

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(90):13	1981	ADD 50	112

SPRINKLER SCHEDULE										
SYMBOL	TYPE OF SPRINKLER	Q GPM	PSI	COVERAGE	IPS	ADJ. NOZZLE	MATERIAL	MIN. POP-UP	TYPICAL* SPACING	REMARKS
●	P-14 F LAWN POP-UP	1.7	20	10' R	1/2" or 3/4"	x	PL	3"	10'	LOW ANGLE
▲	P-14 H LAWN POP-UP	0.9	20	10' R	1/2" or 3/4"	x	PL	3"	10'	LOW ANGLE
+	P-14 CS LAWN POP-UP	1.0	15	4' x 30'	1/2" or 3/4"	x	BB or PL	2"	15'	
+	P-14 ES LAWN POP-UP	0.5	15	4' x 15'	1/2" or 3/4"	x	BB or PL	2"	15'	
○	S-10 F SHRUB	2.0	20	8'-10' R	1/2"	x	BB or PL		12'	LOW ANGLE OR FLAT
○	P-30 P STREAM ROTOR POP-UP	1.4	35	21' R	3/4"	-	PL	12"	25'	
▲	P-28 Q STREAM ROTOR POP-UP	1.34	35	28' R	3/4"	-	PL	3"	30'	
▲	P-28 H STREAM ROTOR POP-UP	2.77	35	28' R	3/4"	-	PL	3"	30'	
○	P-28 P STREAM ROTOR POP-UP	5.43	35	28' R	3/4"	-	PL	3"	30'	

F-FULL H-HALF Q-QUARTER BB-BRASS PL-PLASTIC
ES-END STRIP CS-CENTER STRIP *UNLESS OTHERWISE NOTED ON PLAN

IRRIGATION LEGEND

- EXISTING SPRINKLER & LATERALS
- — — 1" SCH 40 CONDUIT WITH CONTROL WIRES (SCH 80 UNDER ROADWAYS)
- — — IRRIGATION MAIN OR LATERAL (CL 200PVC OR TYPE K COPPER UNDER ROADWAY)

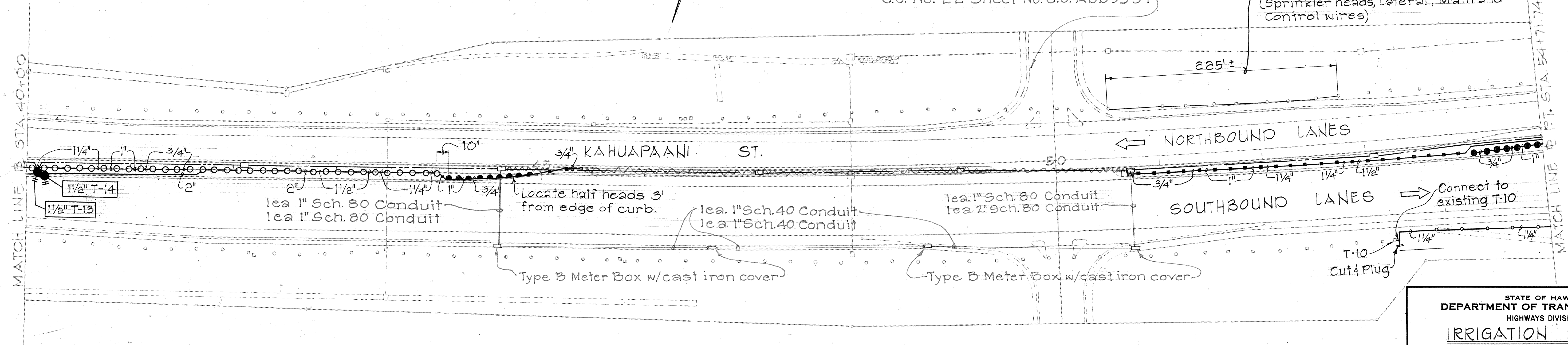
1 1/2" T-12 STATION NO.

RCV SIZE CONTROLLER

REMOTE CONTROL VALVE CODE

- PULL BOX
- ⋈ GATE VALVE
- PRESSURE REGULATING ELECTRIC REMOTE CONTROL VALVE (15-100 PSI MINIMUM PRESSURE REGULATION RANGE)

TRUE NORTH
SCALE: 1" = 50'



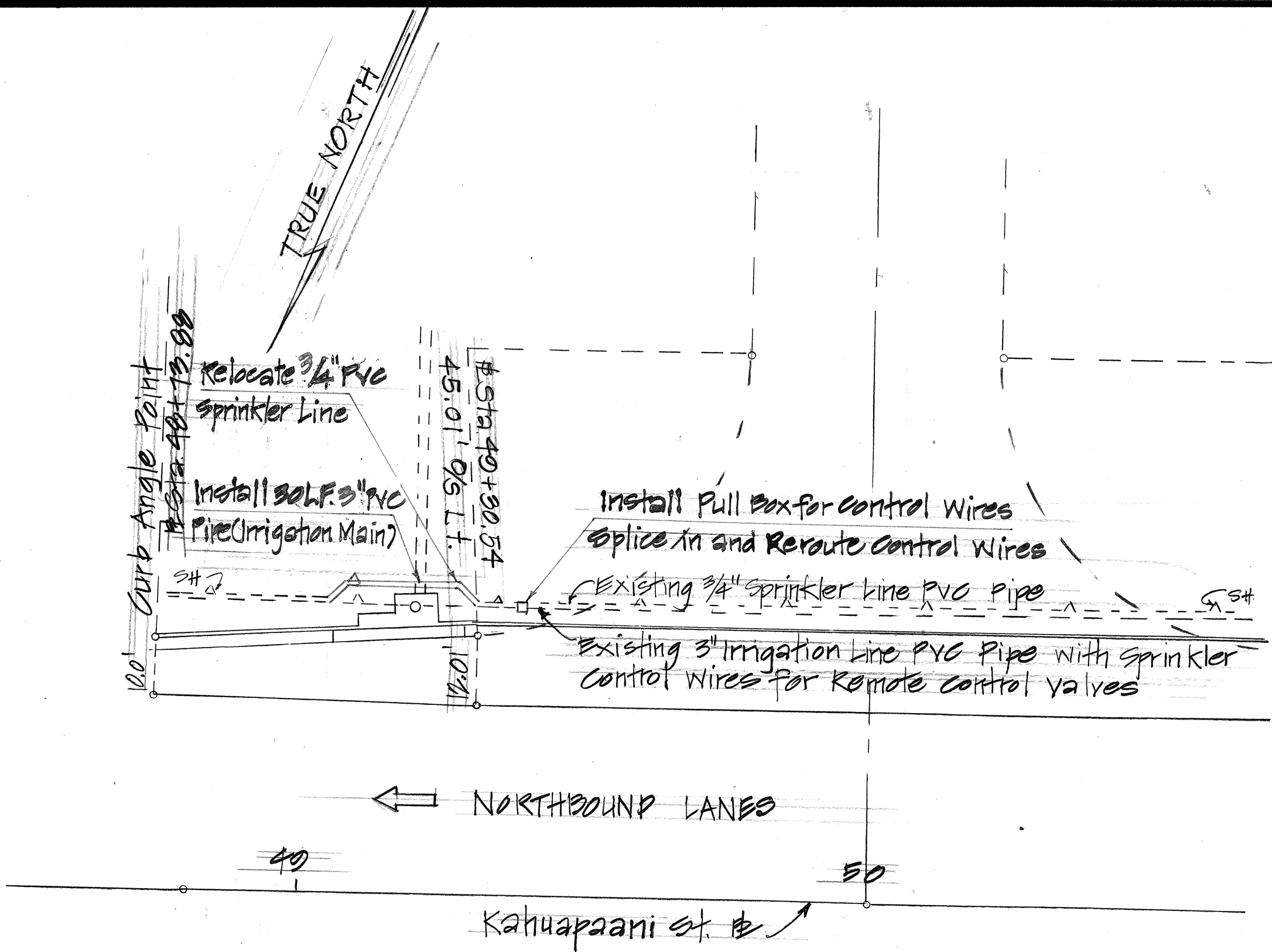
DATE	DESIGNED BY
DESIGNED BY	CHECKED BY
NOTE BOOK	QUANTITIES BY
No.	

5/11/81	Add P-30P & P-28Q, H & F sprinkler specs, revise Electric RCV, lower existing system and adjust system T-10.
DATE	REVISION

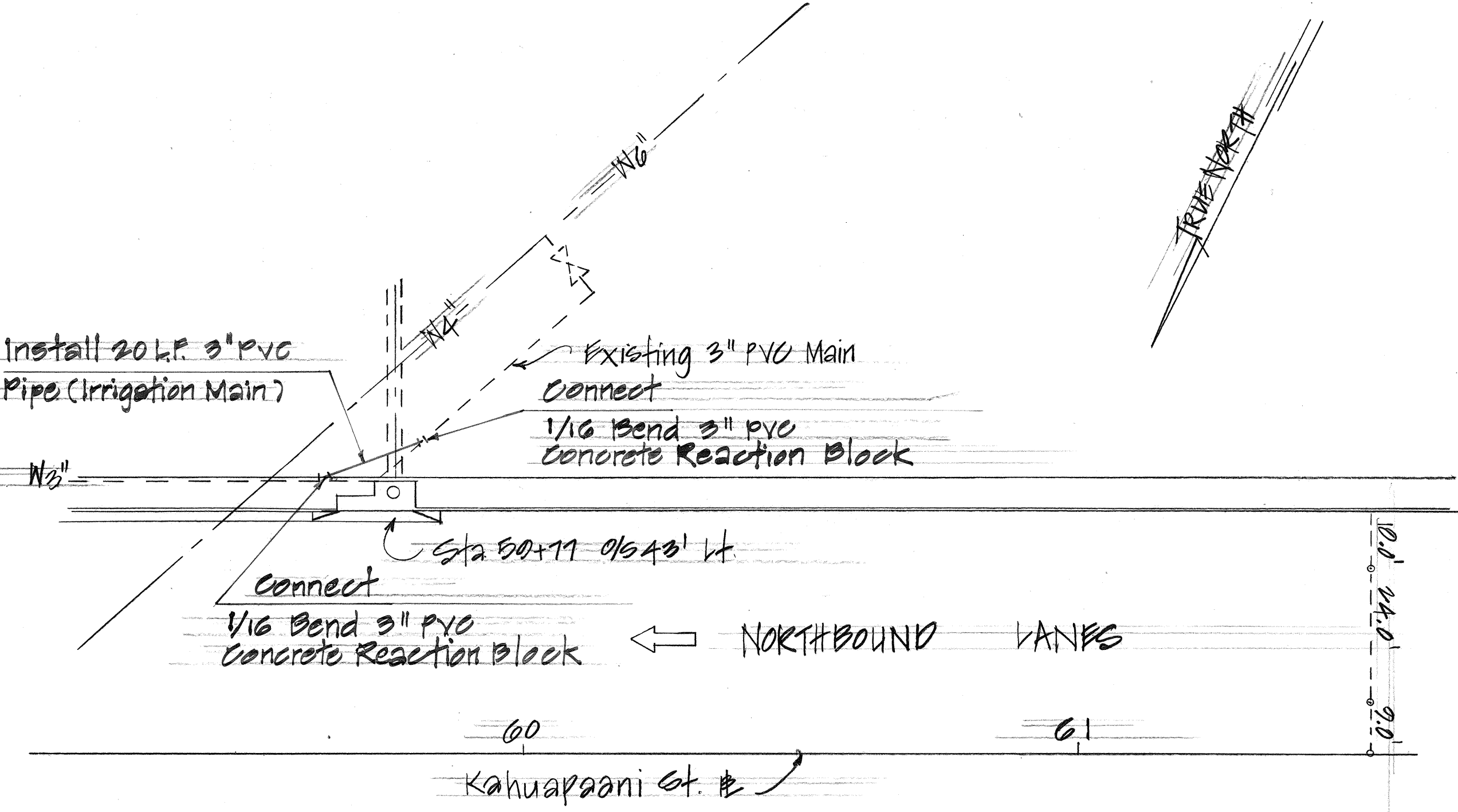
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
IRRIGATION PLAN
INTERSTATE ROUTE H-1
HALAWA INTERCHANGE
Kahuapaani Street
F.A.I. Proj. No. I-HI-1(90):13
Scale: 1" = 50' Date: Feb. 1981
SHEET NO. 11 OF 31 SHEETS

ADD. 59

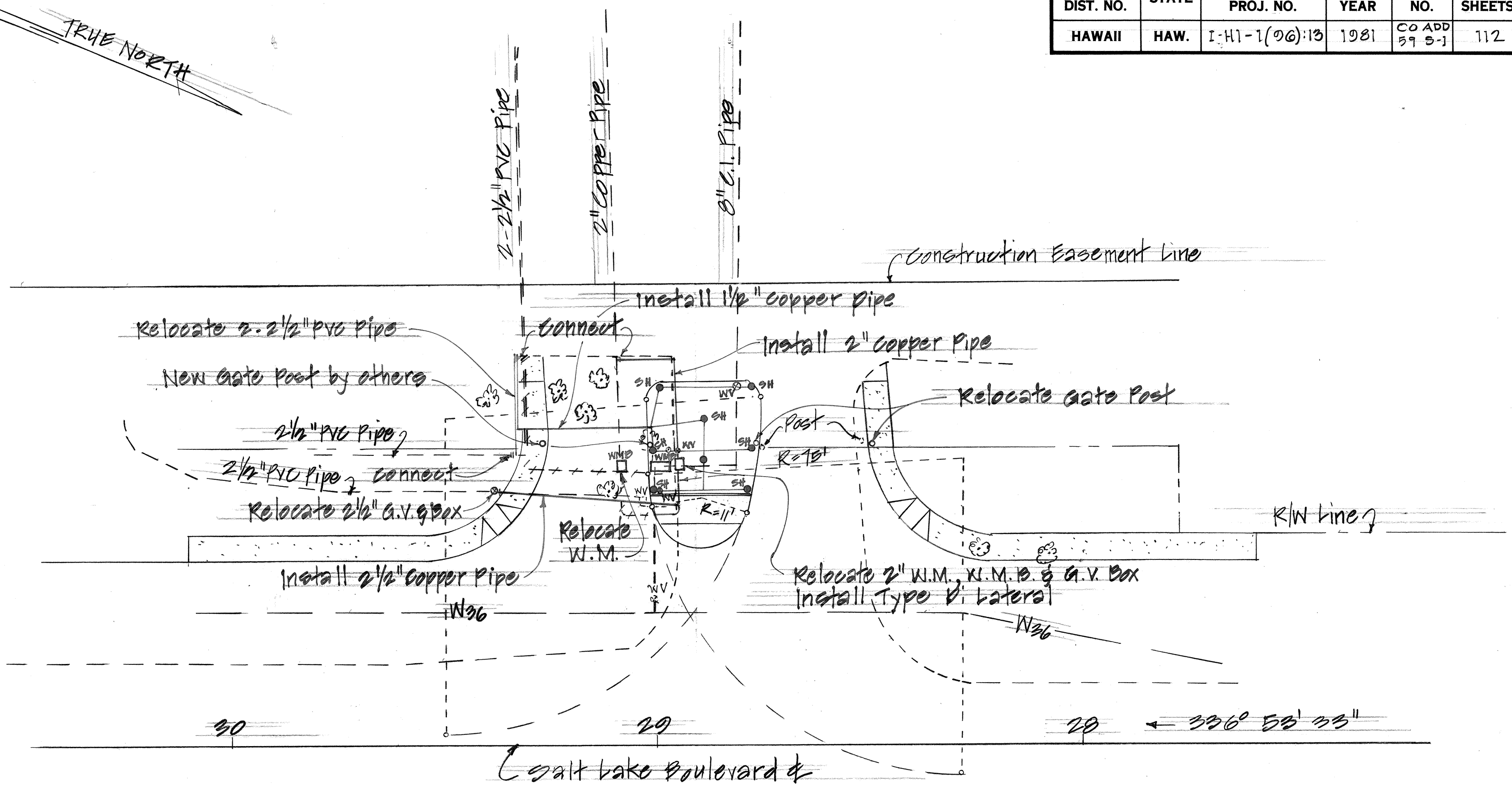
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(06):13	1981	CO ADD 59 S-1	112



DRAWING "A"
IRRIGATION PLAN
SCALE: 1" = 20'
CONTRACT C.O. No. 22



DRAWING "A"
IRRIGATION PLAN
SCALE: 1" = 20'
CONTRACT C.O. No. 4



CASTLE PARK ENTRANCE ADJUSTMENT PLAN
SCALE: 1" = 20'
CONTRACT C.O. No. 8

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

IRRIGATION PLAN

INTERSTATE ROUTE H-1

HALAWA INTERCHANGE

Kahuapaani Street

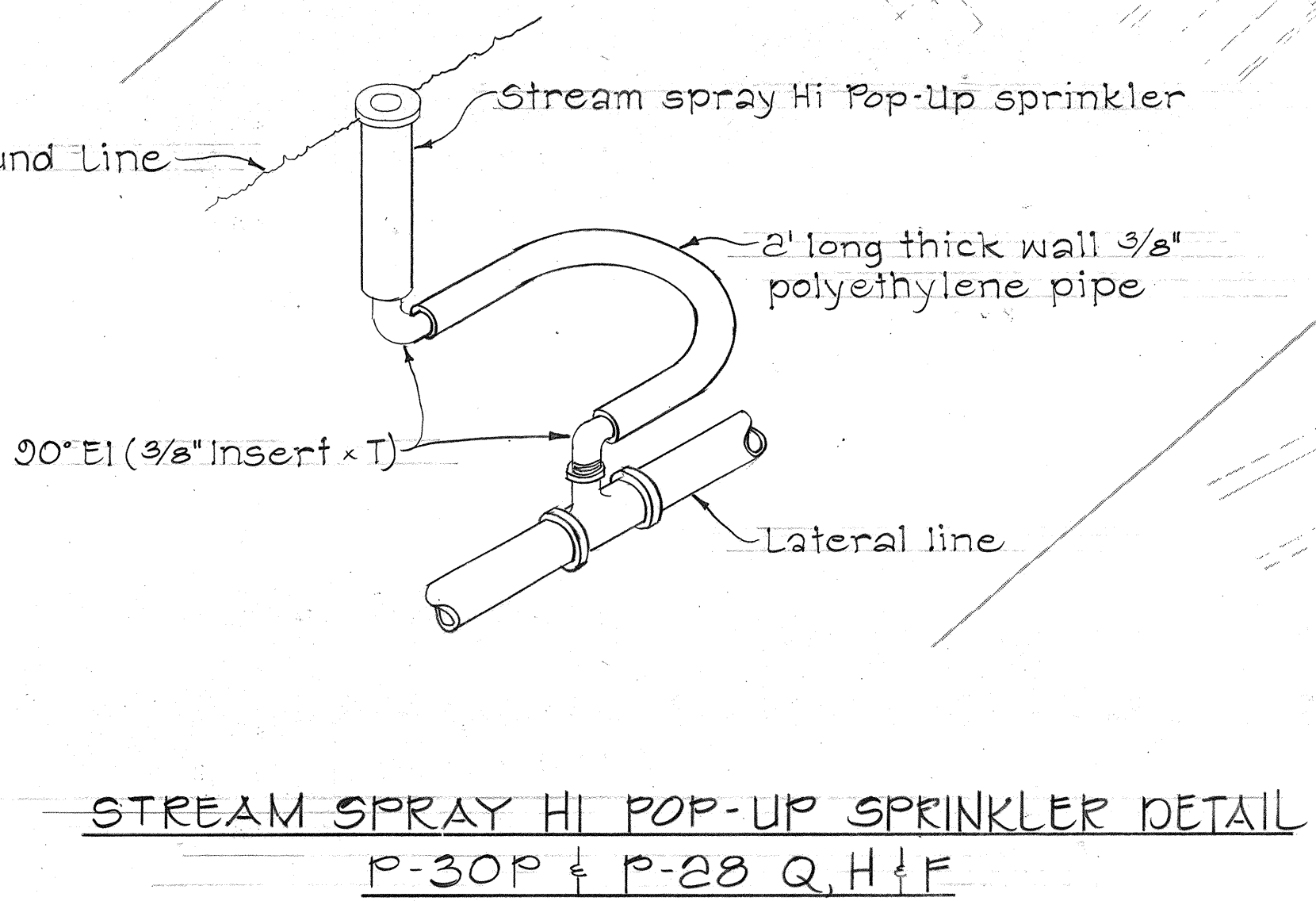
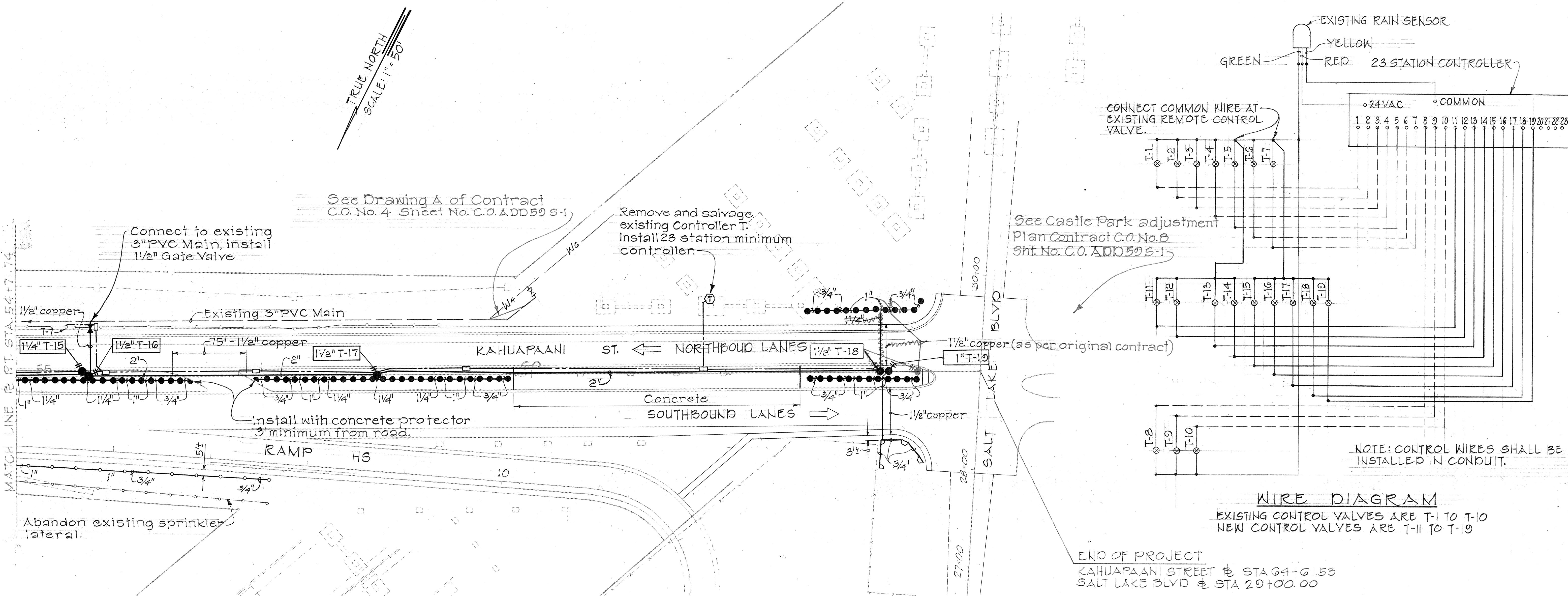
F.A.I. Proj. No. I-HI-1(06):13

Scale: As Noted Date: Sep 1983

SHEET NO. OF SHEETS

CO ADD. 59 S-1

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(96)-13	1981	ADD 60	112



STA. NO.	TIME-MIN	SPRINKLER
1	22	P-30
2	22	P-30
3	22	P-30
4	22	P-30
5	22	P-30
6	22	P-30
7	22	P-30
8	22	P-30
9	22	P-30
10	22	P-30
11	20	S-10
12	20	S-10
13	20	S-10
14	20	S-10
15	10	P-14
16	10	P-14
17	10	P-14
18	10	P-14
19	20	P-28

	START TIMES - DAY						
	S	M	T	W	T	F	S
PROGRAM A	X	X	X	X	X	X	X
PROGRAM B	X			X		X	X

START TIME - HOUR																							
AM												PM											
12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
			X								Y					Y					X		

X-NOVEMBER TO APRIL
Y-MAY TO OCTOBER ADDED TIMES NECESSARY TO SUIT

NOTE: PROGRAM A FOR GROUND COVER
PROGRAM B FOR SHRUB - STA. 11, 12, 13 & 14

IRRIGATION PROGRAM

9/12/81	Revise System T-18 & T-19, change T-19 RCV to 1" size.
5/11/81	Revise Controller Sta. No., System T-18 add T-19, adjust System T-10, and irrigation program. Add Stream Spray HI Pop-Up detail.

DATE

REVISION

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

IRRIGATION PLAN

INTERSTATE ROUTE H-1

HALAWA INTERCHANGE

Kahuapaani Street

F.A.I. Proj. No. I-HI-1(96)-13

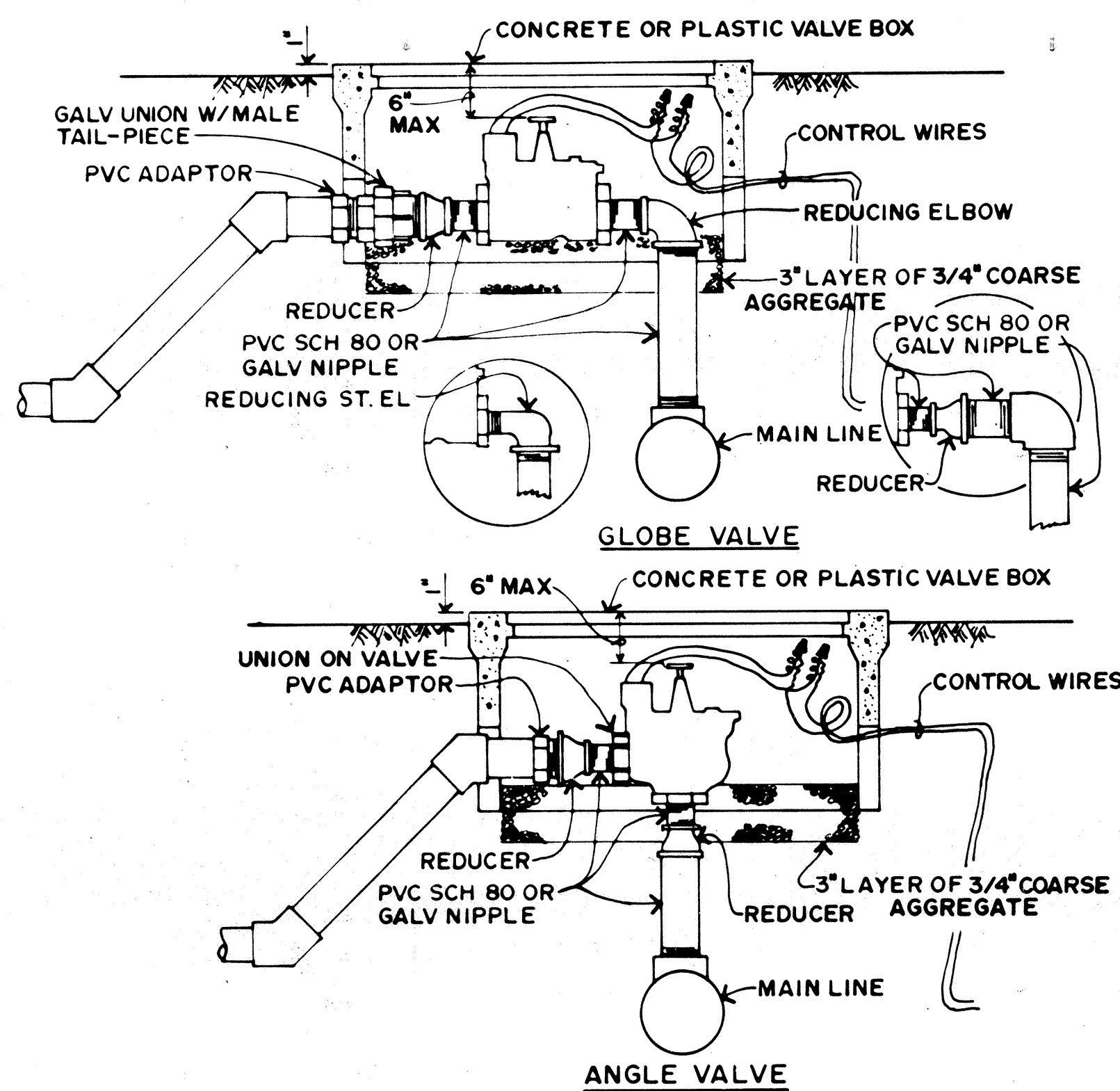
Scale: 1" = 50'

Date: Feb. 1981

SHEET NO. 21 OF 31 SHEETS

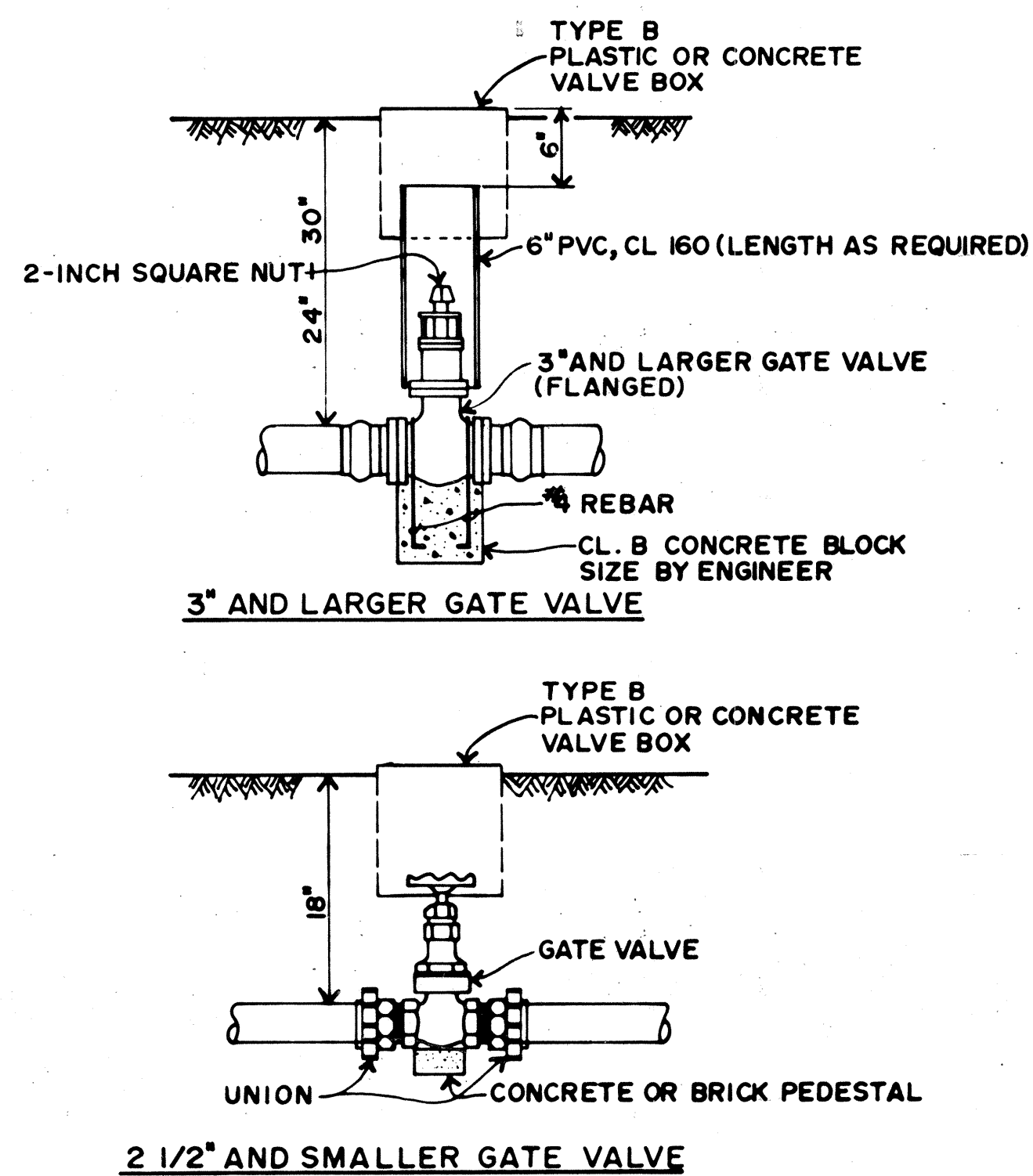
SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(96):13	1981	61	112

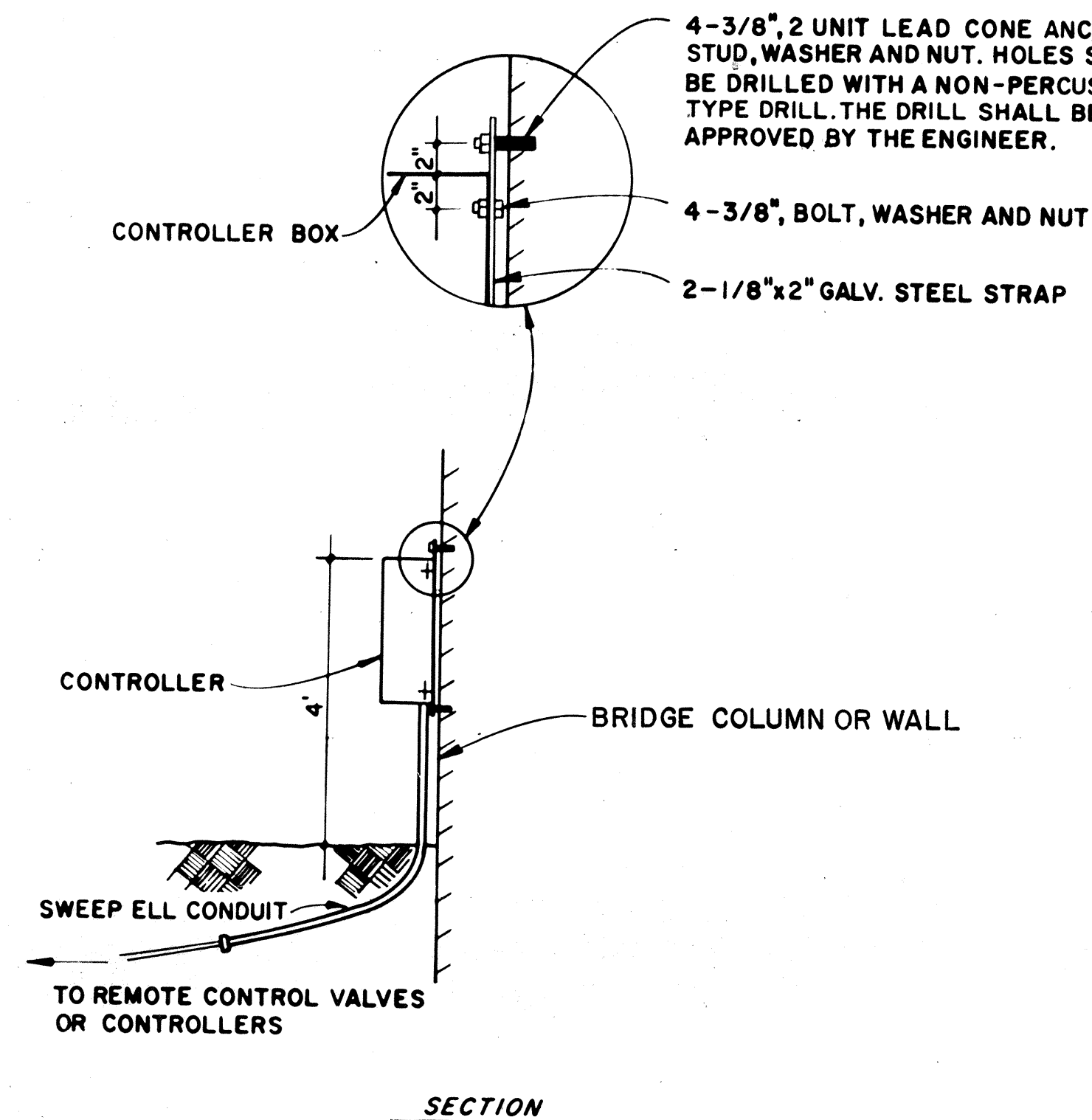


TYPICAL CONTROL VALVE DETAIL

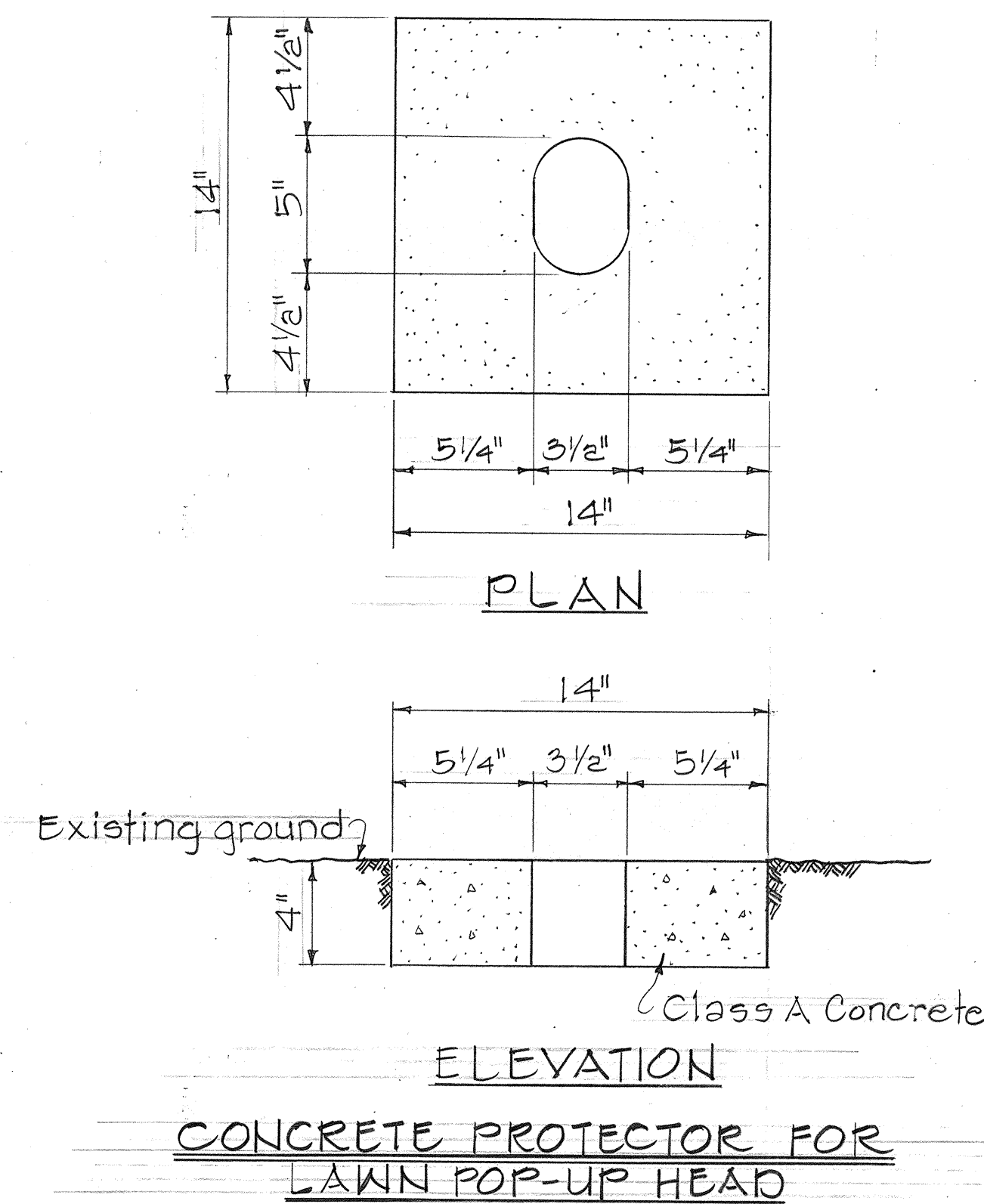
NOTE: A 2" MINIMUM CLEARANCE SHALL BE REQUIRED ON ALL SIDES OF THE VALVE.



GATE VALVE DETAILS

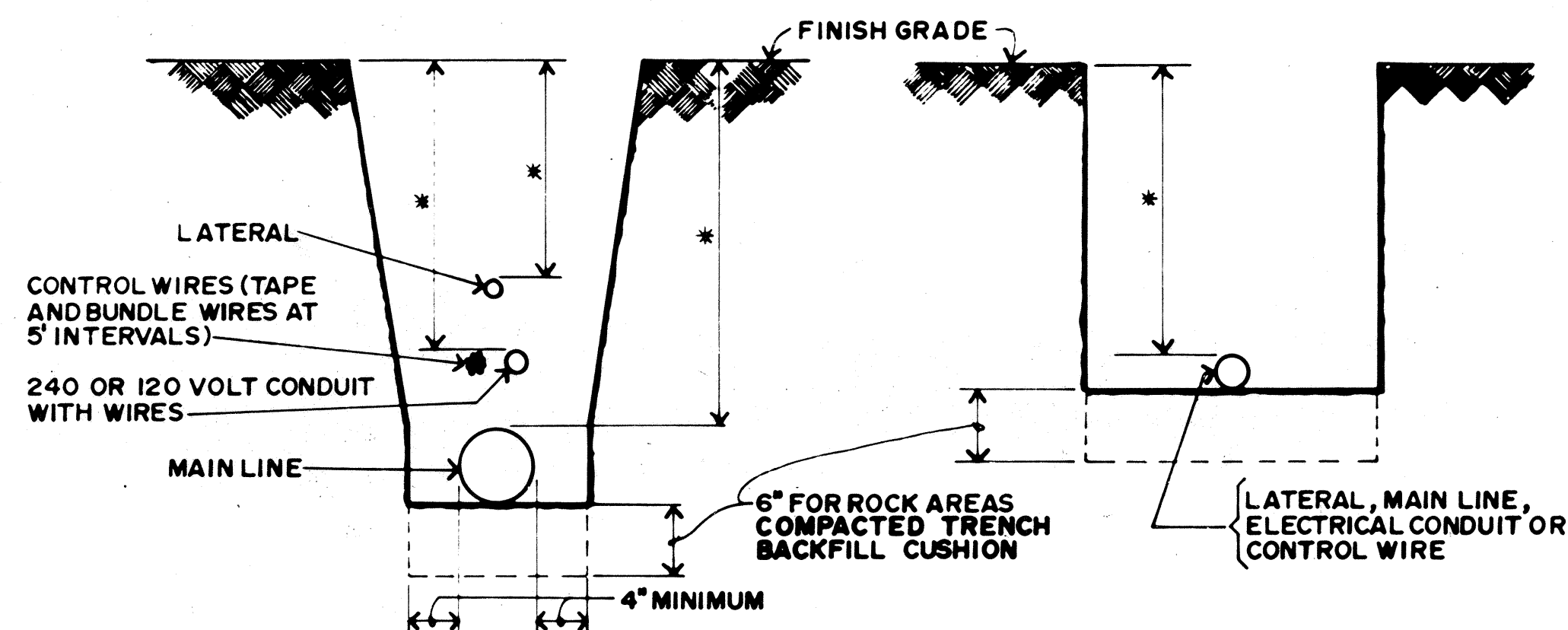


CONTROLLERS ANCHORED TO WALL



ELEVATION

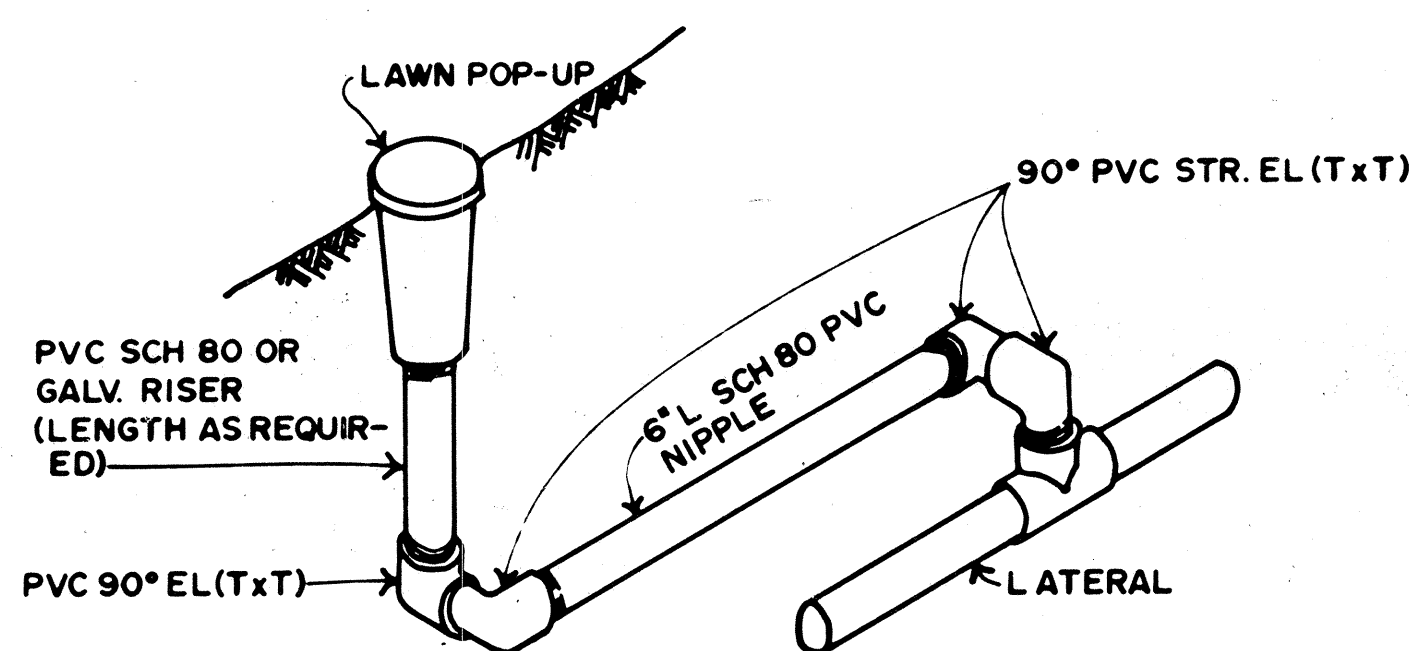
CONCRETE PROTECTOR FOR LAWN POP-UP HEAD



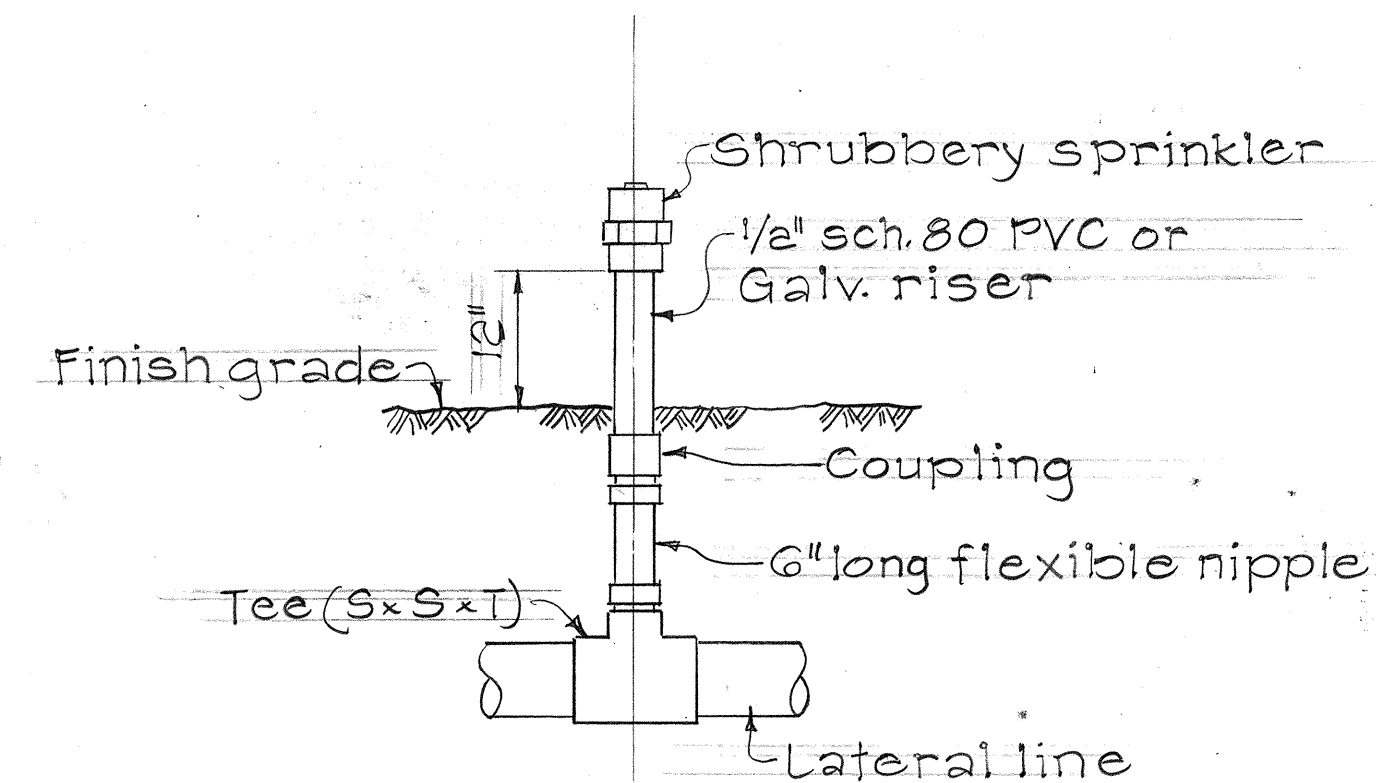
	MINIMUM COVER	
SPRINKLER LATERALS	12"	
SPRINKLER MAINS		
1/2" TO 2 1/2"	18"	
3" OR 4"	24"	
OVER 4"	30"	
ELECTRICAL CONDUIT	24"	
CONTROL WIRES	18"	

TRENCH DETAIL

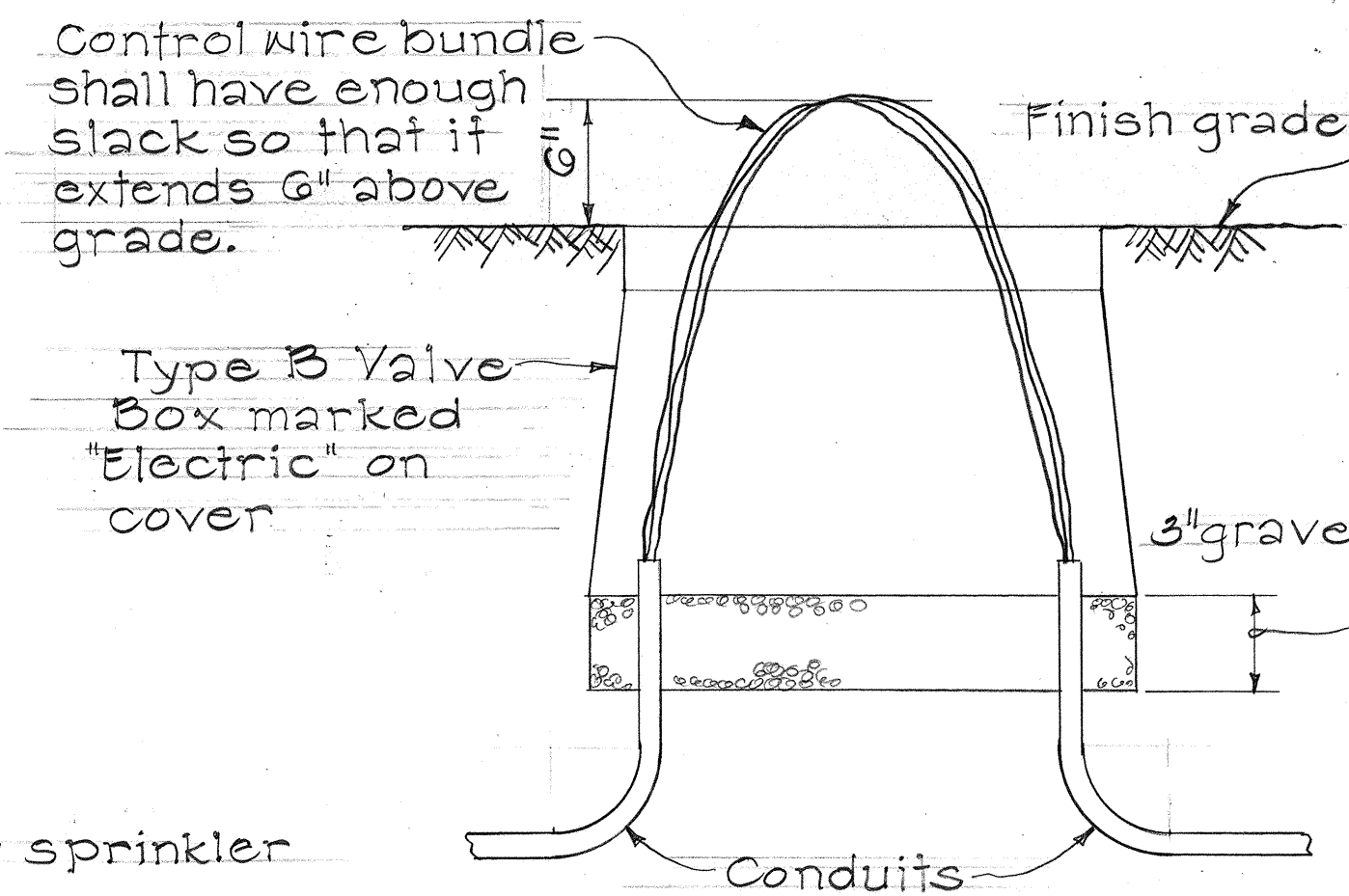
- NOTES:
1. PIPES UNDER ROADWAY SHALL HAVE MINIMUM COVER OF 24 INCHES AND SHALL NOT BE IN THE ROADWAY STRUCTURE.
 2. THERE SHALL BE A 3" MINIMUM CLEARANCE BETWEEN CONTROL WIRE BUNDLE, CONDUIT, MAIN AND LATERAL LINES.
 3. THE WIDTH OF THE TRENCH SHALL BE AS NARROW AS PRACTICAL TO FACILITATE INSTALLATION. APPROXIMATELY TWICE THE OUTSIDE DIAMETER OF THE PIPE WITH A MINIMUM OF 8".



LAWN POP UP SPRINKLER DETAIL



DETAIL OF SPRINKLER HEAD ON RISER



TYPICAL PULL BOX DETAIL

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
IRRIGATION DETAILS

INTERSTATE ROUTE H-1
HALAWA INTERCHANGE
Kahuapaani Street
P.A.I. Proj. No. I-H-1(96):13

Not to Scale Date: Feb. 1981
SHEET NO. 31 OF 31 SHEETS