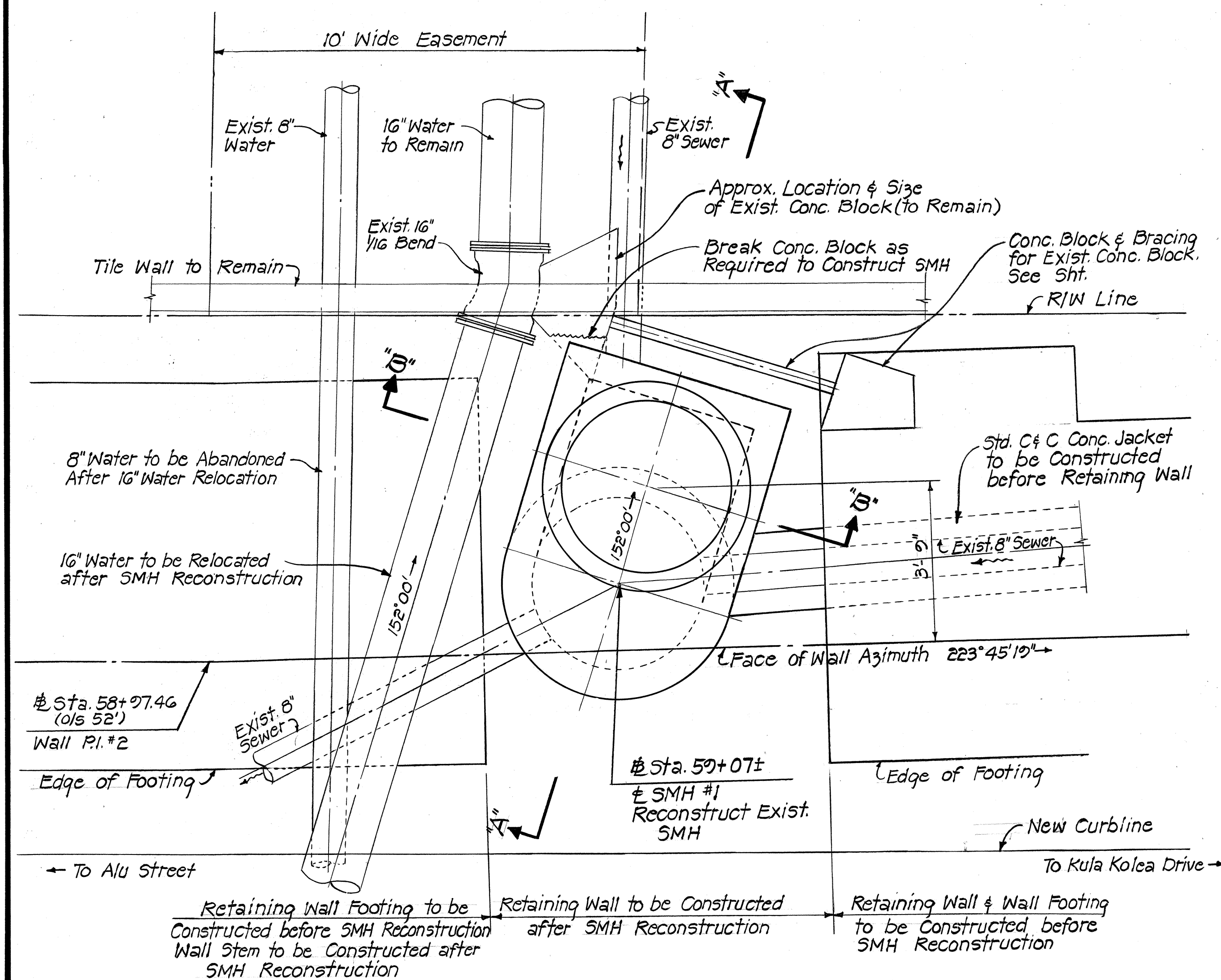
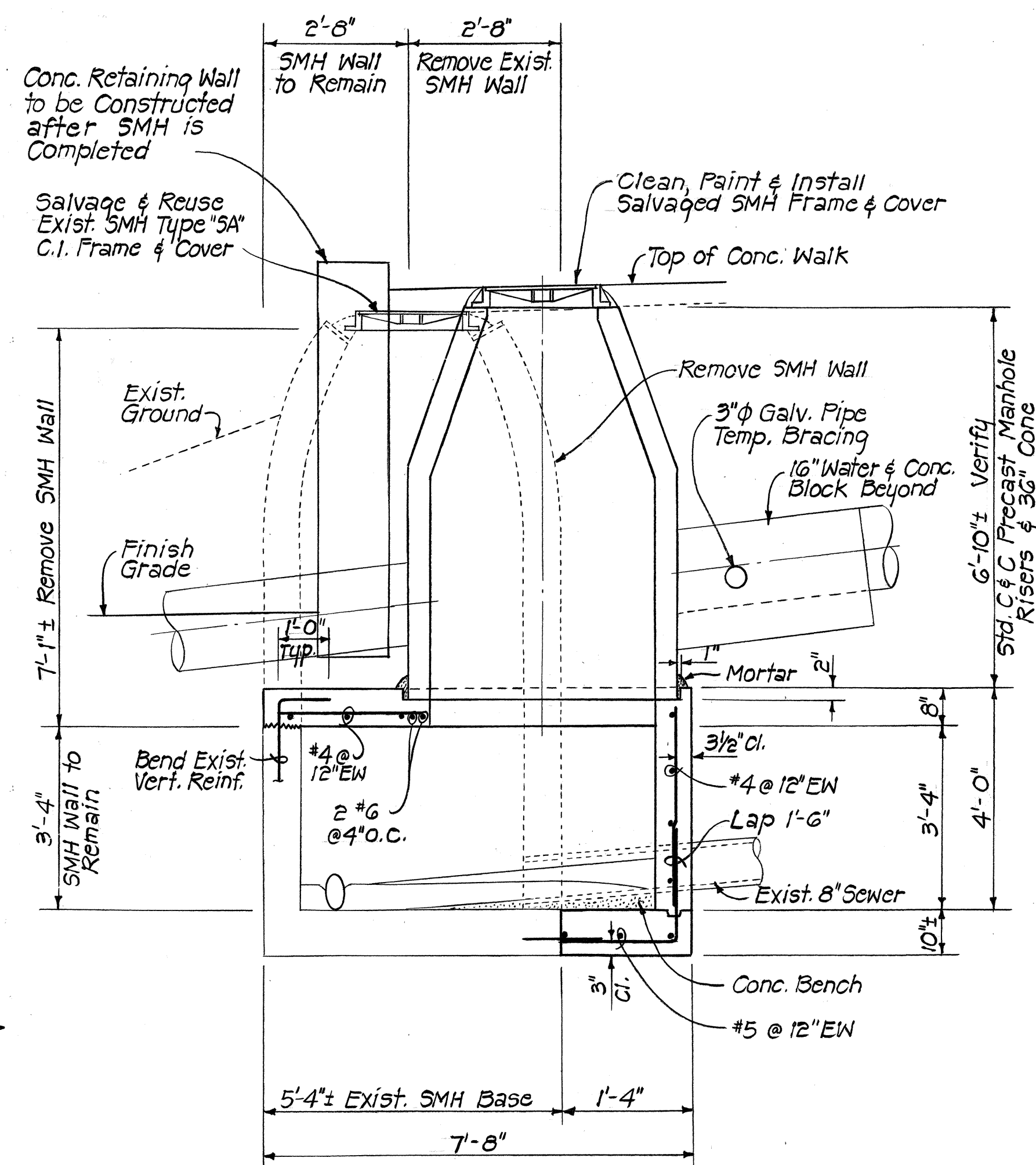


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-063-1(16)	1984	28	156



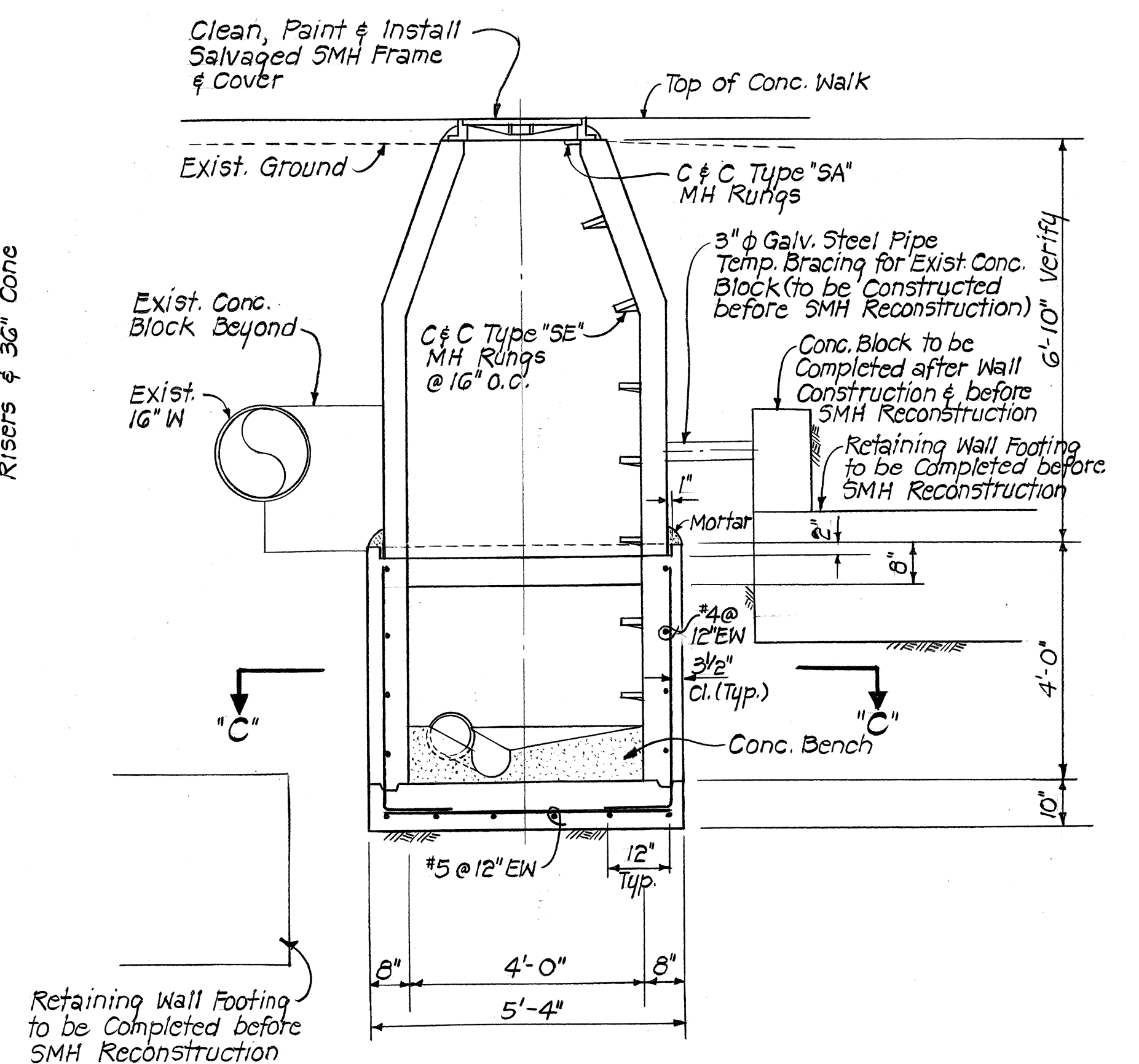
PLAN ~ SEWER MANHOLE @ B.L. STA. 59+07±

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



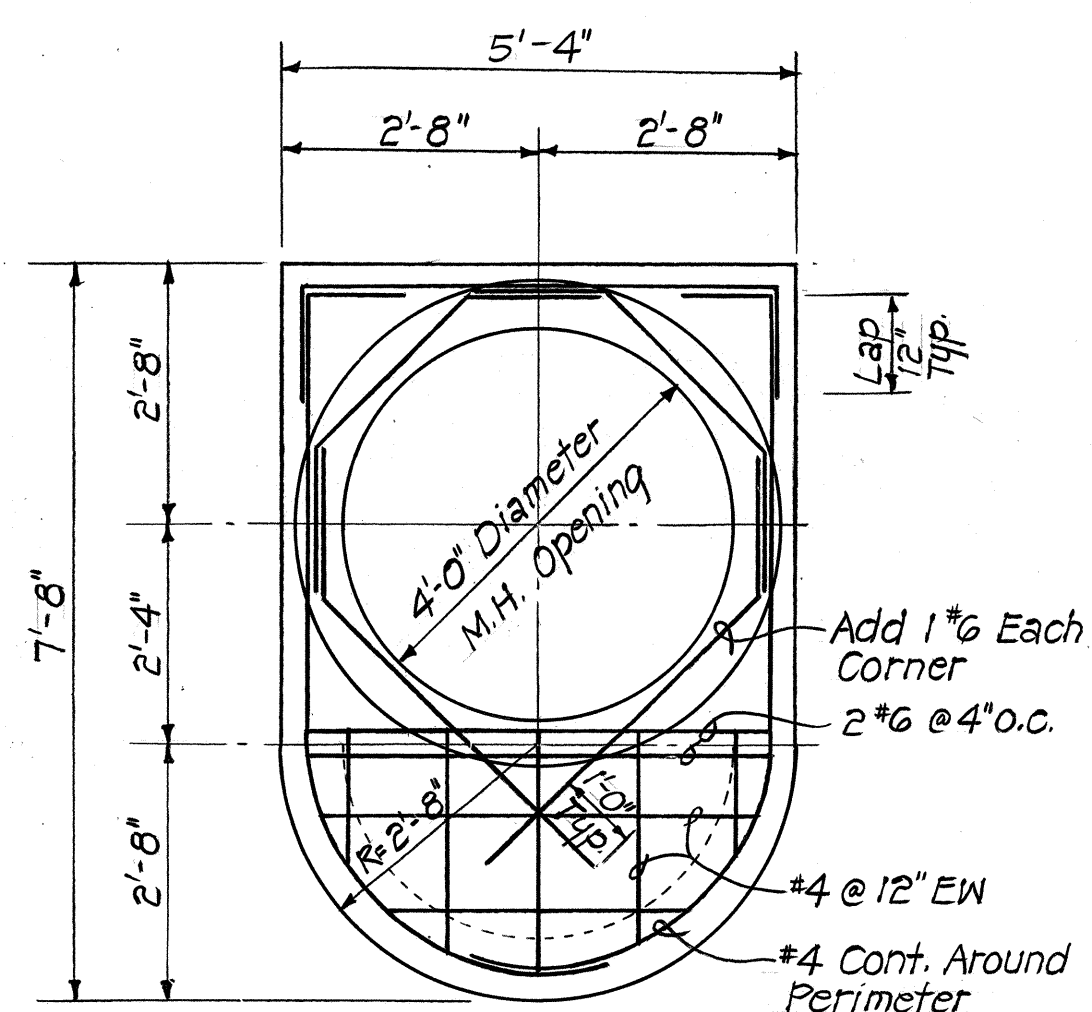
SECTION "A-A"

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



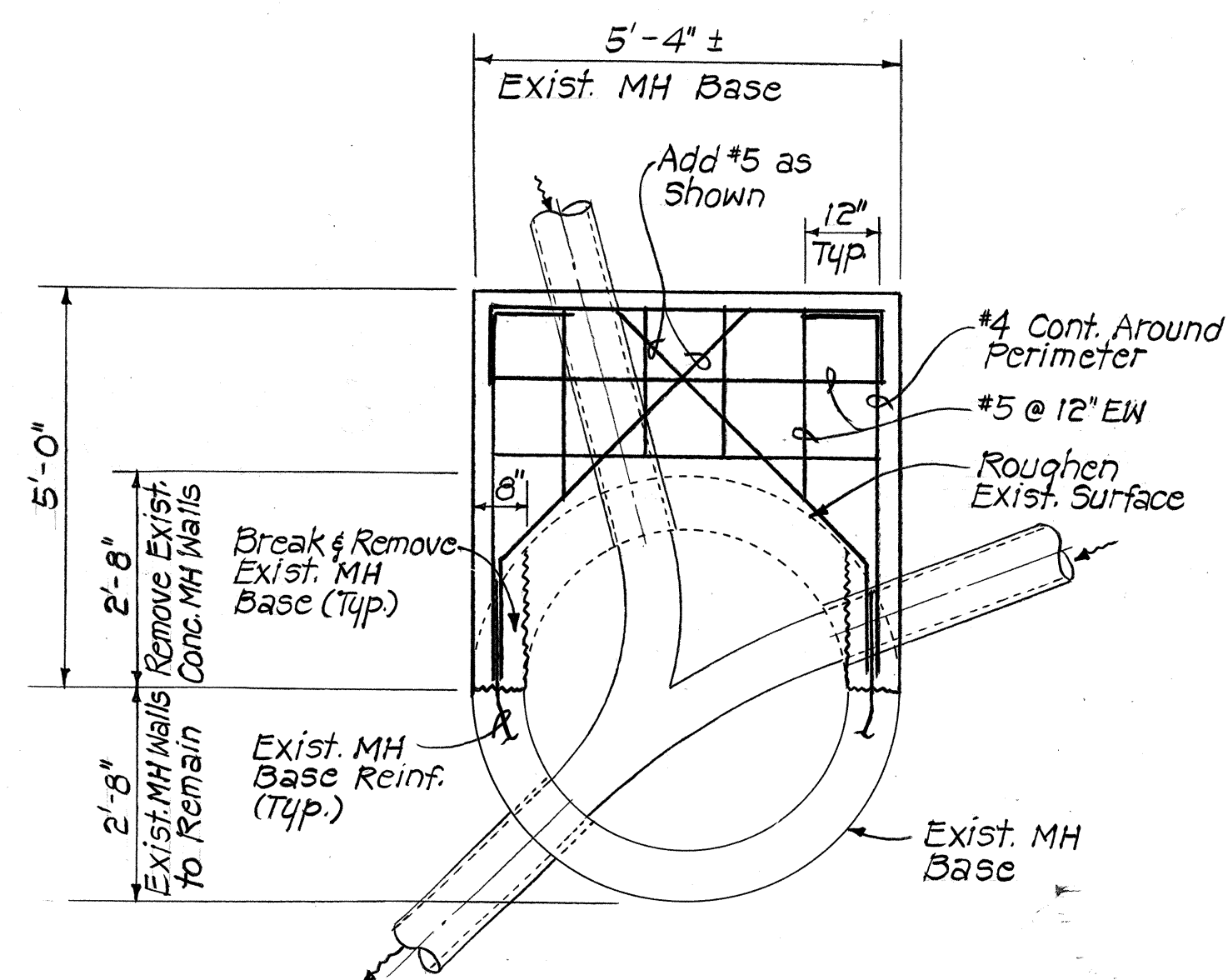
SECTION "B-B"

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



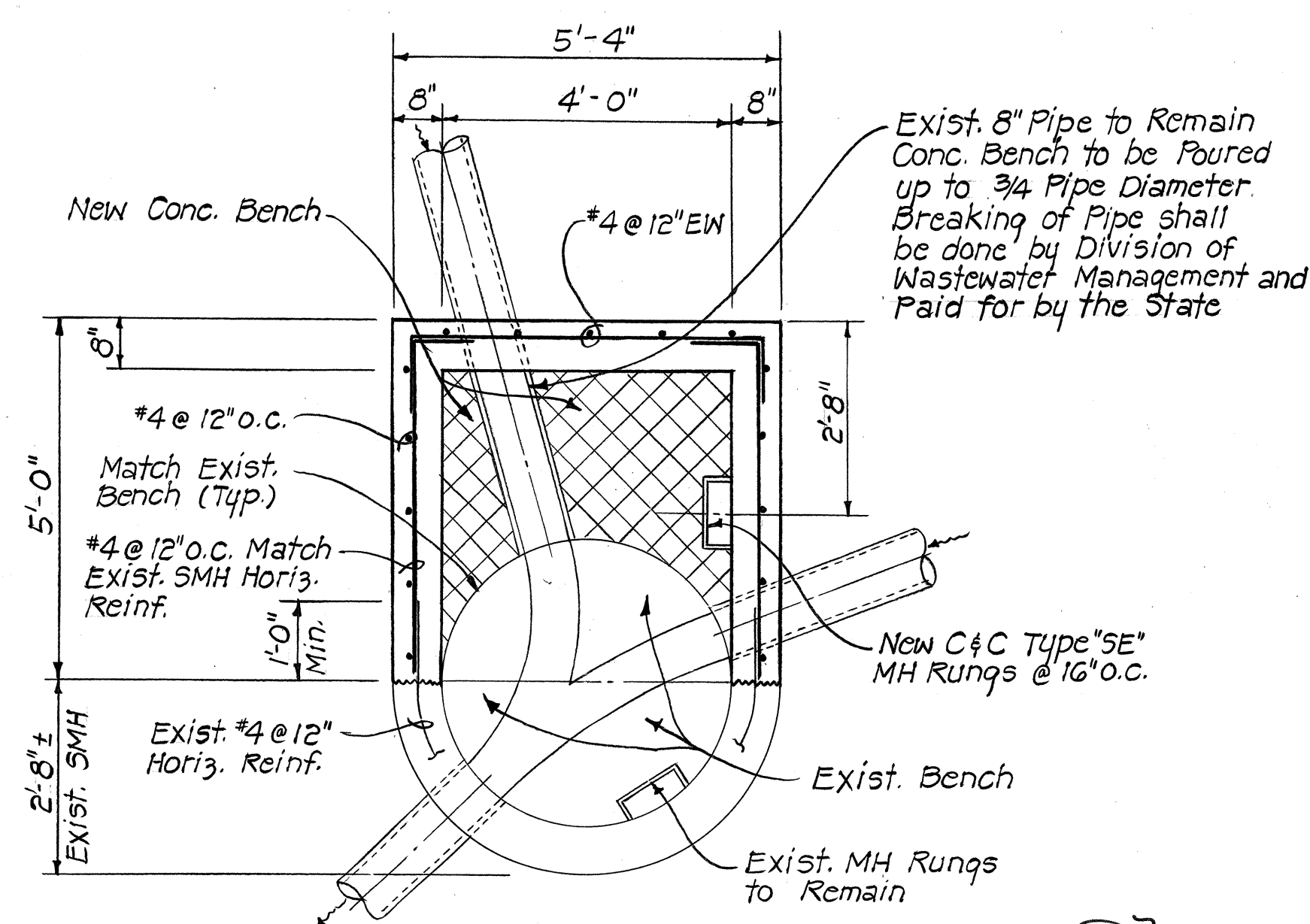
TOP SLAB REINFORCEMENT PLAN

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



SMH BASE REINFORCEMENT PLAN

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



SECTION "C-C"

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

APPROVED
REAPPROVAL:

Chief, Planning & Engineering, BWS

Chief, Division of Wastewater Management, DPW

7-16-85

DATE

1-30-84
Date

Date _____

2/3/84



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ME OR UNDER MY SUPERVISION

Conrad J. Strain

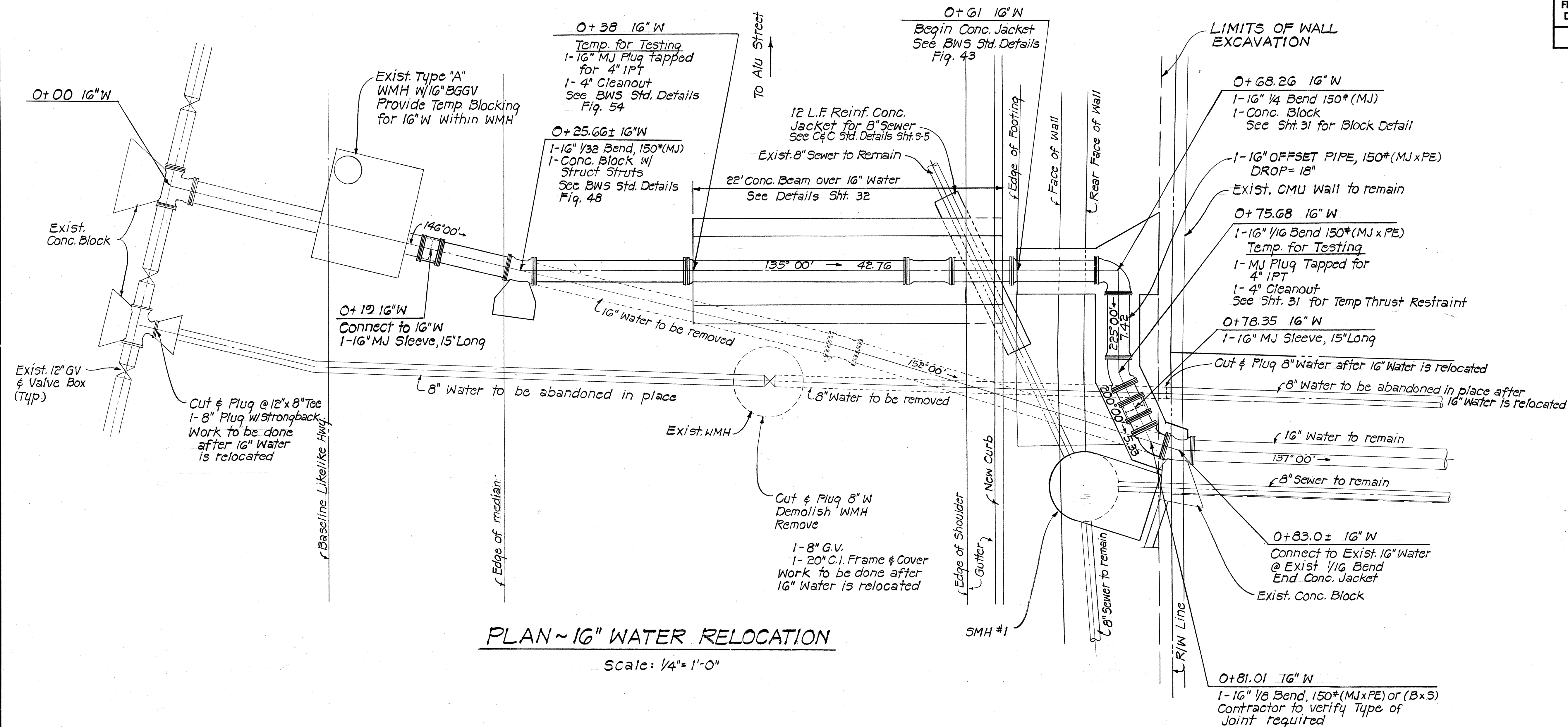
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SEWER MANHOLE RECONSTRUCTION
§ STA. 59+07

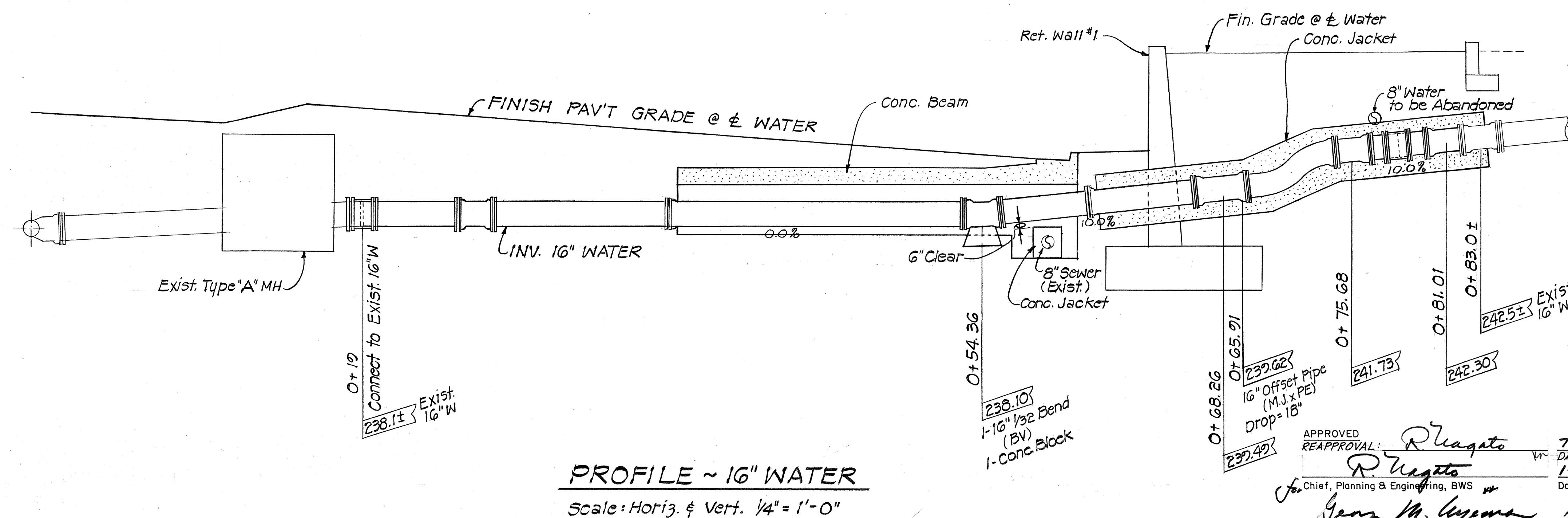
LIKELY HIGHWAY IMPROVEMENTS (VICINITY OF KULA KOLEA DRIVE TO KAM IV ROAD)

SHEET No. OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-063-1 (16)	1984	29	156



NOTE :
For downtime of 16" Water,
See Note 15 on Sheet 3.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**16" WATERLINE RELOCATION
PLAN & PROFILE**

LIKELIKE HIGHWAY IMPROVEMENTS
(VICINITY OF KULA KOLEA DRIVE TO KAM IV ROAD)

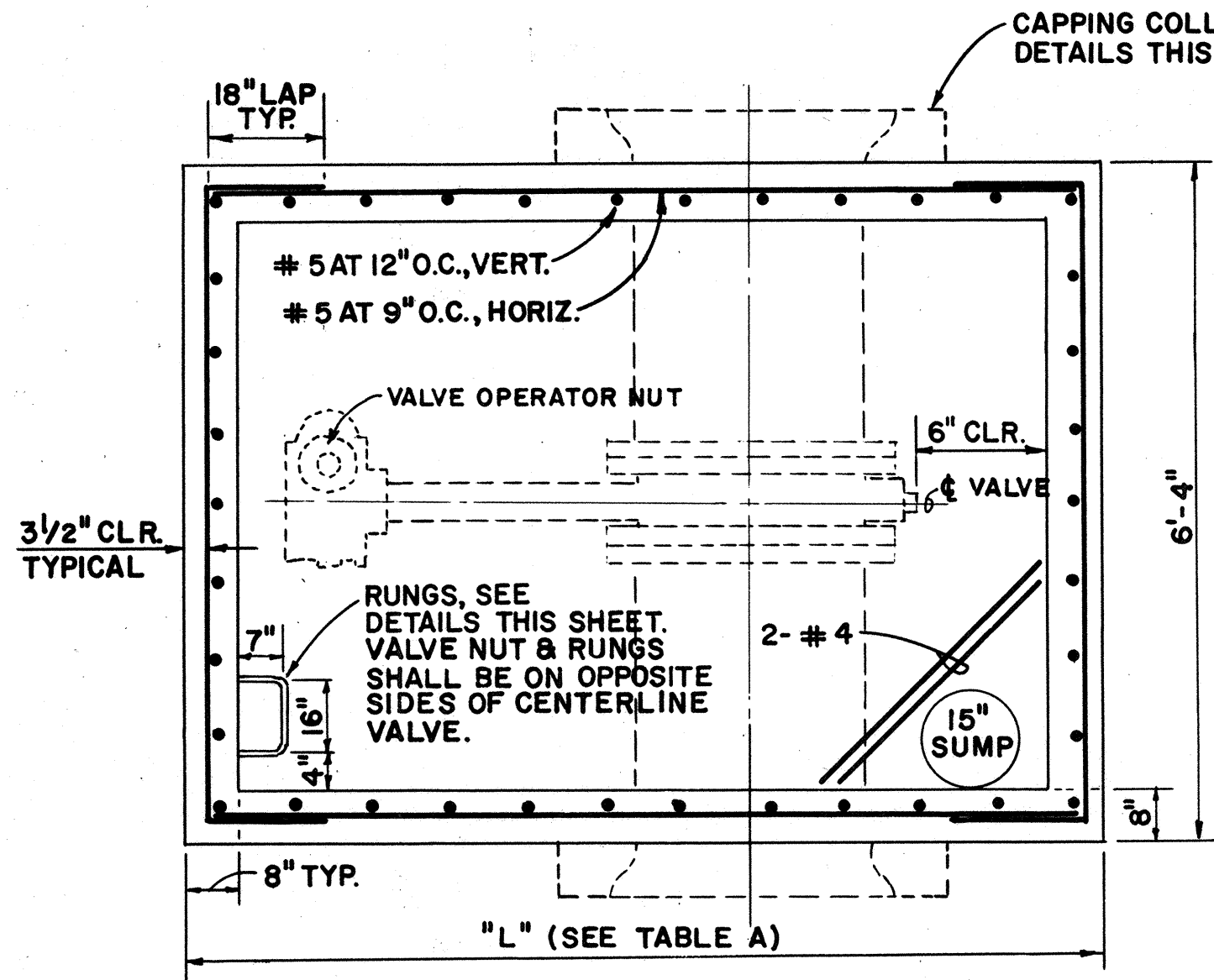
PROJECT NO. F-063-1 (16)

SHEET No. OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-063-1(16)	1984	30	156

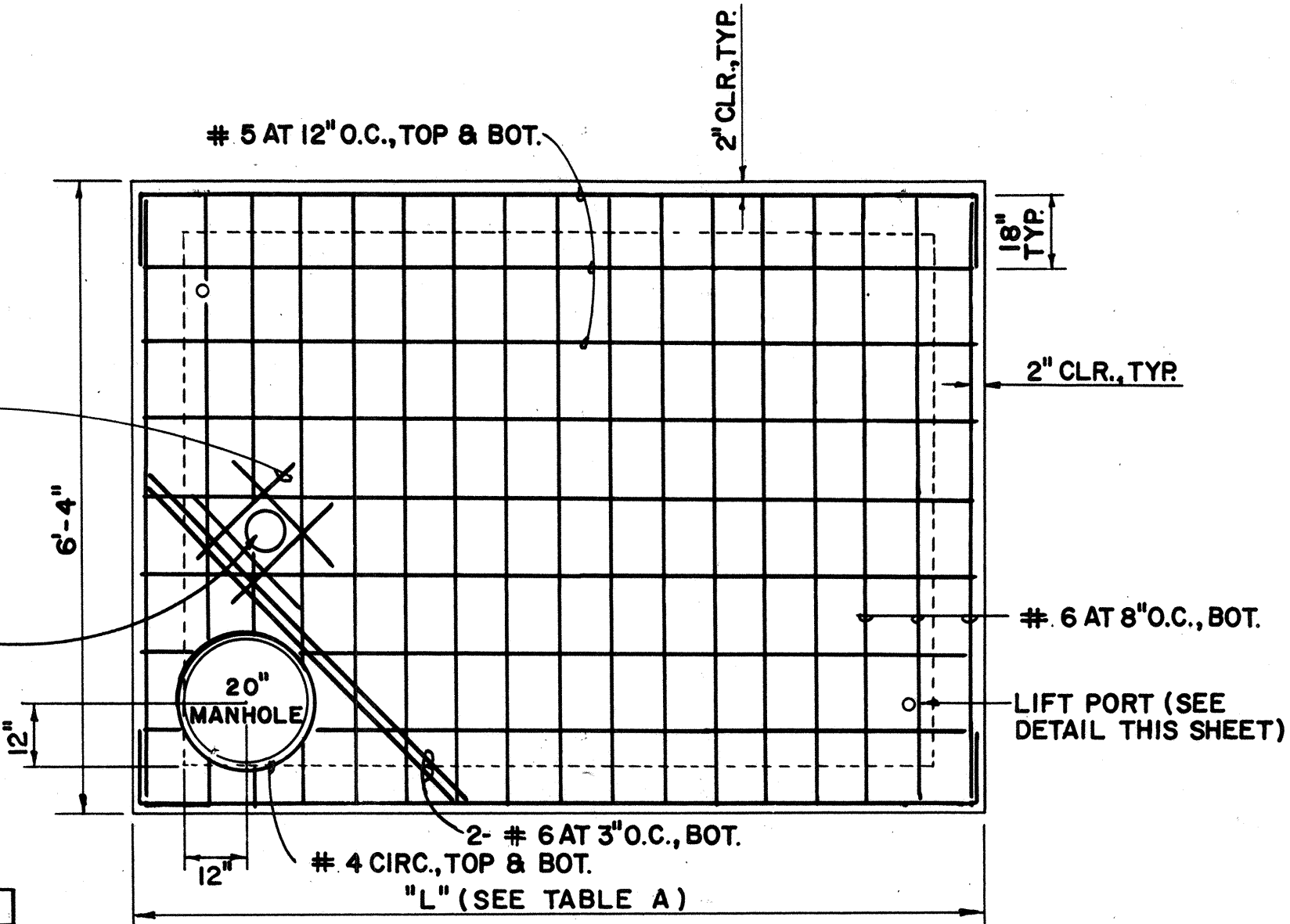
NOTES:

- ALL CONCRETE FOR MANHOLE SHALL BE B.W.S. CLASS "D"
- PAYMENT FOR LIN. FT. OF CONCRETE WALL SHALL BE FROM TOP OF FLOOR SLAB TO BOTTOM OF ROOF SLAB.
- PAYMENT FOR FLOOR AND ROOF SLABS SHALL BE CUBIC YARDS CLASS "D" CONCRETE.
- PAINT ALL METAL ITEMS:
 - MANHOLE FRAME & COVER, AND VALVE WITH ASPHALTUM.
 - SURFACE PREP: DUPONT 227S OR APPROVED EQUAL.
 - PRIME: DUPONT CORLAR 823 LINE EPOXY ENAMEL- 4 MILS DRY FILM THICKNESS (DFT).
 - FINISH: DUPONT IMRON 326 POLYURATHANE ENAMEL- 2 MILS DRY FILM THICKNESS.
- VALVE SUPPORT SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.



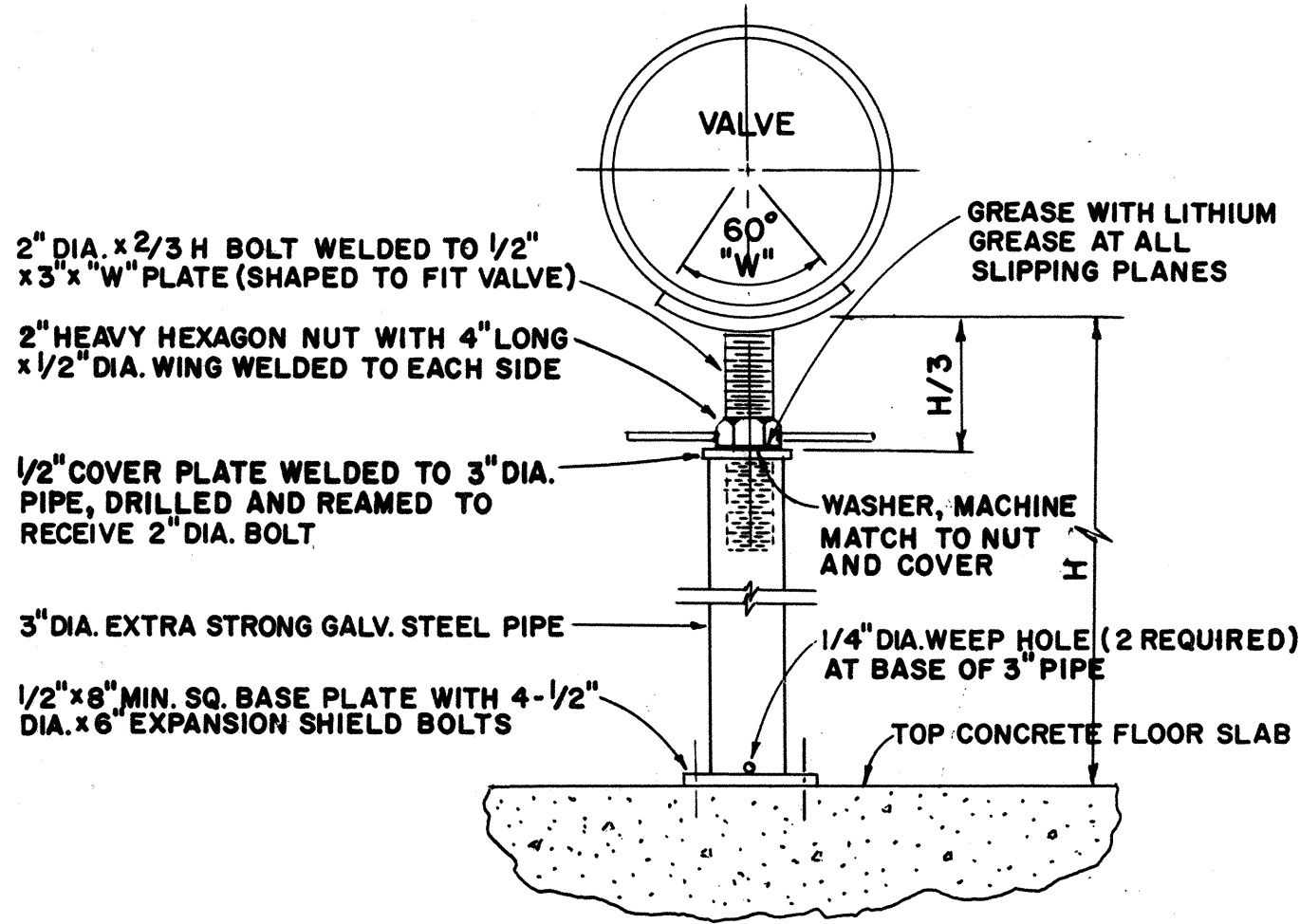
FLOOR PLAN

SIZE VALVE	"L"
16"	6'-10"
20"	7'-2"
24"	8'-1"
30"	8'-9"
36"	9'-6"
42"	10'-1"

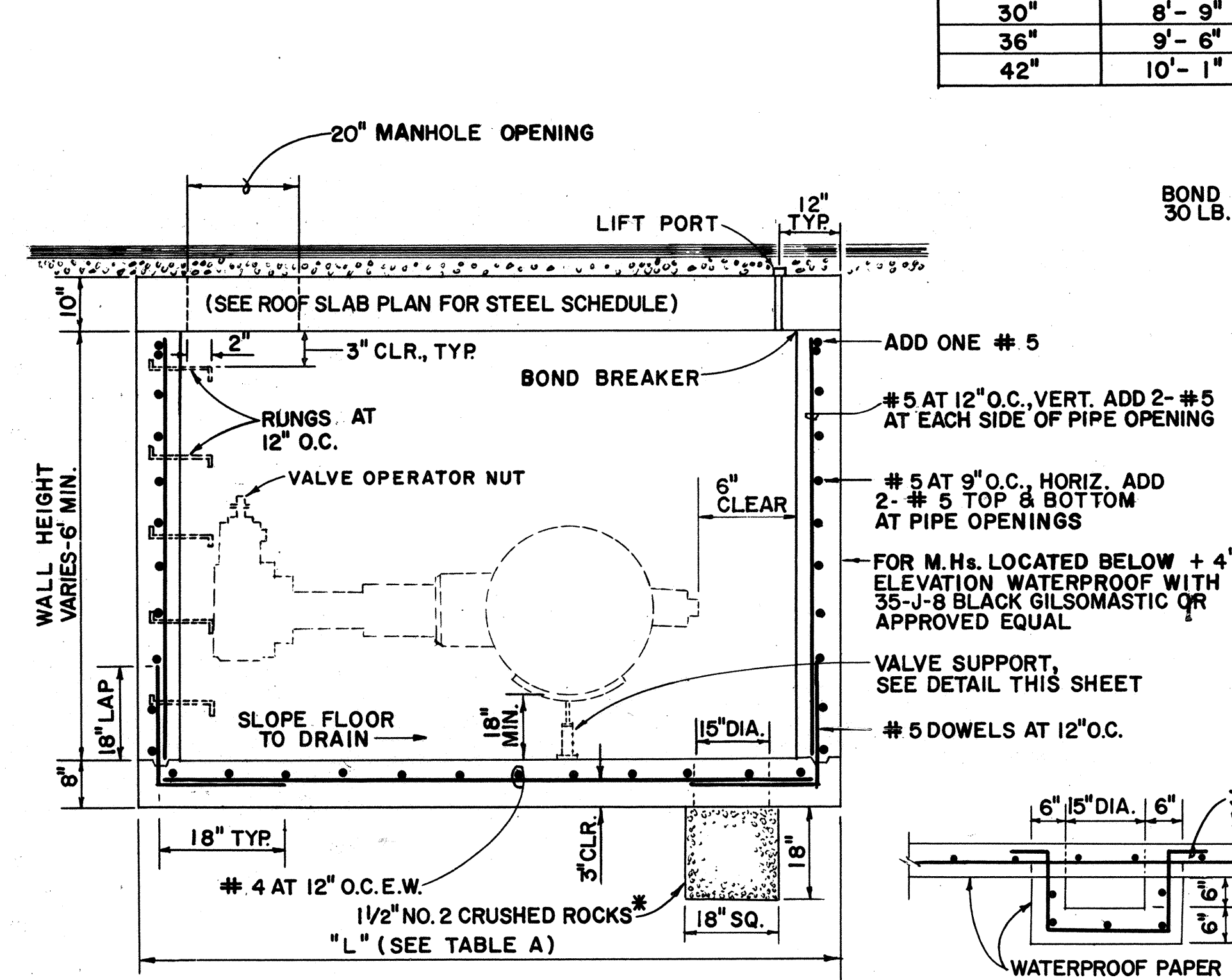


ROOF SLAB PLAN

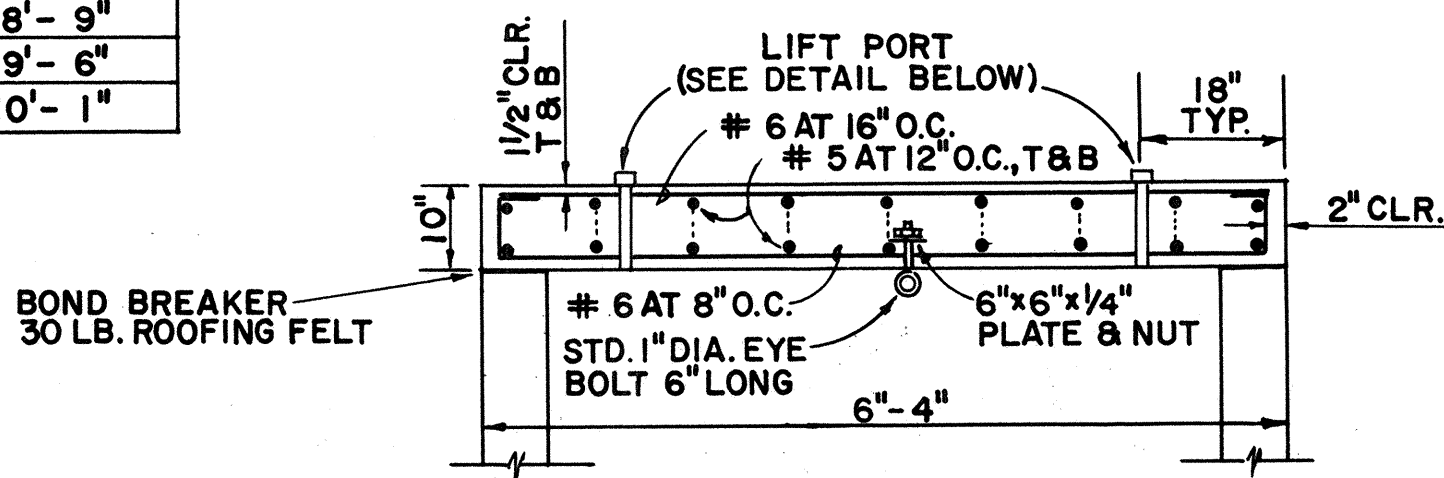
NOTE: HEIGHT (H) TO BE DETERMINED IN FIELD PRIOR TO FABRICATION.



VALVE SUPPORT DETAIL

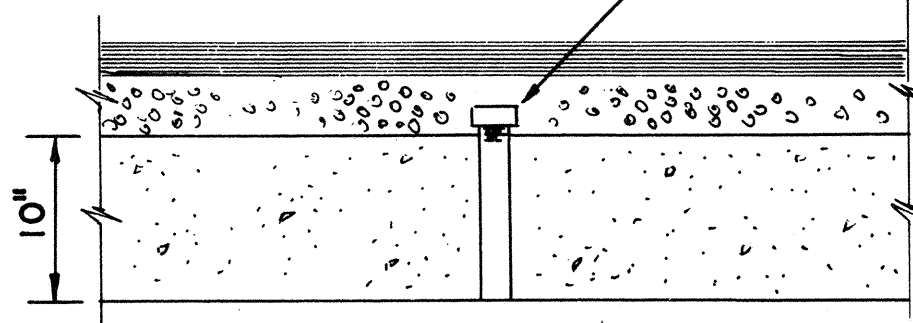


FLOOR & WALL SECTION

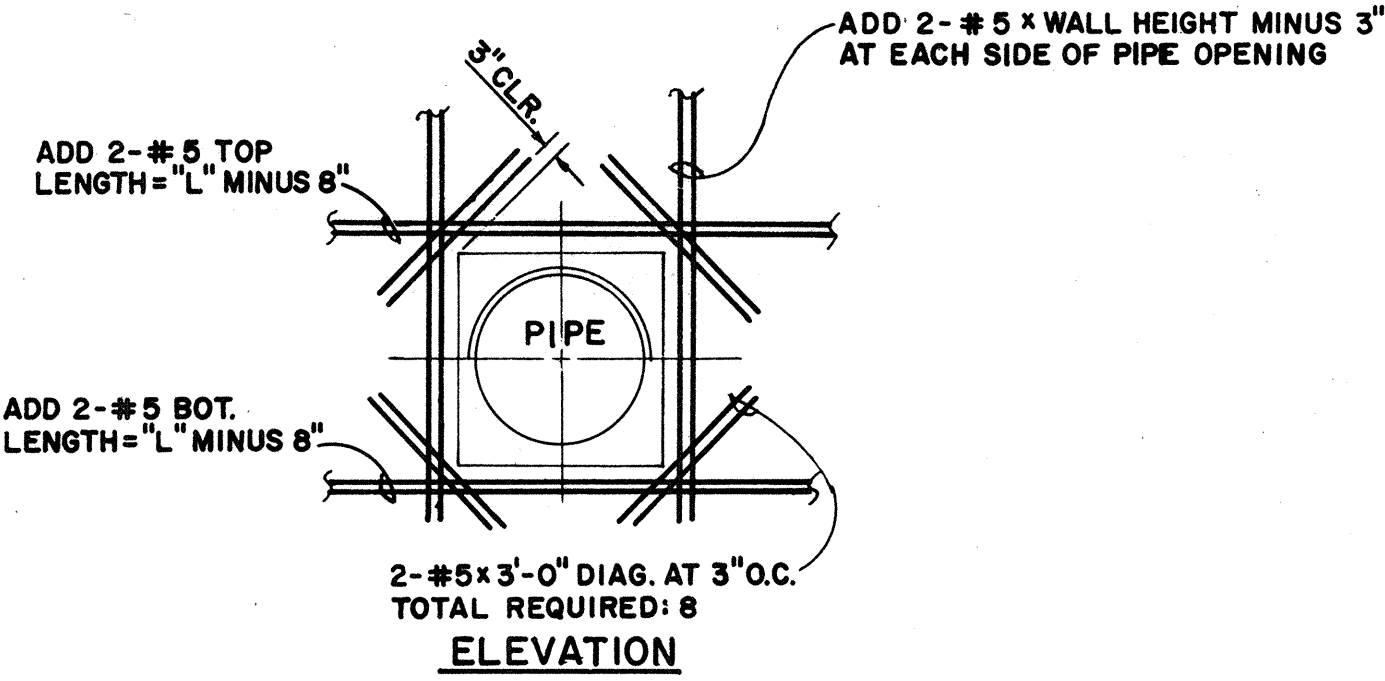


ROOF SLAB SECTION

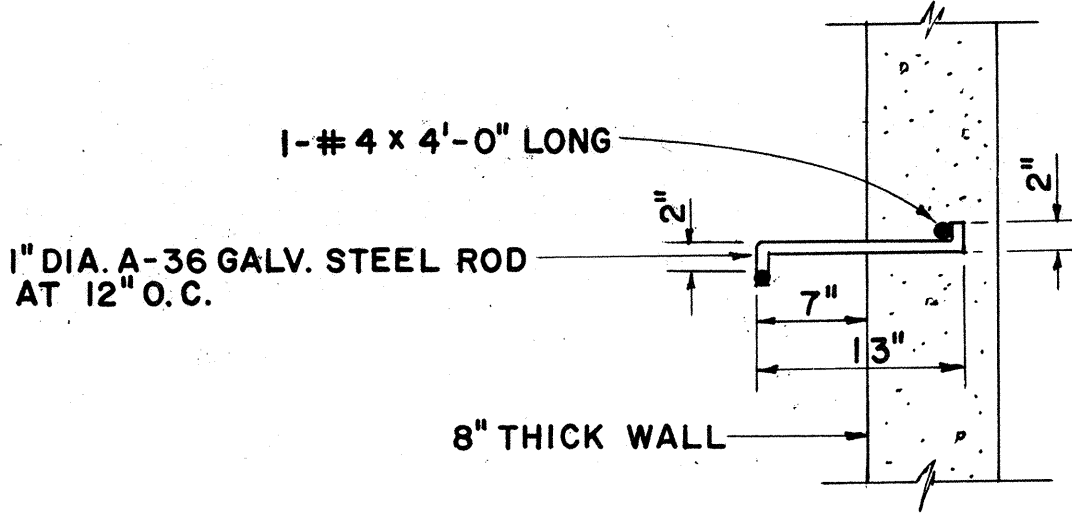
2" DIA. GALV. PIPE CHASE THREADED TO RECEIVE 2" CAP. FLOOD COAT CAP & PIPE (EXPOSED SURFACE) WITH GILSONASTIC OR APPROVED EQUAL.



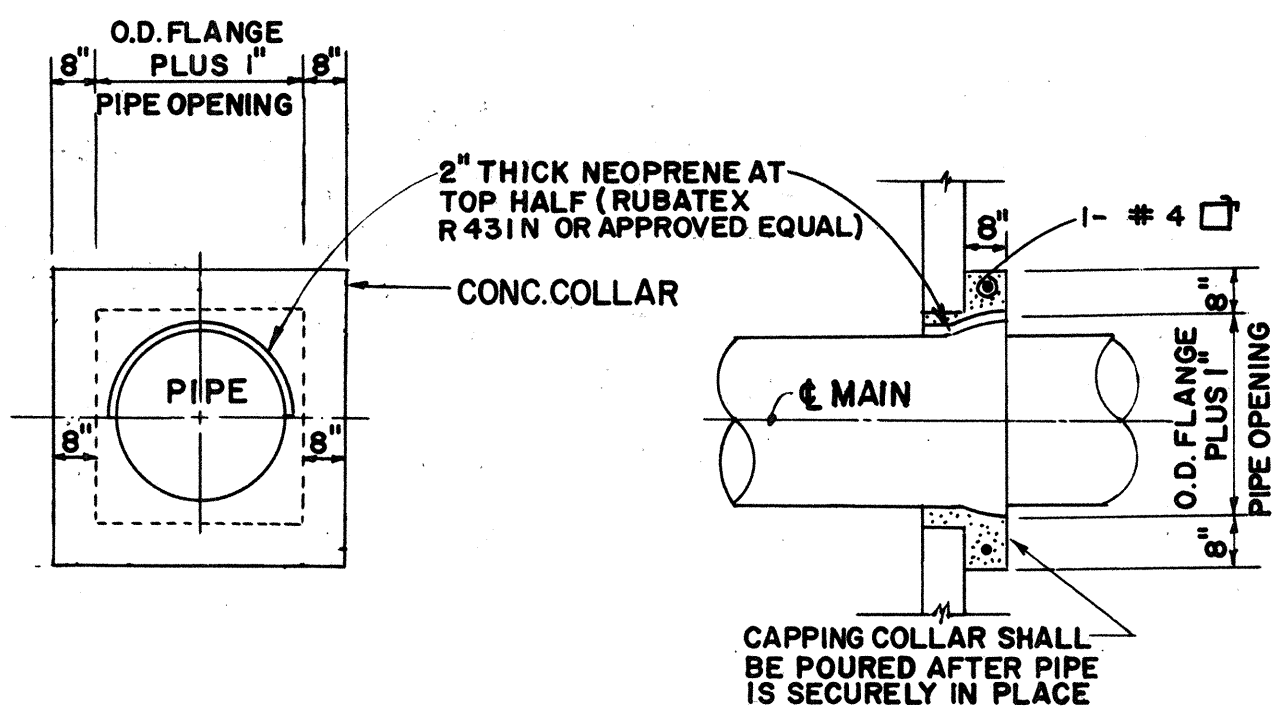
LIFT PORT DETAIL



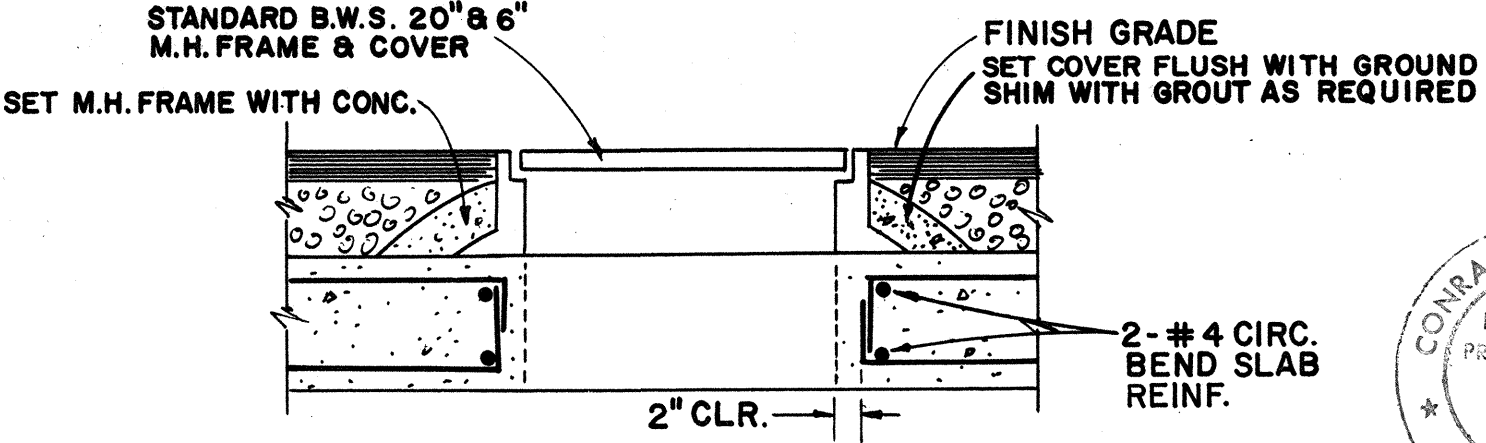
WALL PIPE OPENING ADDED REBARS DETAIL



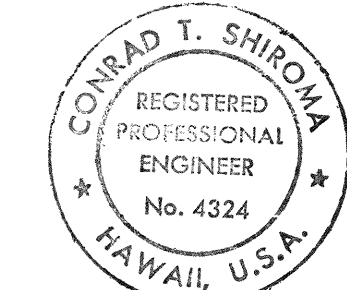
RUNG DETAIL



ELEVATION SECTION REAPPROVAL



20" & 6" MANHOLE SETTING DETAIL



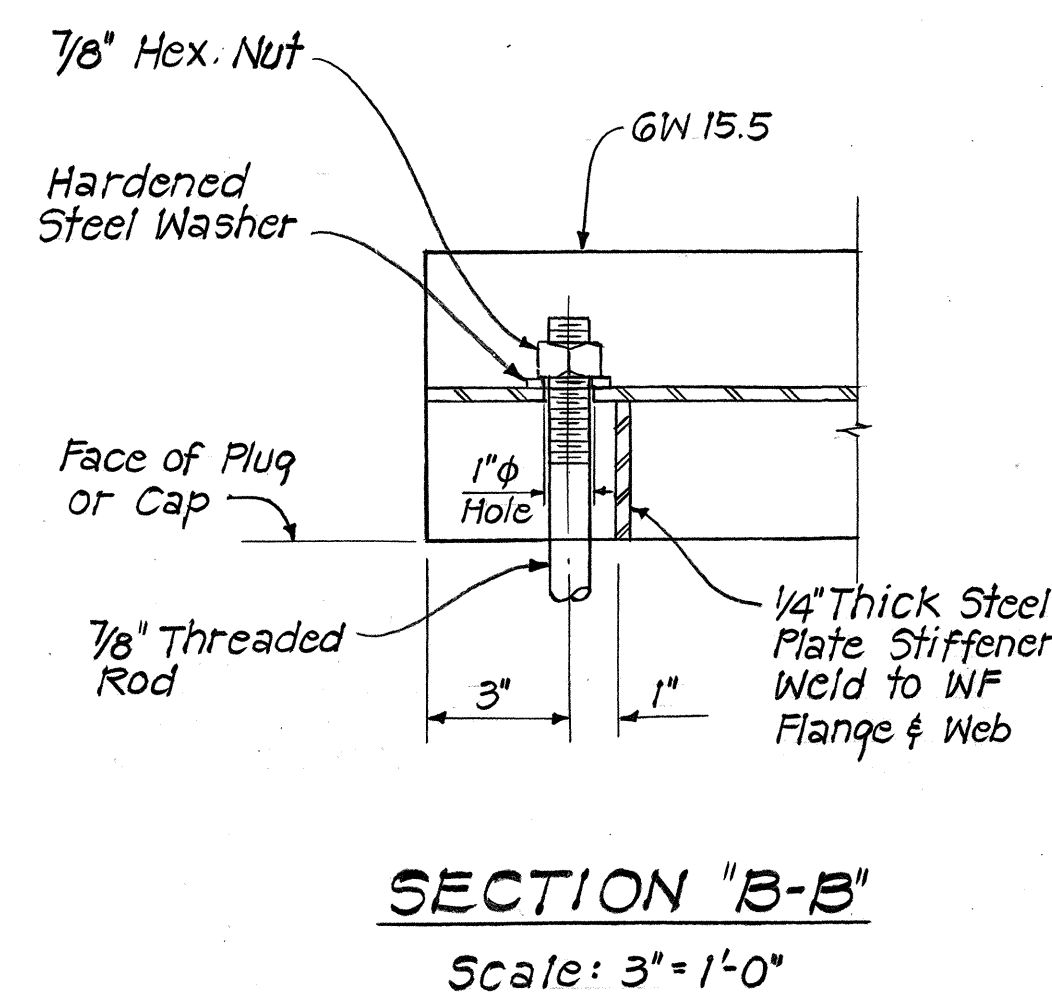
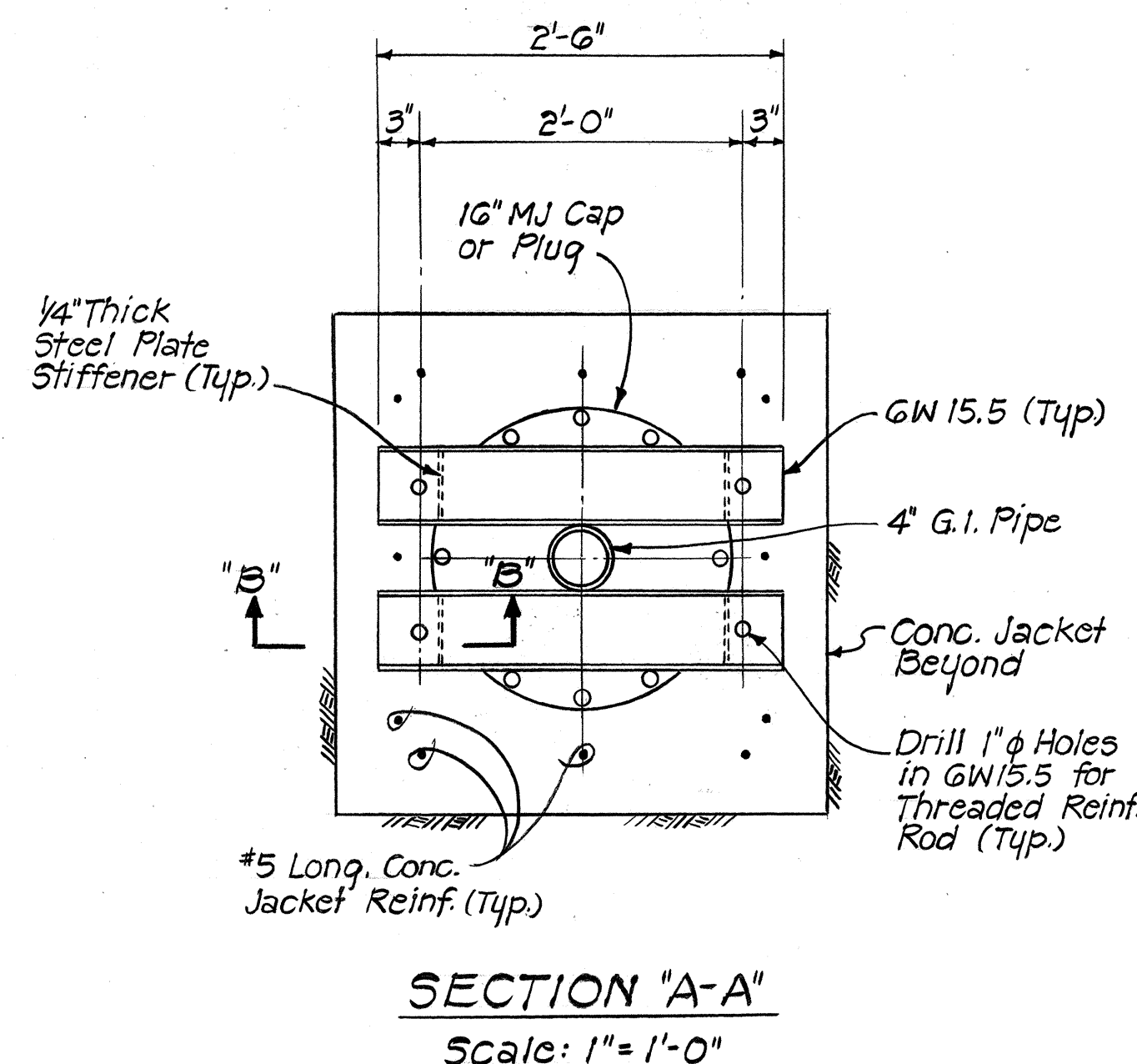
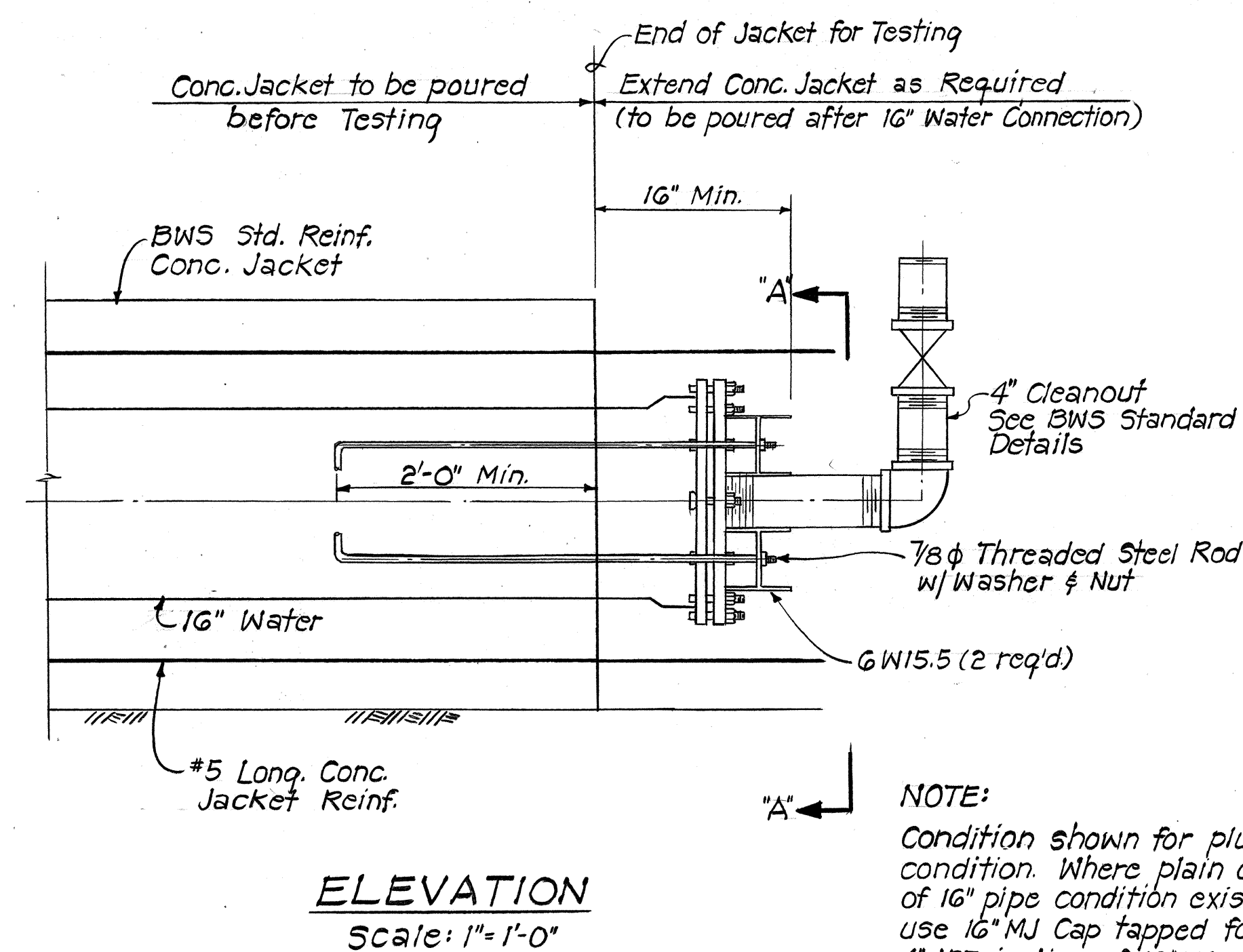
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Signature: Conrad T. Shiroma

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

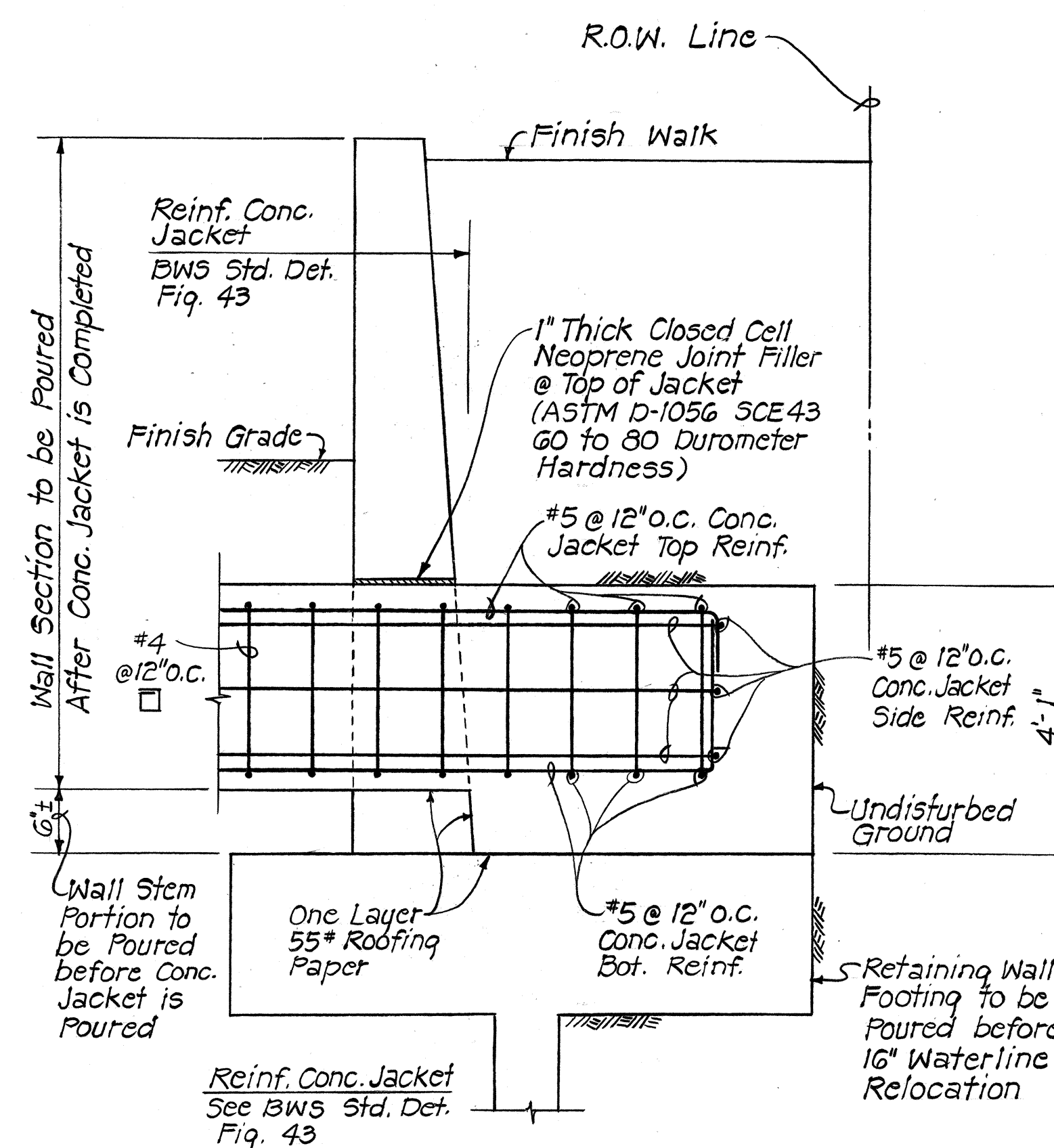
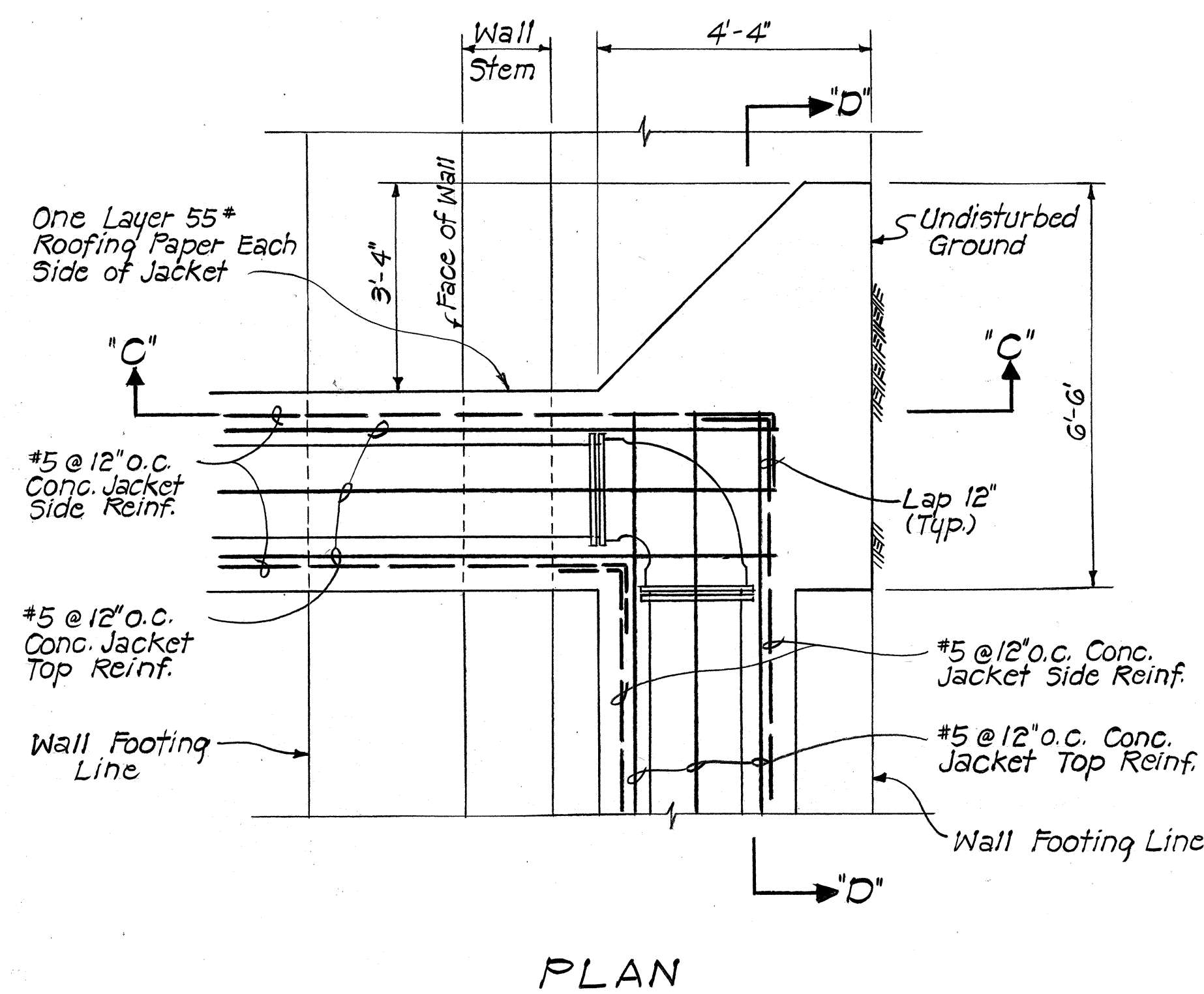
WATER SYSTEM DETAILS
TYPE "A" WATER MANHOLE
 LIKELIKE HIGHWAY IMPROVEMENTS
 (VICINITY OF KULA KOLEA DRIVE TO KAM IV ROAD)
 PROJECT NO. F-063-1 (16)

SHEET NO. 30 OF 156 SHEETS

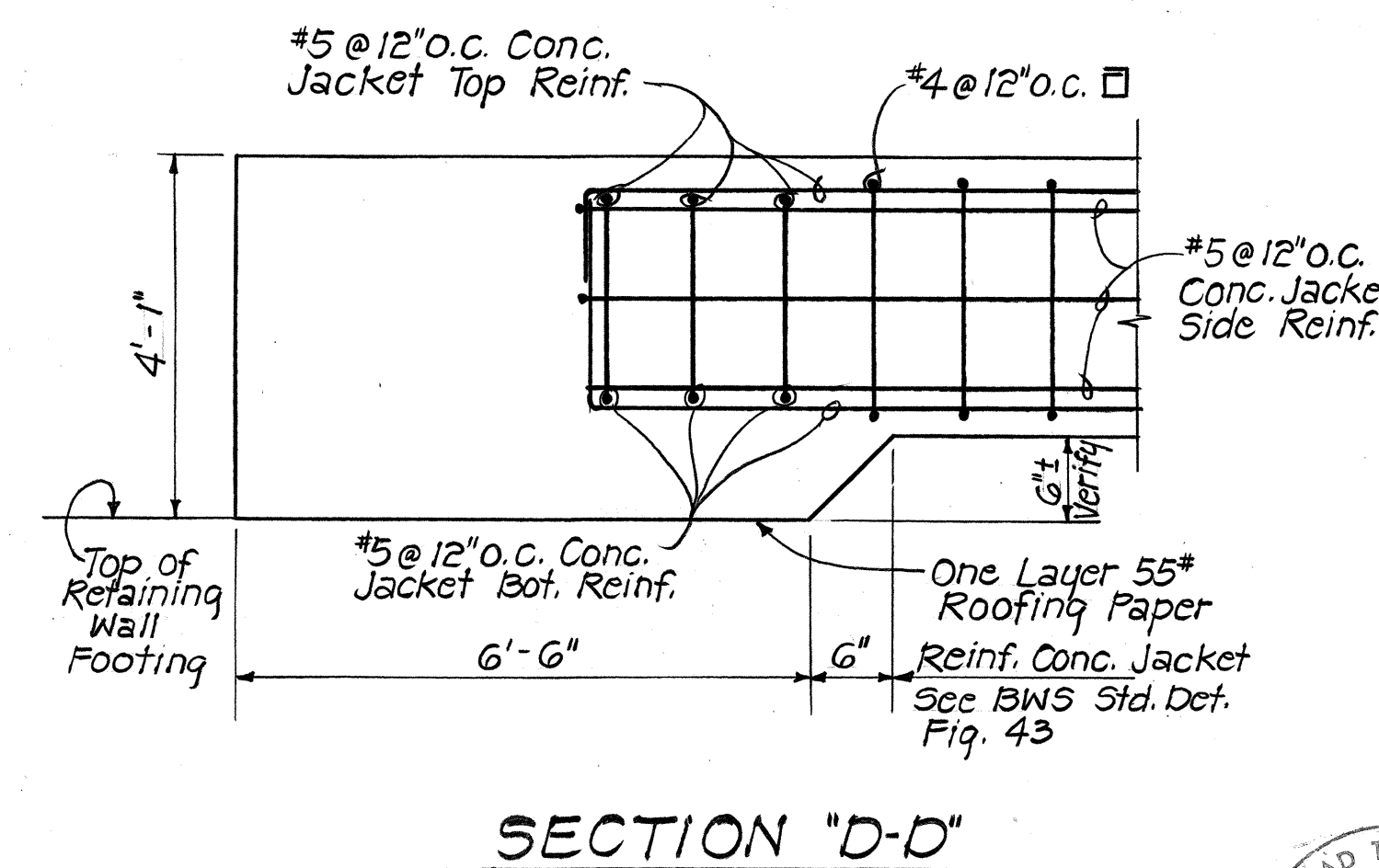
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-063-1 (16)	1984	31	156



DETAIL ~ TEMPORARY THRUST RESTRAINT FOR 16" WATER
Scale: As Shown



DETAIL ~ THRUST BLOCK @ STA. 0+68.26 16" WATER
Scale: 1/2" = 1'-0"



REAPPROVAL

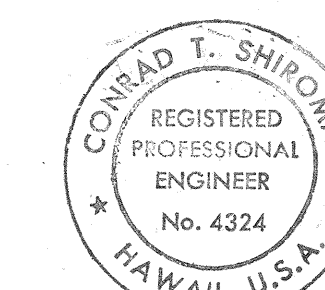
R. Nagata

APPROVED

R. Nagata
Chief, Planning & Engineering, BWS

7-16-85
DATE

1-30-86
DATE



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Conrad T. Shiroma
Signature

STATE OF HAWAII
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HIGHWAYS DIVISION

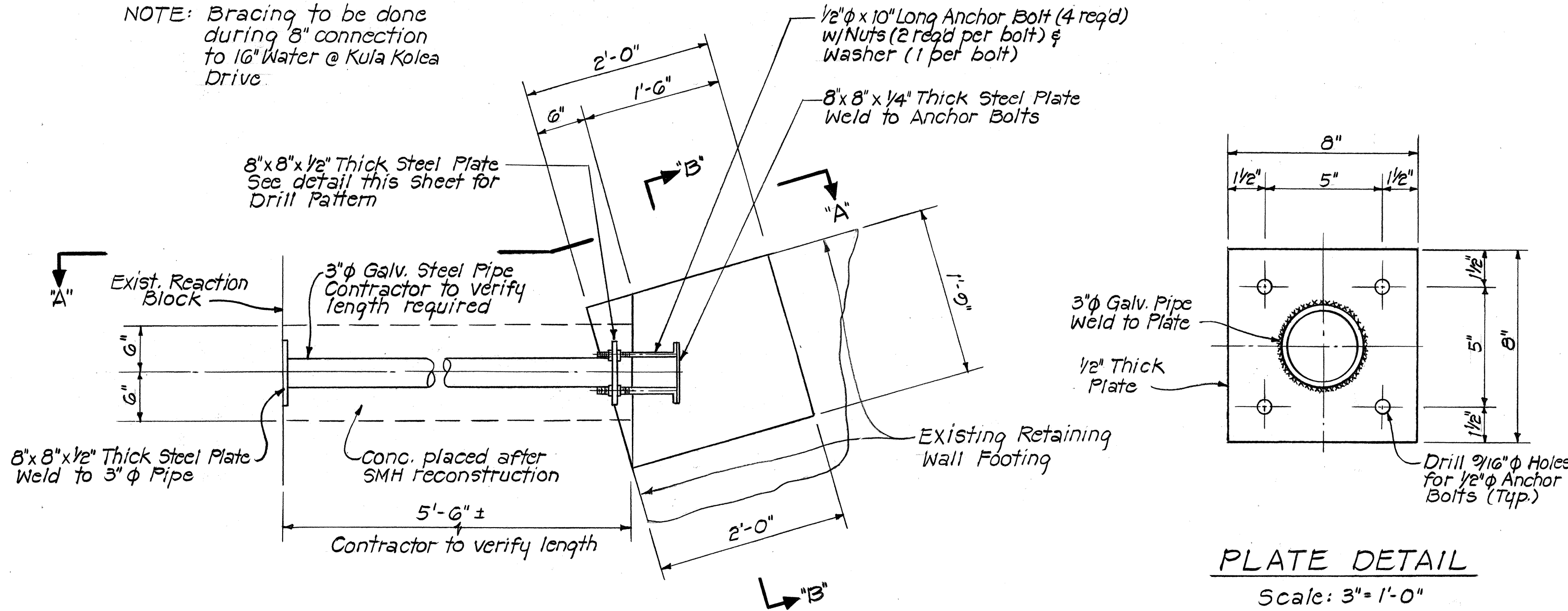
WATER SYSTEM DETAILS

LIKELIKE HIGHWAY IMPROVEMENTS
(VICINITY OF KULA KOLEA DRIVE TO KAM IV ROAD)
PROJECT NO. F-063-1 (16)

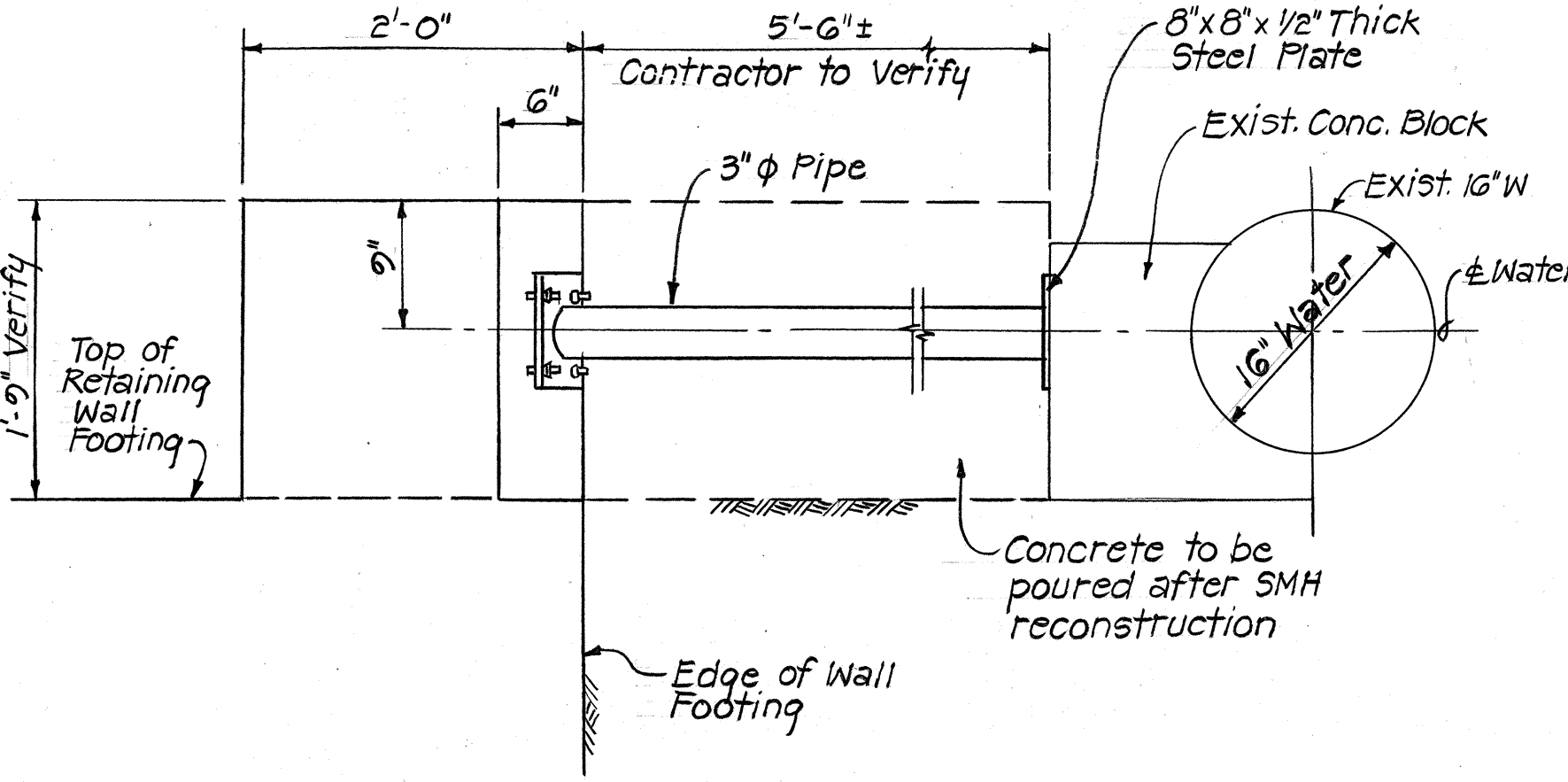
SHEET NO. OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-063-1 (16)	1984	32	156

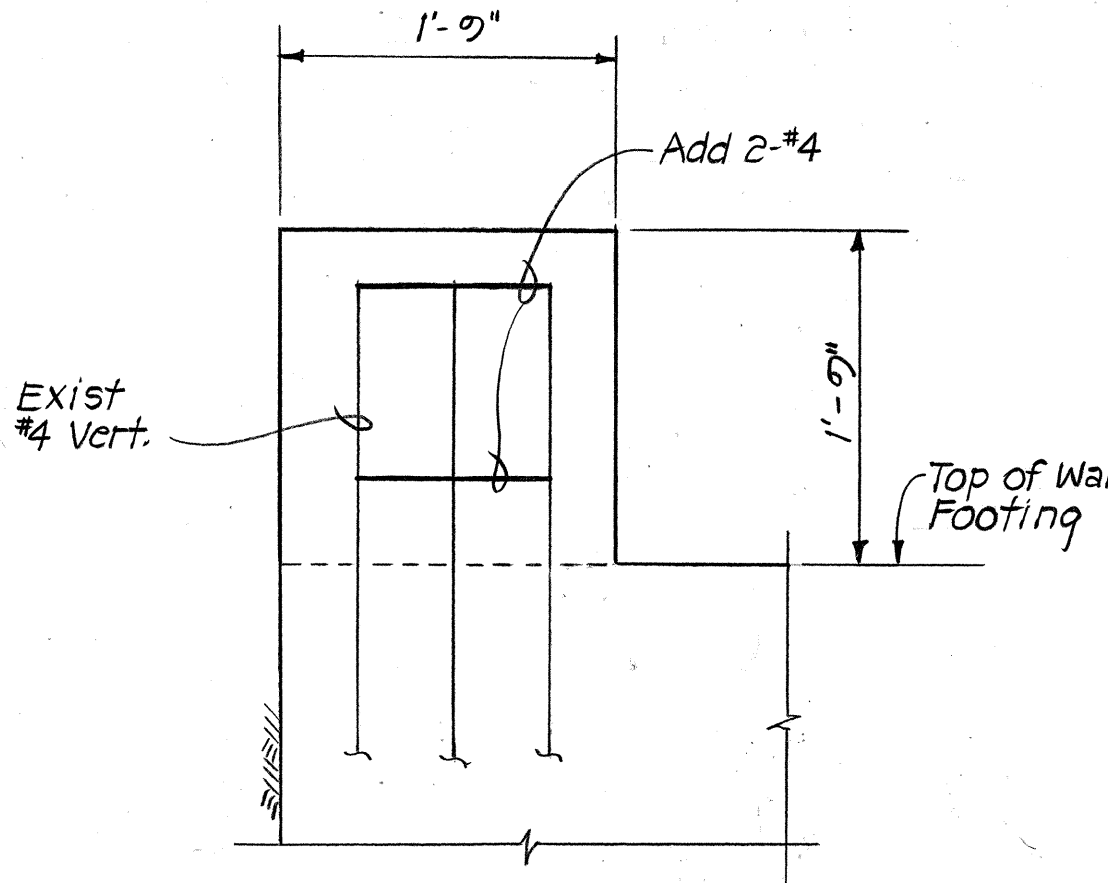
NOTE: Bracing to be done during 8" connection to 16" Water @ Kula Koea Drive



PLAN~CONC. BLOCK & PIPE BRACE FOR 16" WATER
Scale: 1"= 1'-0"

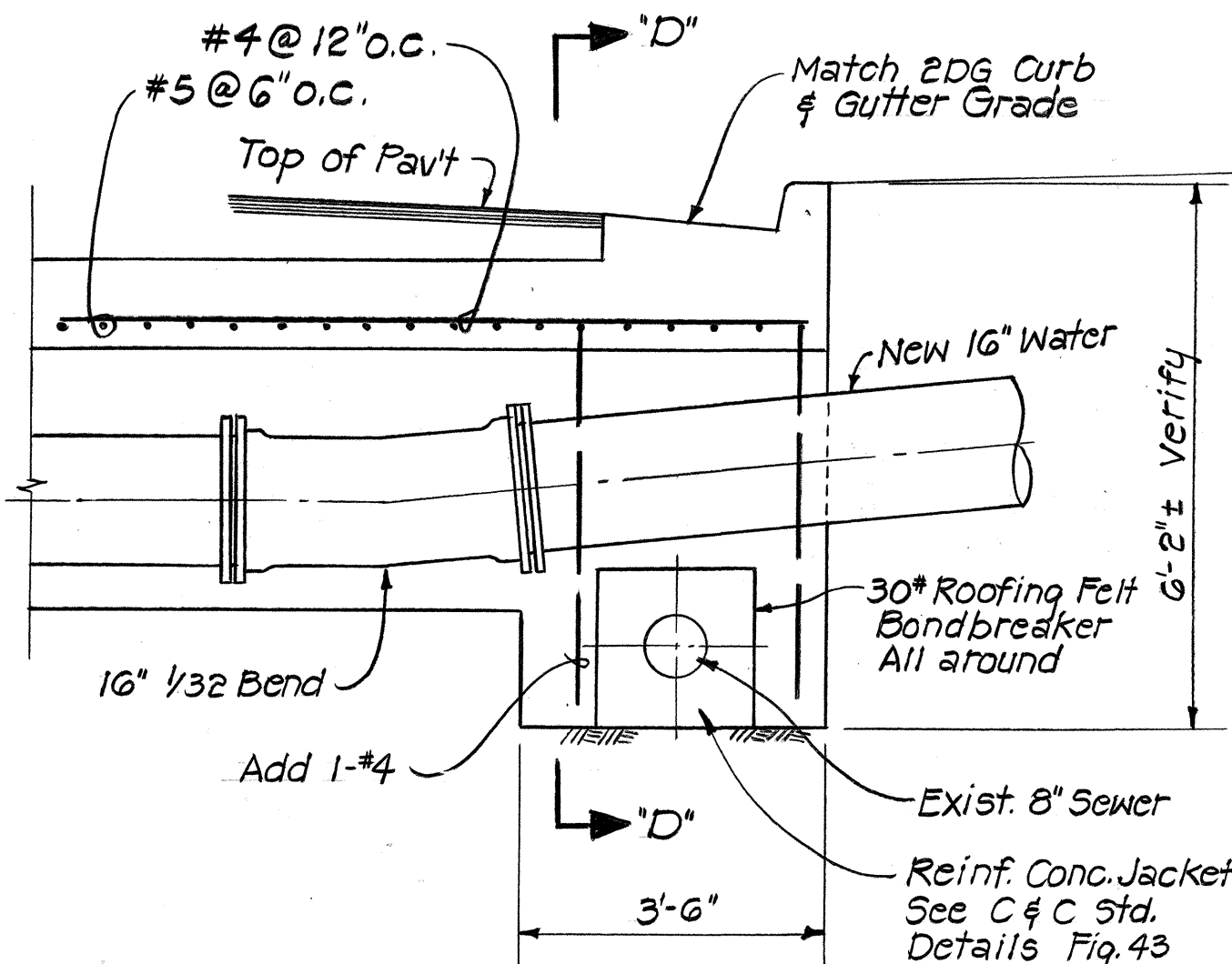


SECTION "A-A"
Scale: 1"= 1'-0"

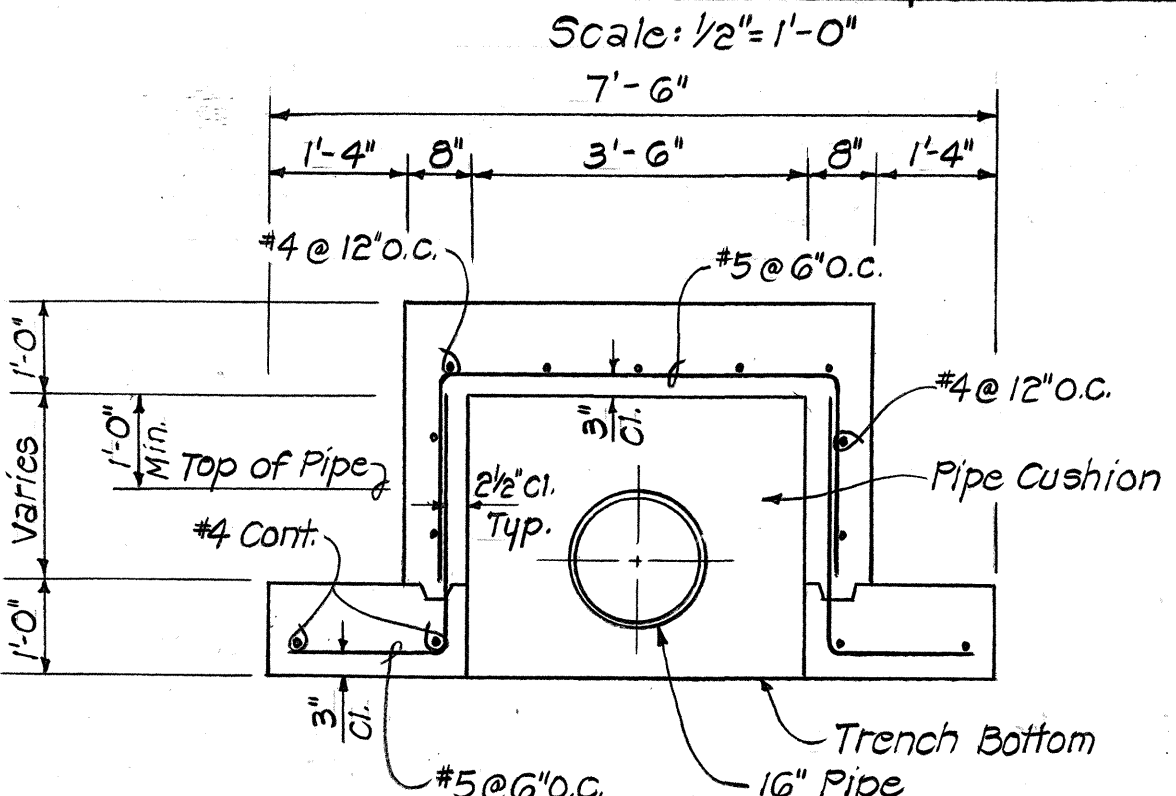


SECTION "B-B"
Scale: 1"= 1'-0"

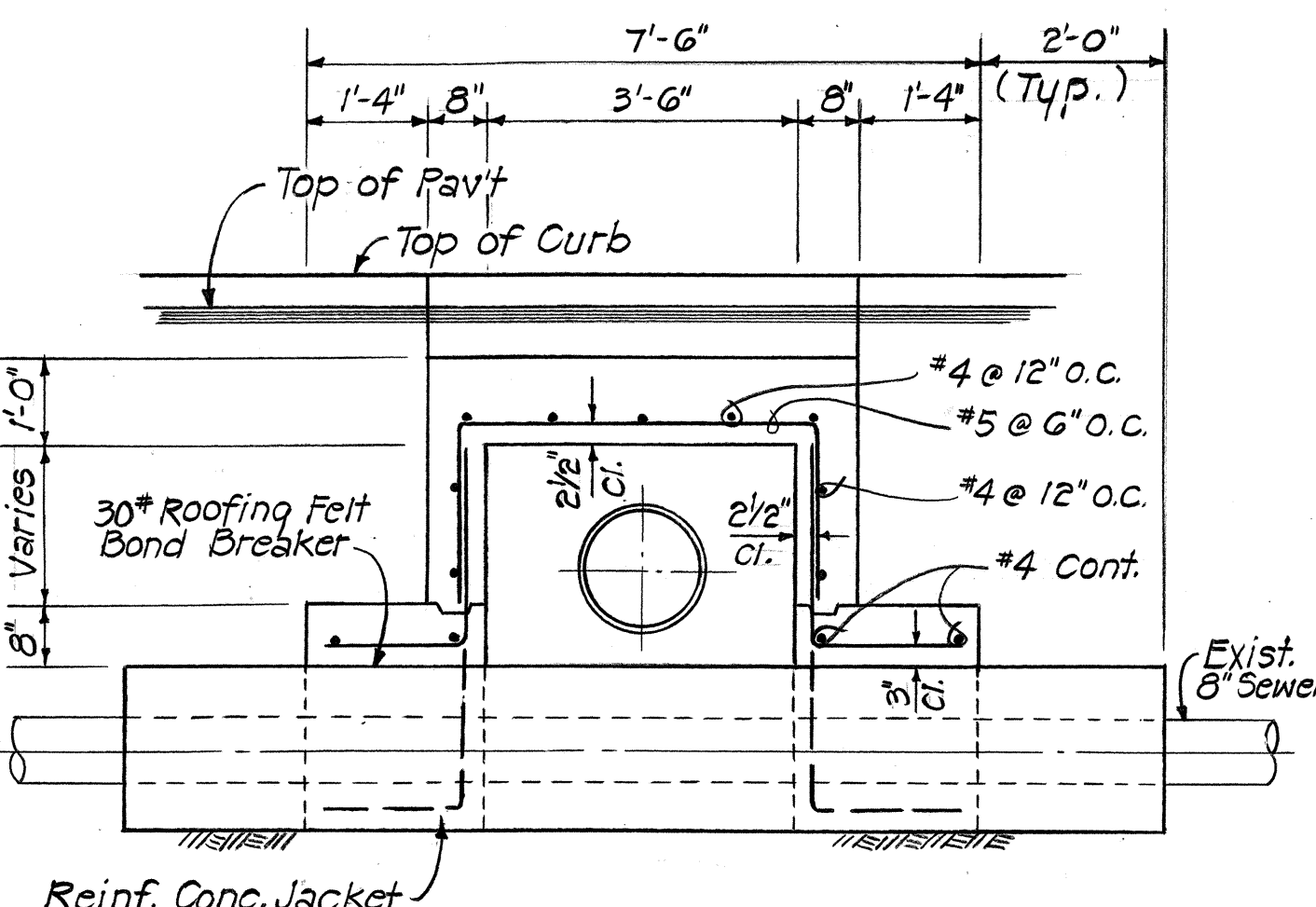
PLATE DETAIL
Scale: 3"= 1'-0"



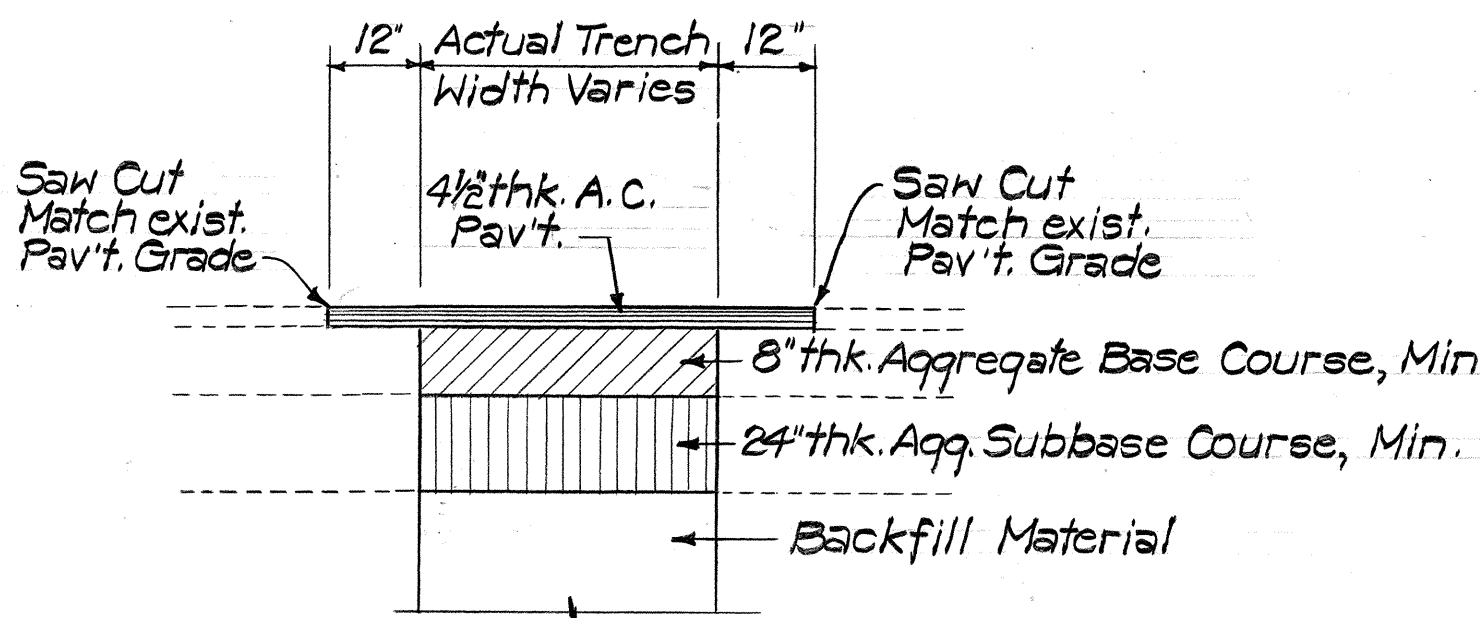
BEAM SECTION @ CURB & GUTTER



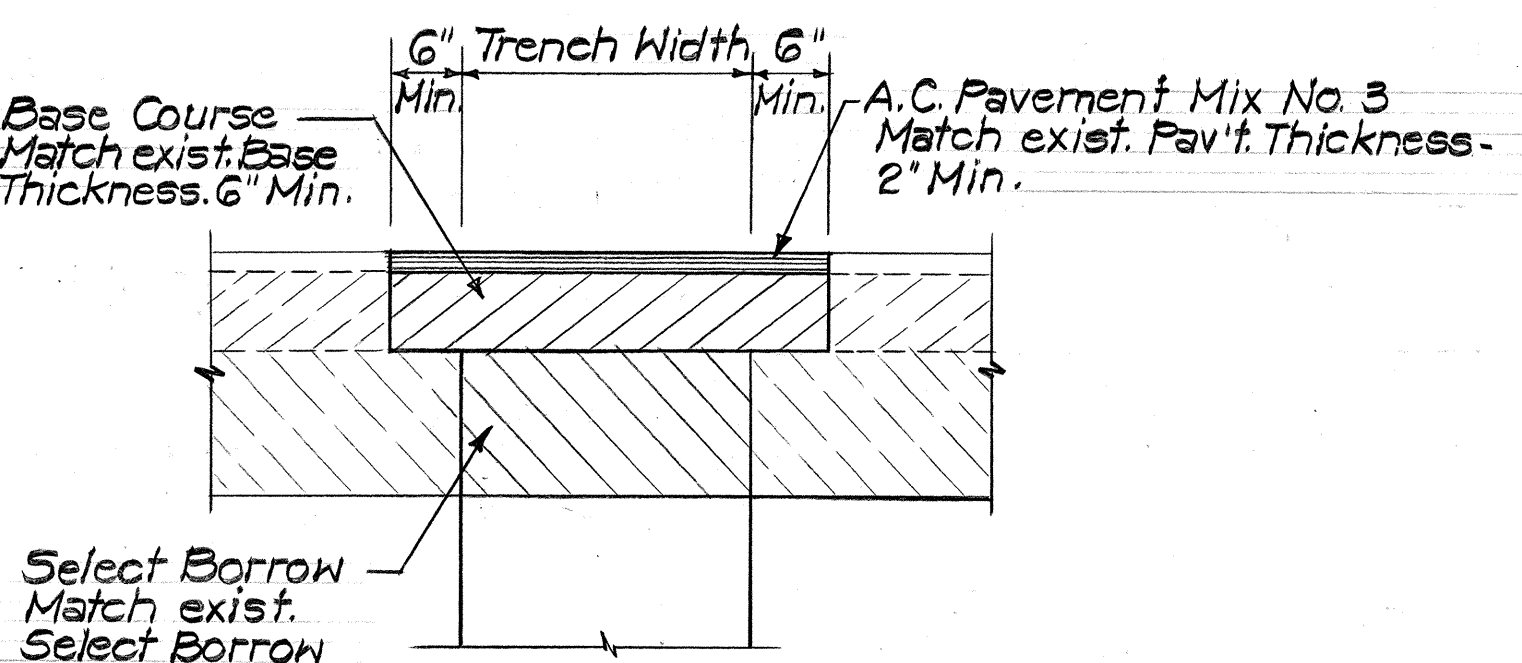
TYPICAL SECTION ~ BEAM OVER 16" WATER
Scale: 1/2"= 1'-0"



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



LIKELIKE HIGHWAY



KULA KOLEA DRIVE

TRENCH REPAVING DETAILS

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

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

REAPPROVAL

R. Hagito

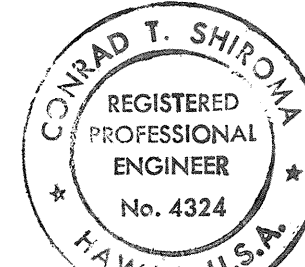
7-16-85

APPROVED

R. Hagito

1-30-84

Chief, Planning & Engineering, BWS



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WATER SYSTEM DETAILS

LIKELIKE HIGHWAY IMPROVEMENTS
(VICINITY OF KULA KOLEA DRIVE TO KAM IV ROAD)
PROJECT NO. F-063-1 (16)

SHEET NO. OF SHEETS