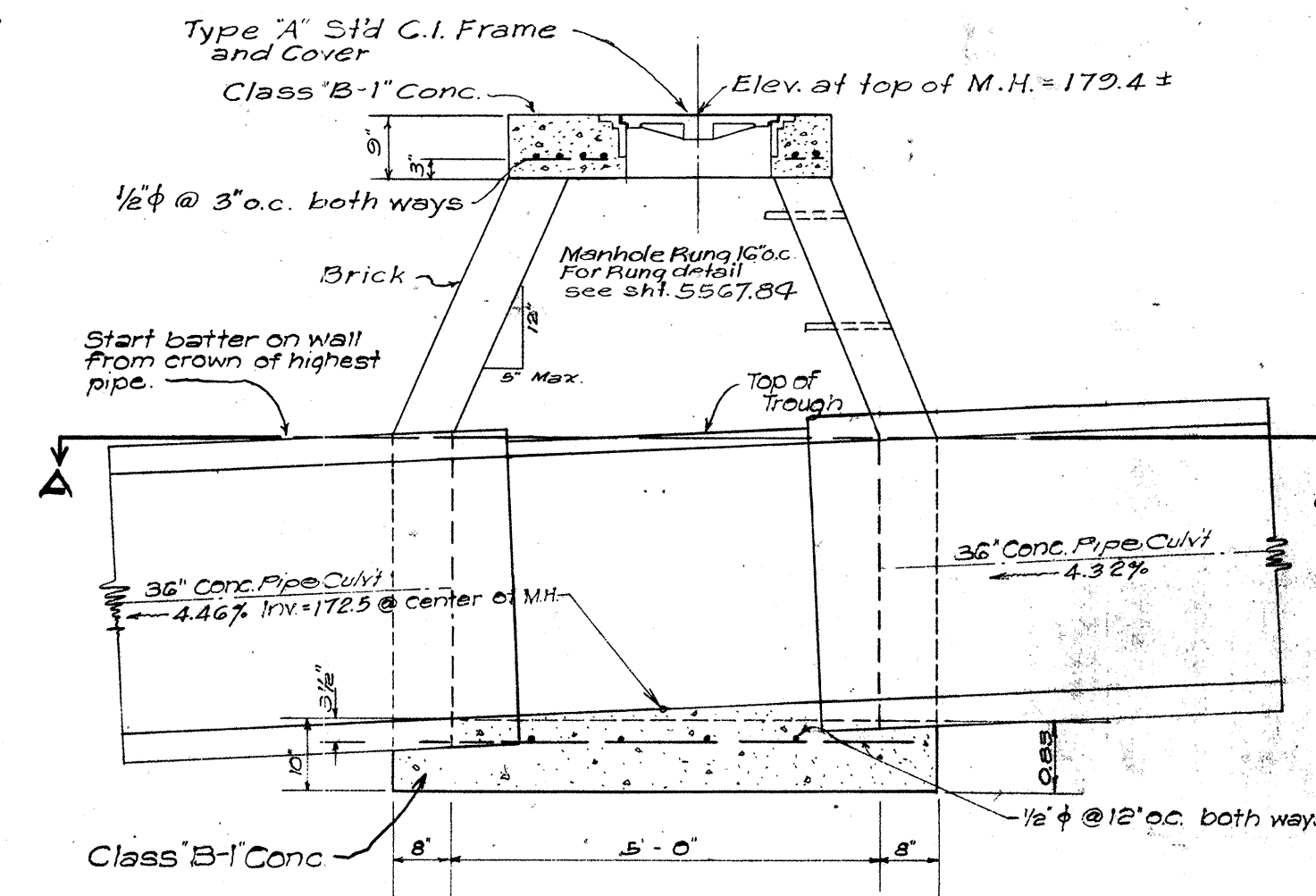


BOTTOM VIEW OF COVER

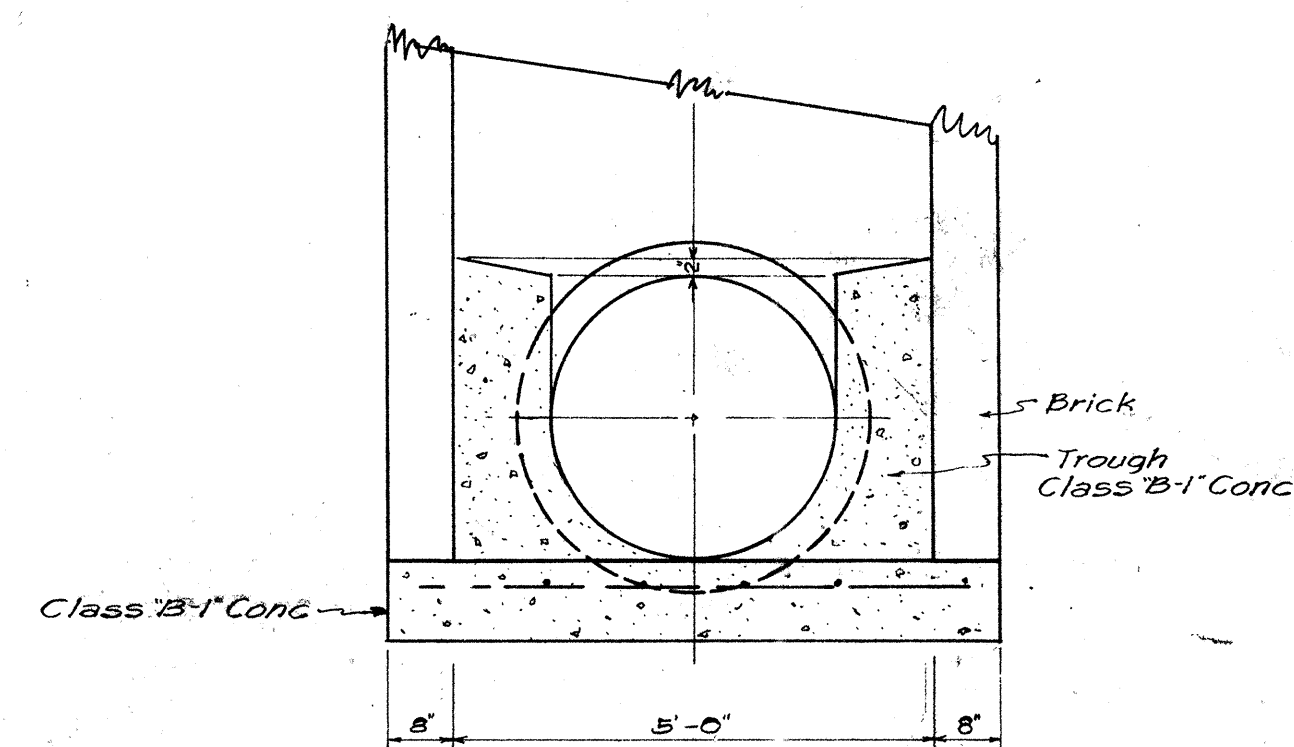
TYPE "D"
STANDARD MANHOLE CASTINGS
(STREET AREA)



PLAN SECTION A-A
STORM DRAIN MANHOLE AT STA 36+75
Scale: 1/2" = 1'-0"

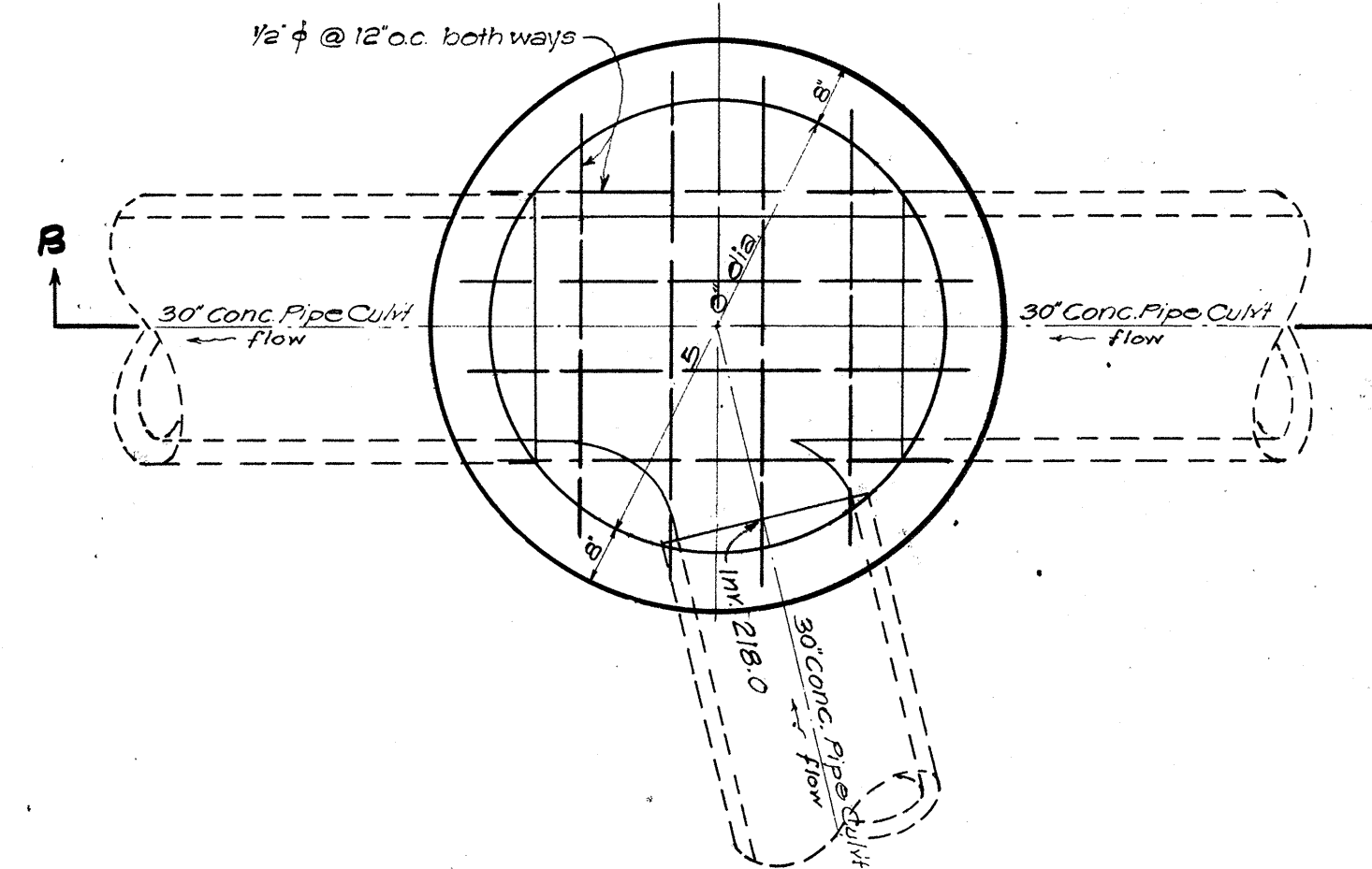


SECTION B-B OF STORM DRAIN MANHOLE
Scale: 1/2" = 1'-0"

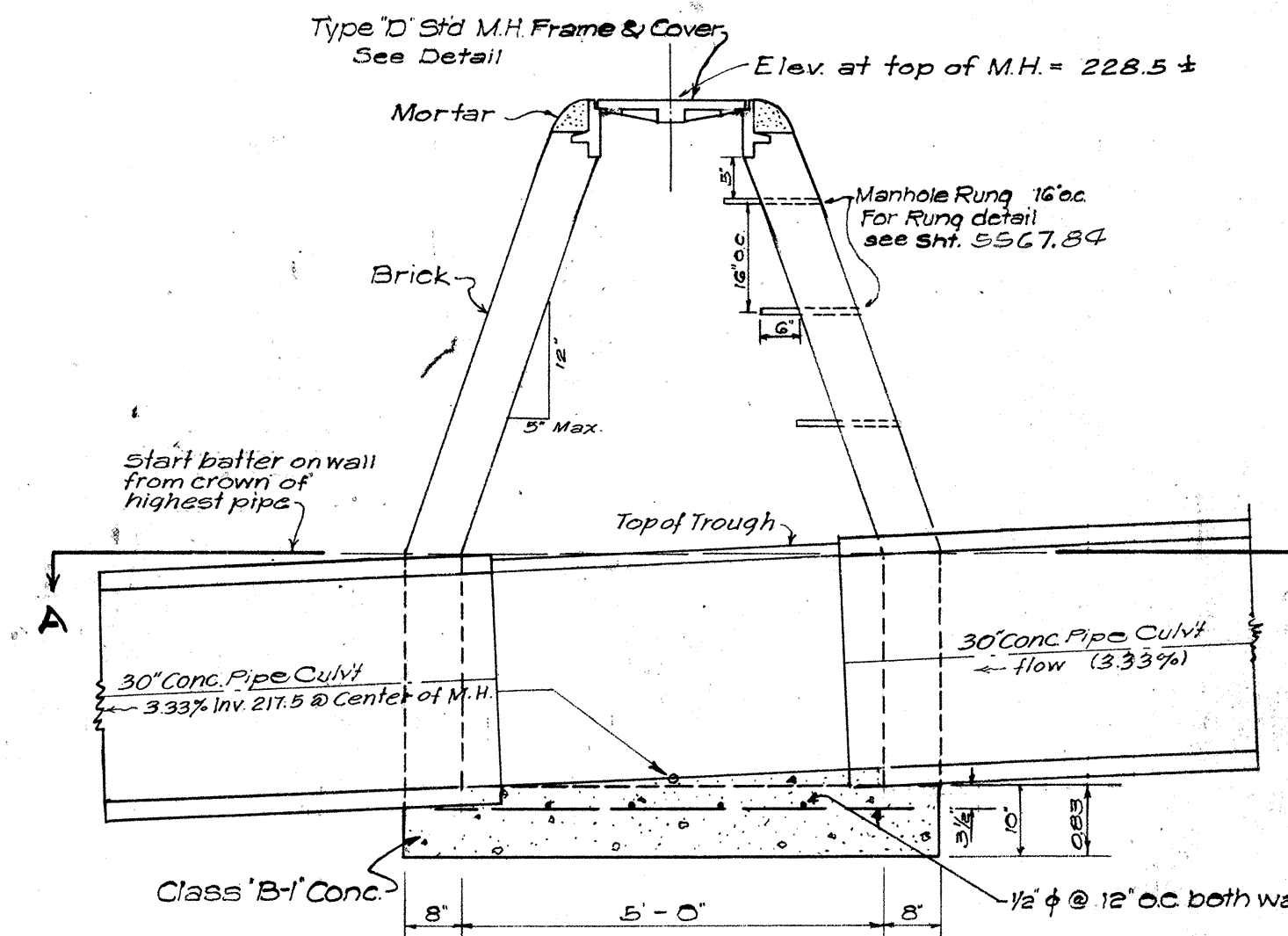


SECTION C-C
SHOWING TROUGH DETAIL
Scale: 1/2" = 1'-0"

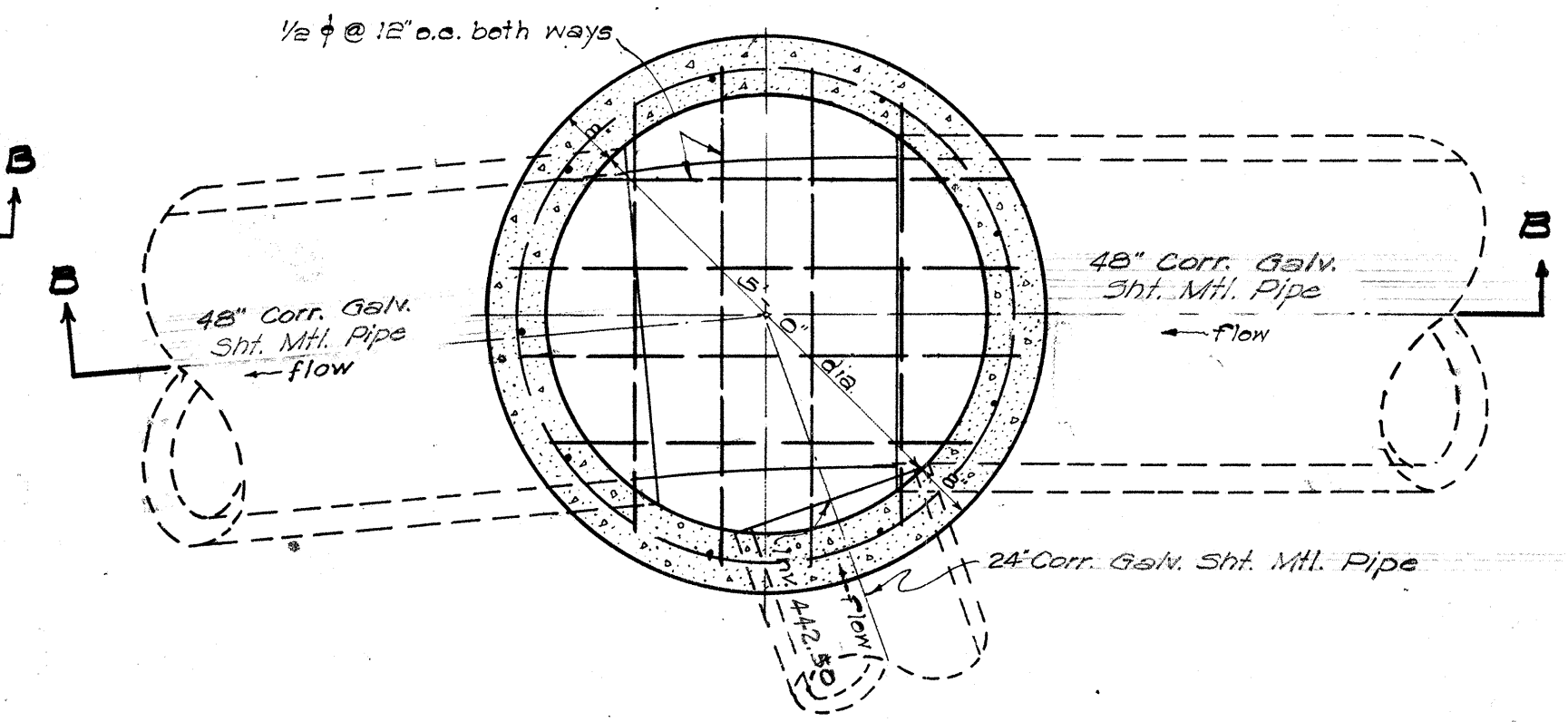
Note: The tops of all manholes in the pavement area shall be flush with and conform to the pavement surface.



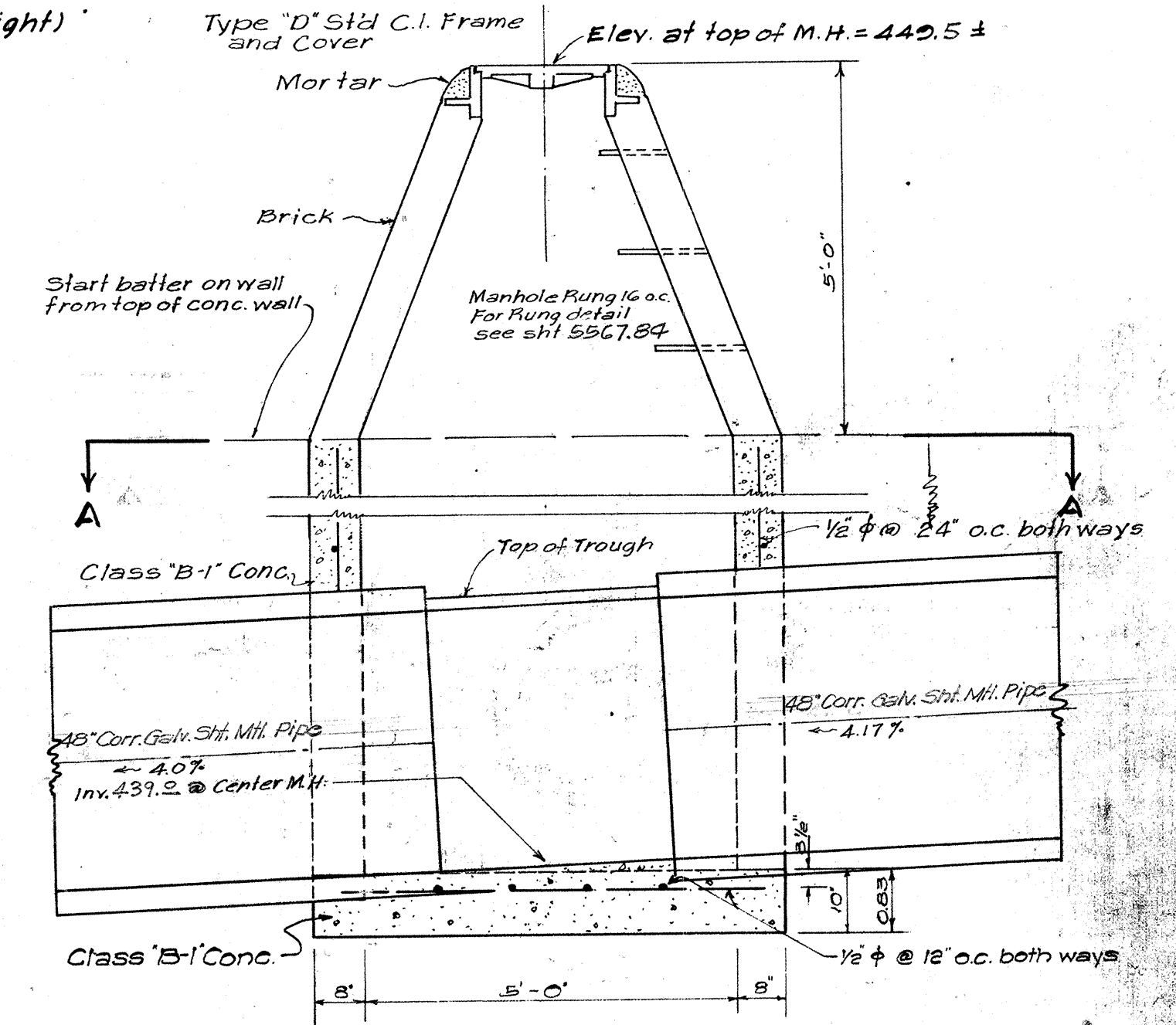
PLAN SECTION A-A
STORM DRAIN MANHOLE AT STA 52+35 (Right)
Scale: 1/2" = 1'-0"



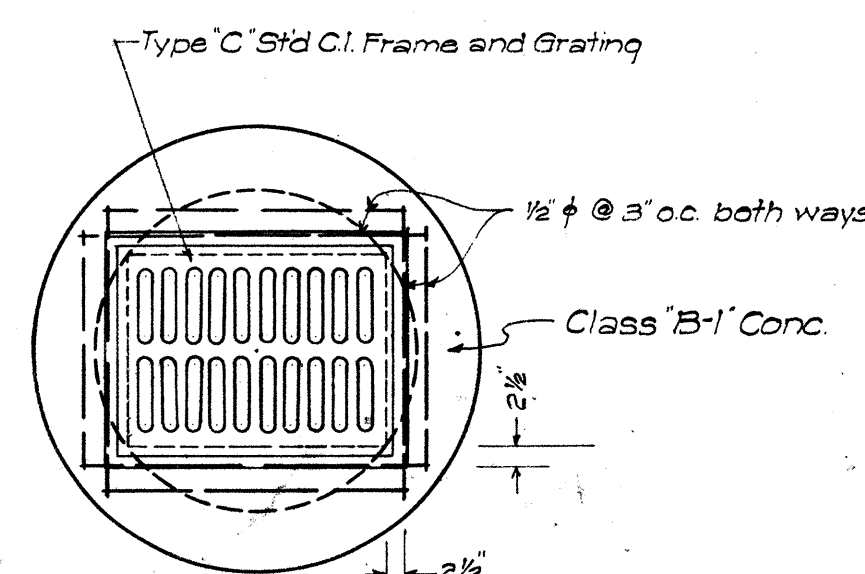
SECTION B-B OF STORM DRAIN MANHOLE
Scale: 1/2" = 1'-0"



PLAN SECTION A-A
STORM DRAIN MANHOLE AT STA 94+15
Scale: 1/2" = 1'-0"



SECTION B-B OF STORM DRAIN MANHOLE
Scale: 1/2" = 1'-0"



DETAIL "A"
CONC. TOP SLAB OF STORM DRAIN MANHOLE
Scale: 1/2" = 1'-0"

NOTE: Storm Drain Manholes
Type "A" = 5'-0" diameter
Type "B" = 4'-6" diameter

For notes on payment
see Sheet 5567.25

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

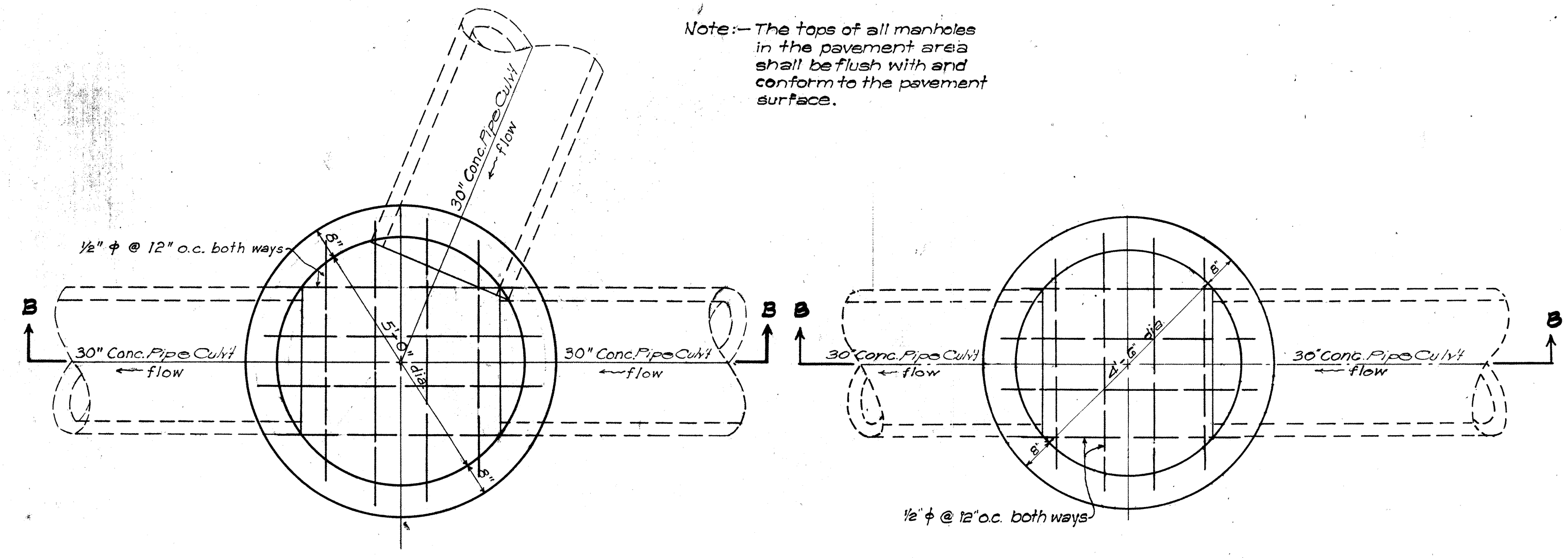
STORM DRAIN MANHOLES
KALIHI VALLEY ROAD
PROJ. NO. US-S-0630(1)

Scale: As shown Sept. 1951

SHEET No. 2 OF 10 SHEETS

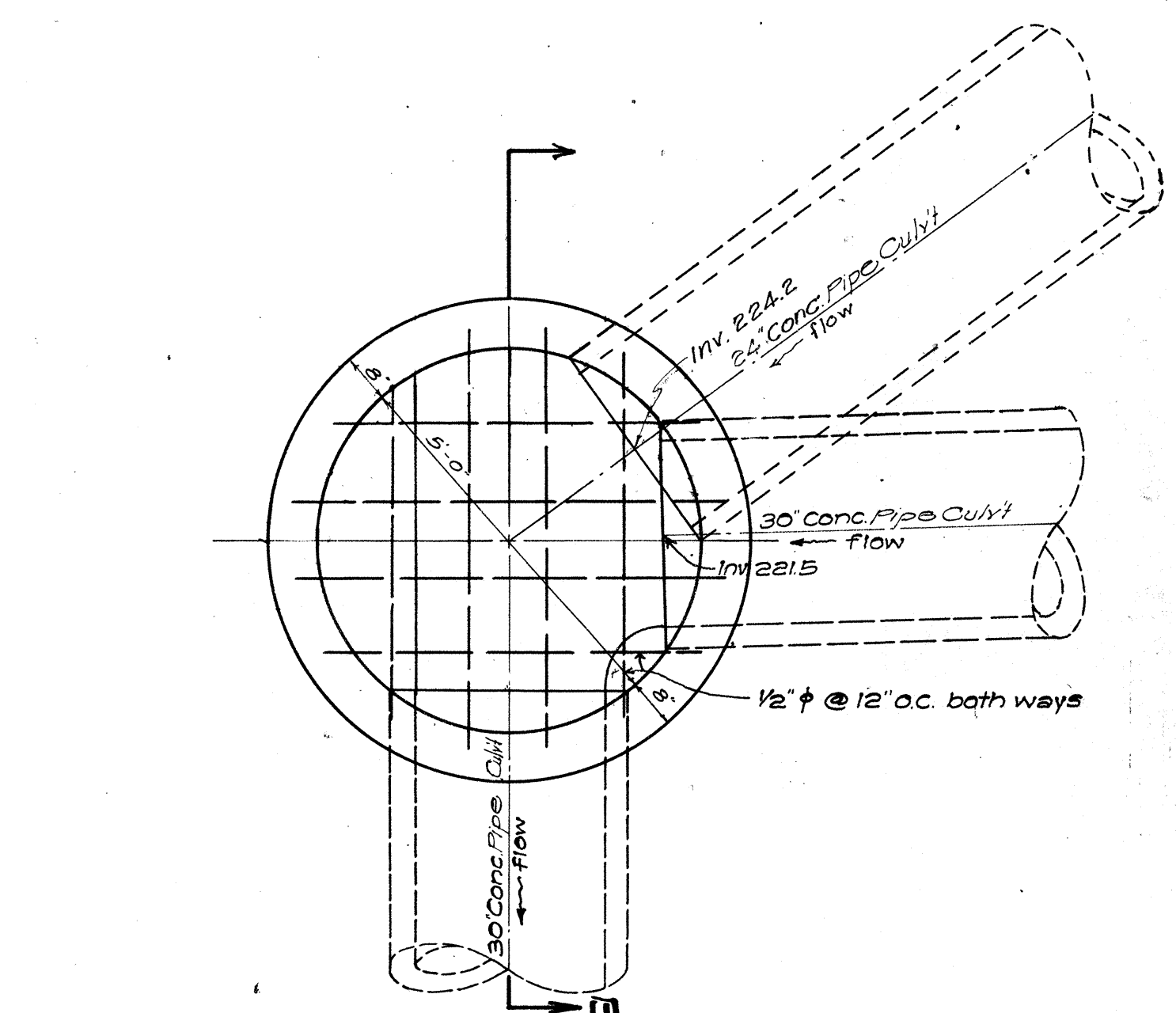
5567.34

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

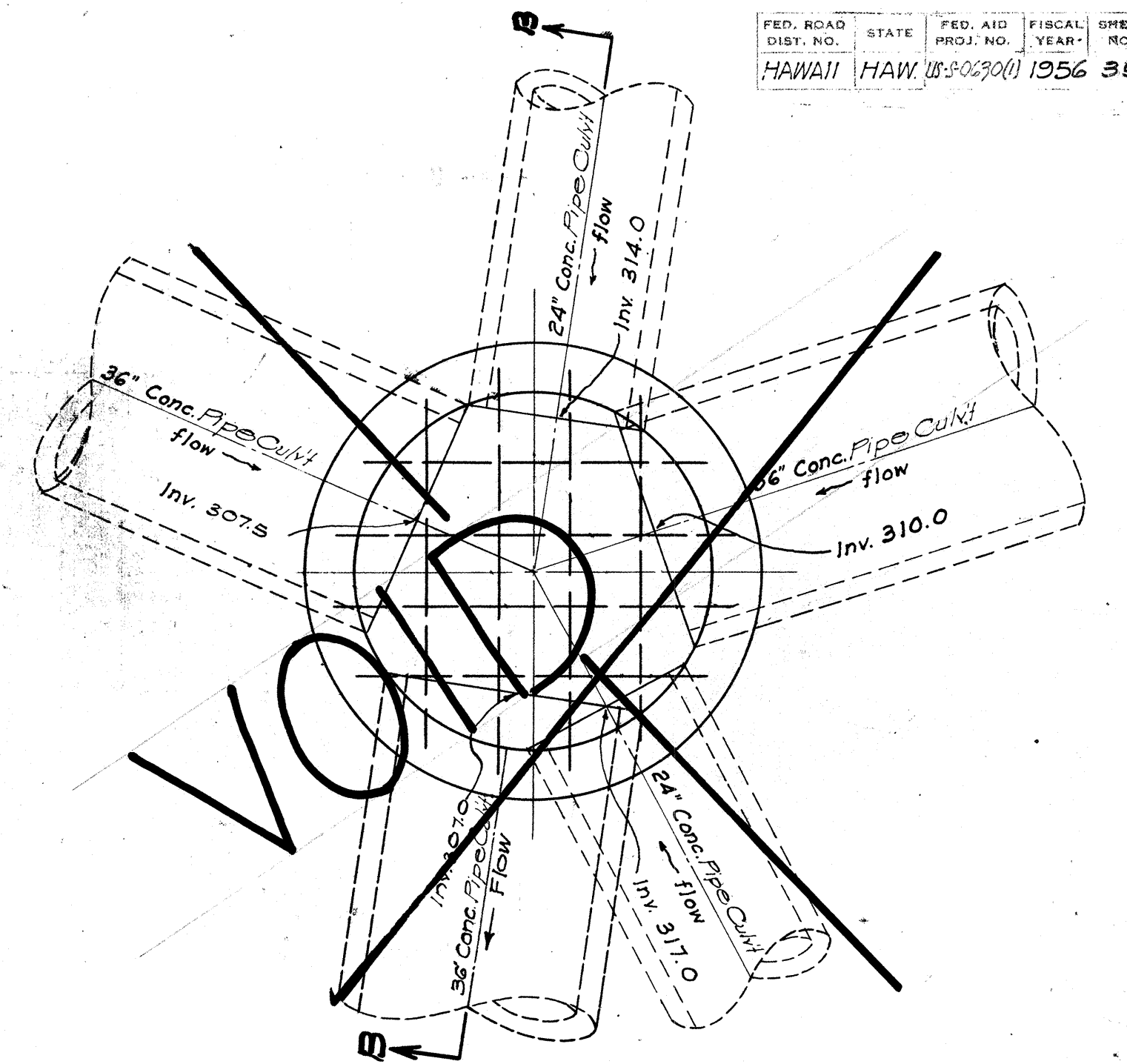


PLAN SECTION A-A
STORM DRAIN MANHOLE AT STA 45+30
Scale: 1/2" = 1'-0"

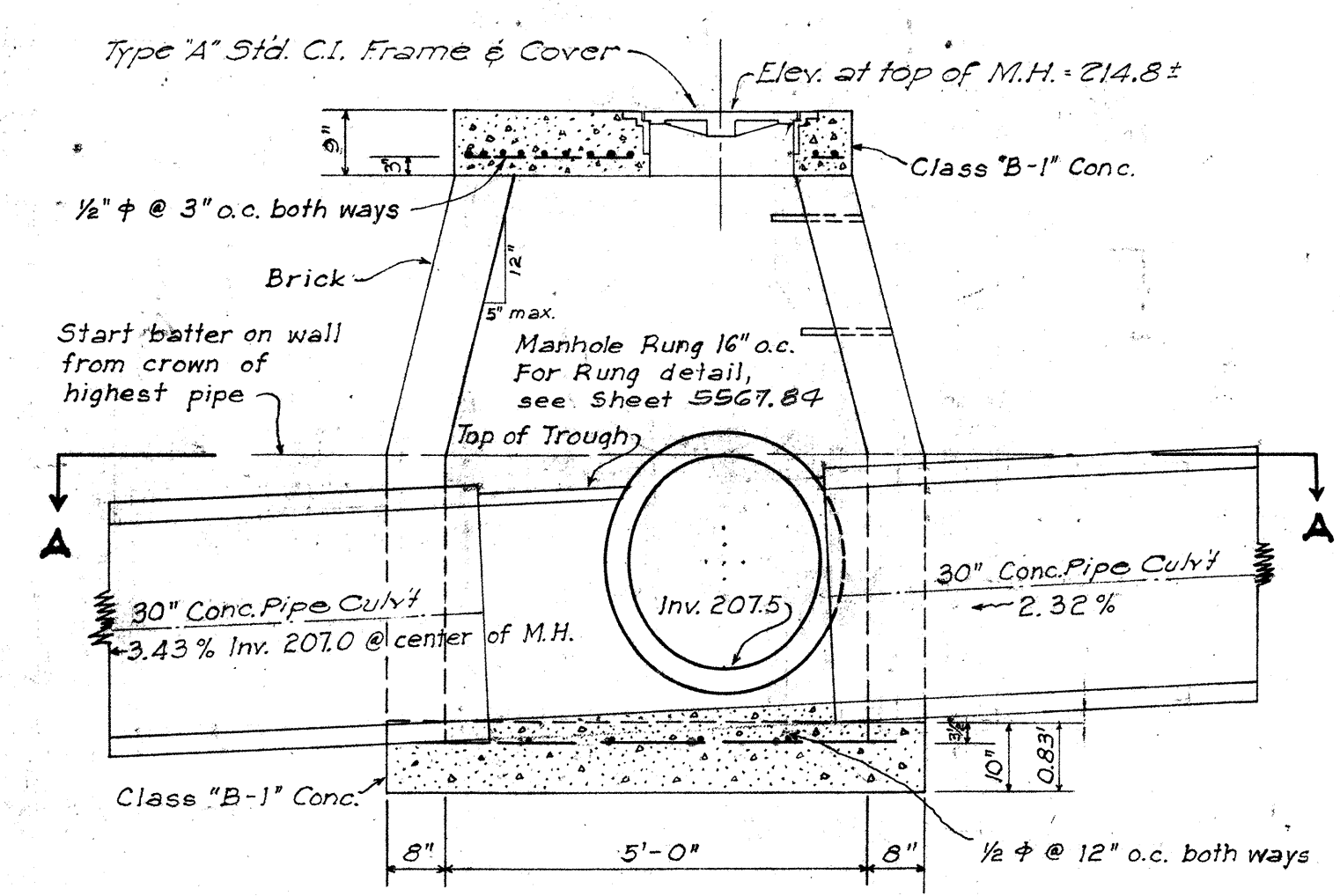
PLAN SECTION A-A
STORM DRAIN MANHOLE AT STA 42+40
Scale: 1/2" = 1'-0"



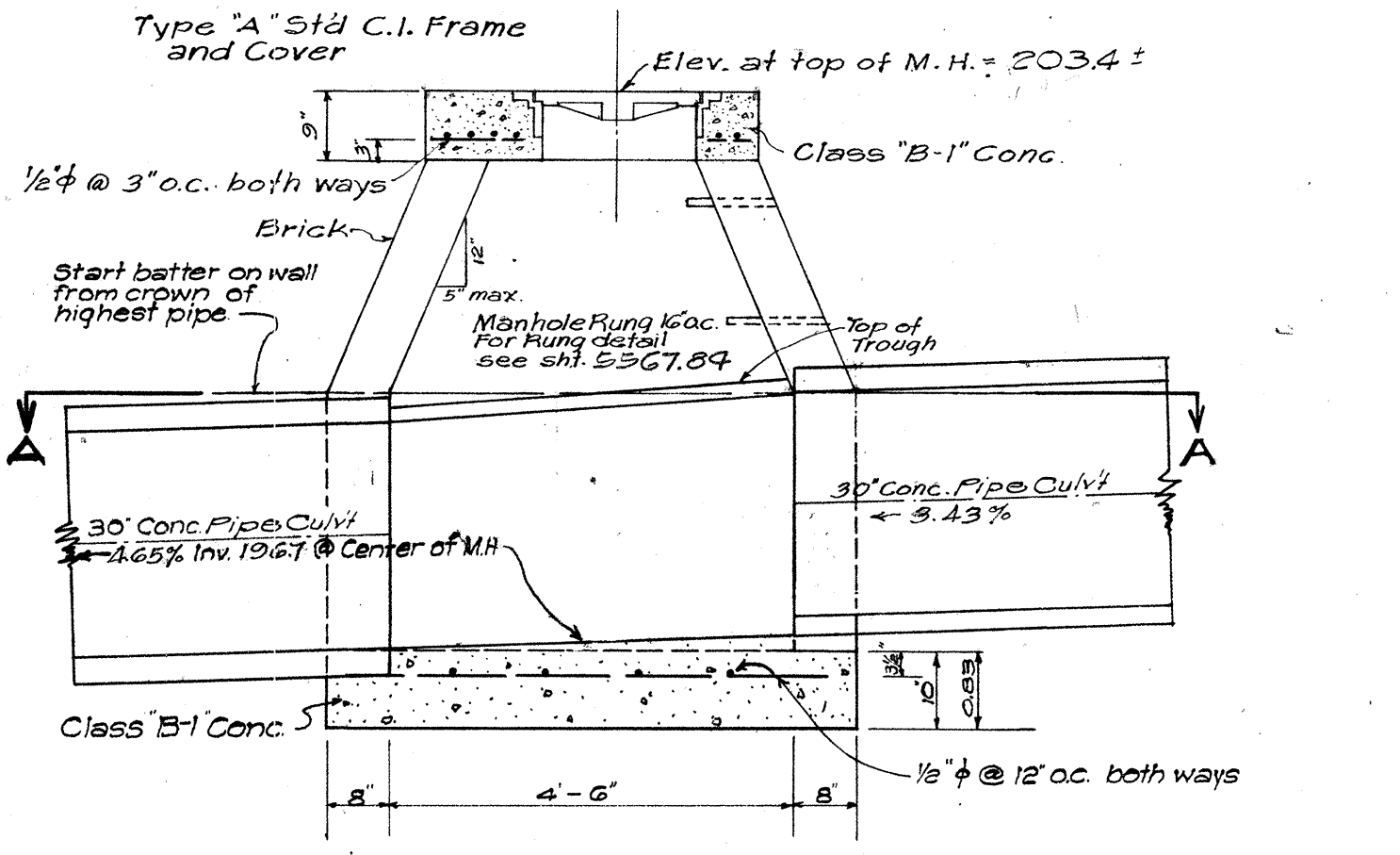
PLAN SECTION A-A
STORM DRAIN MANHOLE AT STA 52+35 (LEFT)
Scale: 1/2" = 1'-0"



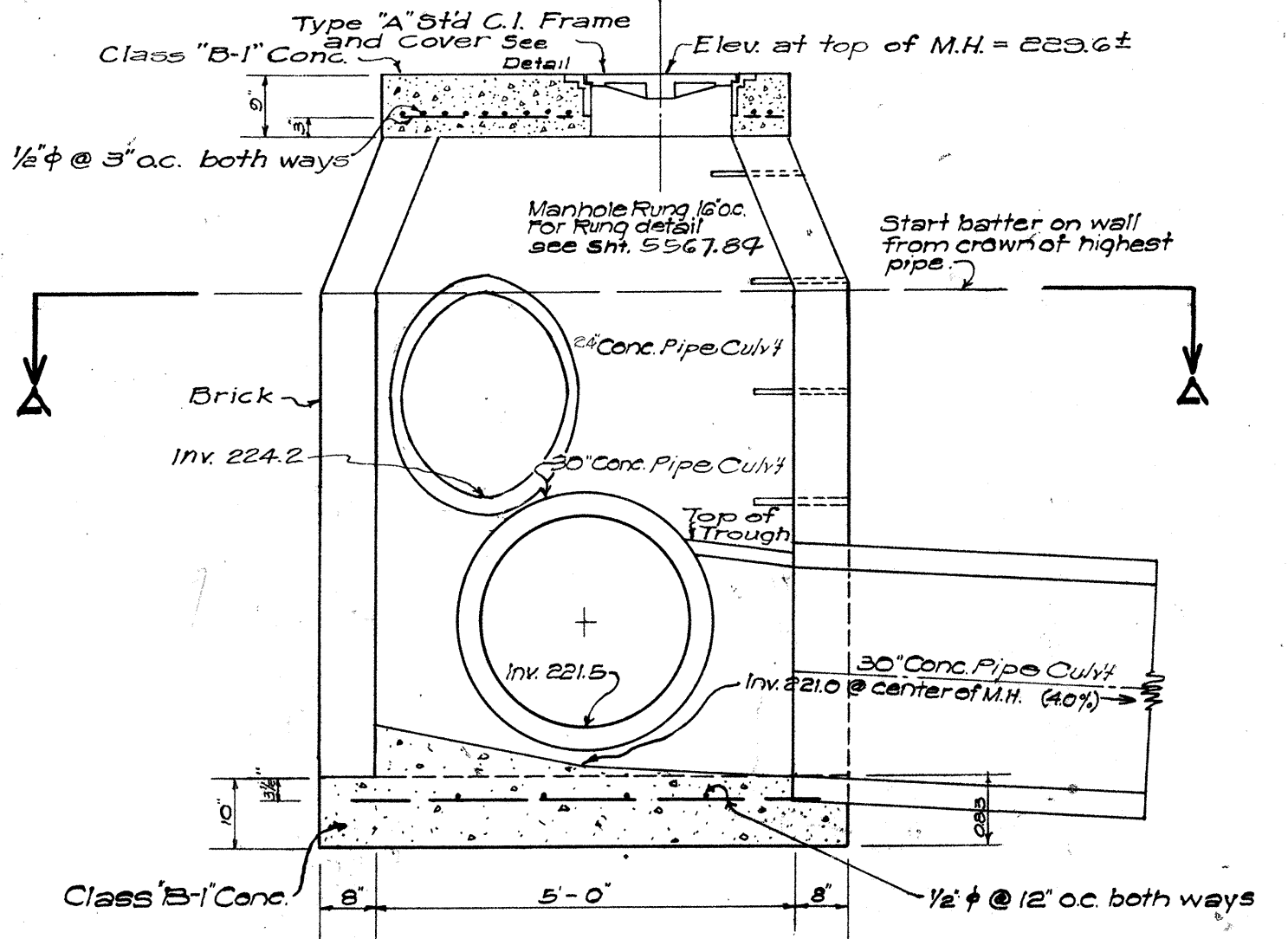
PLAN SECTION A-A
STORM DRAIN MANHOLE AT STA 72+68
Scale: 1/2" = 1'-0"



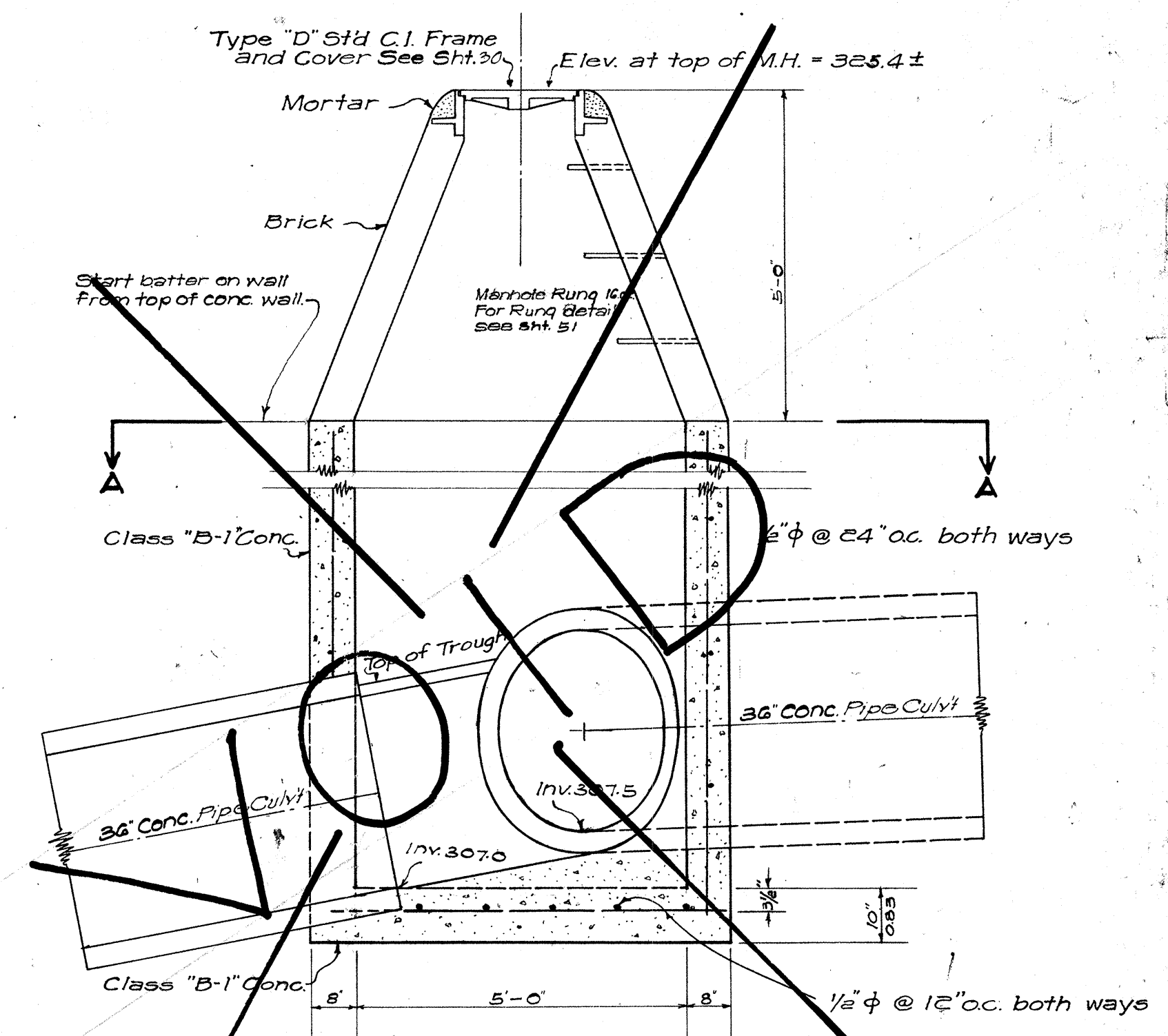
SECTION B-B OF STORM DRAIN MANHOLE
Scale: 1/2" = 1'-0"



SECTION B-B OF STORM DRAIN MANHOLE
Scale: 1/2" = 1'-0"



SECTION B-B OF STORM DRAIN MANHOLE
Scale: 1/2" = 1'-0"

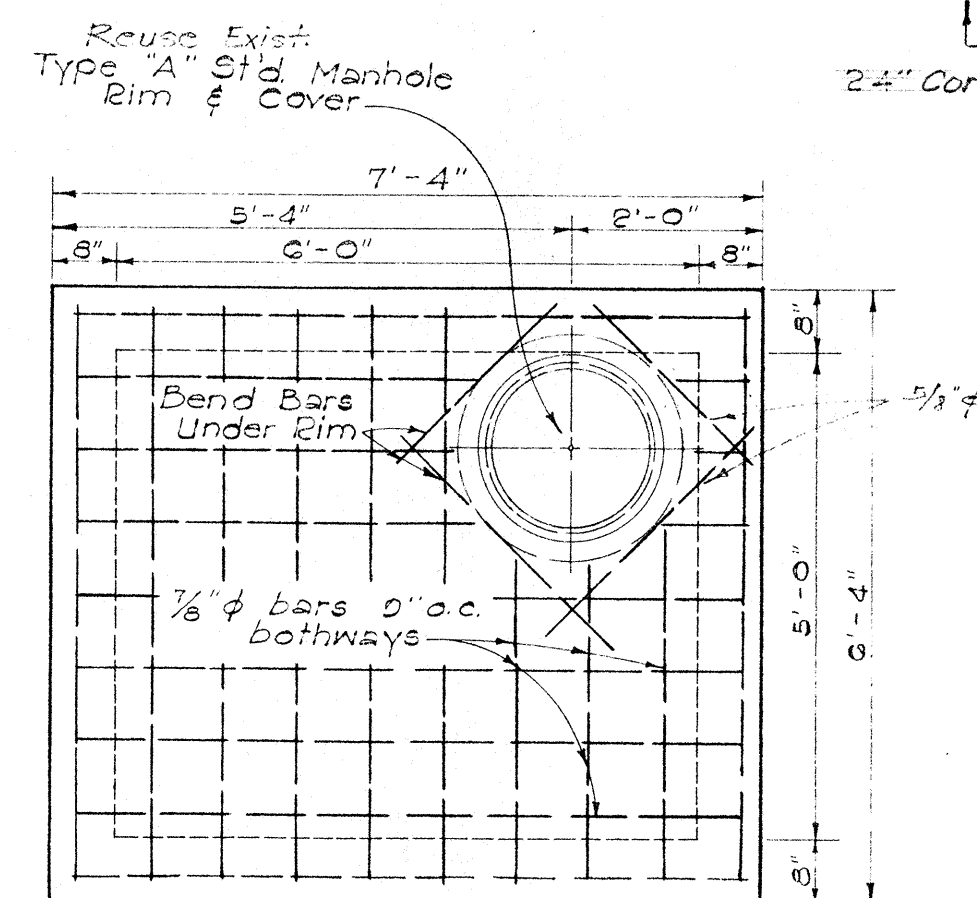


SECTION B-B OF STORM DRAIN MANHOLE
Scale: 1/2" = 1'-0"

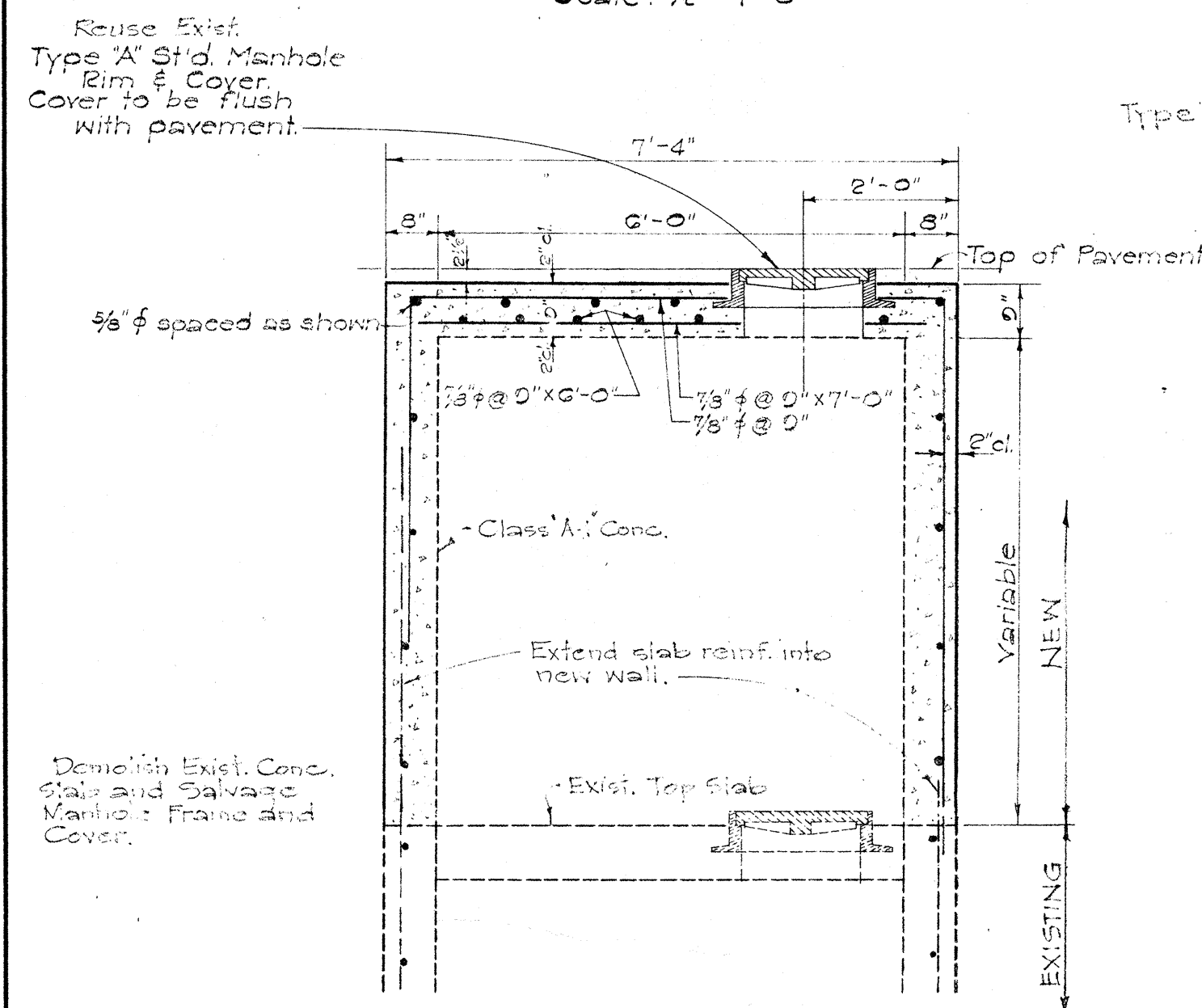
NOTES FOR PAYMENT ON ALL DRAIN MANHOLES, CATCH BASINS AND DROP INTAKES

1. All excavation to be paid for under Item 14 (1), Unclassified Excavation for Structures other than at Bridges.
2. All concrete, including floor and roof slabs, walls, troughs, etc., to be paid for under Item 51, Concrete other than in Bridges.
3. All brick walls to be paid for under Item 77.
4. All reinforcing steel to be paid for under Item 52 (1), Reinforcing steel other than in Bridges.
5. All cast iron frame and covers to be paid for under Item 78.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
STORM DRAIN MANHOLES
KALIHI VALLEY ROAD
PROJ. NO. US-5-0630(1)
Scale: As shown Sept. 1951



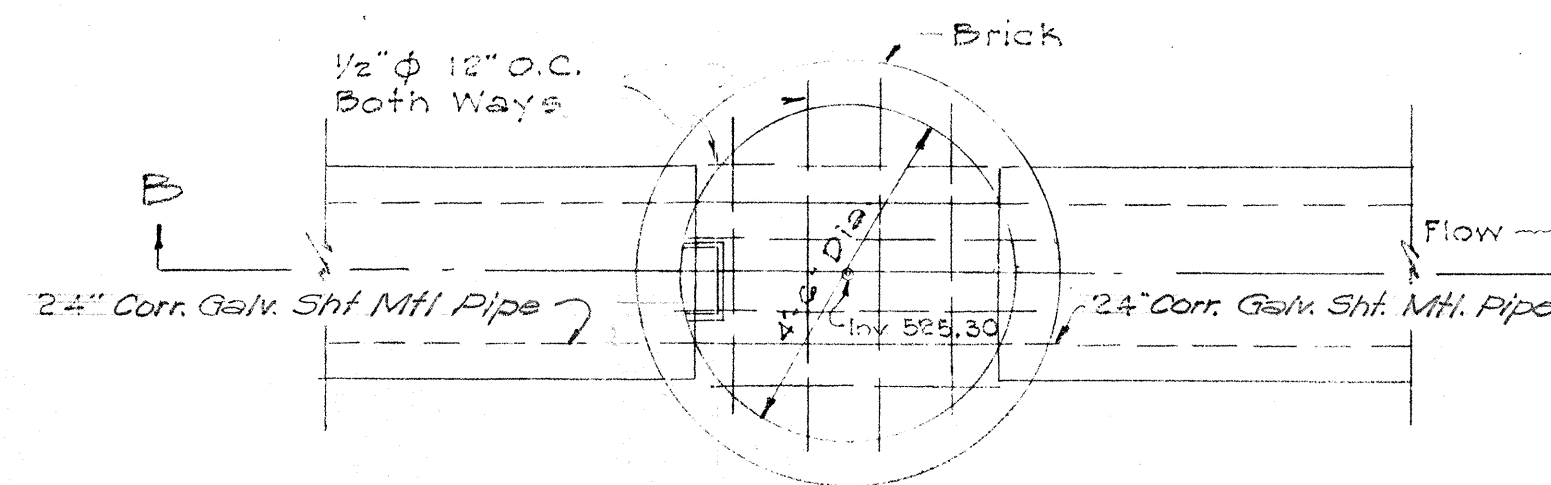
PLAN
Scale: 1/8" = 1'-0"



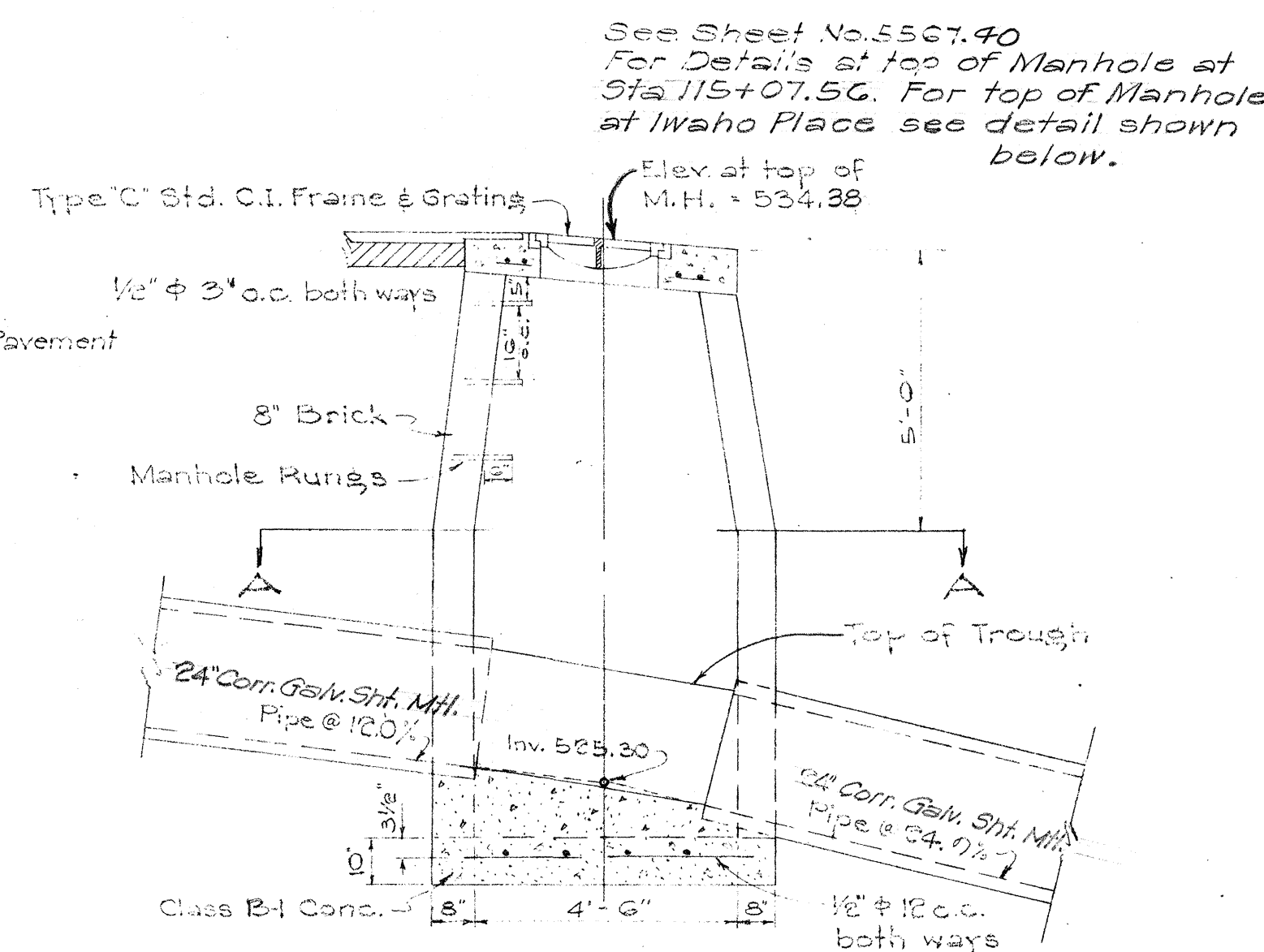
FRONT ELEVATION
Scale: 1/8" = 1'-0"

DRAIN INTAKE BOX EXTENSION STA. 61+30 & STA. 62+20

NOTE: Provide Galvanized Wrought Iron Rungs, 16' o.c. Removal, cleaning, and installation of existing MH Frame & Cover in new top slab shall not be paid for separately but shall be incidental to Item 51(1) "Class A-1" Concrete other than in bridges."

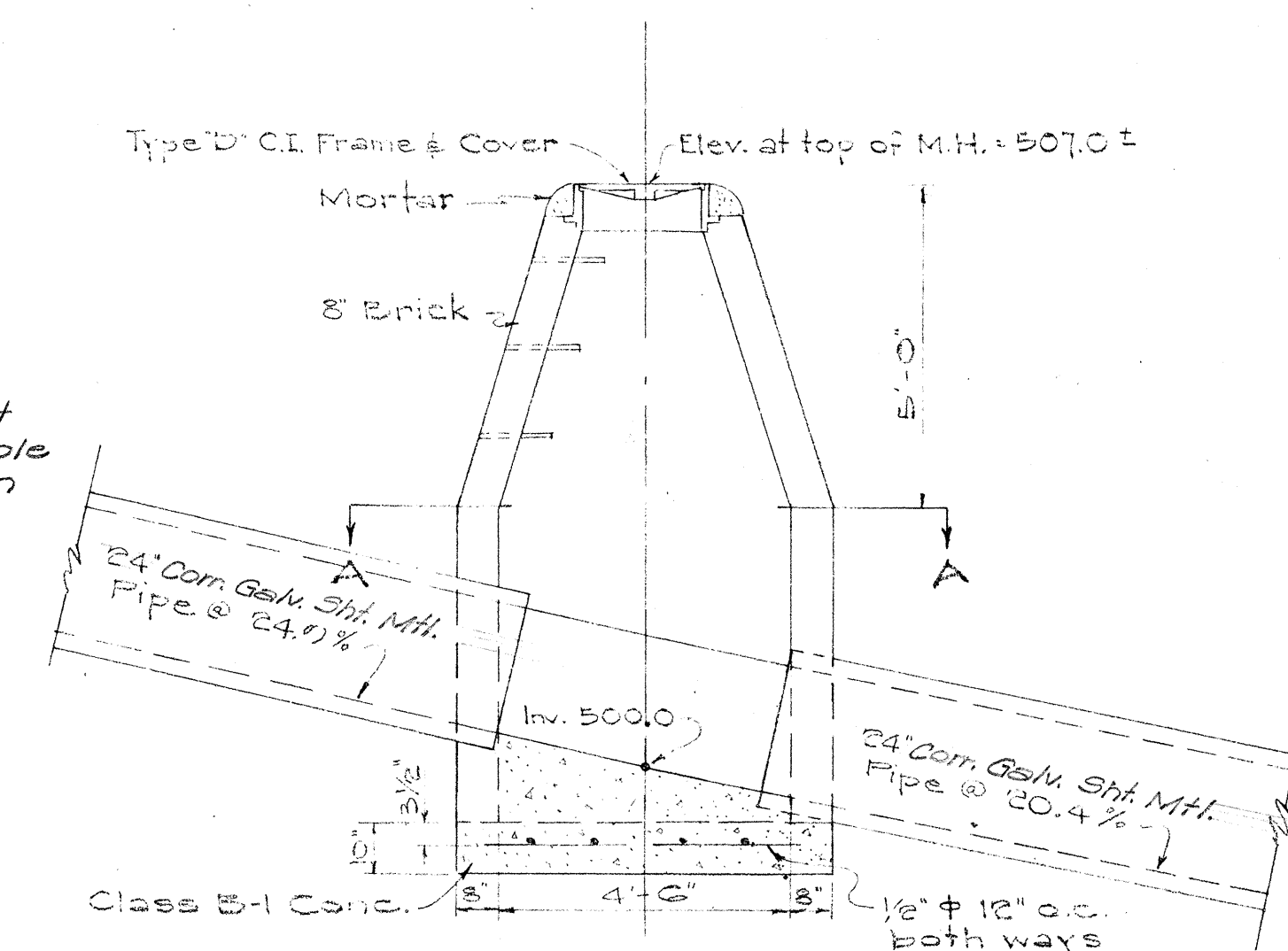


PLAN SECTION "A-A"
STORM DRAIN MANHOLE
STA. 115+07.56
Scale: 3/8" = 1'-0"

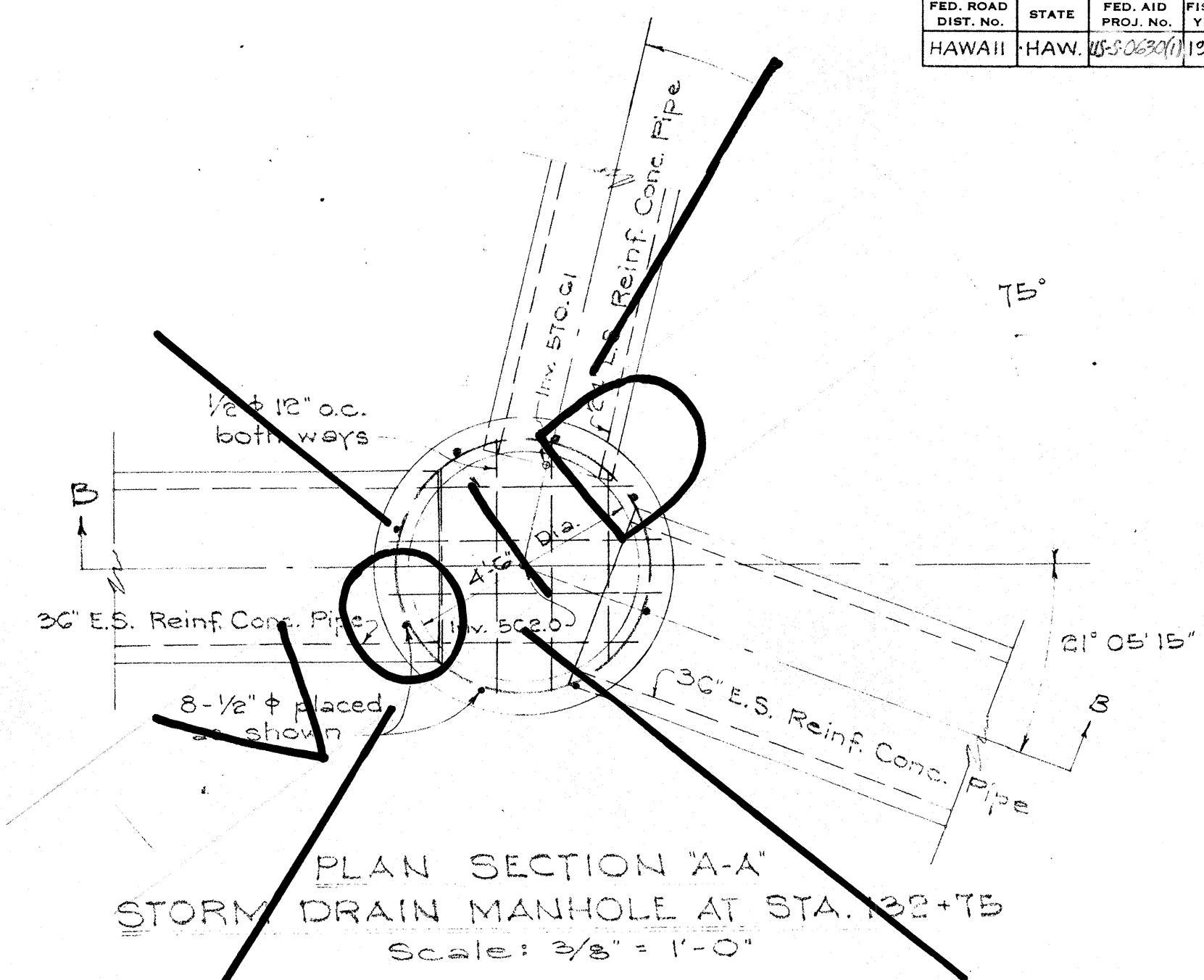


SECTION "B-B" OF STORM DRAIN MANHOLE
Scale: 3/8" = 1'-0"

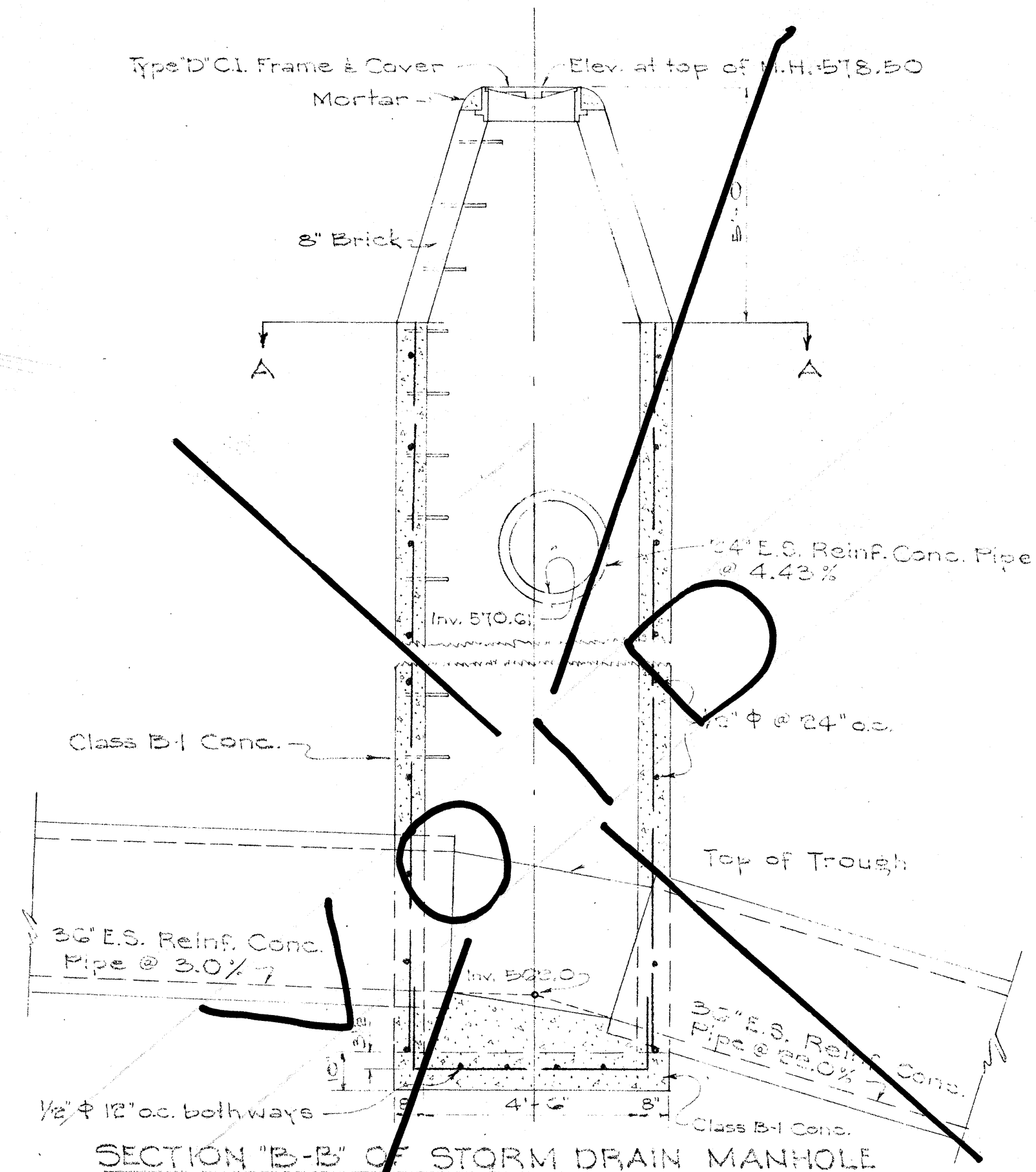
NOTE: Manhole at Iwaho Place similar to this manhole.



SECTION "B-B" OF STORM DRAIN MANHOLE
Scale: 3/8" = 1'-0"



PLAN SECTION "A-A"
STORM DRAIN MANHOLE AT STA. 122+75
Scale: 3/8" = 1'-0"



SECTION "B-B" OF STORM DRAIN MANHOLE
Scale: 3/8" = 1'-0"

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

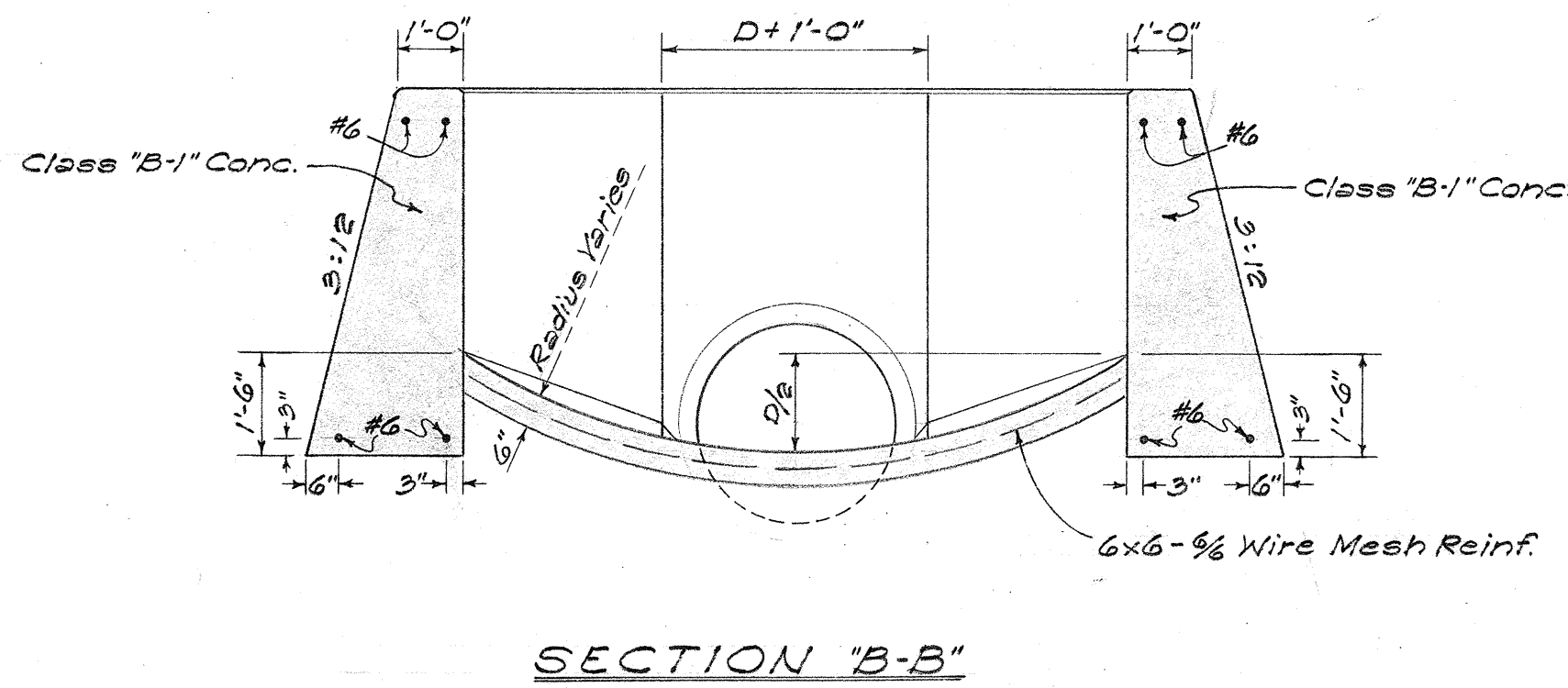
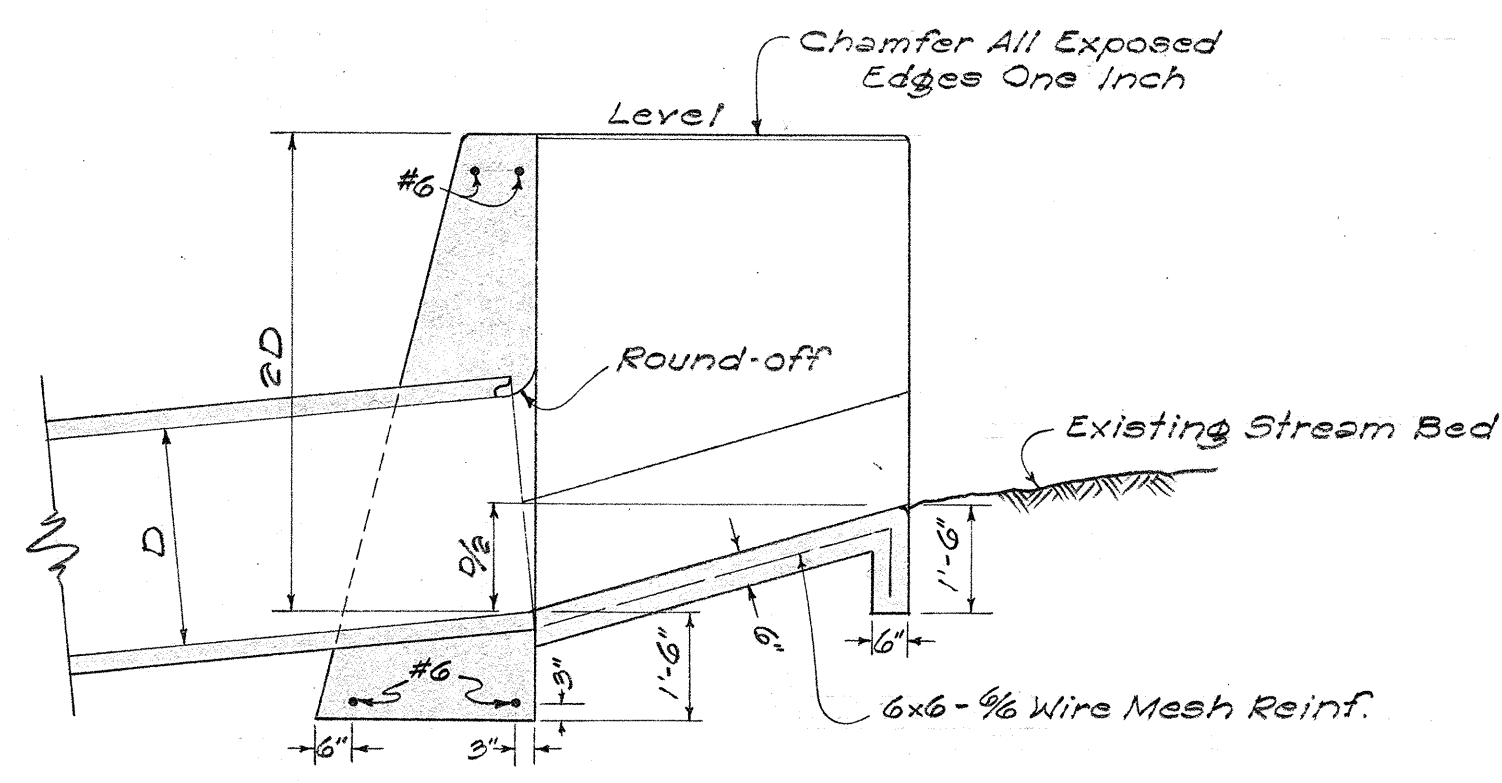
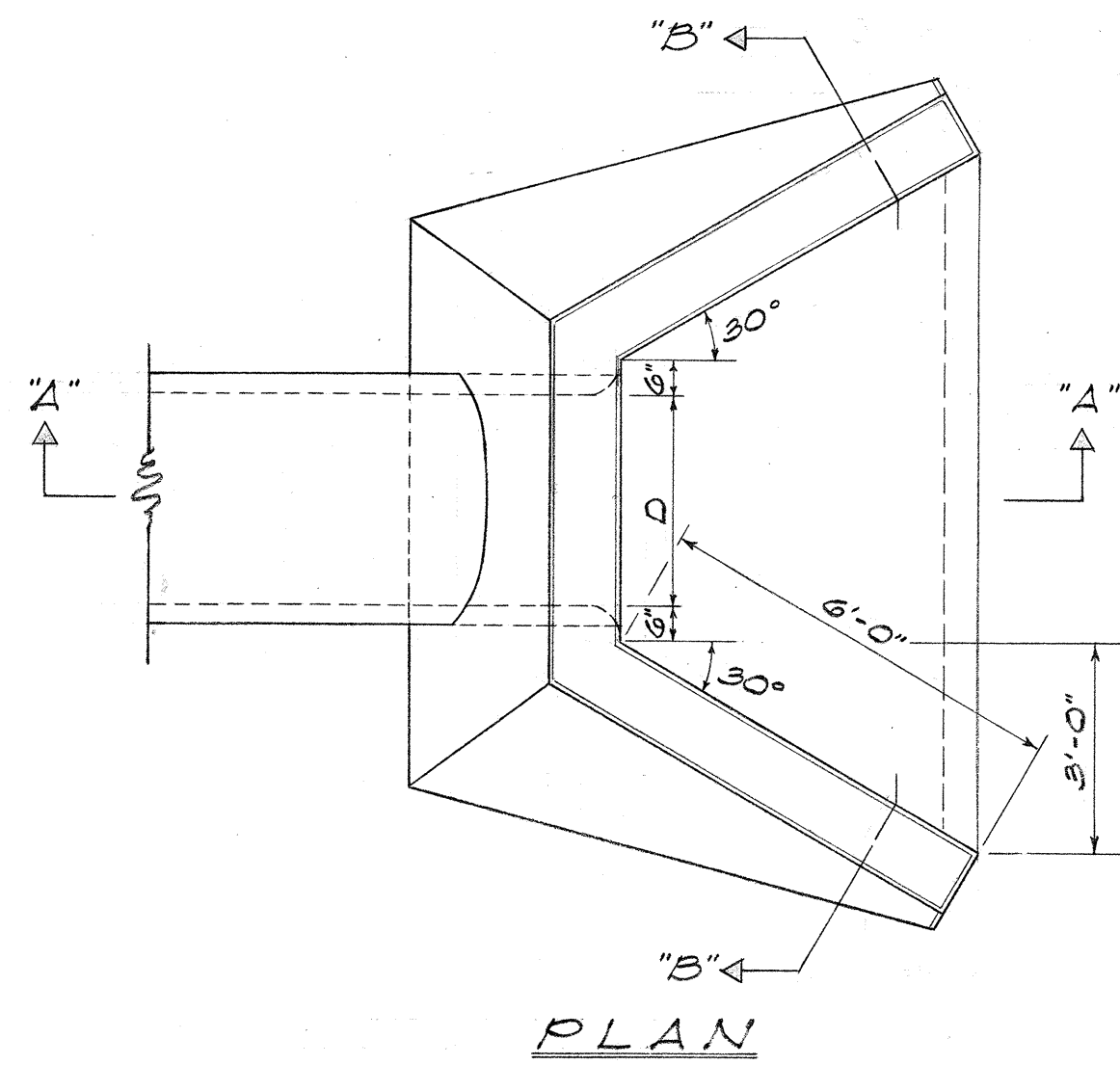
STORM DRAIN MANHOLES
KALIHI VALLEY ROAD
PROJ. No. 155-0630(1)
Scale: as noted Sept. 1954

SHEET No. 4 OF 10 SHEETS

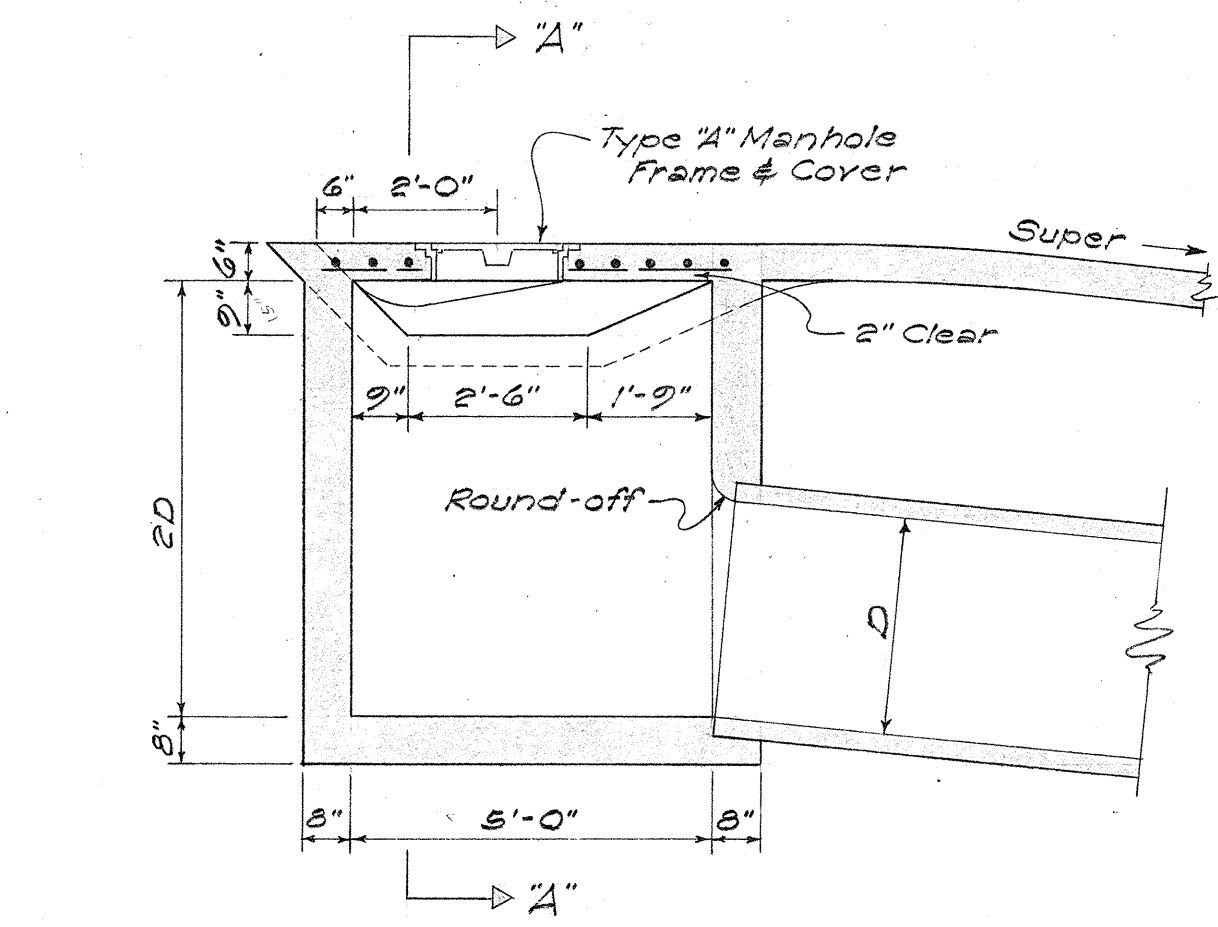
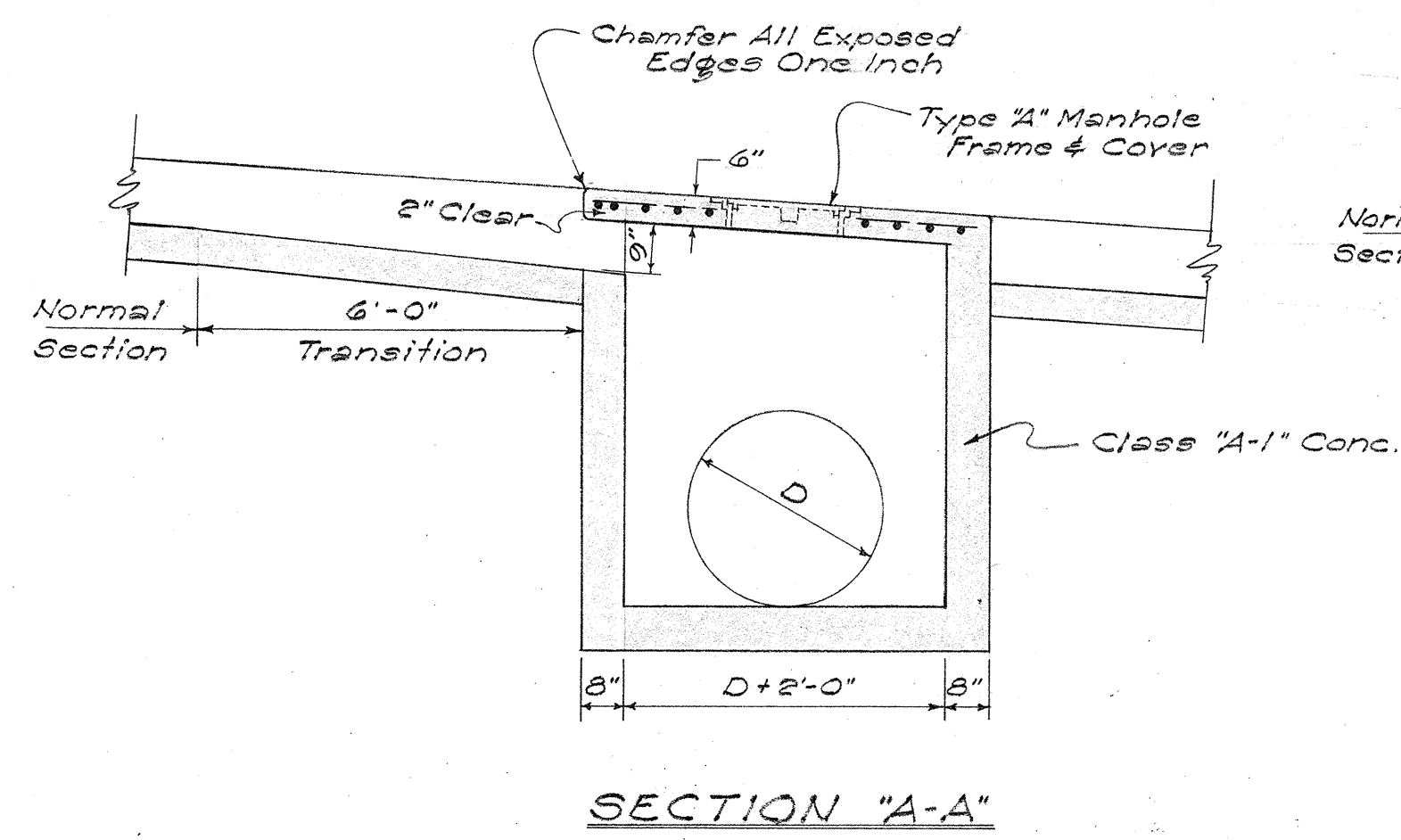
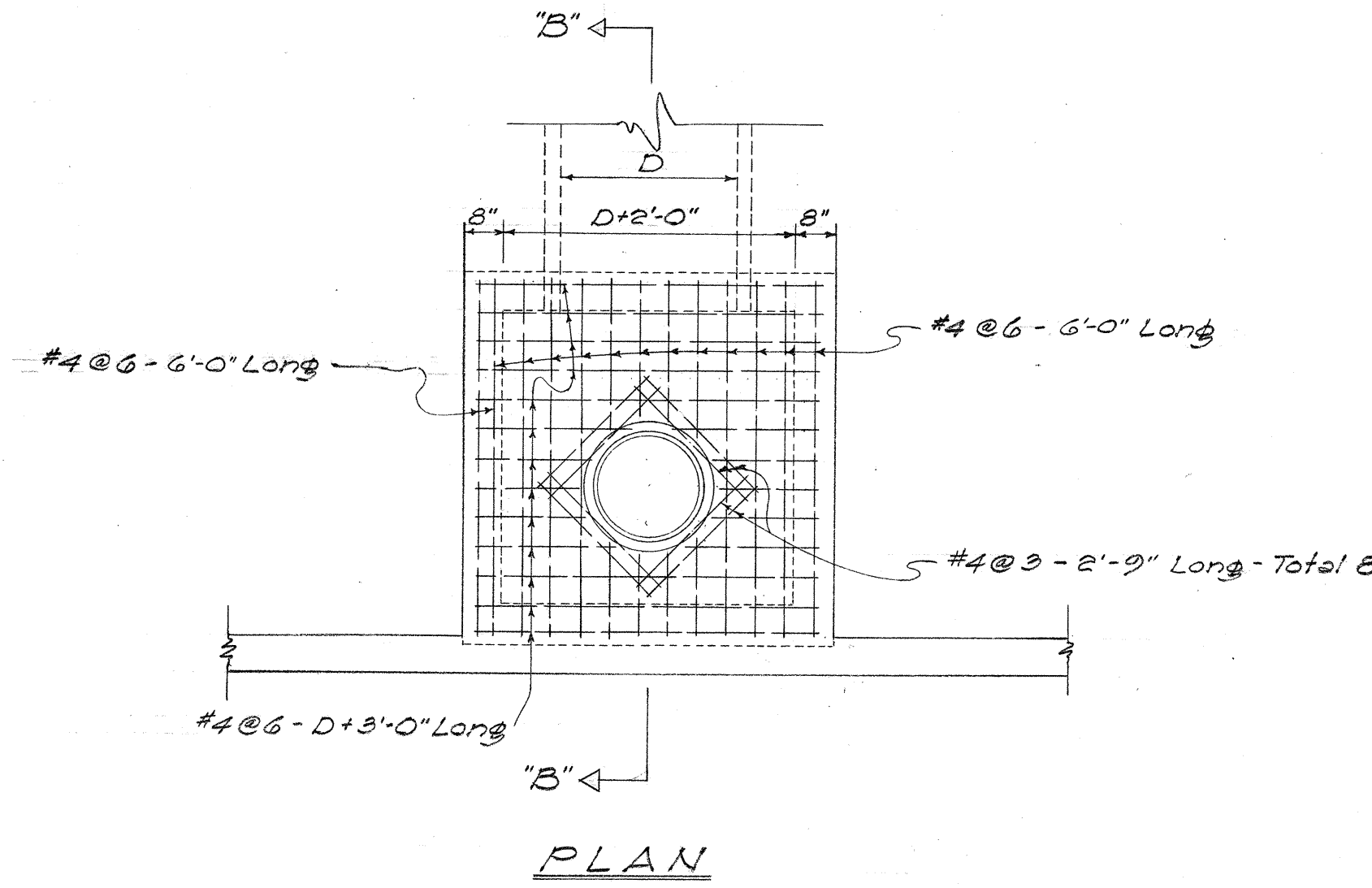
5567.36

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	155-0630	1956	36	170

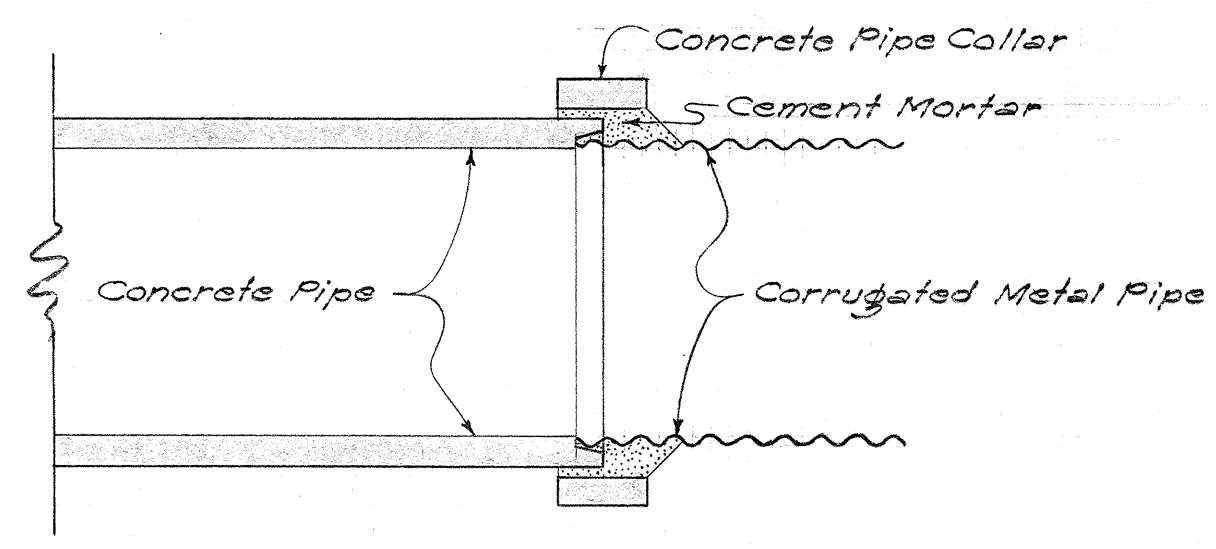
REVISED



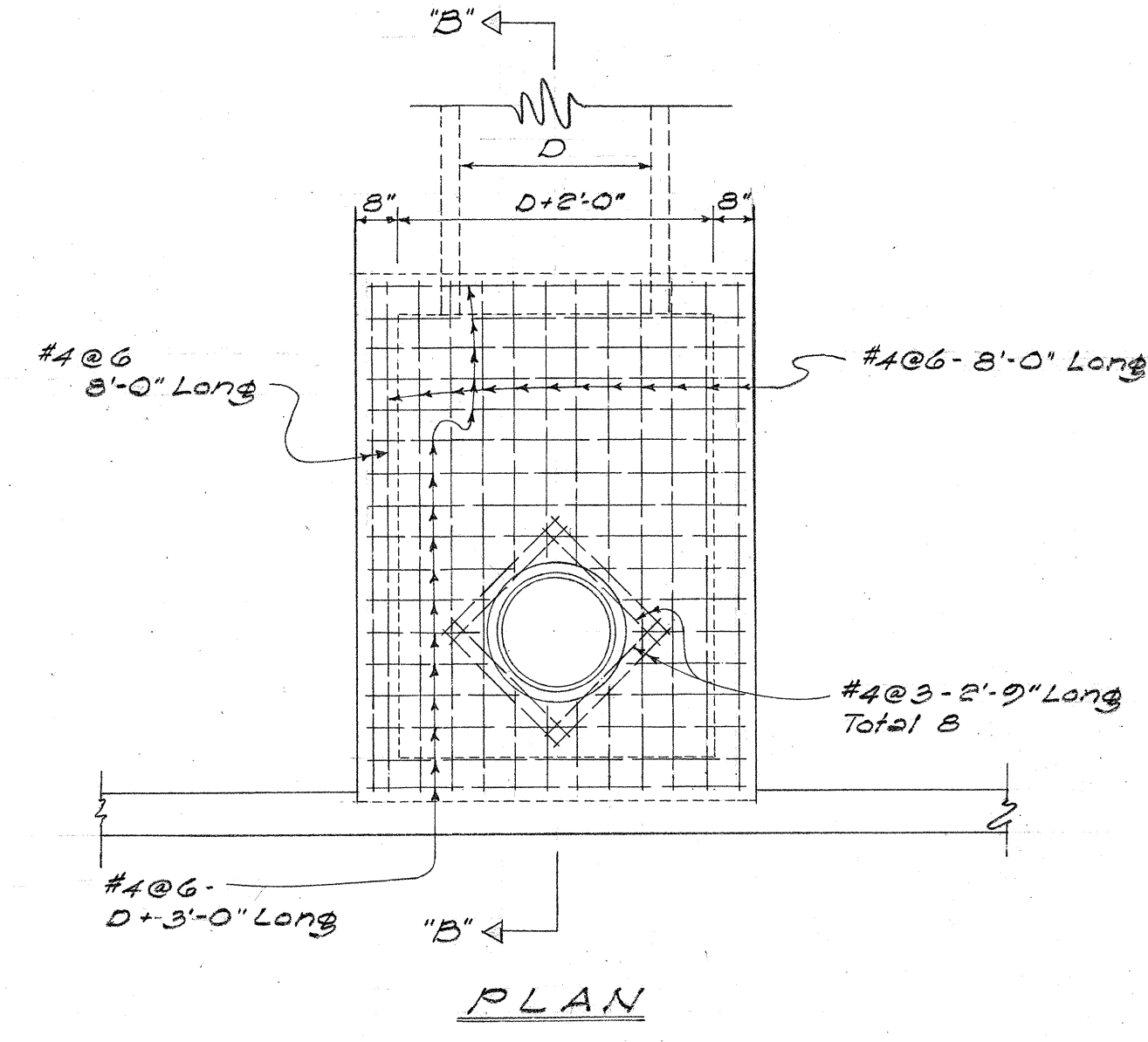
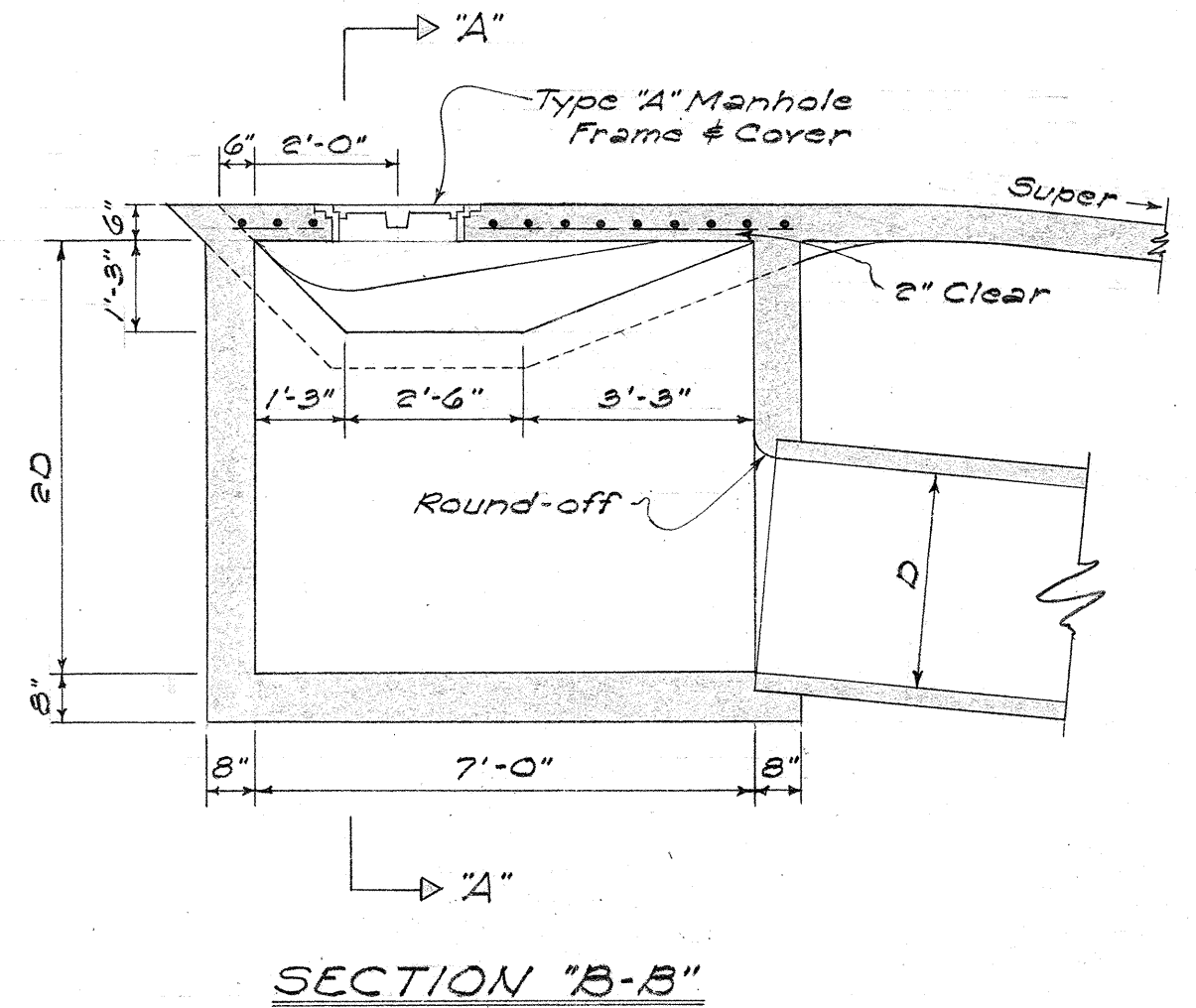
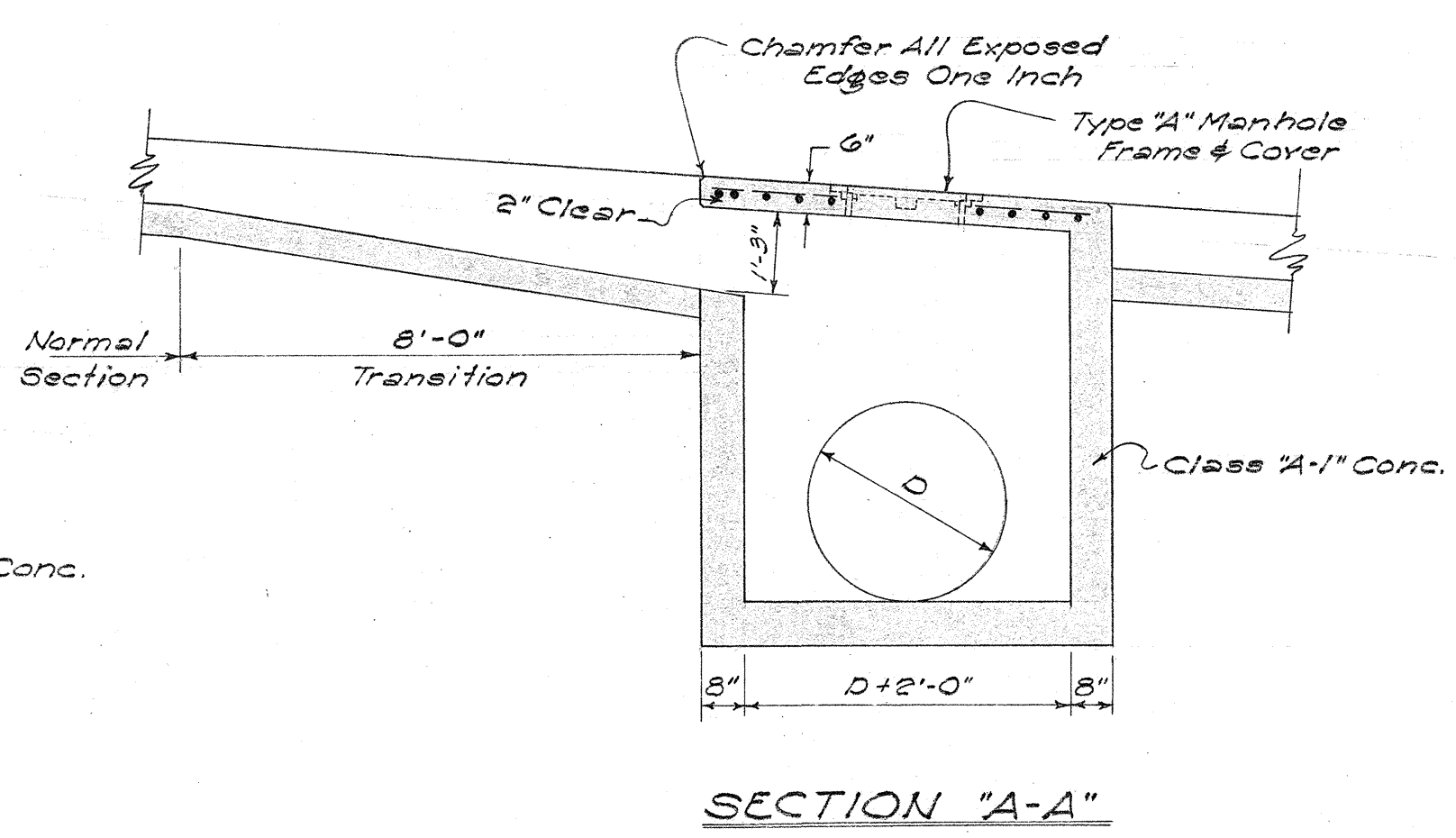
DETAIL OF TYPE "B" CONC. INTAKE HEADWALL
Scale: 3/8" = 1'-0"



DETAIL OF TYPE "E" SPECIAL CONCRETE CATCH BASIN
Scale: 3/8" = 1'-0"



DETAIL OF CONCRETE PIPE AND METAL PIPE CONNECTION
Scale: 3/4" = 1'-0"



DETAIL OF TYPE "F" SPECIAL CONCRETE CATCH BASIN
Scale: 3/8" = 1'-0"

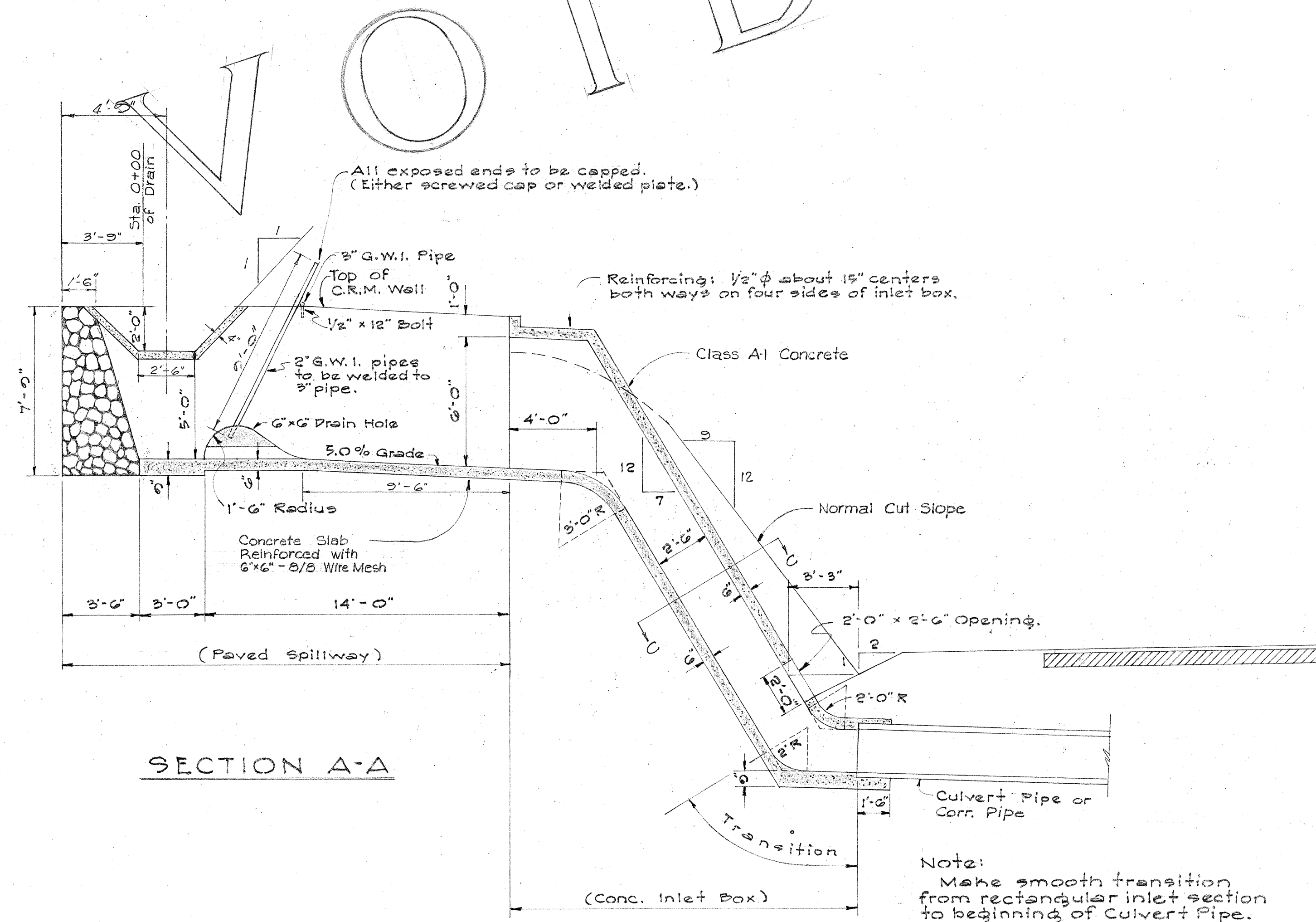
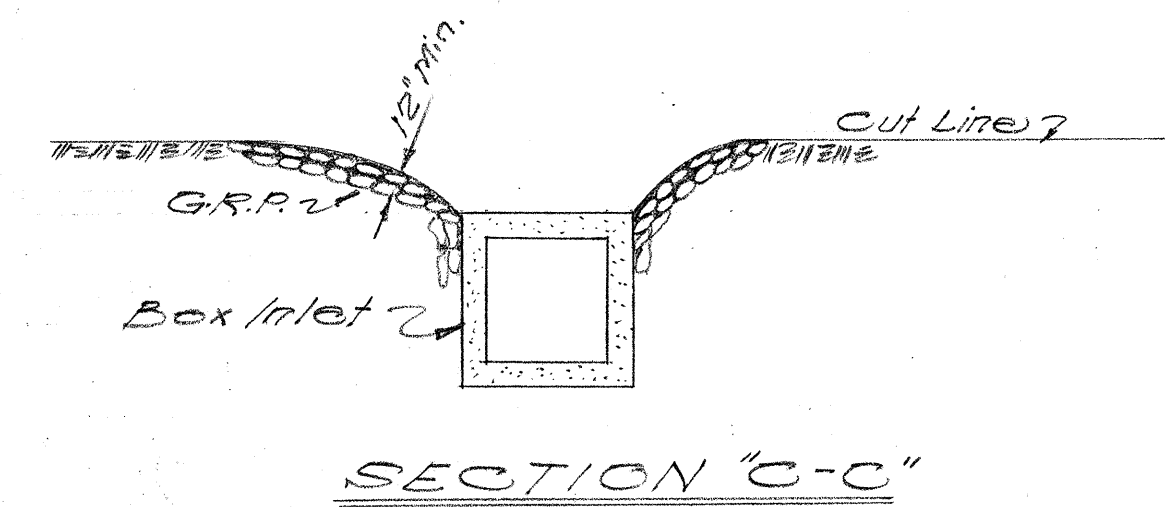
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
DETAILS OF
SPECIAL CONC. CATCH BASIN
CONC. INTAKE HEADWALL
CONC. & METAL PIPE CONNECTION
KALIHI VALLEY ROAD
FED. AID PROJ. NO. US-5-0630(1)
Scale: As Noted

SHEET NO. OF SHEETS

5567.36A

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

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



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
TYPICAL PAVED SPILLWAY
AND
CONC. INLET BOX DETAIL
KALIHI VALLEY RD.
FED. AID PROJ. N^o. H.S.-5-0630(1)
Scale: 1/4" = 1'-0" Sept. 1954

SHEET No. 5 OF 10 SHEETS

5567.37

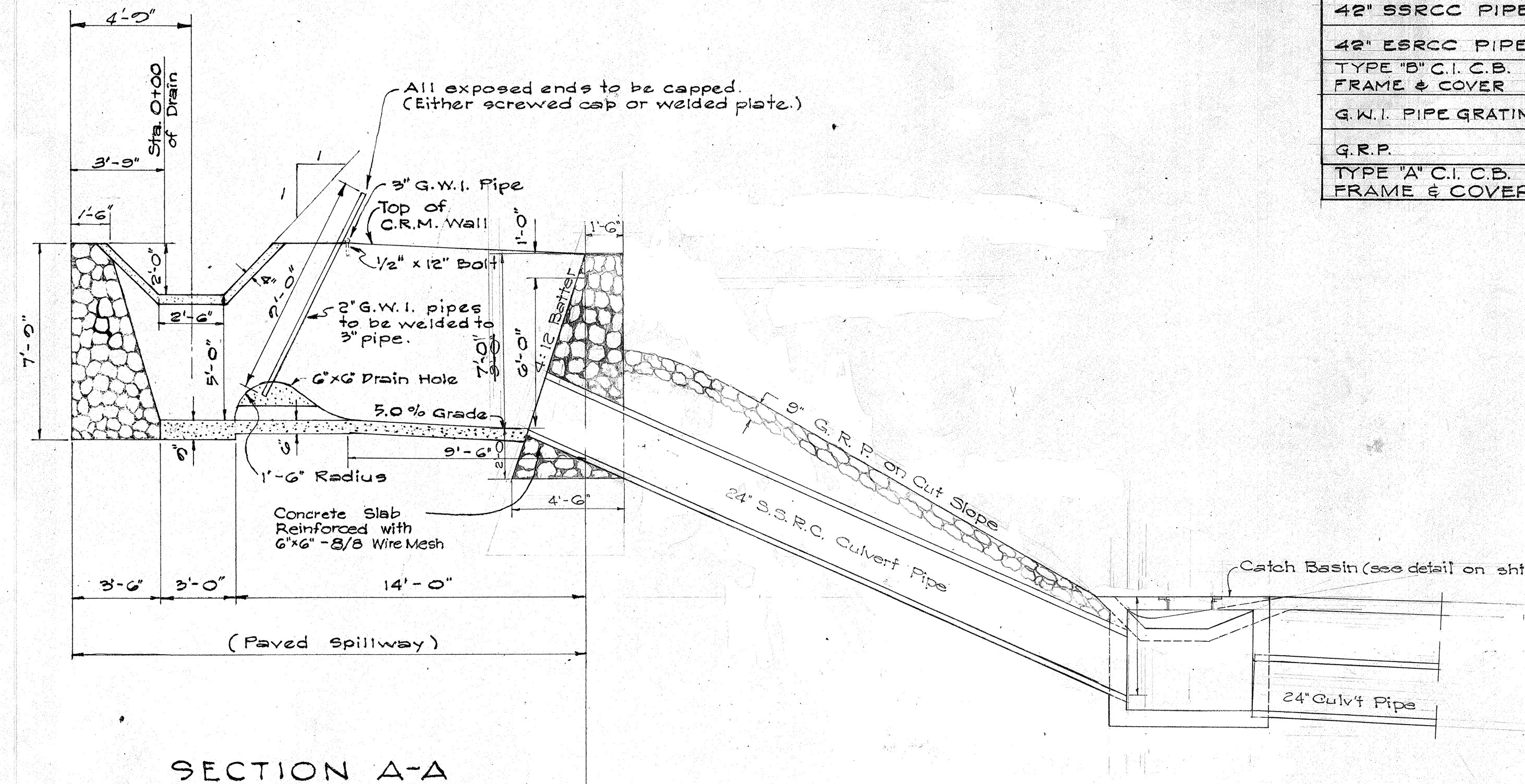
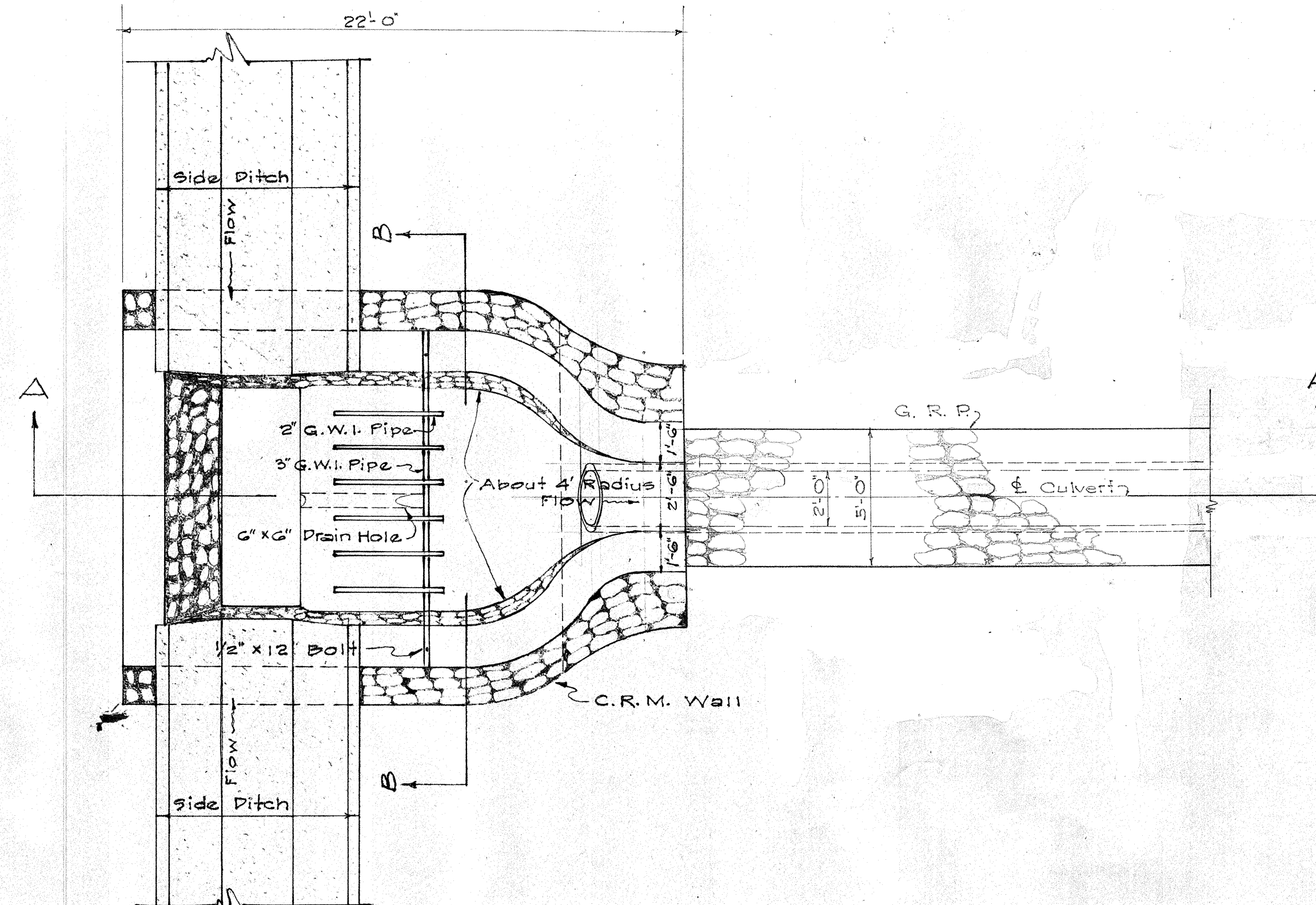
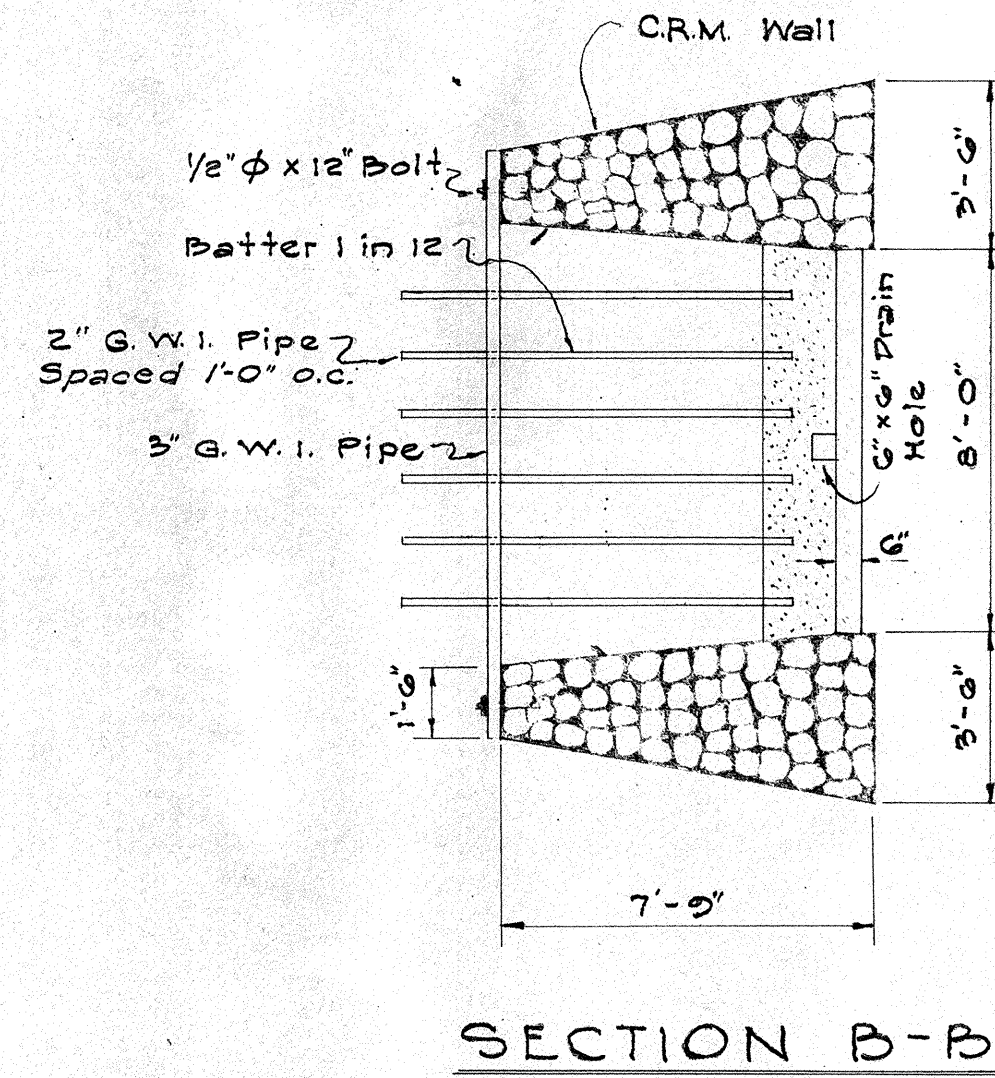
REVISED:

ESTIMATED QUANTITIES FOR DRAINAGE AT STATION 118+80

ITEM	INLET BOX	CATCH BASIN	TYPE "F" SPEC. CB	CULVERT	TOTAL
STRUC. EXC.	108.0 cy.	18.0 cy.	3.0 cy.	81.0 cy.	450.0 cy.
CLASS A-1 CONC.	2.2 cy.	17.5 cy.	3.7 cy.		23.4 cy.
REINF. STEEL	35 lb.	190 lb.	132 lb.		345 lb.
C.R.M.	40.0 cy.				40.0 cy.
24" SSRC PIPE				37.0 l.f.	37.0 l.f.
24" CORR. GALV. 14 GAGE SHI. MET PIPE				122.5 l.f.	122.5 l.f.
TYPE "B" C.I. C.B. FRAME & COVER		2 ea.			2 ea.
G.W.I. PIPE GRATING	1 ea.				1 ea.
G.R.P.	13.0 cy.				13.0 cy.
END SECTION				1 ea.	1 ea.
TYPE "A" C.I. C.B. FRAME & COVER			1 ea.		1 ea.

ESTIMATED QUANTITIES FOR DRAINAGE AT STATION 85+50

ITEM	INLET BOX	CATCH BASIN	TYPE "F" SPEC. CB	CULVERT	HEADWALL	TOTAL
STRUC. EXC.	117.0 cy.	31.5 cy.	12.0 cy.	231.8 cy.	10.0 cy.	492.3 cy.
CLASS A-1 CONC.	2.4 cy.	17.5 cy.	3.7 cy.			23.6 cy.
REINF. STEEL	35 lb.	190 lb.	132 lb.			345 lb.
C.R.M.	30.4 cy.				4.1 cy.	34.5 cy.
42" SSRC PIPE				136 l.f.		136 l.f.
42" ESRCC PIPE				72 l.f.		72 l.f.
TYPE "B" C.I. C.B. FRAME & COVER		2 ea.				2 ea.
G.W.I. PIPE GRATING	1 ea.					1 ea.
G.R.P.	10.0 cy.					10.0 cy.
TYPE "A" C.I. C.B. FRAME & COVER			1 ea.			1 ea.



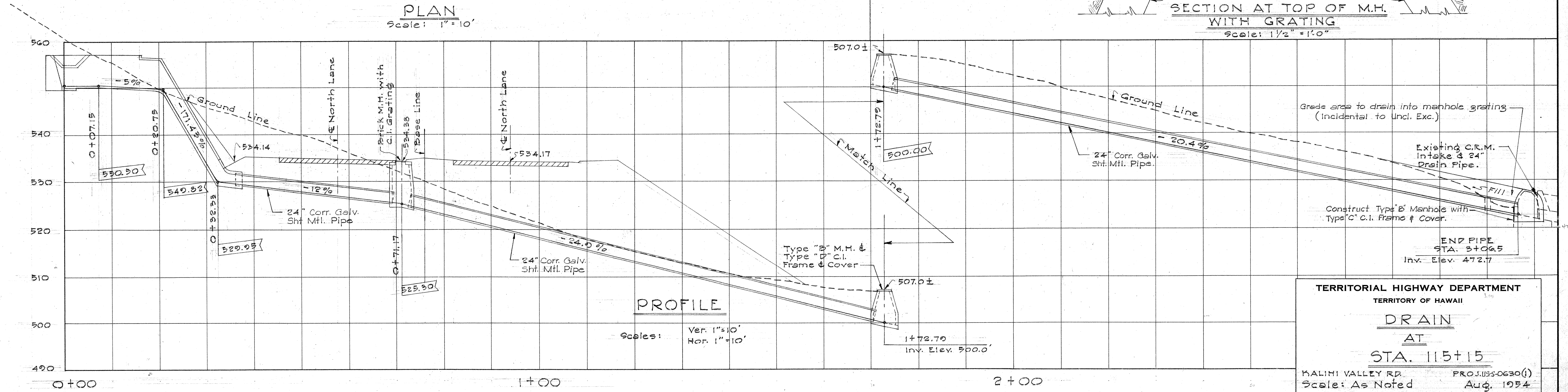
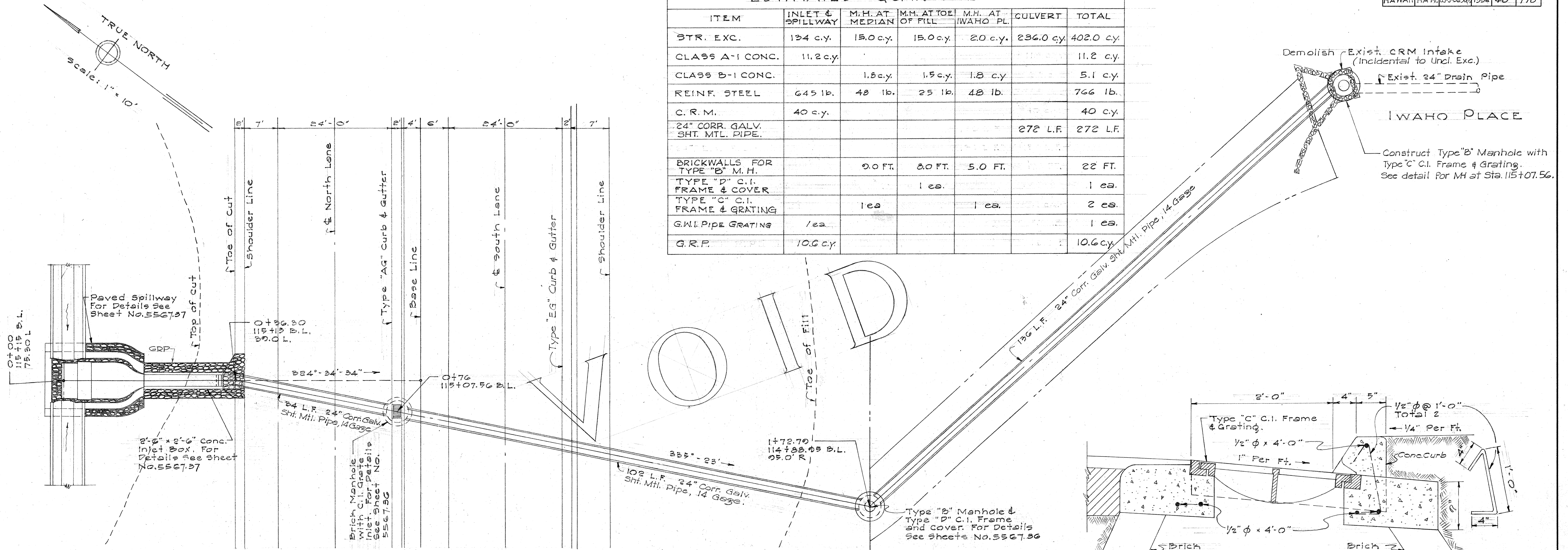
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
TYPICAL PAVED SPILLWAY
AND
CONC. INLET BOX DETAIL
KALIHI VALLEY RD.
FED. AID PROJ. NO. 155-0630(1)
Scale: 1/4" = 1'-0" Sept. 1954

SHEET No. 5 OF 10 SHEETS

5567.37

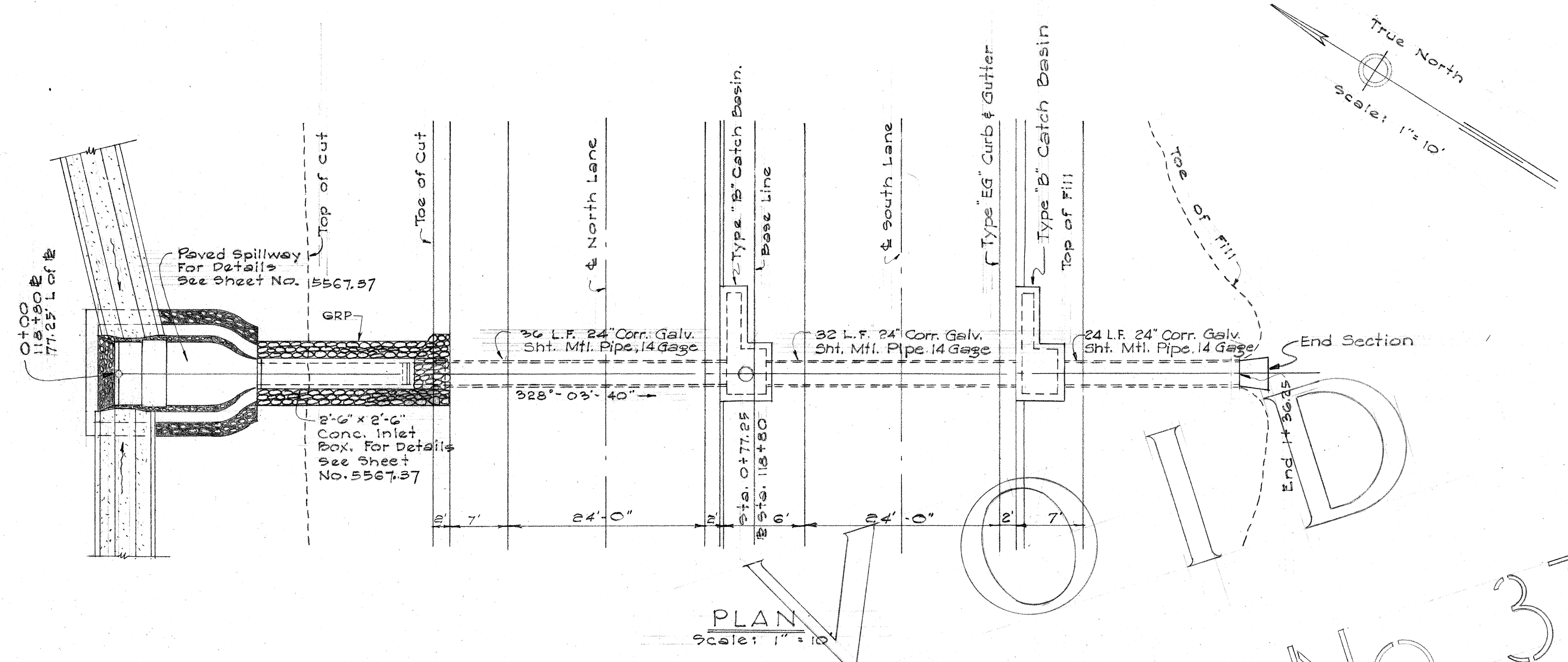
DESIGNED BY
DRAWN BY
CHECKED BY
NOTE BOOK
NO.

ESTIMATED QUANTITIES					
ITEM	INLET & SPILLWAY	M.H. AT MEDIAN	M.H. AT TOE OF FILL	M.H. AT IWAHO PL.	CULVERT TOTAL
STR. EXC.	134 c.y.	15.0 c.y.	15.0 c.y.	20 c.y.	236.0 c.y.
CLASS A-1 CONC.	11.2 c.y.				11.2 c.y.
CLASS B-1 CONC.		1.8 c.y.	1.8 c.y.	1.8 c.y.	5.1 c.y.
REINF. STEEL	645 lb.	48 lb.	25 lb.	48 lb.	766 lb.
C.R.M.	40 c.y.				40 c.y.
24" CORR. GALV. SHT. MTL. PIPE					272 L.F. 272 L.F.
BRICK WALLS FOR TYPE "B" M.H.		9.0 FT.	8.0 FT.	5.0 FT.	22 FT.
TYPE "D" C.I. FRAME & COVER			1 ea.		1 ea.
TYPE "C" C.I. FRAME & GRATING		1 ea.		1 ea.	2 ea.
G.W.I. PIPE GRATING	1 ea.				1 ea.
G.R.P.	10.6 c.y.				10.6 c.y.



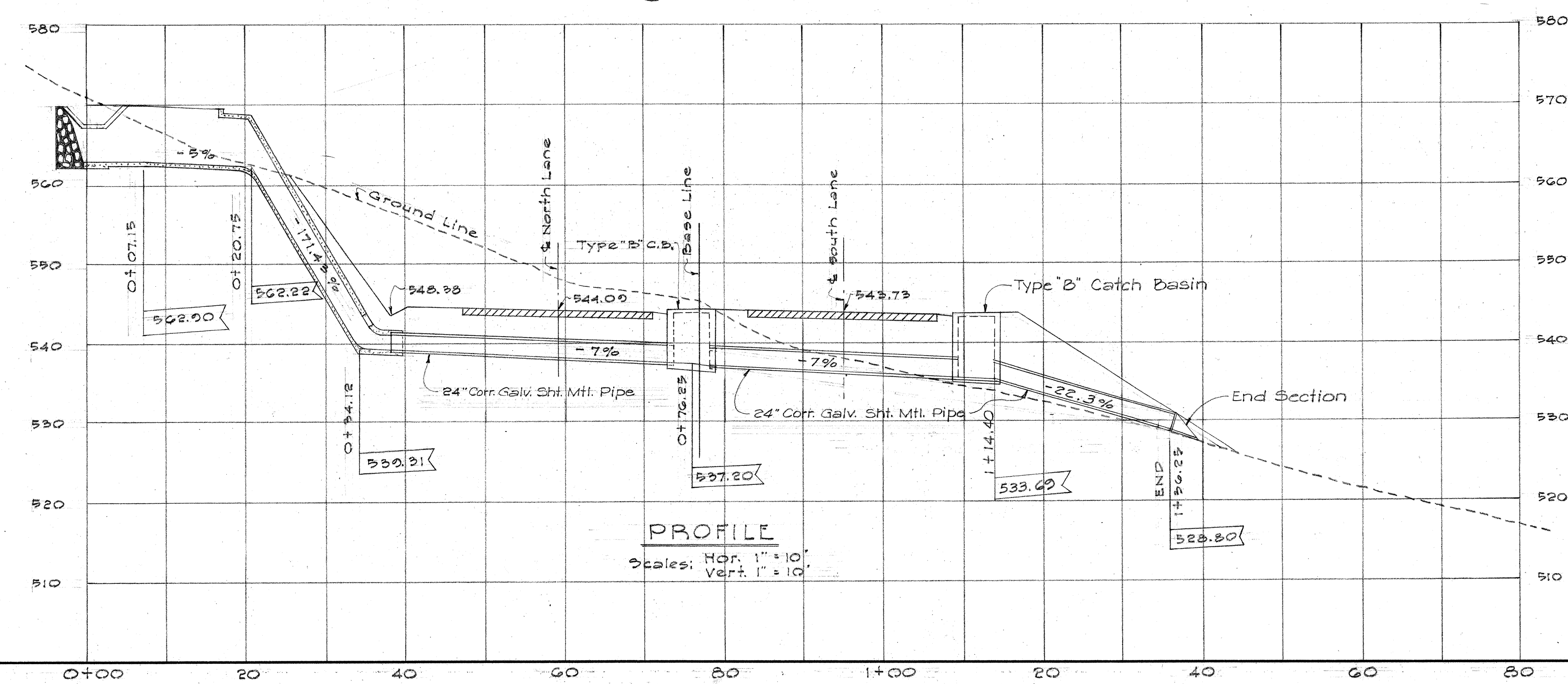
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
DRAIN
AT
STA. 115+15
KALINI VALLEY RD. PROJ. 103-5-0630(1)
Scale: As Noted Aug. 1954

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



ESTIMATED QUANTITIES				
ITEM	INLET & SPILLWAY	CATCH BASIN	CULVERT	TOTAL
STR. EXC.	120.0 c.y.	63.0 c.y.	30.0 c.y.	213.0 c.y.
CLASS A-1 CONC.	12.6 c.y.	17.3 c.y.		29.9 c.y.
REINF. STEEL	673 lb.	120 lb.		833 lb.
C. R. M.	40 c.y.			40 c.y.
24" CORR. GALV. SHT. MTL. PIPE			92 L.F.	92 L.F.
TYPE "B" C.I. C.B. FRAME & COVER		2 ea.		2 ea.
G.W.I. PIPE GRATING	1 ea.			1 ea.
G.R.P.	11.3 c.y.			11.3 c.y.
END SECTION			1 ea.	1 ea.

SEE SHEET NO. 37-A

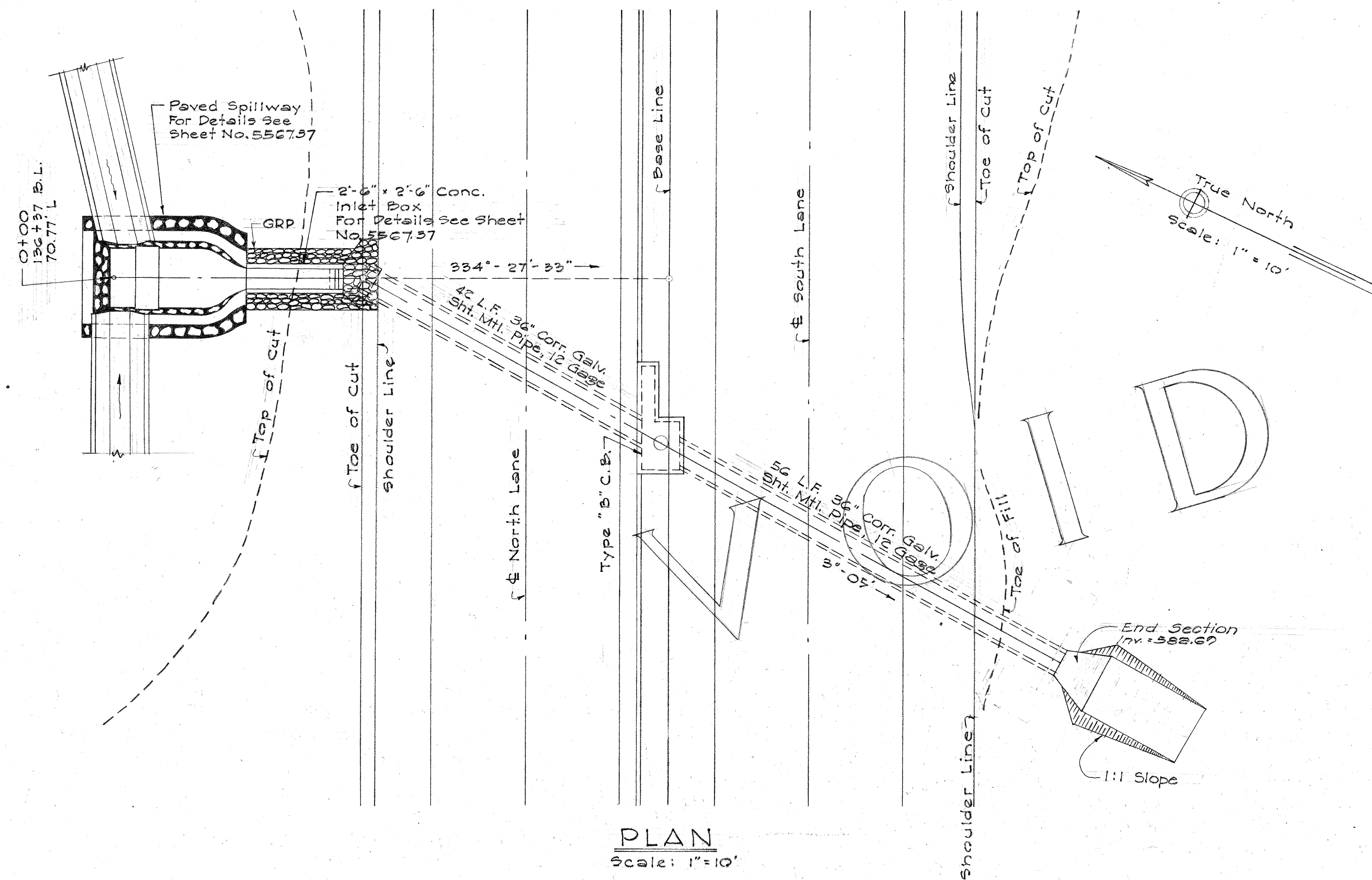


TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
DRAIN
AT
STA. 118+80
KALIHI VALLEY RD. PROJ. 155-0630(1)
Scale: As Noted Aug. 1954

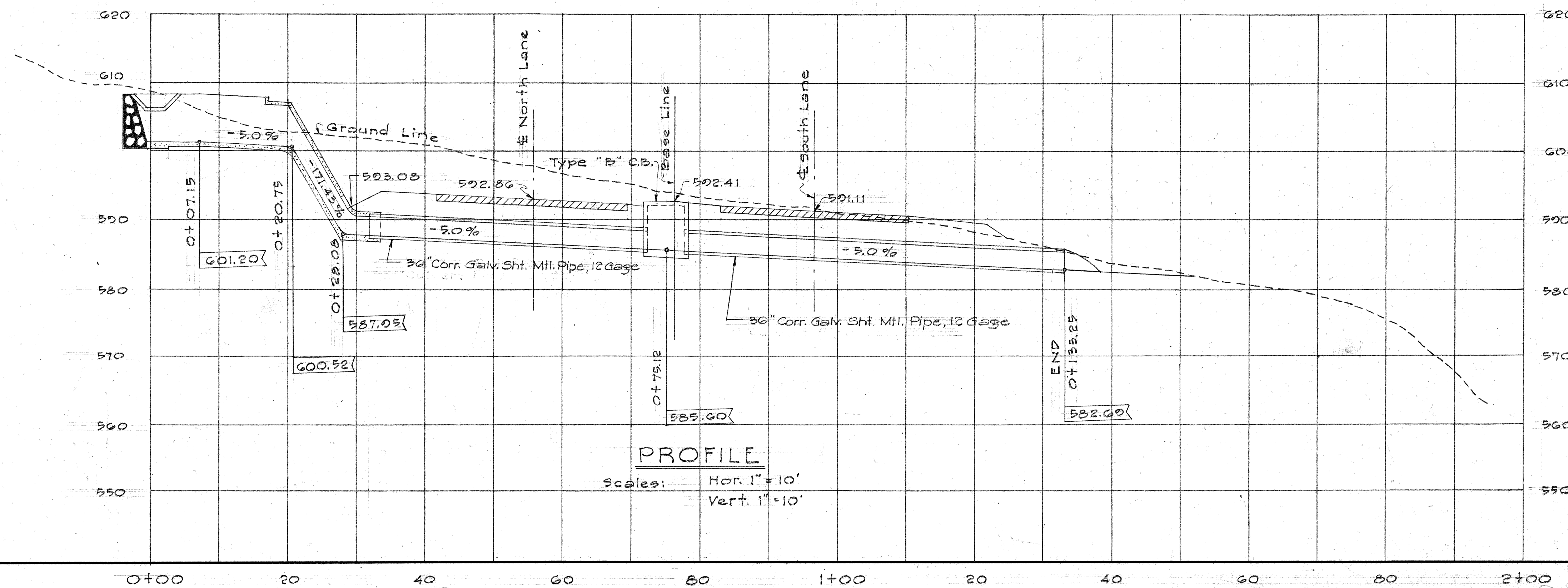
SHEET No. 2 OF 10 SHEETS

5567.41

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



ESTIMATED QUANTITIES					
ITEM	INLET & SPILLWAY	CATCH BASIN	CULVERT	TOTAL	
UNCLASSIFIED EXC.			5 c.y.	5.0 c.y.	
STR. EXC.	23.0 c.y.	31.0 c.y.	62.0 c.y.	116.0 c.y.	
CLASS A-1 CONC.	10.2 c.y.	8.1 c.y.		18.3 c.y.	
END SECTION			1 ea.	1 ea.	
REINF. STEEL	499 lb.	25 lb.		524 lb.	
C. R. M.	40 c.y.			40 c.y.	
36" CORR. GALV. SHT. MTL. PIPE TYPE "B" C.I. B. FRAME & COVER		1 ea.		1 ea.	
G.W.I. PIPE GRATING	1 ea.			1 ea.	
G.R.P.	7.6 c.y.			7.6 c.y.	



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
DRAIN
AT
STA. 136+20
KALIHI VALLEY RD. PROJ. 15590630(1)
Scale: As Noted Aug. 1954

SHEET No. 10 OF 10 SHEETS

5567.42

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