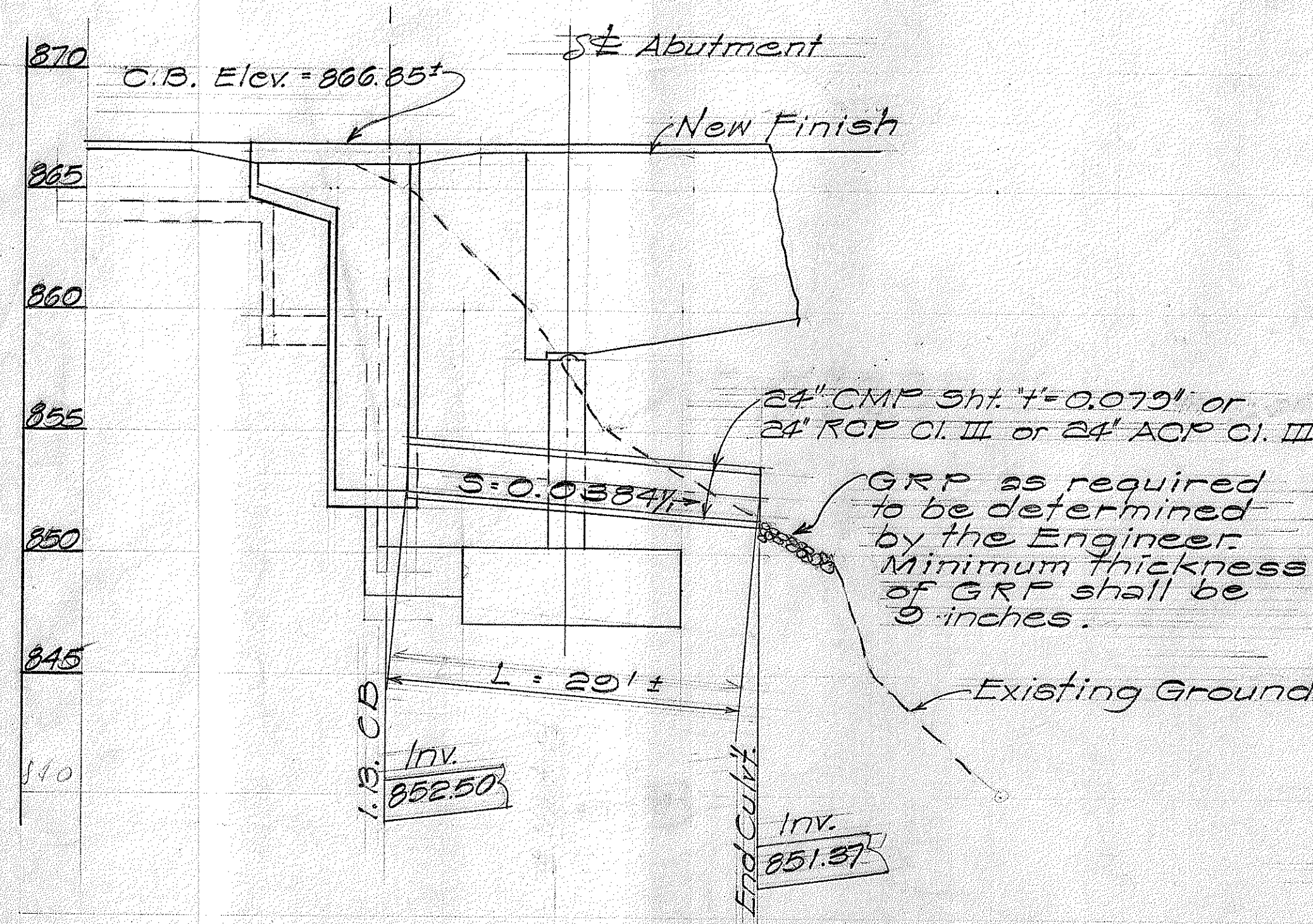
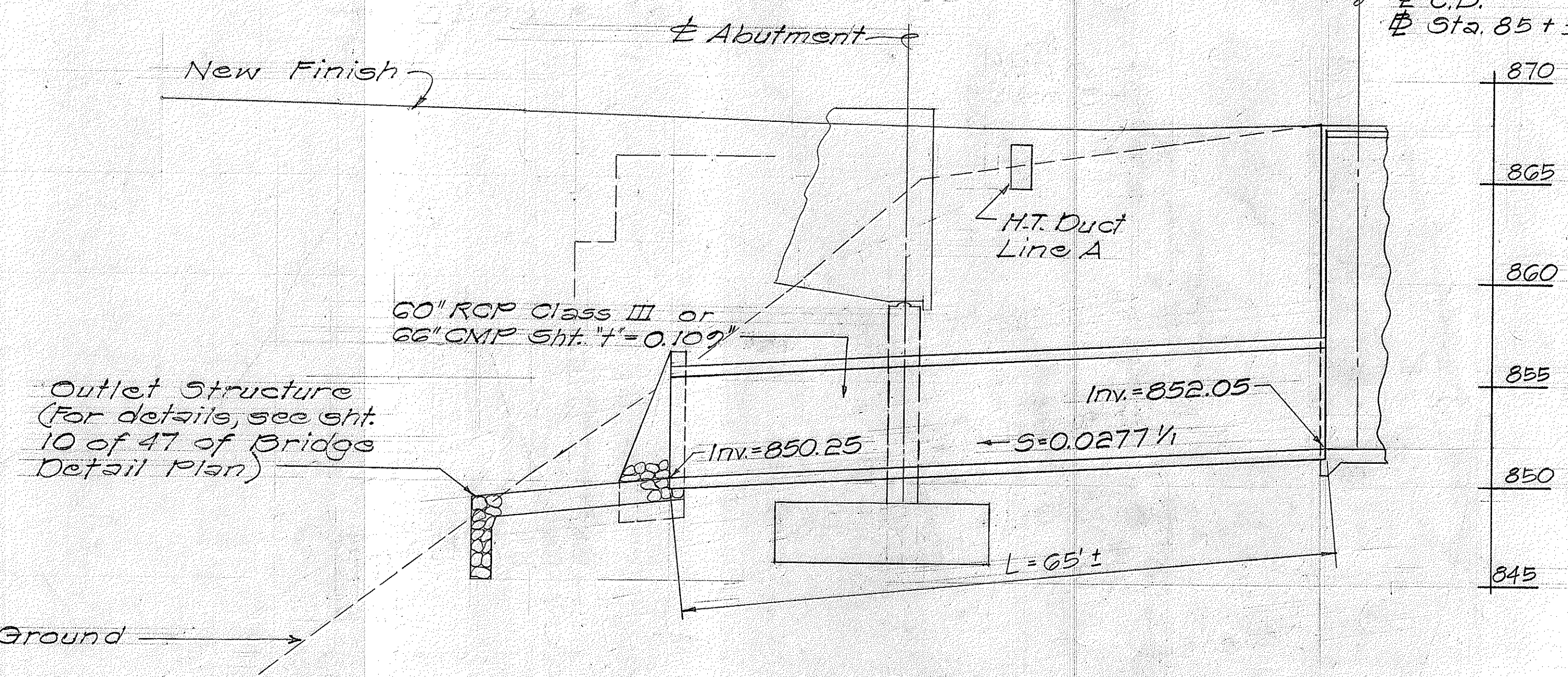


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-F-080-1(7)	1977	30	165

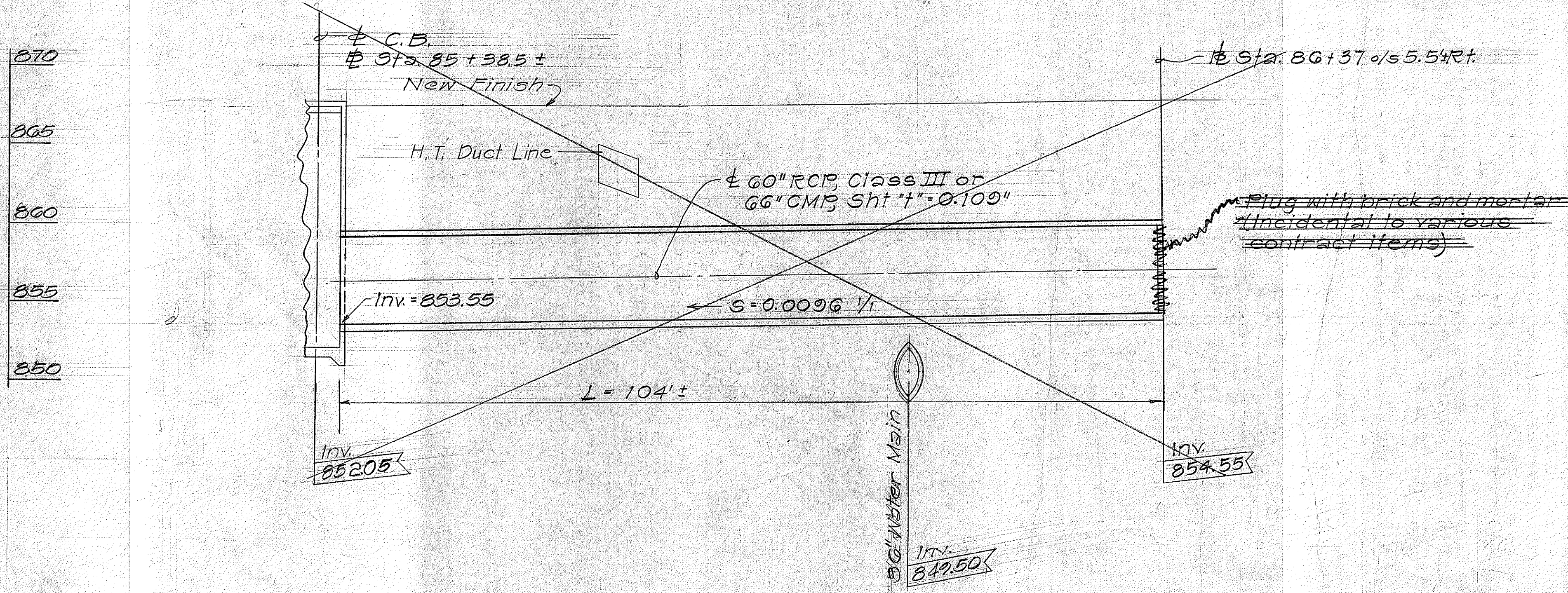
± Kamehameha Highway Sta. 81+00



PROFILE - ALONG ± 24" CULVERT AT BEGIN BRIDGE STA. 81+18.24



PROFILE - ALONG ± 60" OR 66" CULVERT AT END OF BRIDGE STA. 84+87.24



PROFILE - ALONG ± 60" OR 66" CULVERT ± STA. 85+38.5± LT. TO ± STA. 86+37± S 5.5% RT.

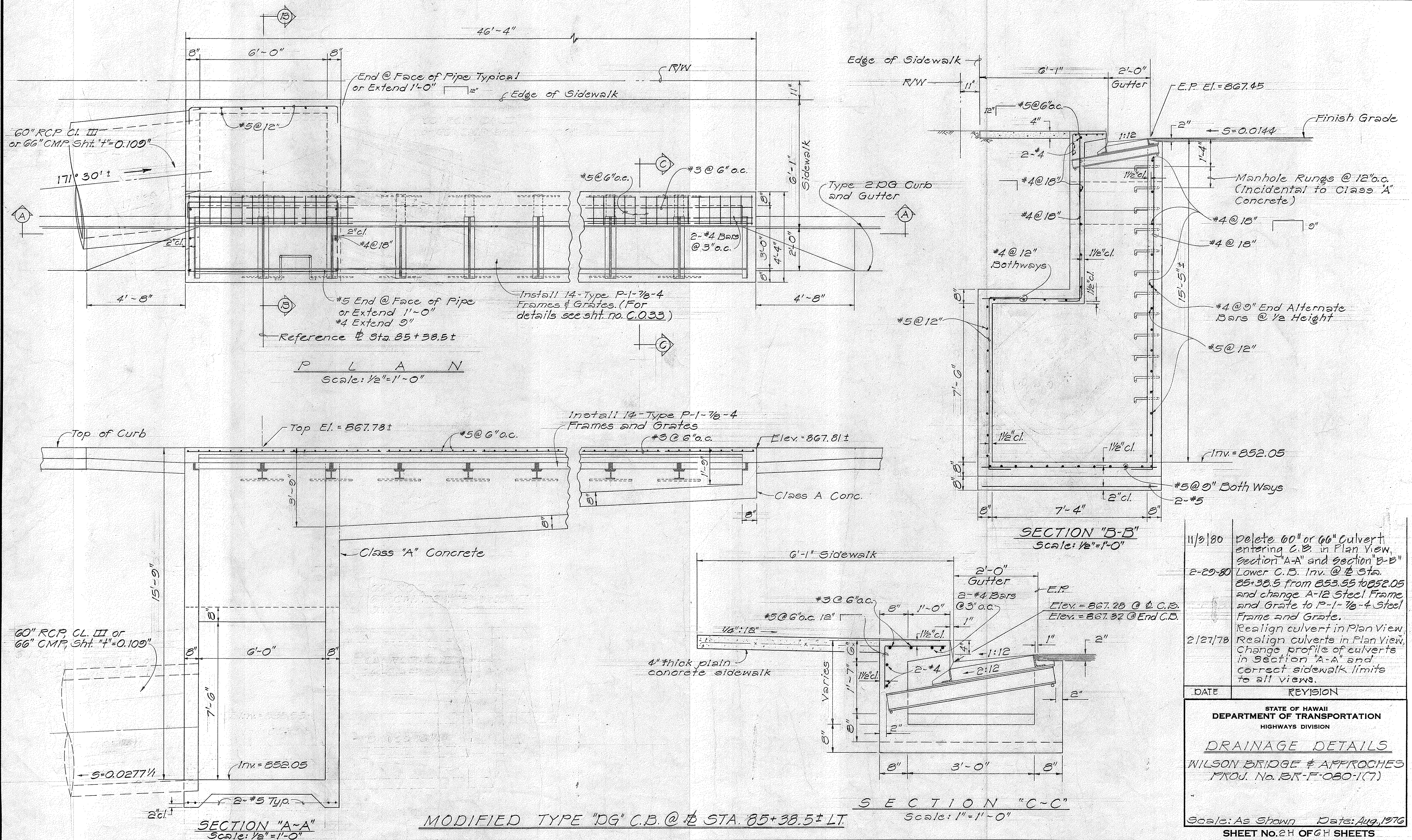
- 11/3/80 Delete Profile of 60" or 66" Culvert between ± Sta. 85+38.5± Lt. to ± Sta. 86+37 ±/s 5.5% Rt.
- 2-29-80 Lower Inv. from 853.55 to 852.05 and delete Hawaiian Telephone Ductline Jacket detail @ ± Sta. 81+00
- 2/27/78 Relocate C.B. to ± Sta. 85+38.5± Revise Lengths and Profile of Culverts, also Revise GRP Outlet Structure.

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION DRAINAGE PROFILES WILSON BRIDGE & APPROACHES PROJ. No. BR-F-080-1(7) Scale: Vert. 1"=5' Hor. 1"=10' Date: Aug. 1976 SHEET NO. 11 OF 61 SHEETS	

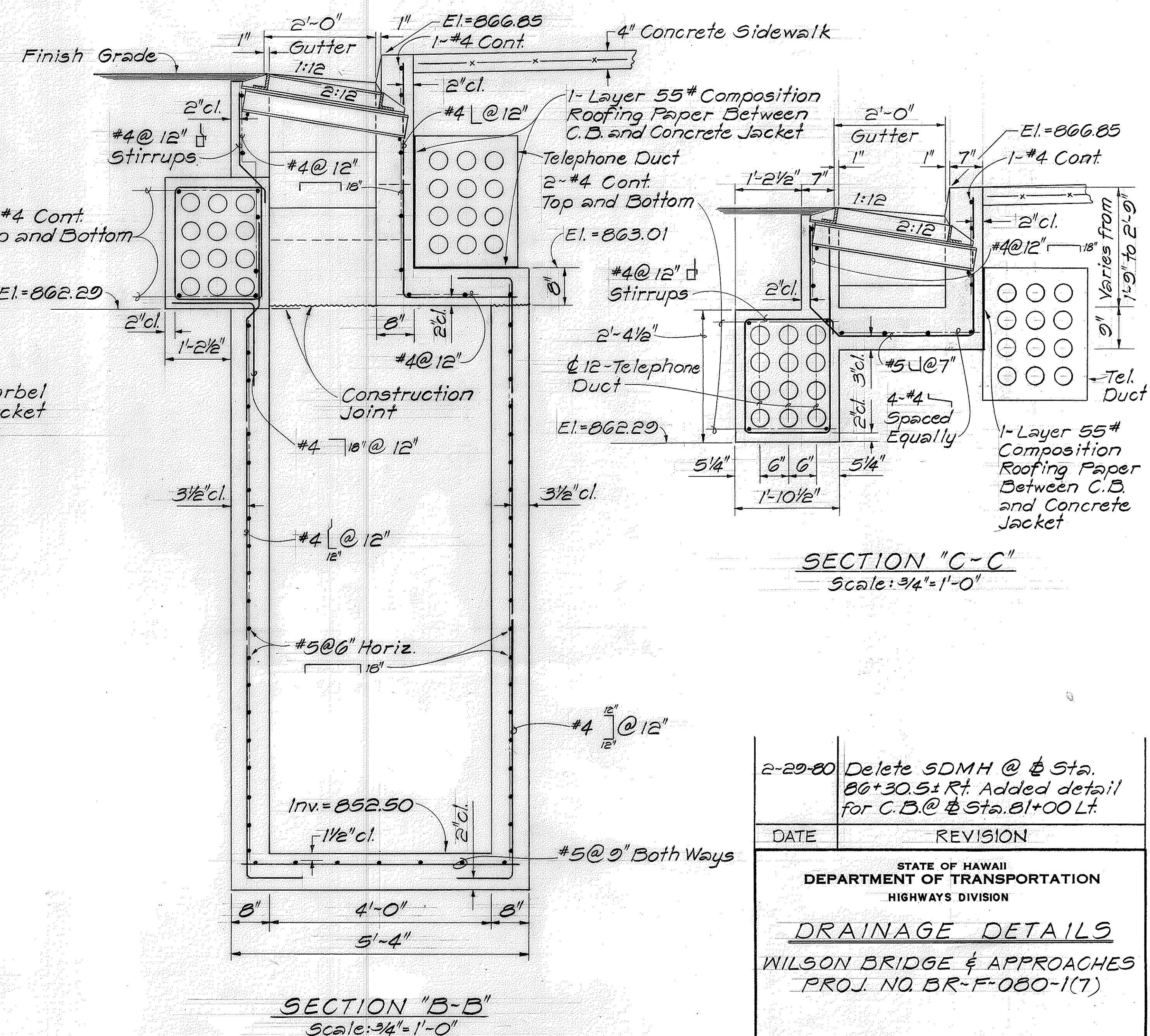
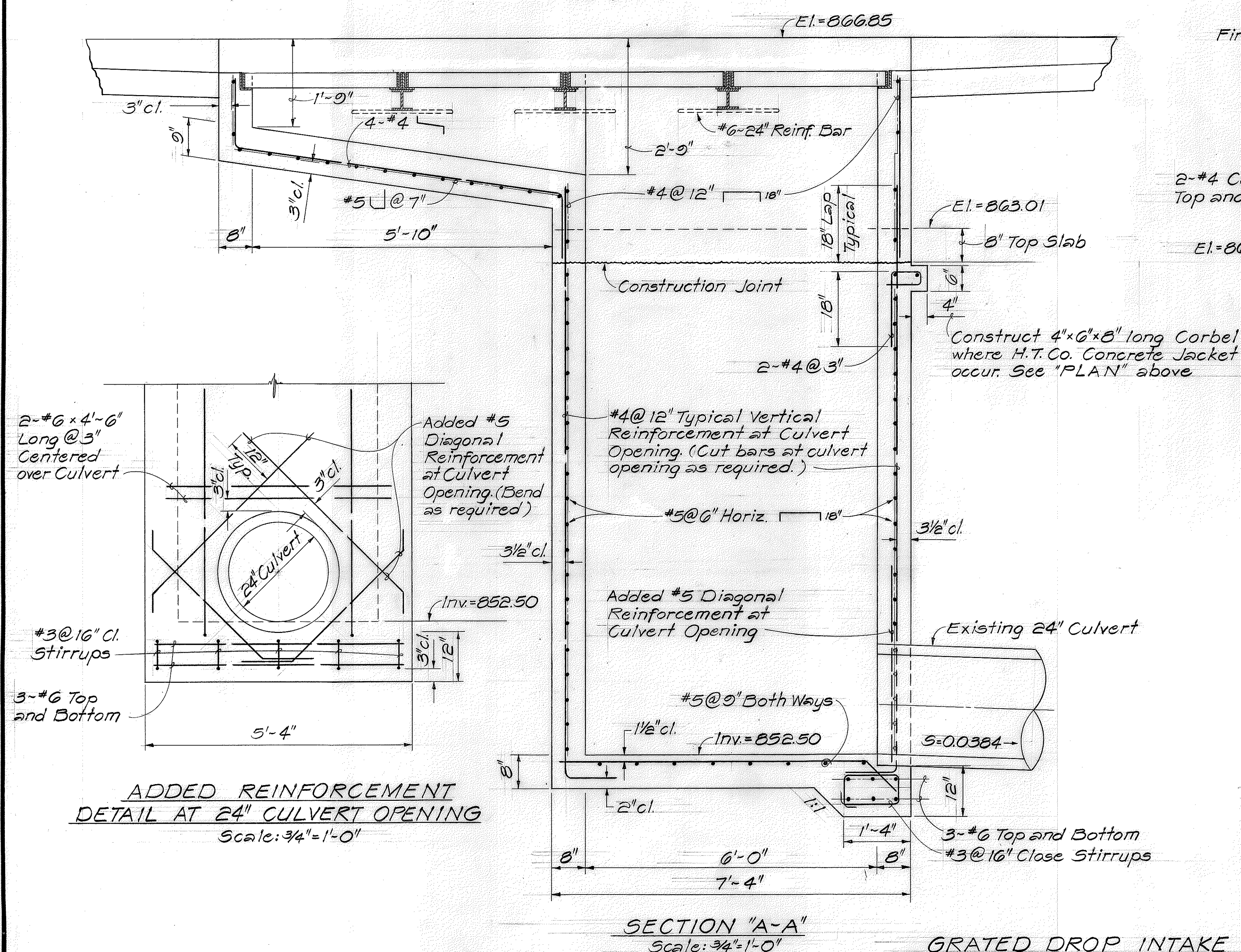
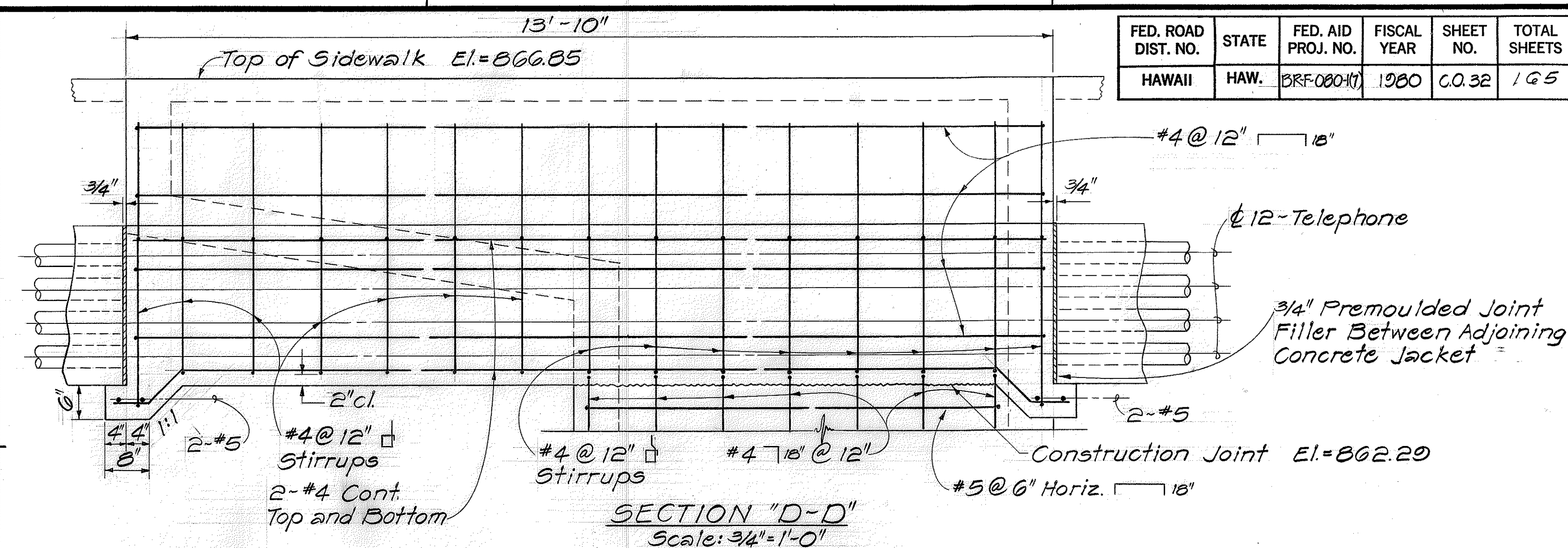
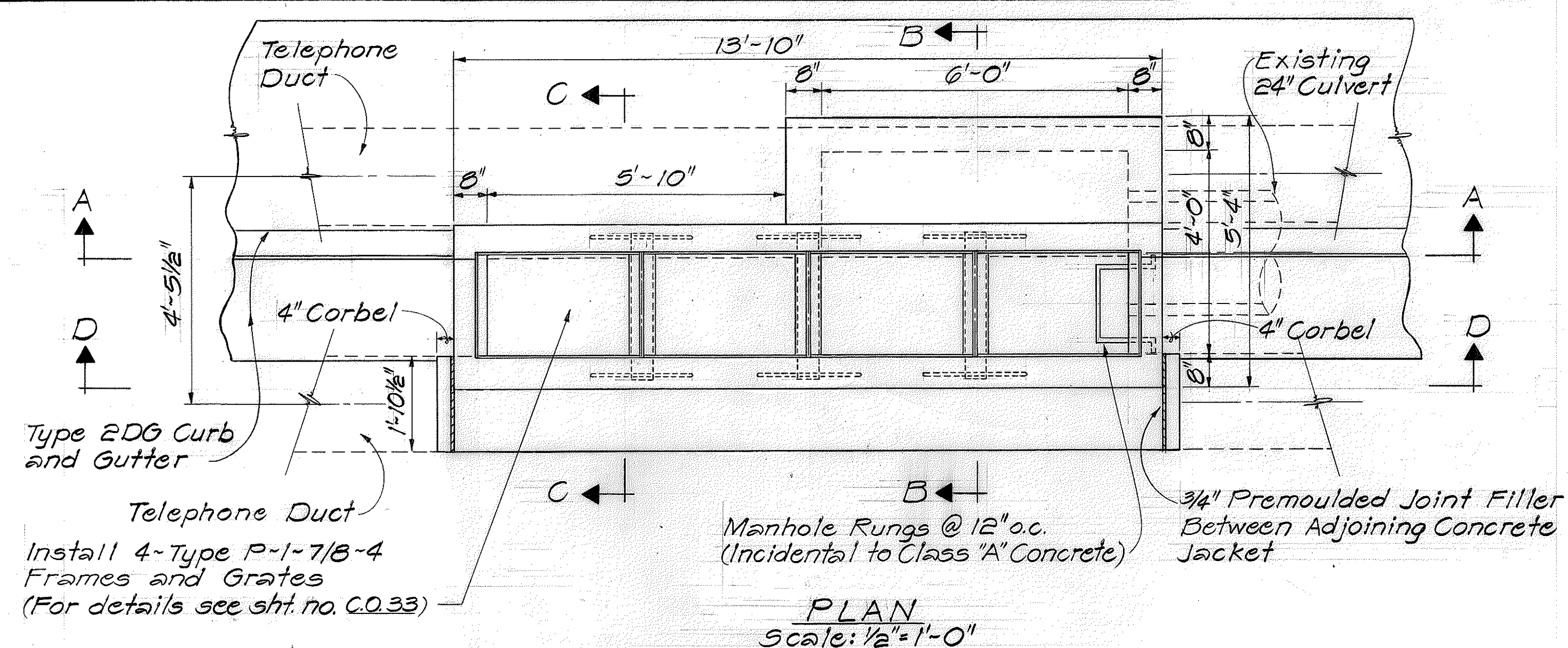
ORIGINAL PLAN	DATE
NOTED BY	DESIGNED BY
CHECKED BY	QUANTITIES BY

C.O.O. 30

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BK-F-080-1(7)	1977	31	105



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEET
HAWAII	HAW.	BRF-080(1)	1980	C.O. 32	165



GRATED DROP INTAKE AT STA. 81+00 LT.

2-29-80 Delete 5DMH @ $\frac{1}{2}$ Sta.
86+30.5± Rt. Added detail
for C.B. @ $\frac{1}{2}$ Sta. 81+00 Lt.

DATE	REVISION
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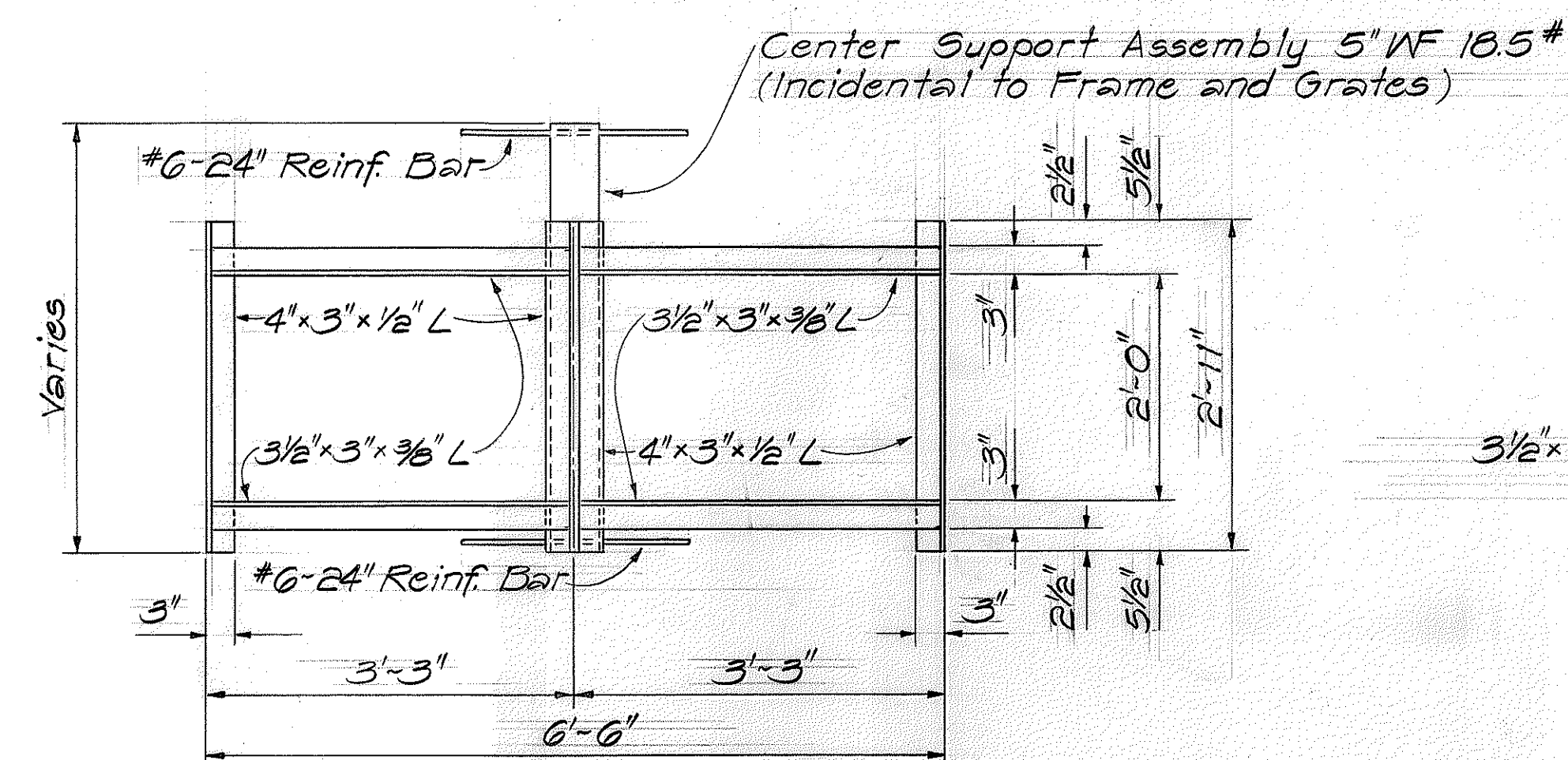
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS
WILSON BRIDGE & APPROACHES
PROJ. NO. BR-F-080-1(7)

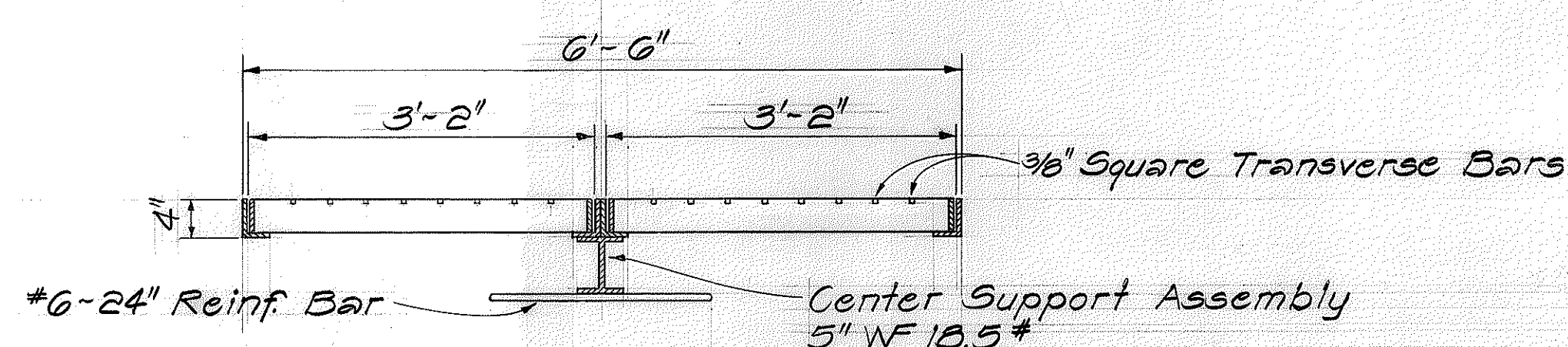
Scale: As Shown Date: Feb. 1968
SHEET No. 34 OF 64 SHEETS

C.O. 3362

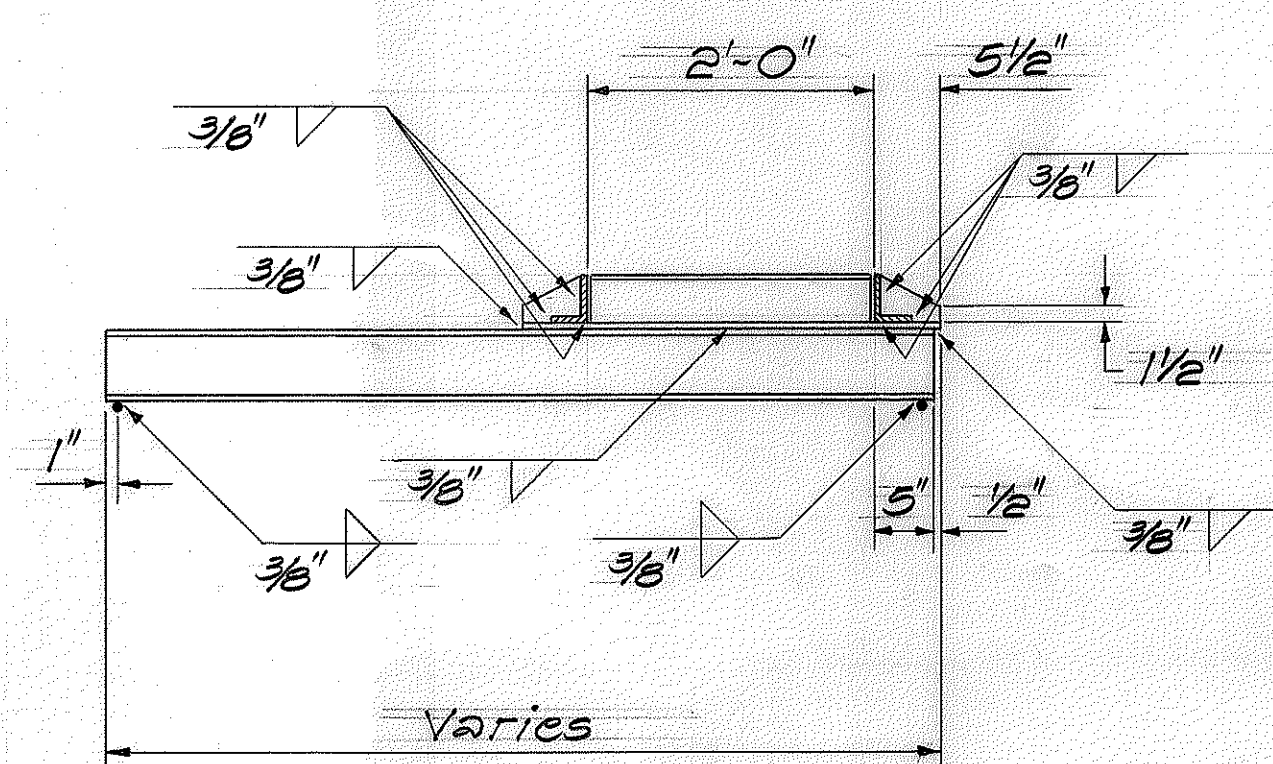
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-F-080-1(7)	1980	60.33	165



PLAN



LONGITUDINAL SECTION

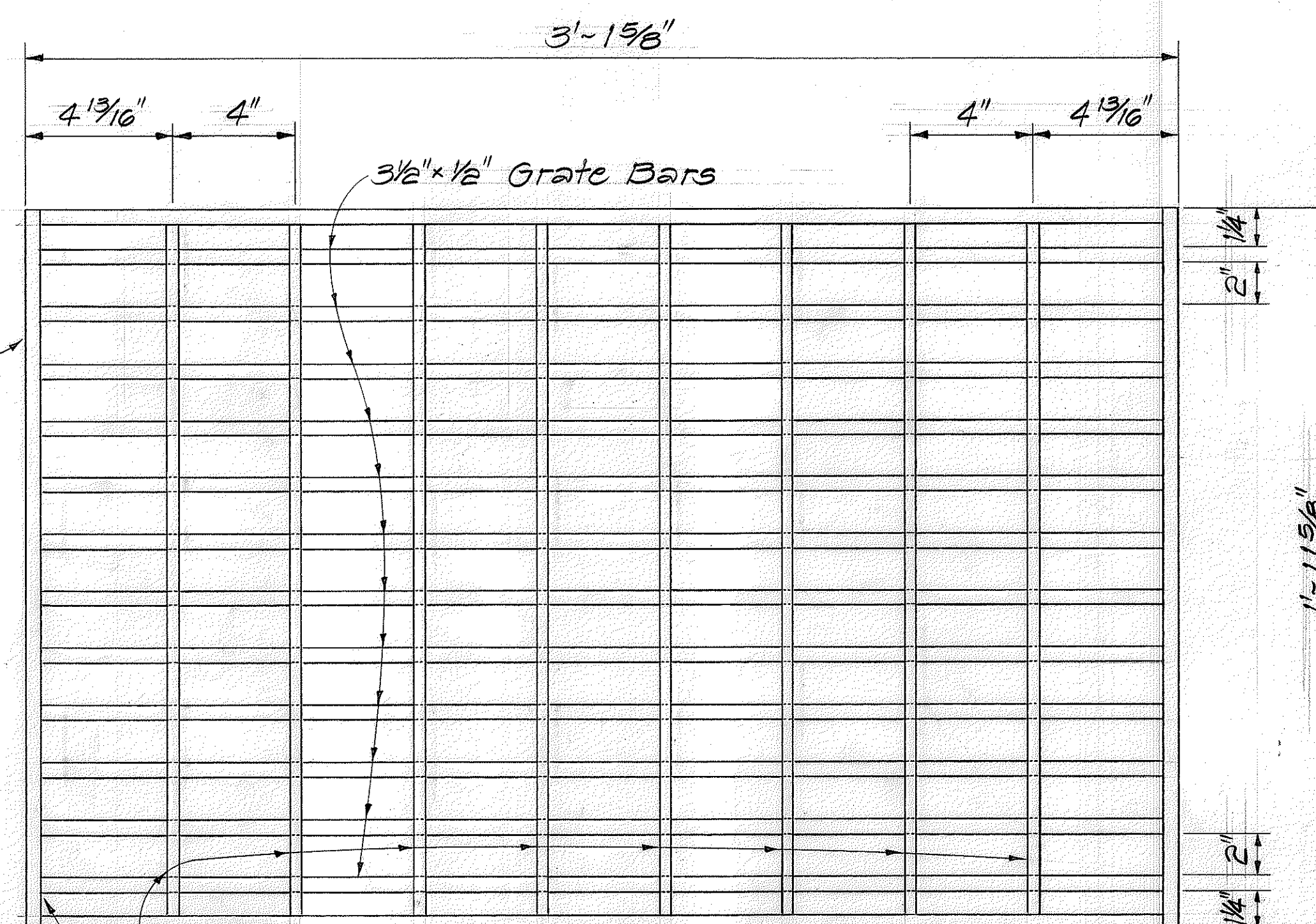


CROSS SECTION

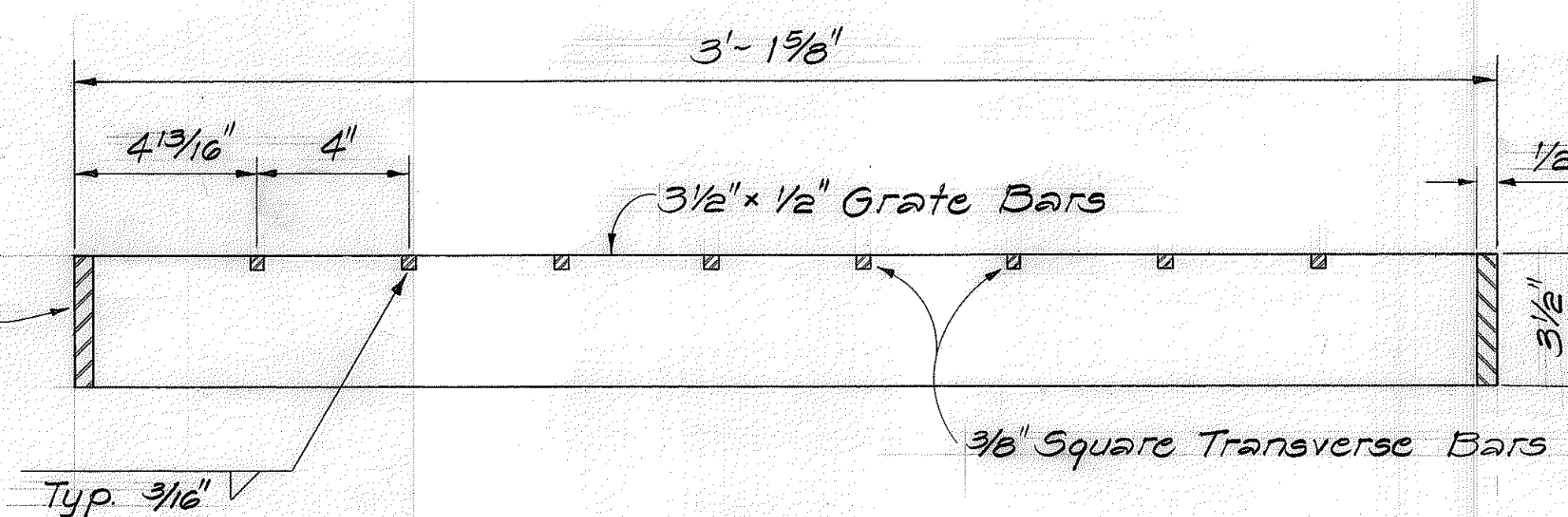
FRAME DETAILS

Scale: 3/4" = 1'-0"

TYPE P-1-7/8-4 FRAME AND GRATE



PLAN



SECTION VIEW

WELDED GRATE DETAILS

Scale: 3" = 1'-0"

2-29-80	Delete detail for A-0 & A-12 Frame and Grates. Added detail for P-1-7/8-4 Frame and Grate
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DATE	REVISION
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DRAINAGE DETAILS
WILSON BRIDGE & APPROACHES
PROJ. NO. BR-F-080-1(7)

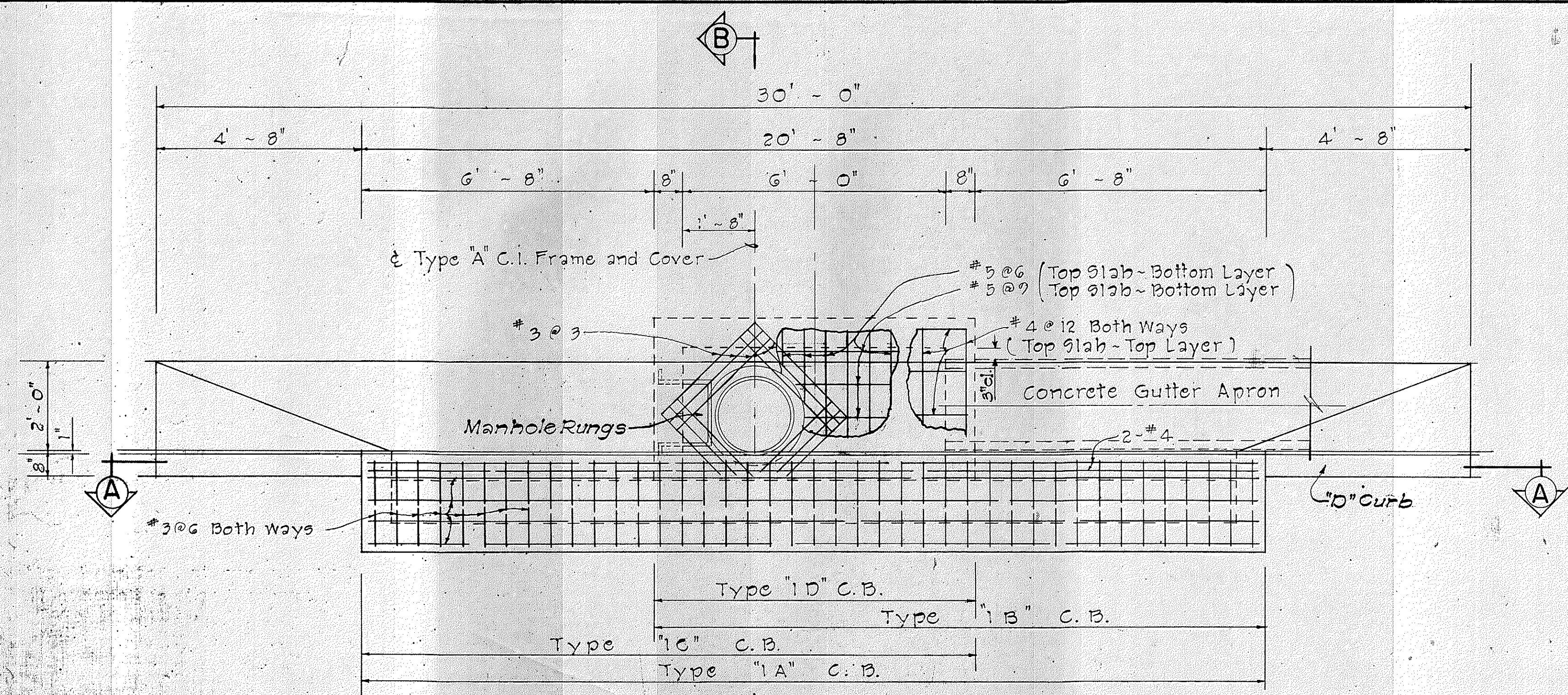
Scale: As Shown Date: Feb. 1980

SHEET No. 4H OF 6H SHEETS

60.33

ORIGINAL PLAN	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-F-080-1(7)	1977	34	105

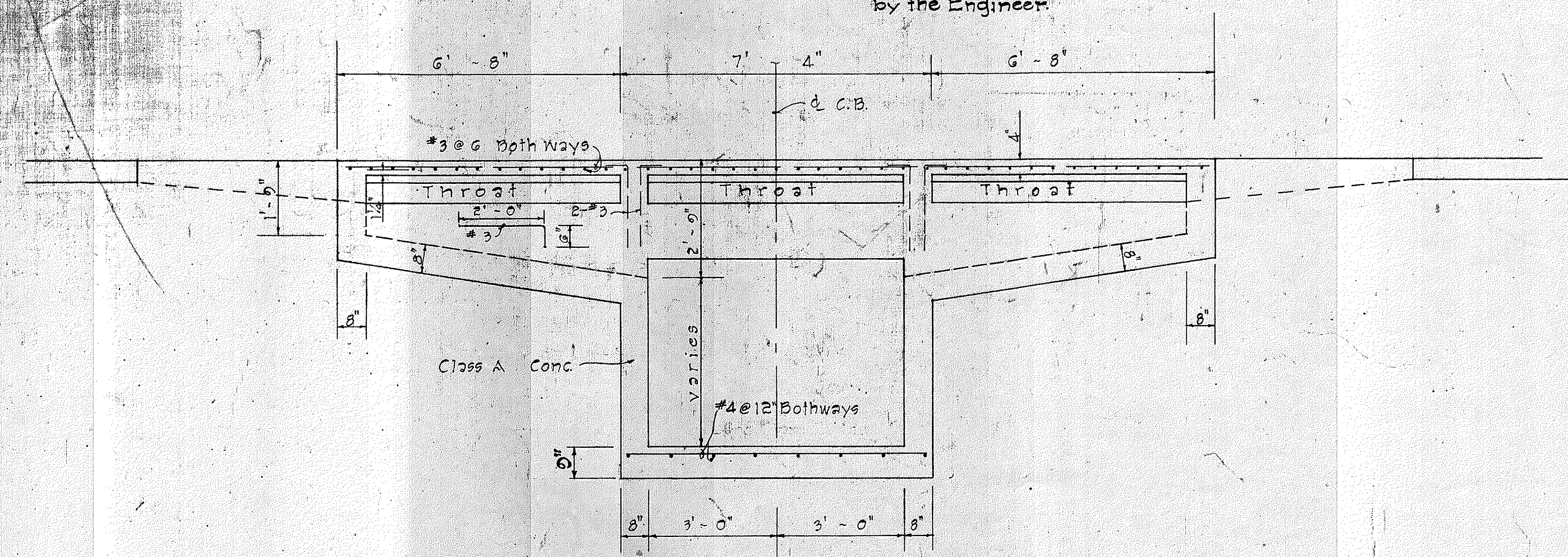


GENERAL NOTES

- Culvert shall enter and leave C.B. from any position and in the direction indicated by the plans or ordered by the Engineer.
- D shall be the maximum outside dimension of the culvert at the C.B. wall.
- The type of curb and/or gutter (Type 1, 2, 3, etc.) shall conform to the type specified on the roadway plans.
- Manhole Rungs (12" o.c.) are required when "H" is greater than 4 feet 6 inches. Only one rung (16 inches from the bottom) is required if "H" is 4 feet 6 inches or less. Type "A" C.I. Frame & Cover and Manhole Rungs may be placed at any location as ordered by the Engineer.

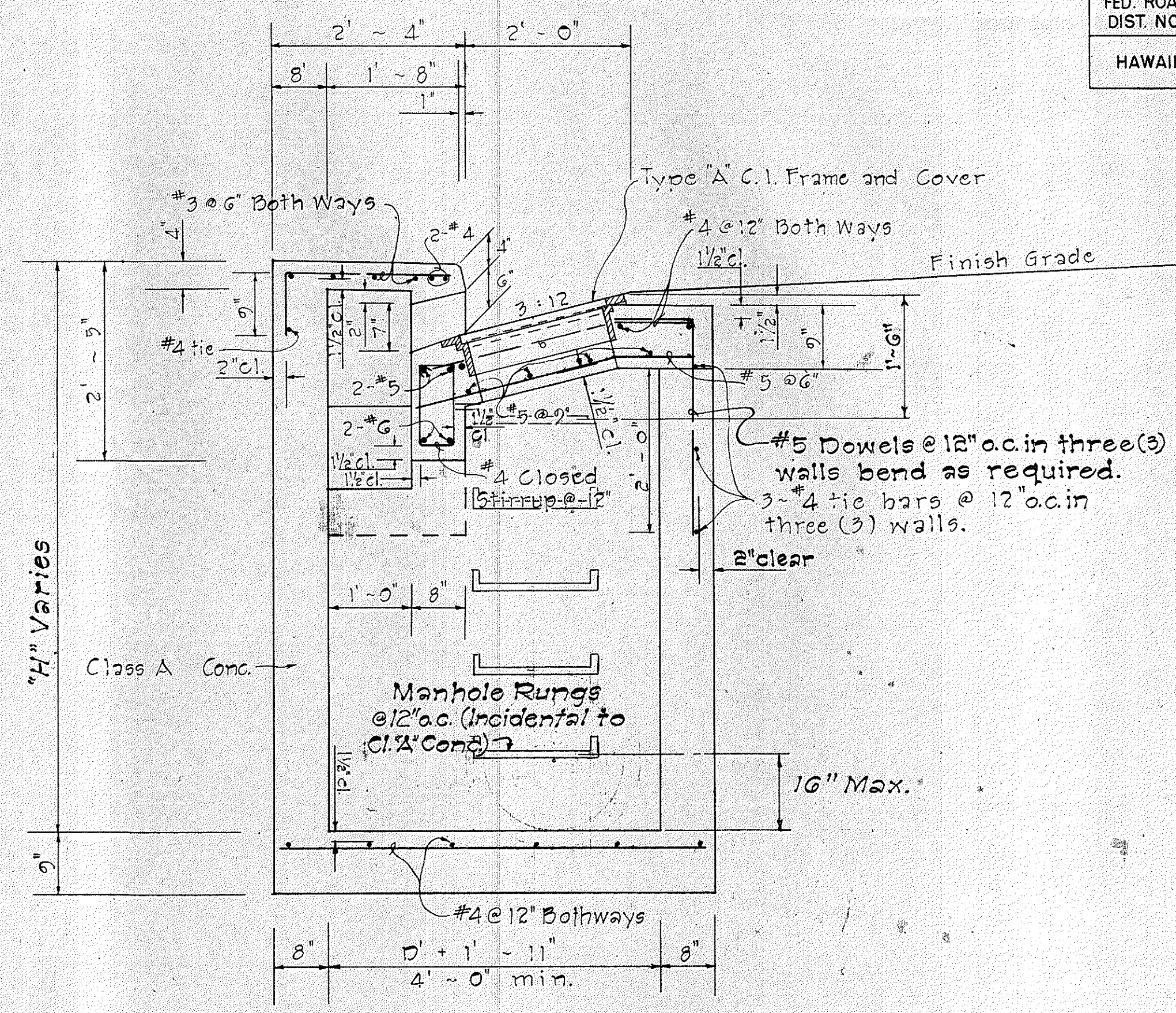
PLAN

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



SECTION "A-A"

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



SECTION "B-B"

Scale: 3/4" = 1'-0"

APPROVAL RECOMMENDED:

P. Nakano
HYDRAULIC DESIGN ENGINEER - DATE 12-17-69

APPROVED:

[Signature]
ASSISTANT CHIEF, ENGINEERING - DATE 12-17-69

NO.	REVISION	APPROVED BY	DATE
1	Spacing on Manhole Rungs to conform to OSHA.	HT	1-21-75

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DRAINAGE STANDARD DETAILS
TYPE "IA", "IB", "IC", AND "ID"
CATCH BASINS

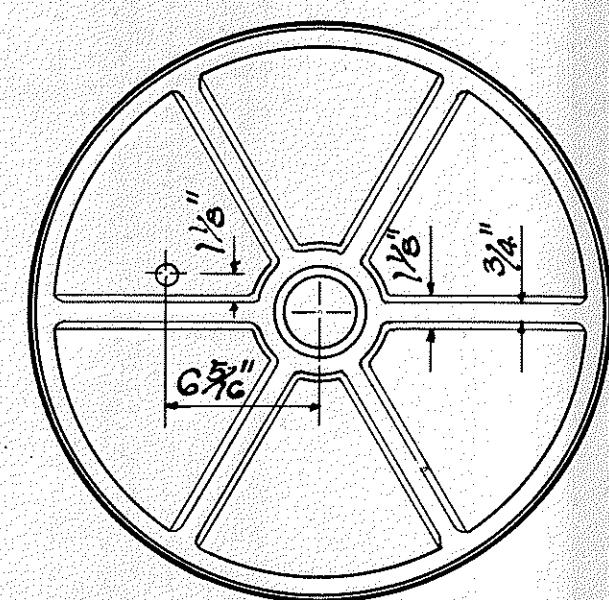
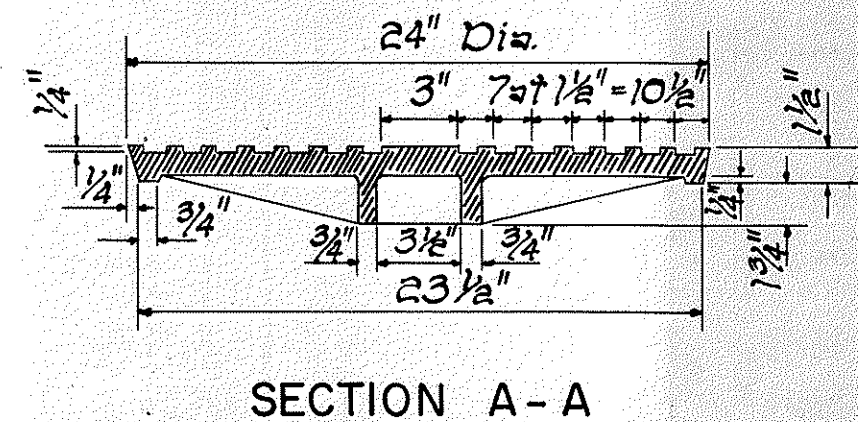
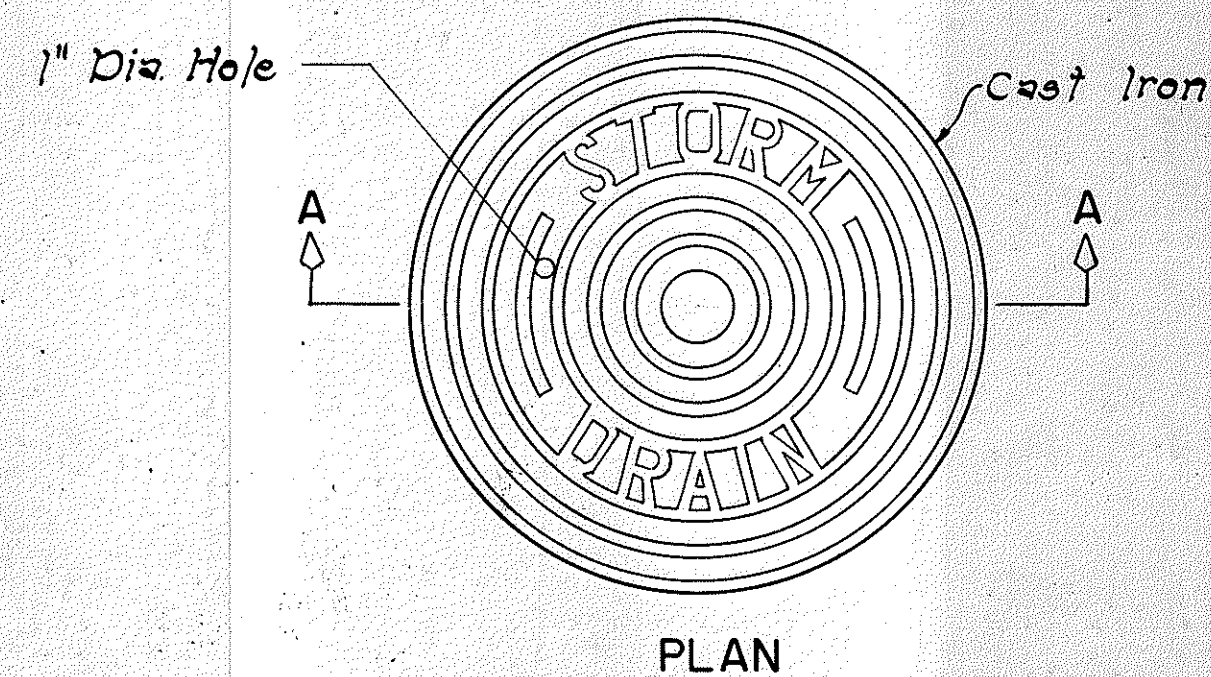
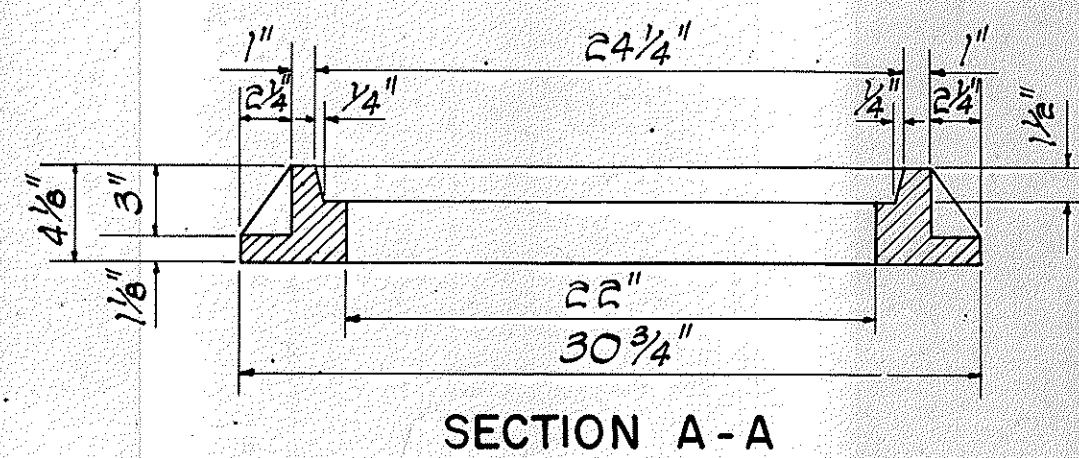
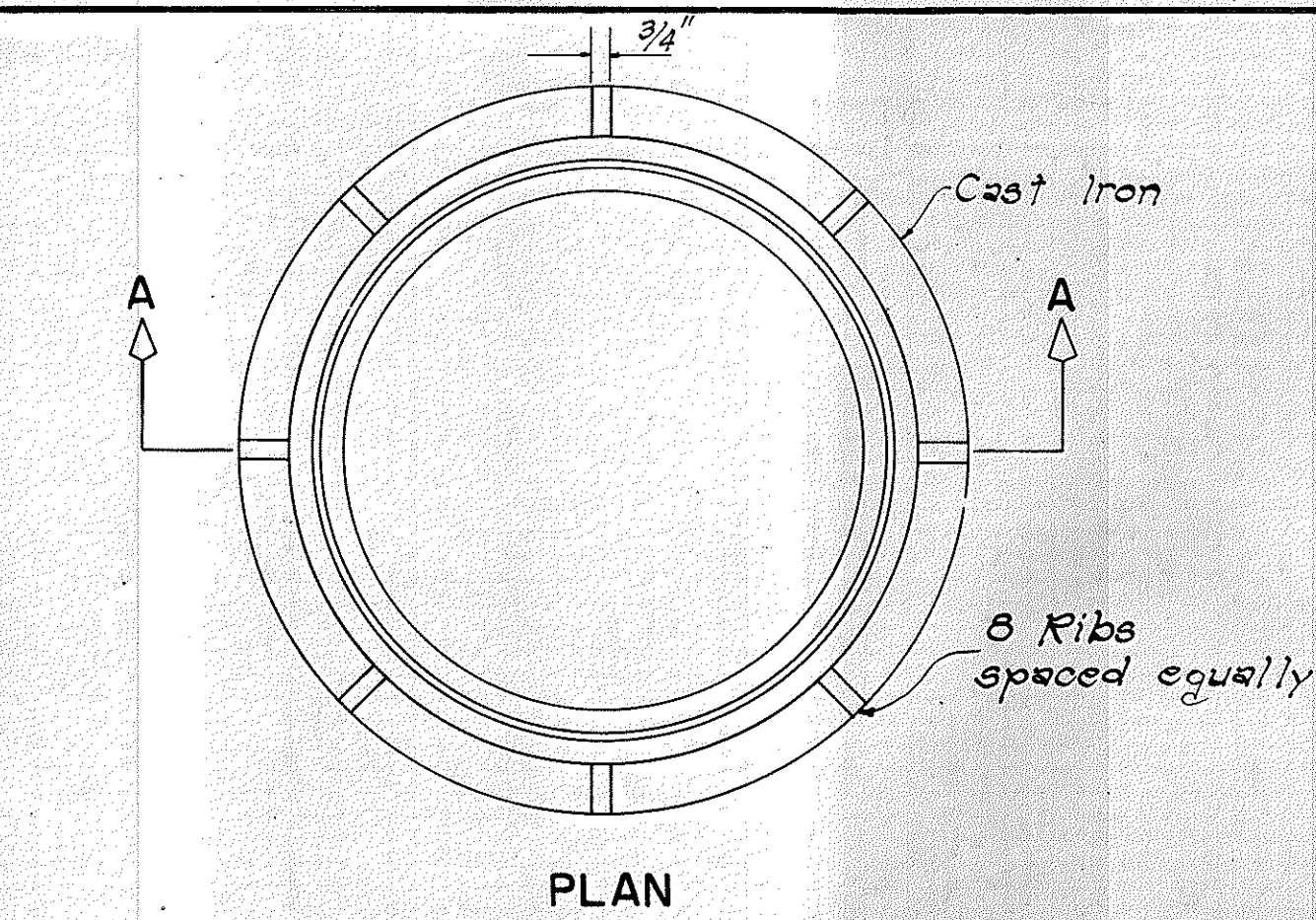
Scale: As Noted Date: July, 1969

SHEET No. 34 OF 64 SHEETS DH 3

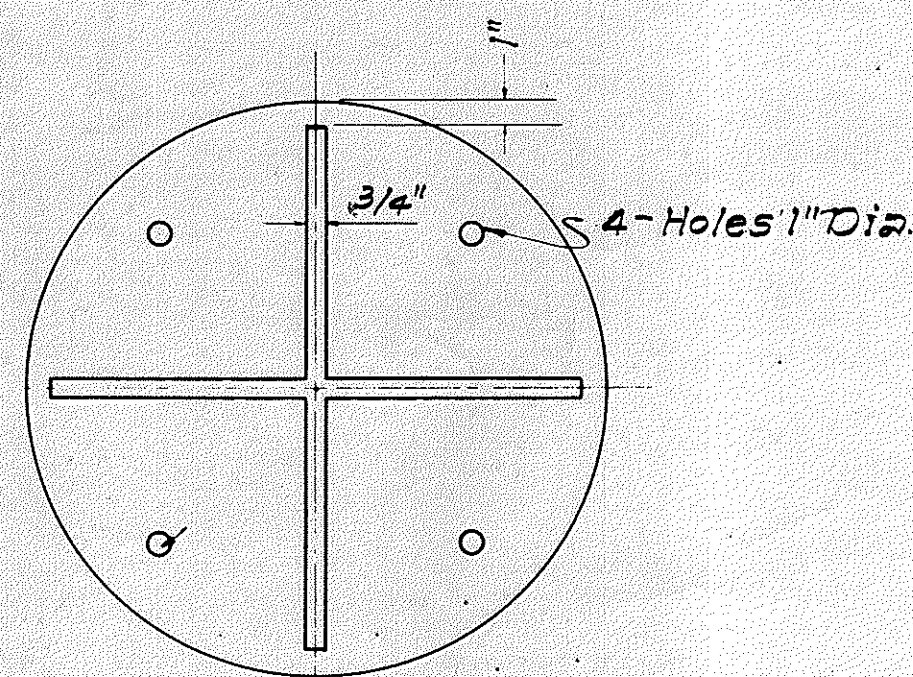
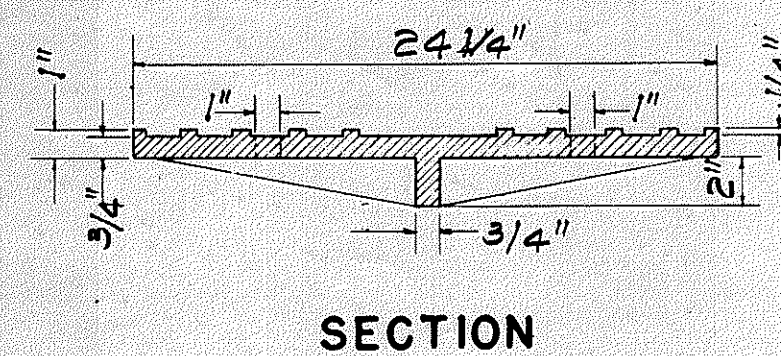
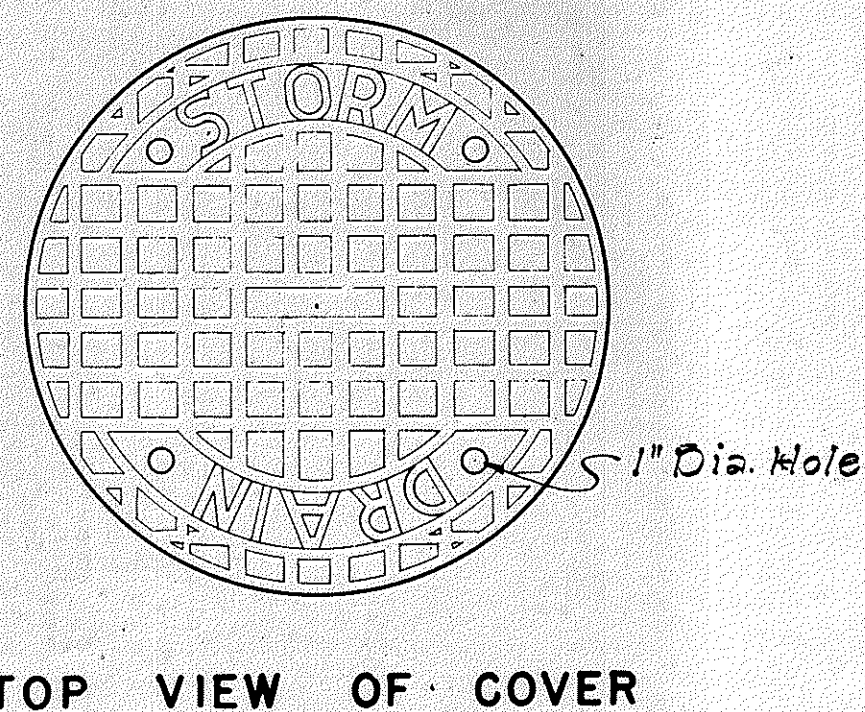
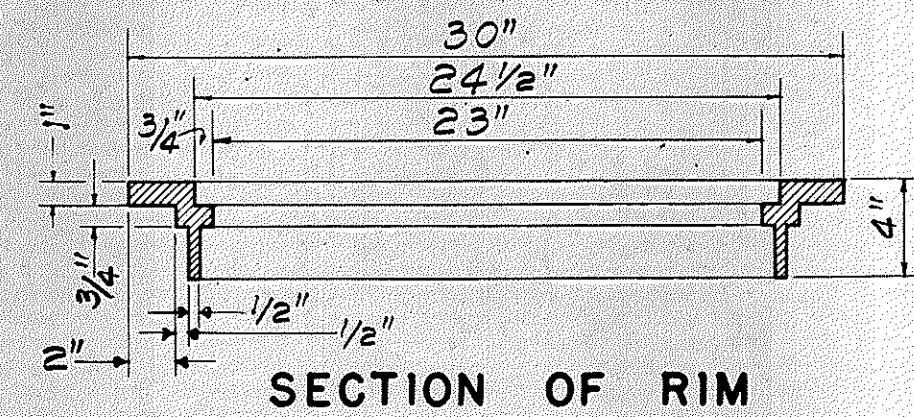
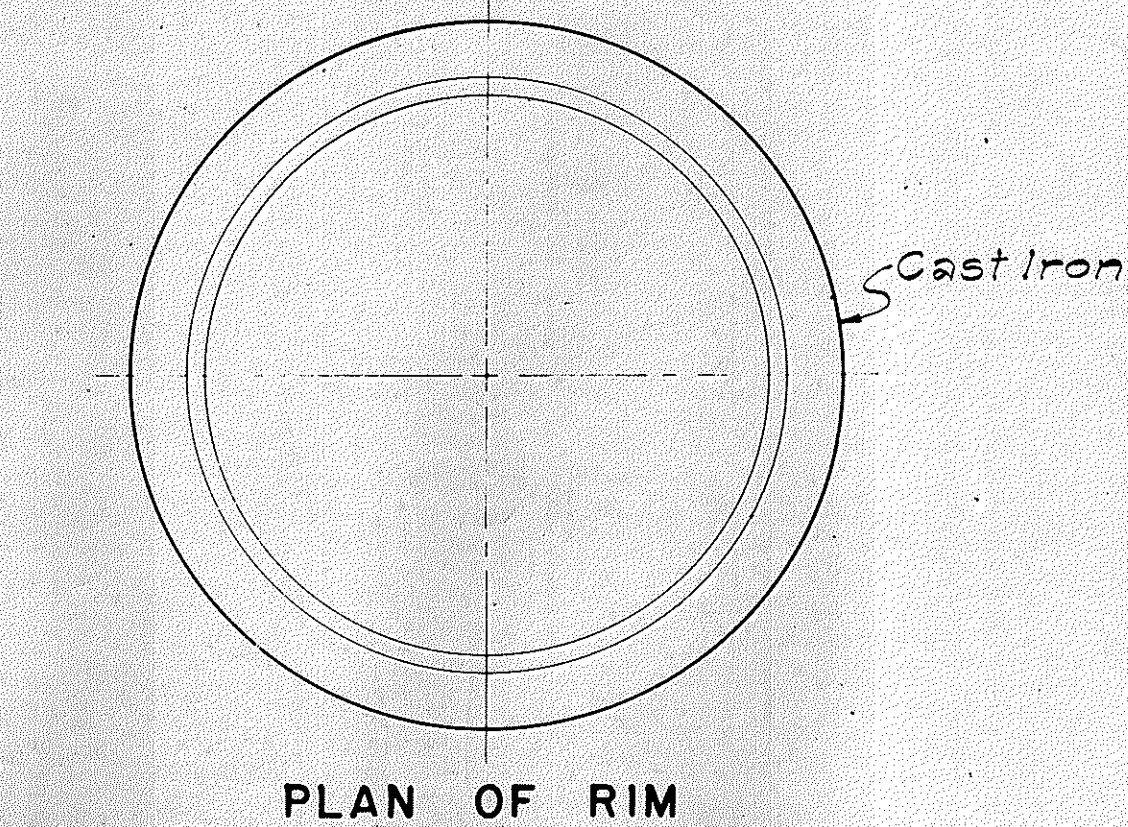
DETAILS OF TYPE "IA", "IB", "IC" AND "ID" CATCH BASIN

ORIGINAL	DATE
PLAN	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
NOTED BY	
CHECKED BY	

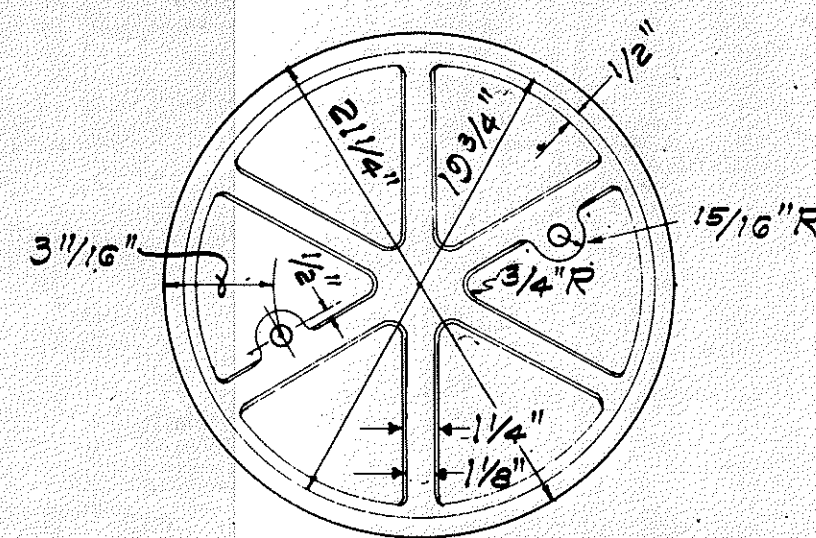
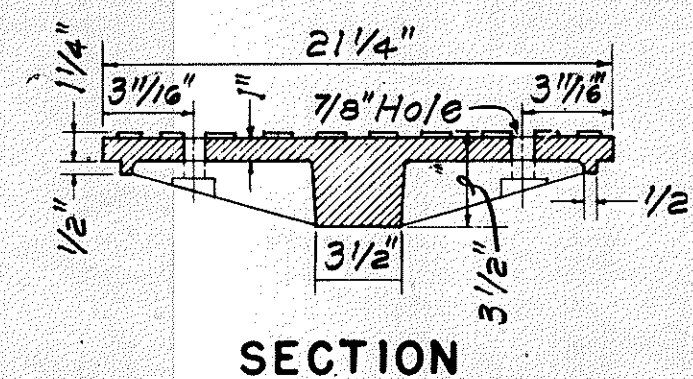
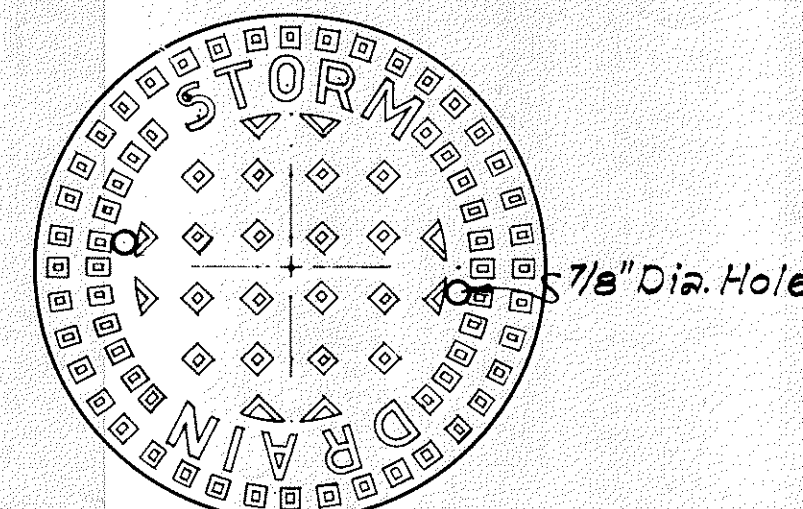
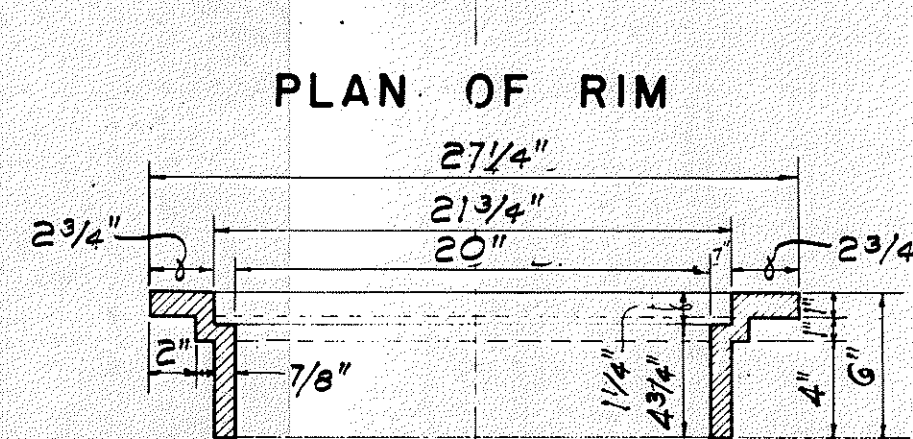
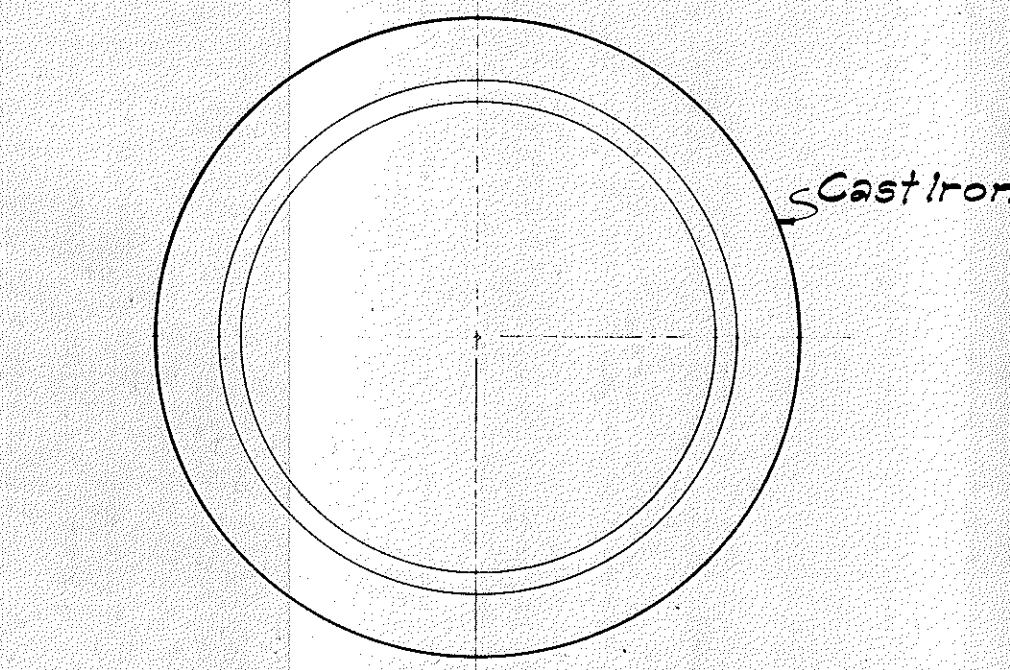
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-F-030-1(7)	1977	35	105



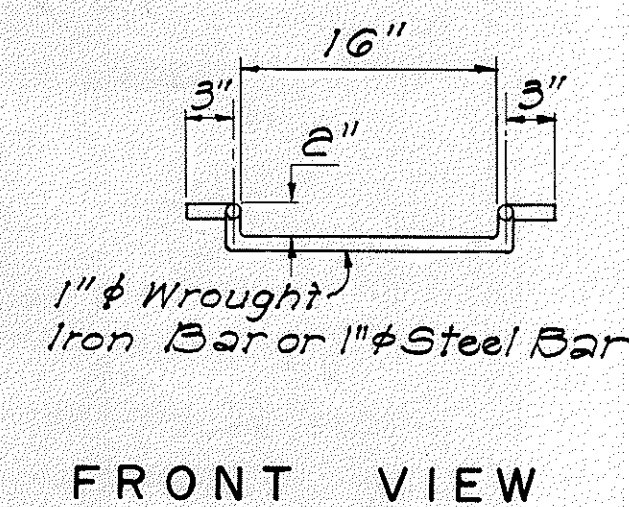
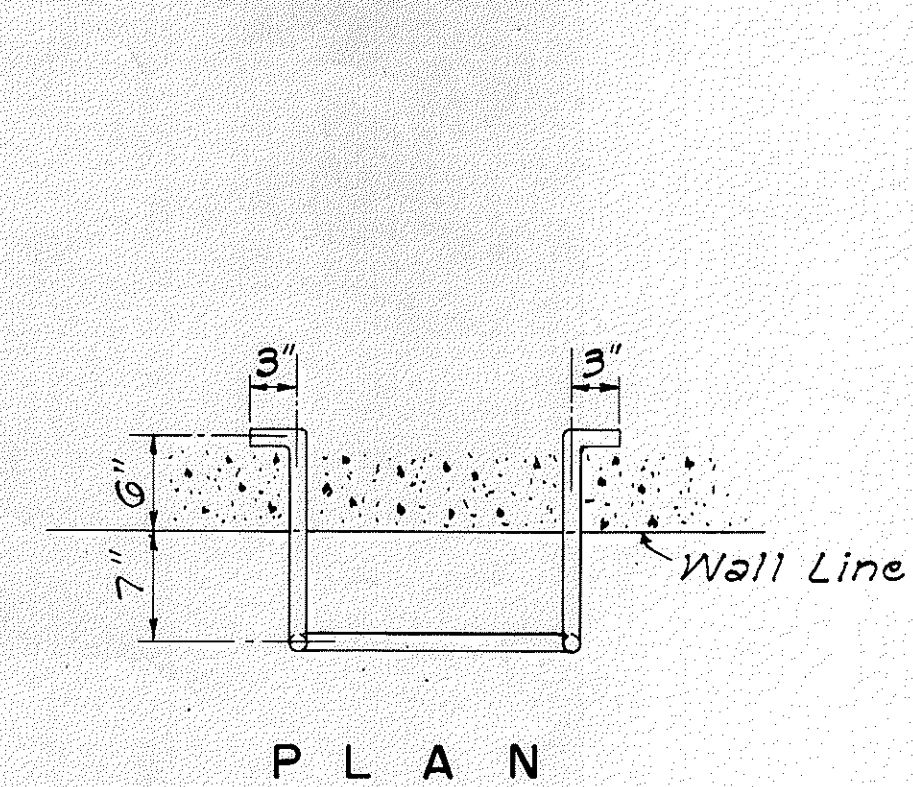
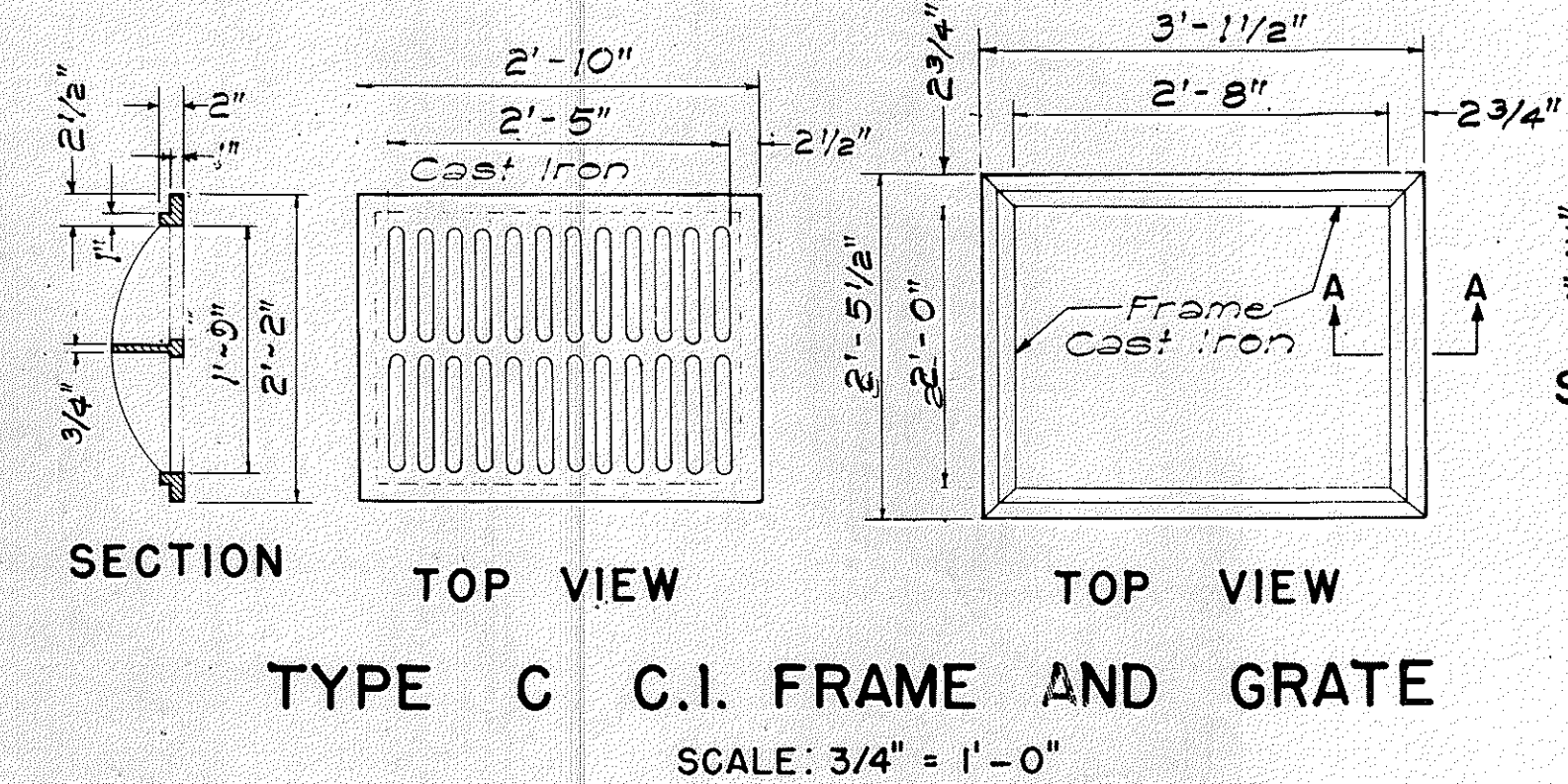
DETAILS OF TYPE "P"
CAST IRON FRAME AND COVER
SCALE: 1-1/2" = 1'-0"



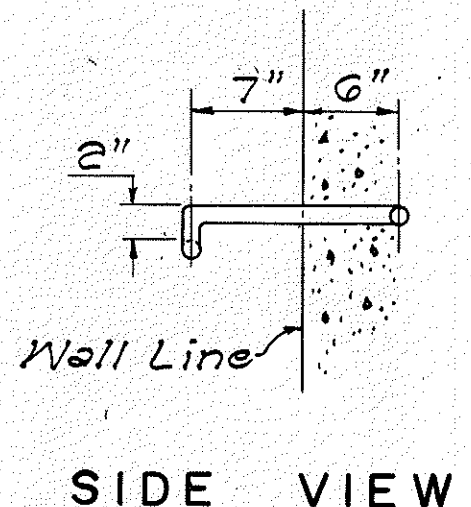
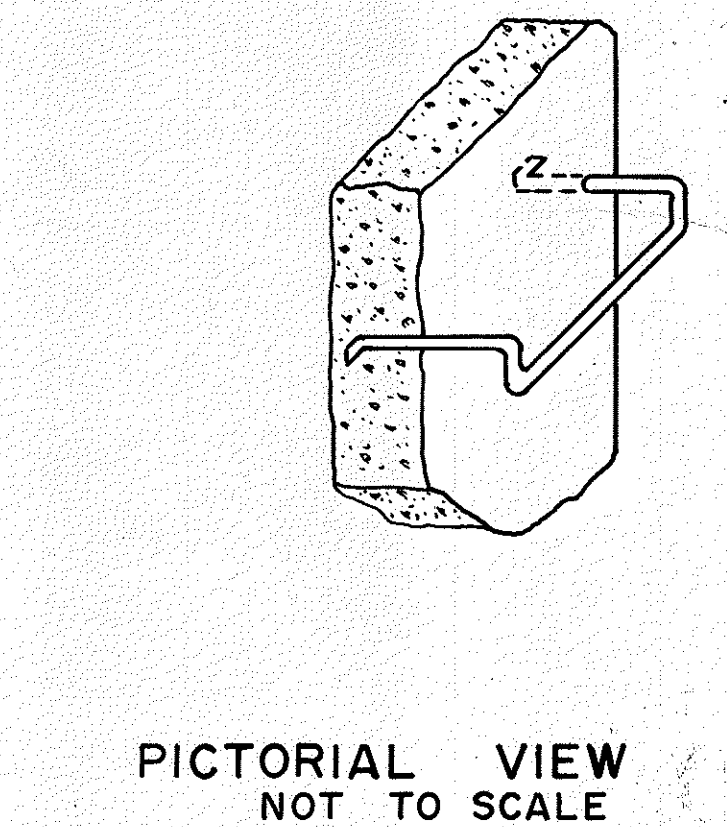
DETAILS OF TYPE "B"
CAST IRON FRAME AND COVER
SCALE: 1-1/2" = 1'-0"



DETAILS OF TYPE "A"
CAST IRON FRAME AND COVER
SCALE: 1-1/2" = 1'-0"



DETAILS OF MANHOLE RUNG
SCALE: 1" = 1'-0"



APPROVAL RECOMMENDED:
HYDRAULIC DESIGN ENGINEER
DATE: 12-17-69

APPROVED:
ASSISTANT CHIEF, ENGINEERING
DATE: 12-17-69

NO.	REVISION	APPROVED BY	DATE
1.	Detail of Type "P" Cast Iron Frame and Cover	H.T.	1-6-71
2.	Details of Manhole Rungs to conform to OSHA.	H.T.	1-21-75
3.	Option for Manhole Rungs	H.T.	1-13-76

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
CATCH BASIN AND
MANHOLE CASTINGS

Scale: As Noted Date: July, 1969
SHEET NO. 35 OF 105 SHEETS DH 6

ORIGINAL
PLAN
NOTE BOOK
No.

DATE
DRAWN BY
CHECKED BY

DATE
DRAWN BY
CHECKED BY

DATE
DRAWN BY
CHECKED BY