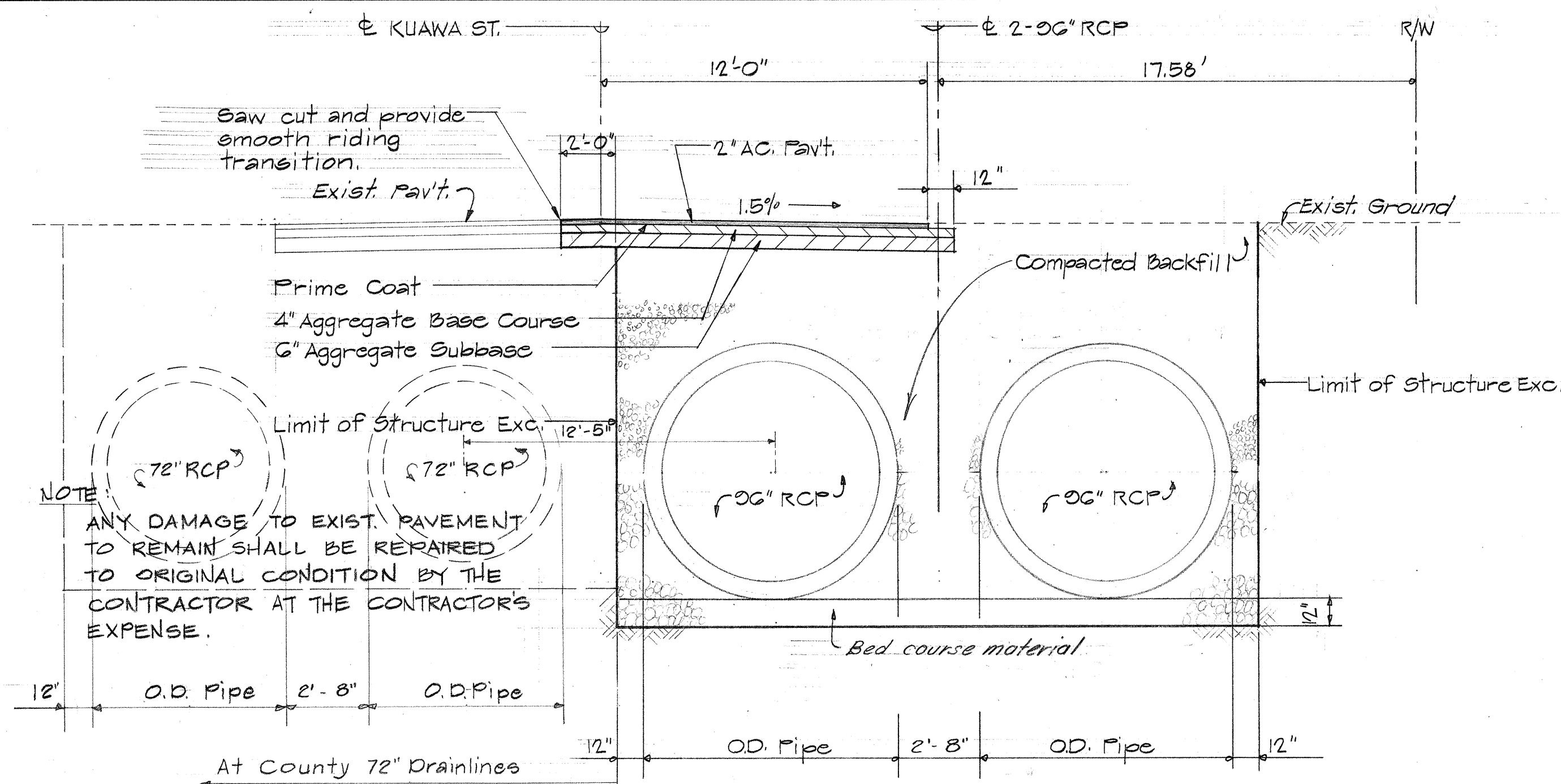
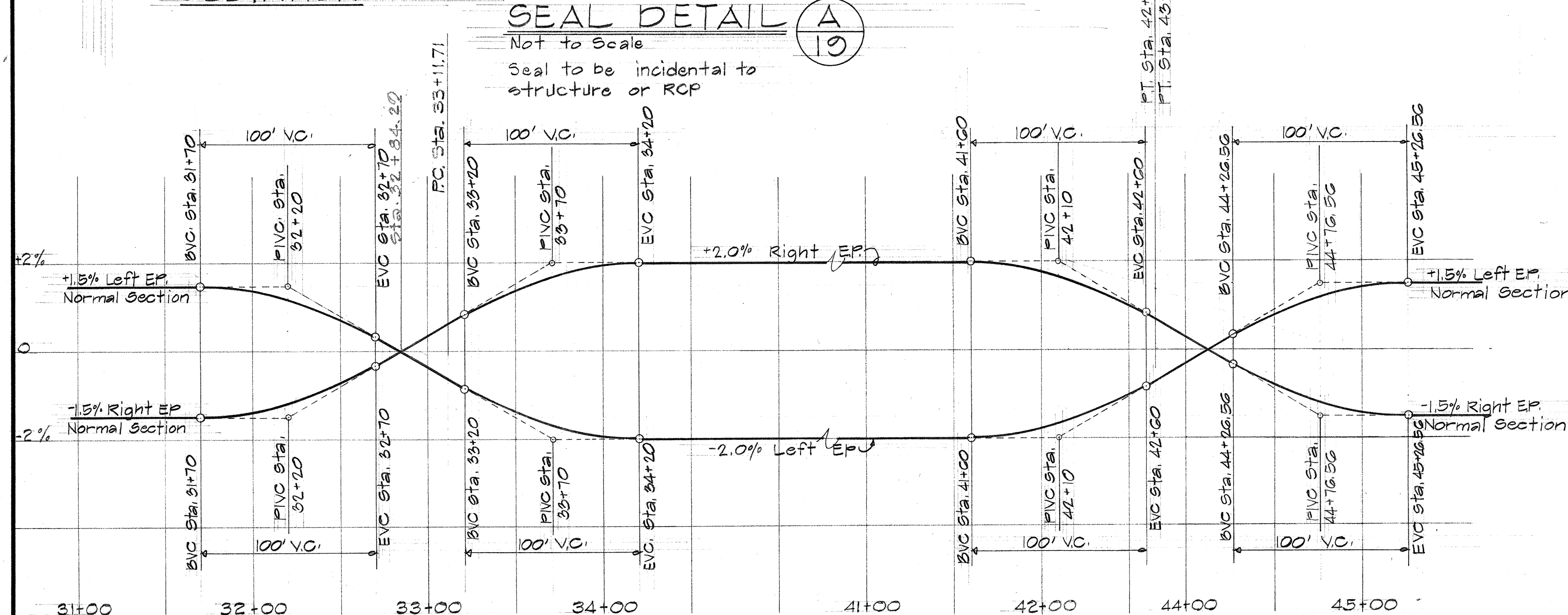
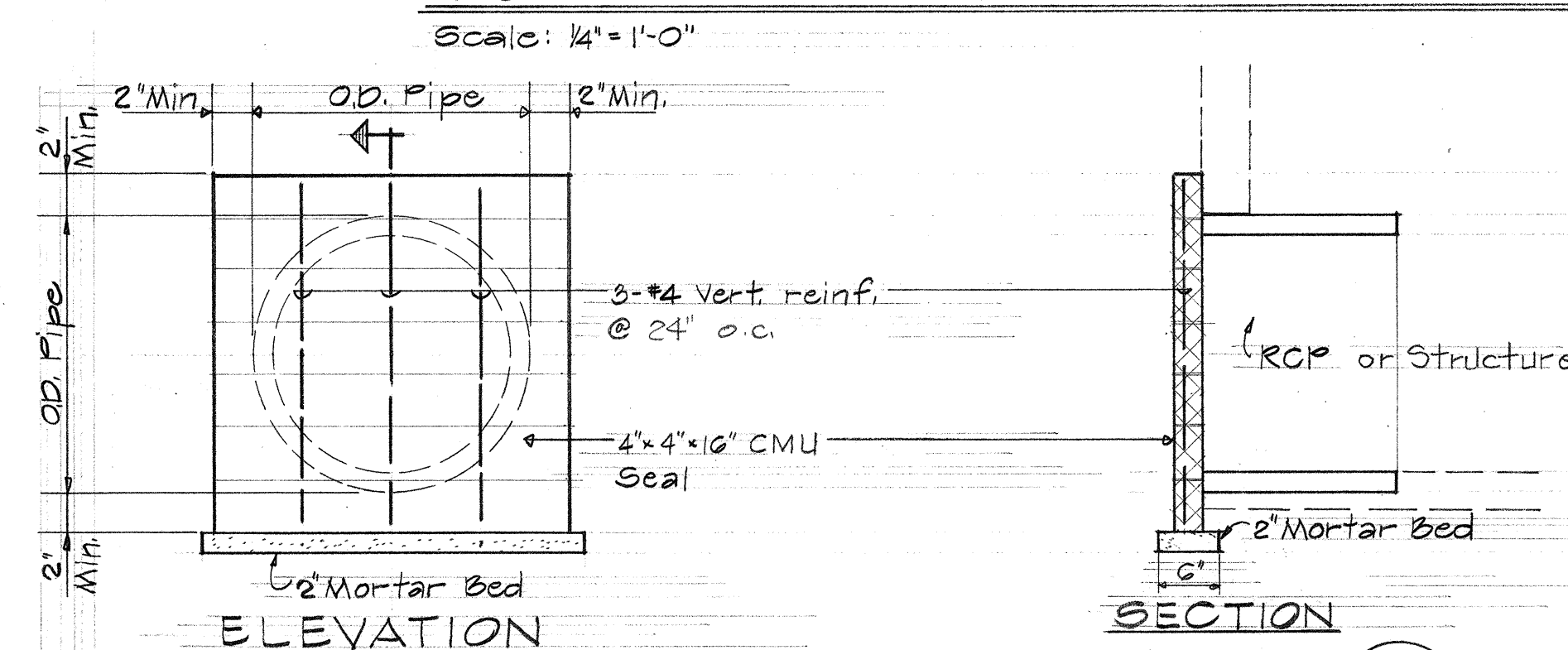


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-RF- 011-2(13)	1975	10	126



TYPICAL SECTION - KUAWA ST. & TRENCH SECTION



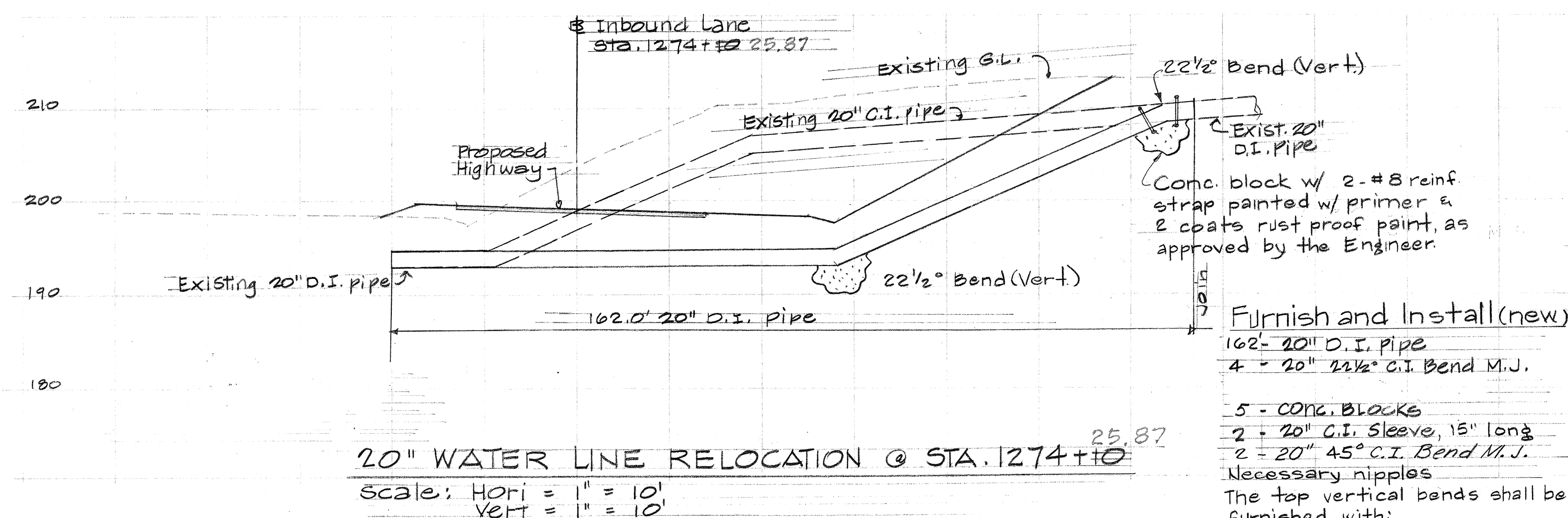
SUPERELEVATION DIAGRAM

Scale: Hor. 1" = 50'
Vert. 1" = 2'

APPROVED :

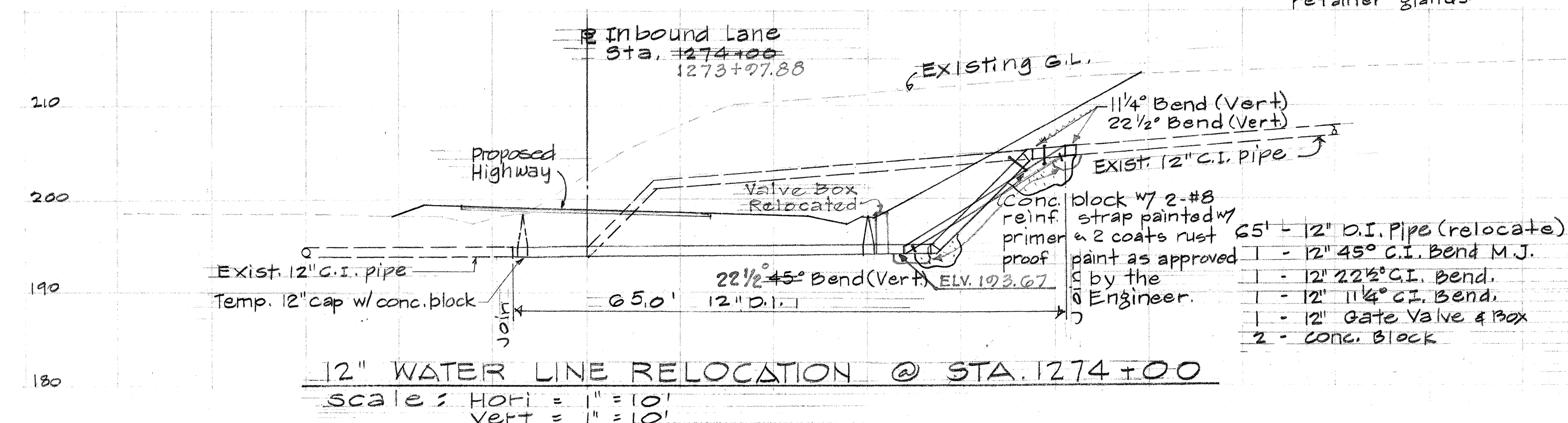
CHIEF ENGINEER, DEPARTMENT OF PUBLIC WORKS

E. W. John
MANAGER, DEPARTMENT OF WATER SUPPLY



20" WATER LINE RELOCATION @ STA. 1274+10

Scale: Hori = 1" = 10'
Vert = 1" = 10'



12" WATER LINE RELOCATION @ STA. 1274+00

Scale: Horiz = 1" = 10'
Vert = 1" = 10'

WATER NOTES

1. Contractor shall give the DWS two (2) Weeks prior notice before doing work on the pipe-line.
2. Contractor shall do all connection work, relocation, lowering or new installation of water facilities, and other adjustments will be charged to the Contractor.
3. Any work done by the DWS for the Contractor will be charged to the Contractor.
4. All work shall be according to DWS Standards.
5. Contractor shall disinfect the new and relocated pipe by flushing with high dosage of HTH before any connections. Notify DWS one (1) week prior to work.
6. Contractor shall verify all existing waterlines in the field and shall pay for any damages to the existing pipe line.
7. The existing 20" D.I. pipe line will be in operation until the new 20" line is completed and ready for connection. The 20" main is an important source line and water may not be shut off for more than three hours. The 12" main to be relocated may be shut off for one month except during drought periods in Hilo.
8. Contractor shall be responsible for any leakage or damage of the pipeline until the completion of the contract.

Furnish and Install (new)

18' - 12" D.I. Pipe
0 only 12" M.J. Glands w/retainer glands
0 only 12" Tytons Joint gasket
8 only 12" M.J. Gasket
2 only 12" Sleeve, 12" long
New M.J. Bolts as required
Necessary nipples as required
1 - 12" temporary cap w/ conc. block

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

SUPERELEVATION DIAGRAM,
WATERLINE PROFILE & KUAWA
ST. & TRENCH SECTION

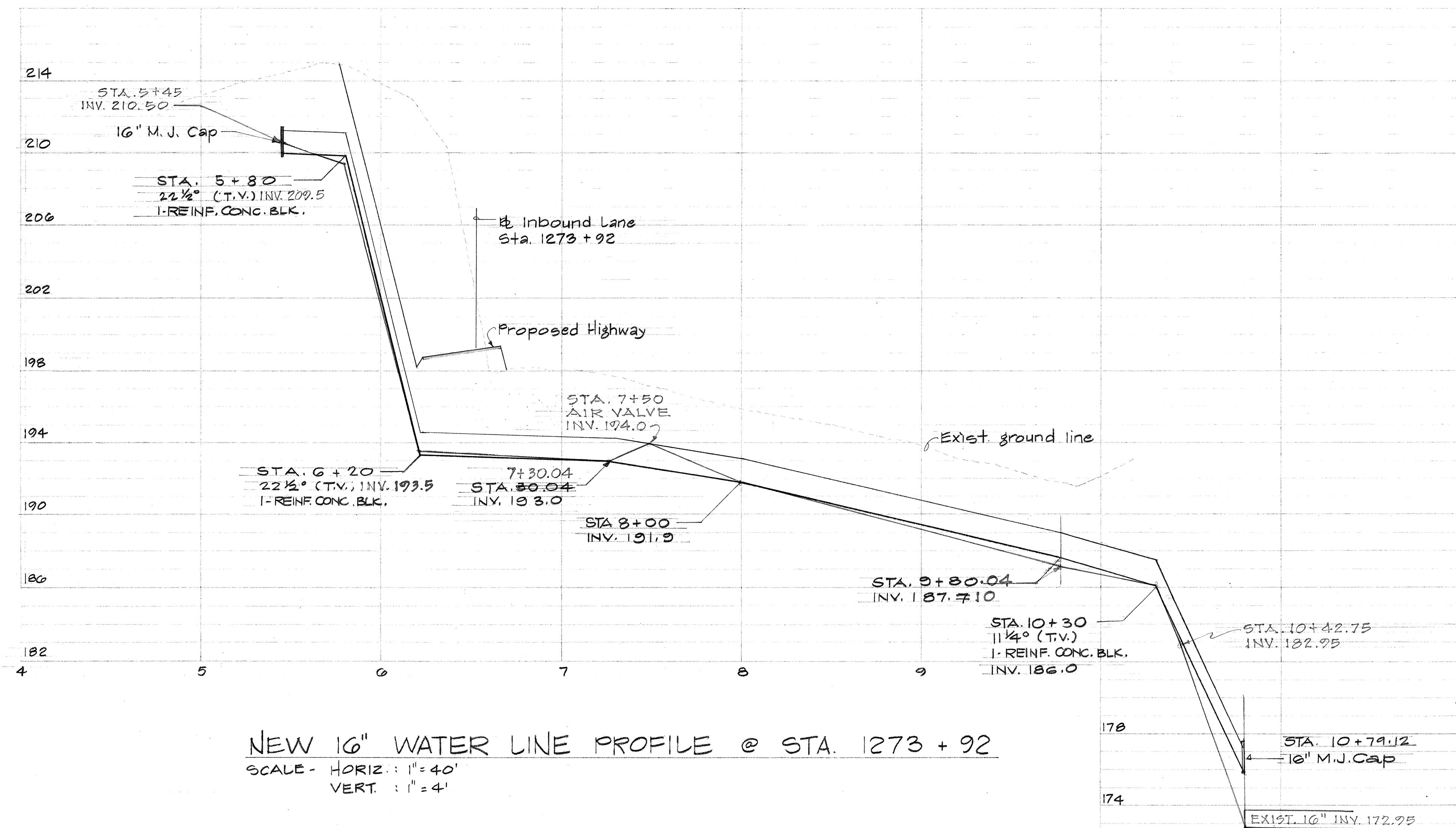
KANOELEHUA AVE.
MAKALIKA ST. TO KAMEHAMEHA AVE
Federal Aid Project No. FRF - 011-2(13)
Scale: As Shown

SHEET No. 1 OF 2 SHEETS

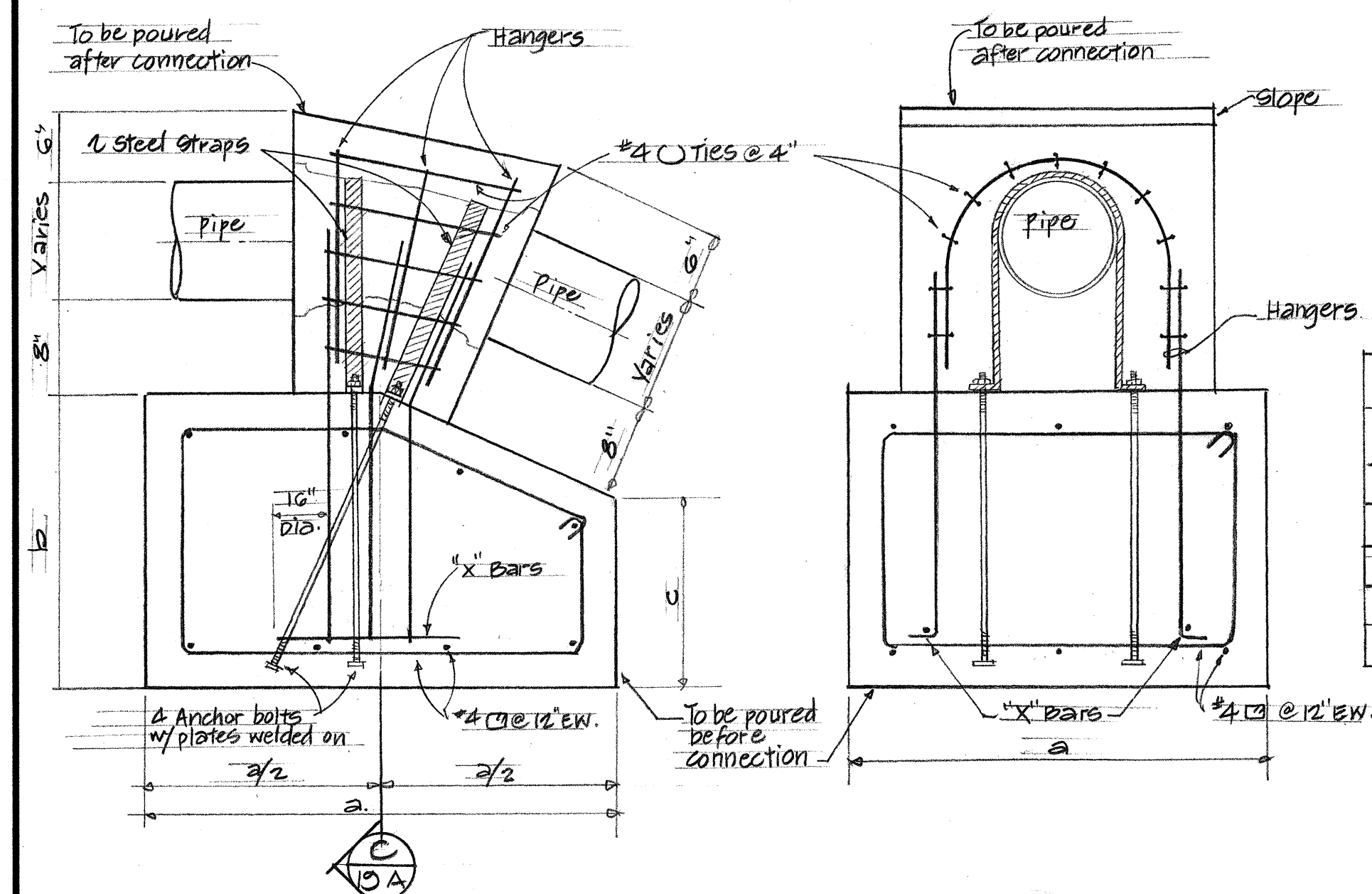
THIS WORK WAS PREPARED BY ME
UNDER MY SUPERVISION.

Henry & Hashid

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-RF- 011-2(13)	1975	19A	126



NEW 16" WATER LINE PROFILE @ STA. 1273 + 92
SCALE - HORIZ. : 1" = 40'
VERT. : 1" = 4'

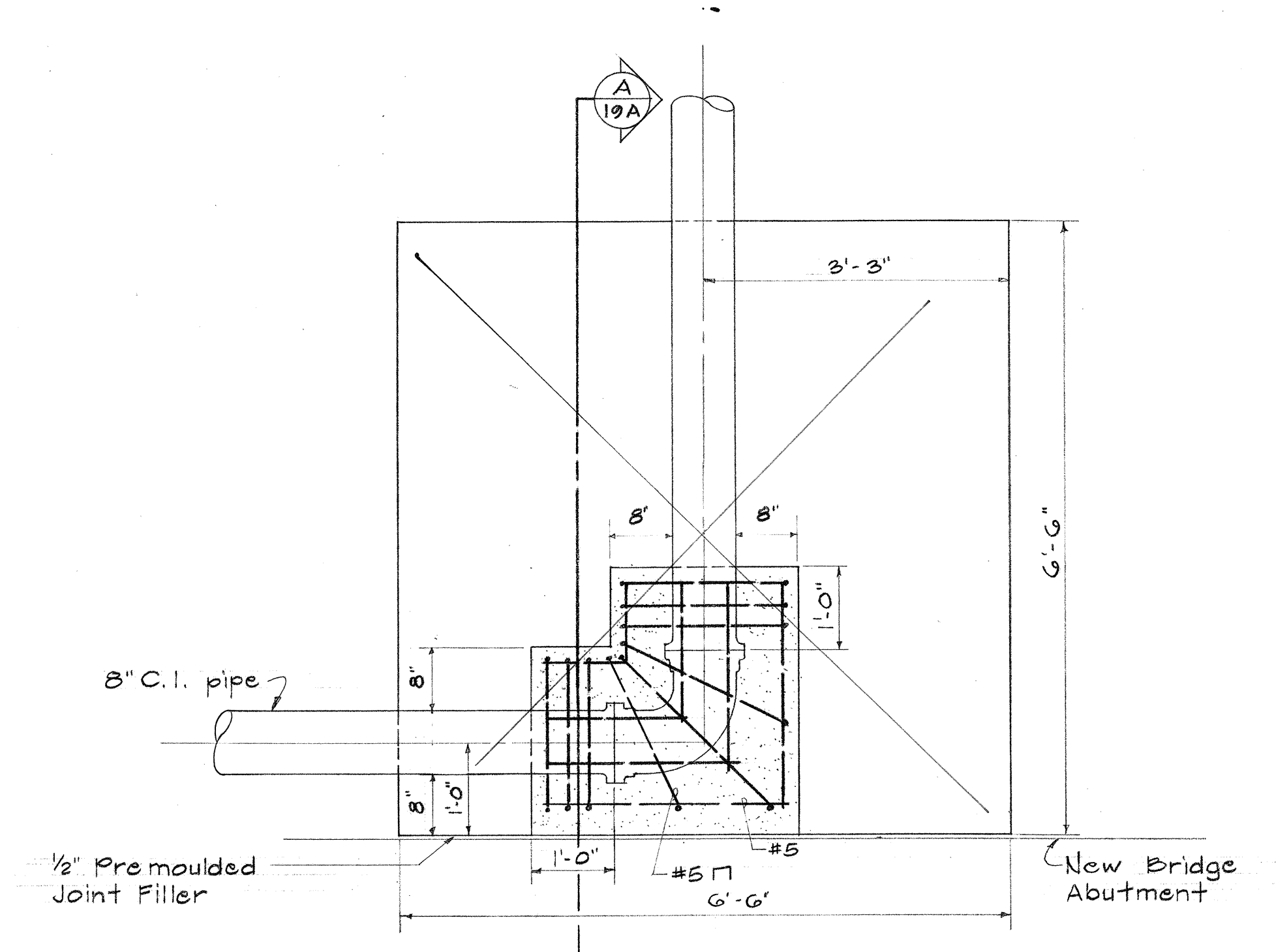


TOP VERTICAL WATER REACTION BLOCK SCHEDULE							
PIPE SIZE	BEND	CONCRETE BLOCK			HANGER	"X" BAR	STRAP BOLT
		b					
		a	b	c			
10"	1/16	5'-3"	4'-11"	3'-10"	2 * 7	2 * 7	2 - 1/4 x 2 4 - 3/8 x 6
16"	1/8	4'-3"	3'-0"	3'-4"	2 * 5	2 * 5	2 - 1/4 x 1 1/2 4 - 3/8 x 6
12"	1/16	4'-3"	4'-3"	3'-4 1/2"	2 * 5	2 * 5	2 - 3/8 x 1 1/2 4 - 3/8 x 6
12"	1/8	3'-6"	3'-6"	3'-0"	2 * 5	2 * 5	2 - 3/8 x 1 1/2 4 - 3/8 x 6
20"	1/16	5'-6"	5'-6"	4'-6"	3 * 7	2 * 7	4 - 1/4 x 2 4 - 3/8 x 6

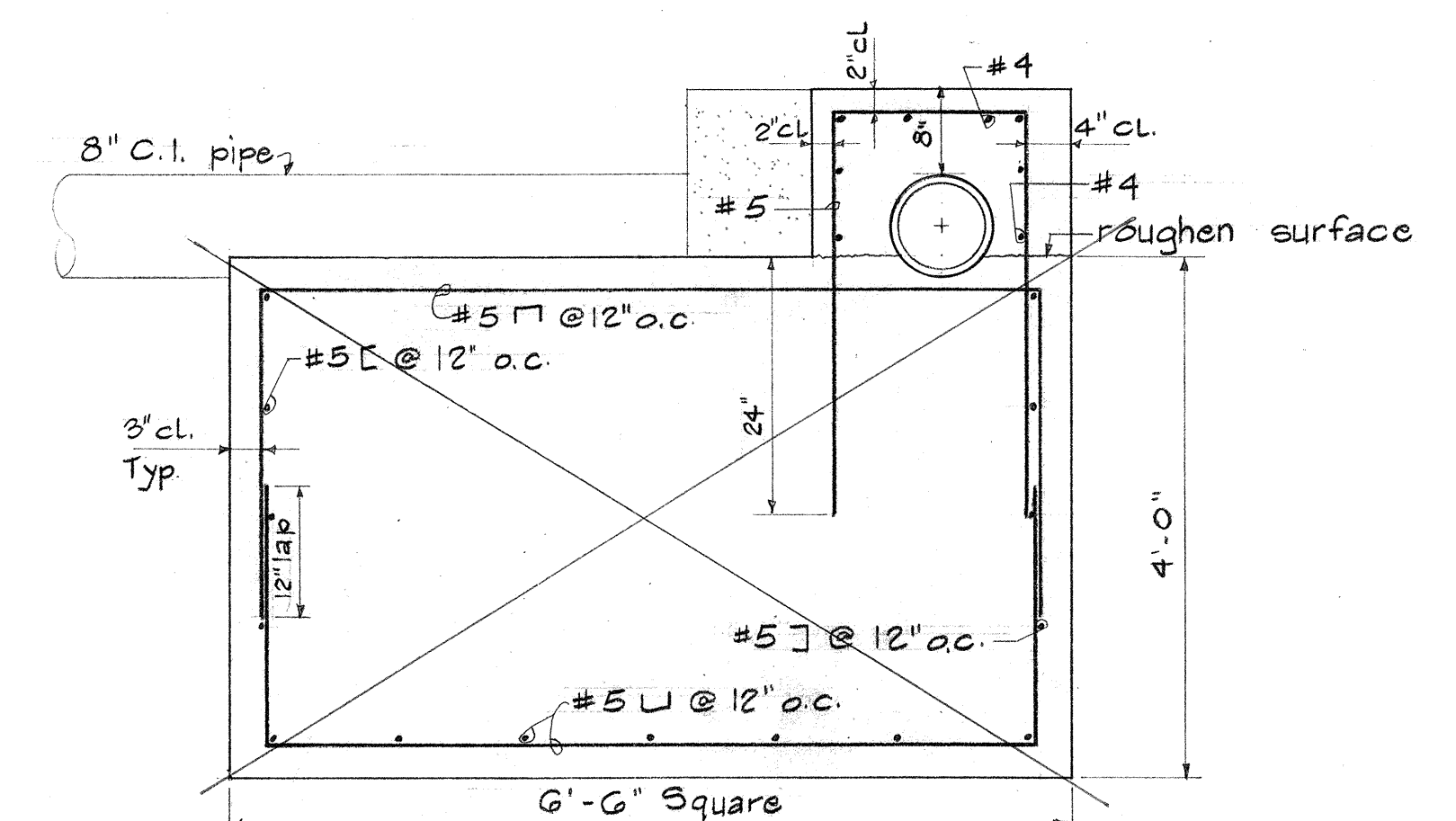
APPROVED:

C. W. Johnson
MANAGER, DEPARTMENT OF WATER SUPPLY

Feb. 20, 1975
DATE



PLAN
ANCHOR BLOCK DET. 1
 $3/4" = 1'-0"$ 19A



SECTION (A)
SCALE: $\frac{3}{4}'' = 1'-0''$



4-17-75 1. REVISED 16" WATER LINE. ADDED TOP VERTICAL
REACTION BLOCK DETAIL.

DATE	REVISION
------	----------

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

WATER LINE PROFILE
ANCHOR BLOCK DETAIL

KANOELEHUA AVE.
MAKALIKA ST. TO KAMEHAMEHA AVE.
Federal Aid Project No. F-RF-011-2(13)
Scale: AS SHOWN

SHEET No. 2 OF 2 SHEETS