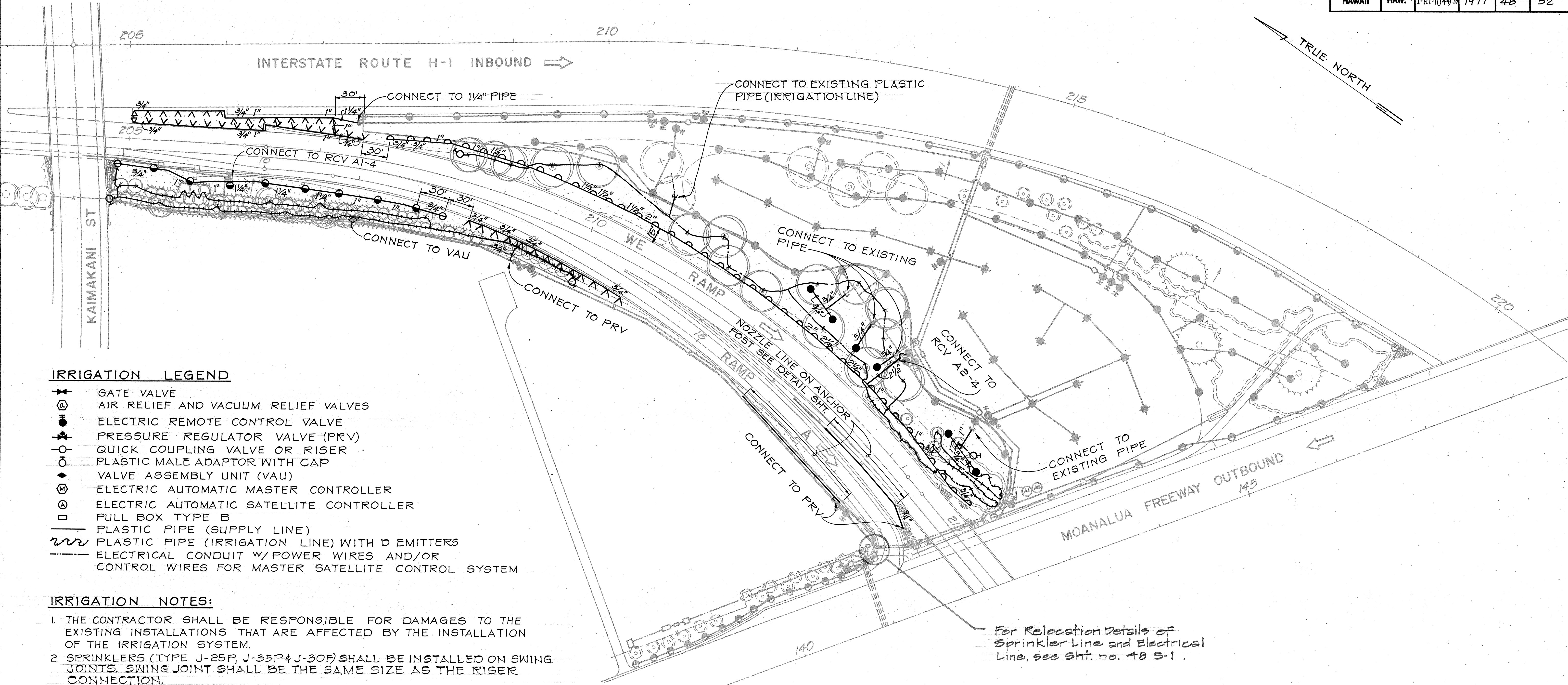


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(144)	1977	48	52



IRRIGATION LEGEND

- ✕ GATE VALVE
- ⊙ AIR RELIEF AND VACUUM RELIEF VALVES
- ELECTRIC REMOTE CONTROL VALVE
- ✕ PRESSURE REGULATOR VALVE (PRV)
- QUICK COUPLING VALVE OR RISER
- ◇ PLASTIC MALE ADAPTOR WITH CAP
- ⬢ VALVE ASSEMBLY UNIT (VAU)
- ⊙ ELECTRIC AUTOMATIC MASTER CONTROLLER
- ⊙ ELECTRIC AUTOMATIC SATELLITE CONTROLLER
- PULL BOX TYPE B
- PLASTIC PIPE (SUPPLY LINE)
- PLASTIC PIPE (IRRIGATION LINE) WITH D EMITTERS
- ELECTRICAL CONDUIT W/ POWER WIRES AND/OR CONTROL WIRES FOR MASTER SATELLITE CONTROL SYSTEM

IRRIGATION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO THE EXISTING INSTALLATIONS THAT ARE AFFECTED BY THE INSTALLATION OF THE IRRIGATION SYSTEM.
2. SPRINKLERS (TYPE J-25P, J-35P & J-30F) SHALL BE INSTALLED ON SWING JOINTS. SWING JOINT SHALL BE THE SAME SIZE AS THE RISER CONNECTION.
3. SPRINKLERS (TYPE S-30H, J-25P, J-30F & J-35P) IN GROUND COVER AND SHRUB MASS AREAS SHALL BE INSTALLED ON GALVANIZED RISERS 18 INCHES AND 36 INCHES ABOVE THE GROUND.
4. SPRINKLERS SHALL BE INSTALLED 5 FEET FROM CURBS, SHOULDERS, STRUCTURES, DITCHES, SLOPE PAVING AND GUARD RAILS, AND A MAXIMUM OF 3 FEET FROM FENCES.
5. SPRINKLER SPACING SHALL BE AS SHOWN ON THE SPRINKLER SCHEDULE OR AS NOTED ON THE PLANS.
6. SPRINKLERS (TYPE S-13) WITHIN 10 FEET OF SHOULDERS SHALL BE INSTALLED ON NON-RIGID PVC RISERS WITH SPRING SPRINKLERS BEHIND GUARD RAILS, BRIDGE COLUMNS AND AT LOCATIONS OTHER THAN SHOULDER AREAS SHALL BE INSTALLED ON GALVANIZED STEEL RISERS 18 INCHES ABOVE GROUND.
7. SEE SPECIAL PROVISIONS FOR D EMITTER SPECIFICATIONS.

For Relocation Details of Sprinkler Line and Electrical Line, see Sht. no. 48 S-1

SPRINKLER SCHEDULE											
SYMBOL	TYPE SPRINKLER	SPRAY PATTERN	I.P.S.	P.S.I.	NOZZLE	G.P.M.	RADIUS	ADJ. ARC STOP	DISCHARGE ADJ.	BACKFLASH PREVENTION DEVICE	REMARKS
⊙	J-25P ROTARY IMPACT	P	1/2"	35	3/4"	34	38'	✓	—	✓	BB BREAK UP PIN 40'
●	J-30F ROTARY SIDE IMPACT	F	3/4"	45	3/16"	6.8	48'	—	—	—	BB BREAK UP PIN 40'
⊙	J-35P ROTARY IMPACT	P	3/4"	45	3/16"	6.8	48'	✓	—	✓	BB BREAK UP PIN 40'
⊙	S-13 F.H. Q STREAM SPRAY	F, H, Q	1/2"	30	08-2.1	15'	—	✓	—	—	BB — 15' LOW ANGLE
—	S-30H STREAM ROTOR	H	1/2"	35	1.30	21'	—	—	—	—	PL — 20' GEAR DRIVEN

SPRAY PATTERN * ALL ADJUSTABLE ARC STOPS SHALL BE POSITIVE LOCKING MATERIAL
P - PART CIRCLE H - HALF CIRCLE BB - BRASS OR BRONZE
F - FULL CIRCLE Q - QUARTER CIRCLE PL - PLASTIC

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

IRRIGATION PLAN

INTERSTATE ROUTE H-1
EXIT RAMP TO AIEA
PROJ. NO. I-HI-1(144):13

SCALE: 1" = 50' DATE: JUNE, 1977

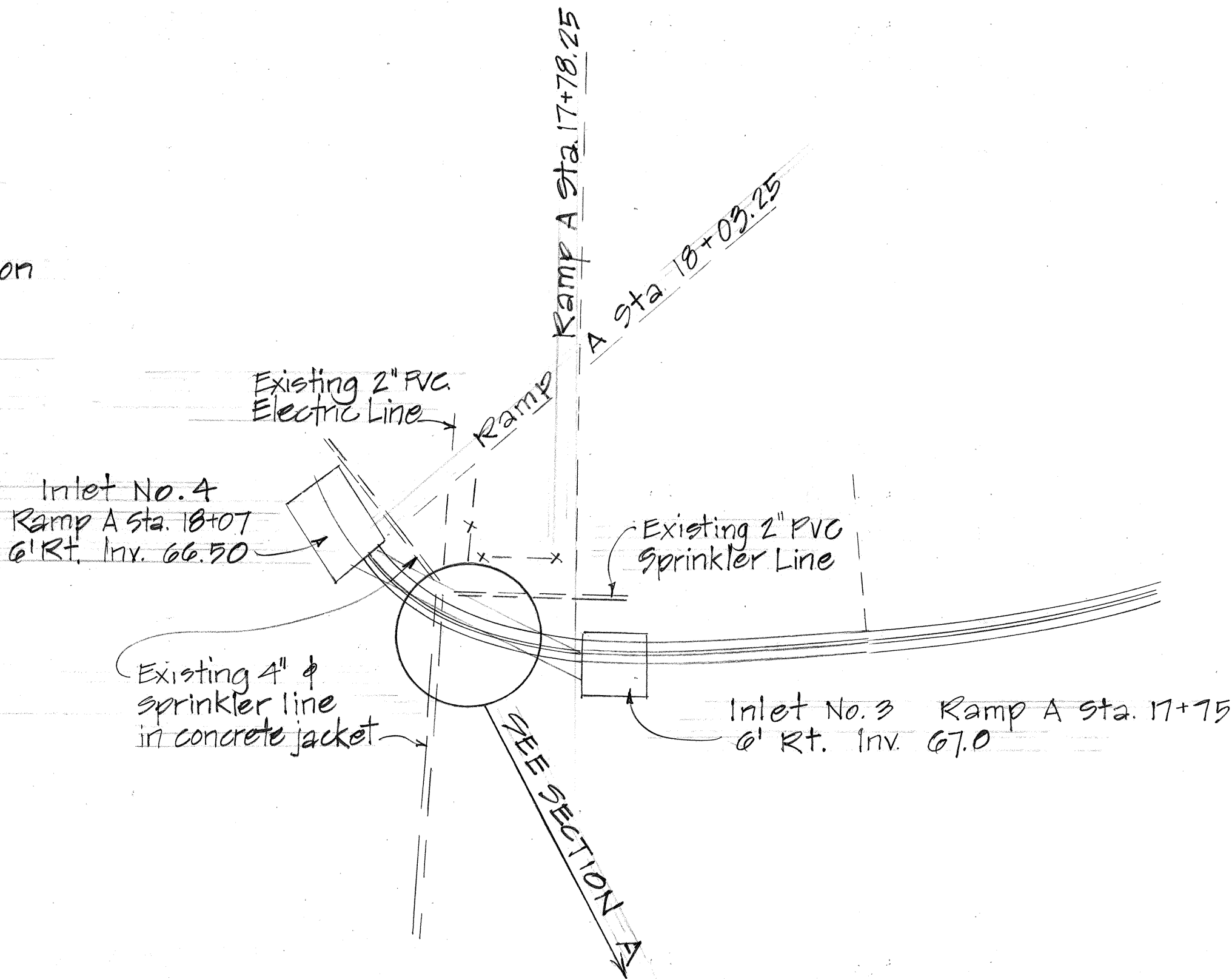
SHEET NO. 1 OF 2 SHEETS

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
NOTED BY	_____
CHECKED BY	_____

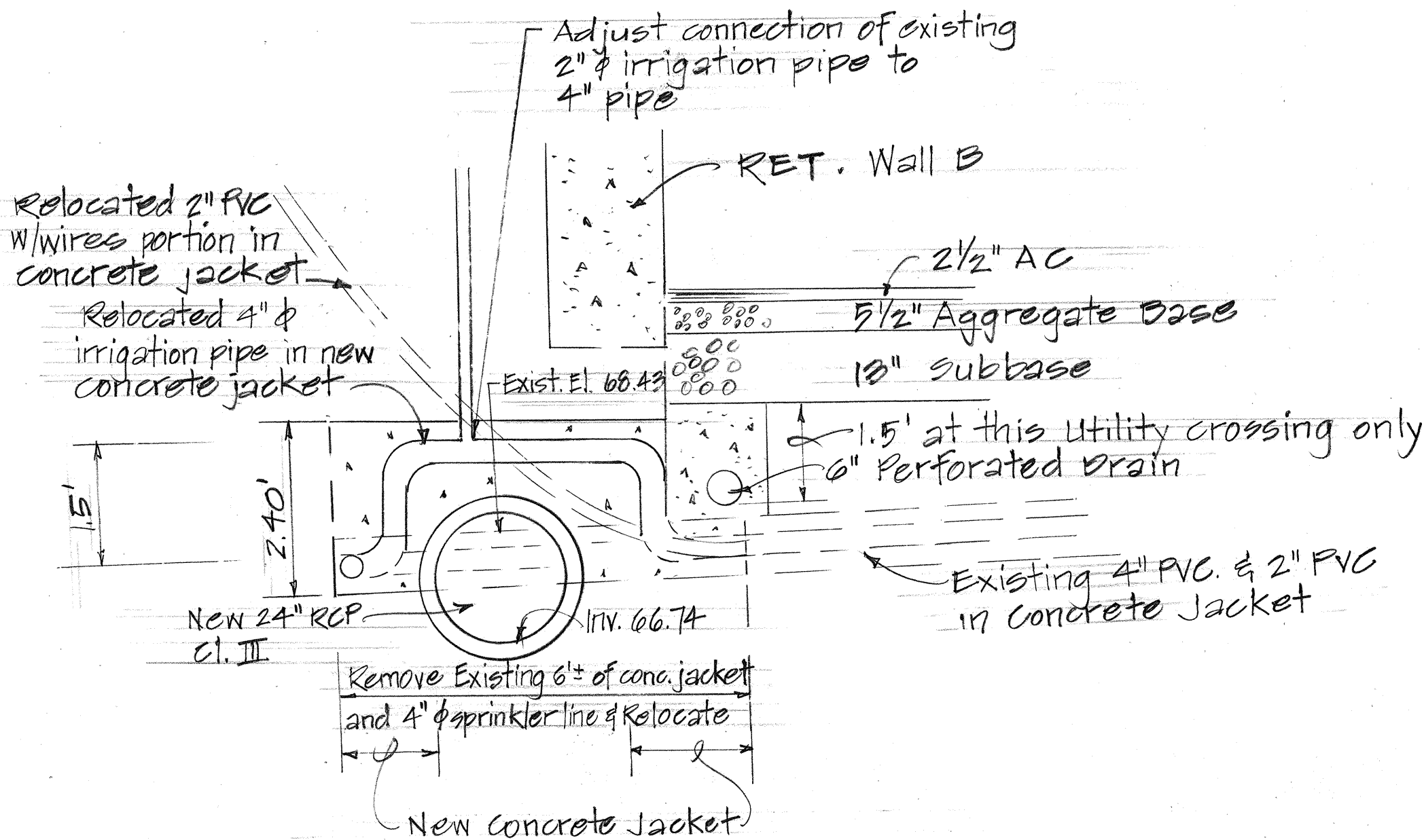
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	2-1-1 (44)-12	1977	48 S-1	52

NOTES:

1. Remove existing 6 feet of concrete jacket and 4-inch irrigation pipe.
2. Removal of concrete jacket shall be done carefully in order not to damage the existing 2-inch PVC electric conduit with wires.
3. Relocate 4-inch PVC Class 200 Irrigation pipe and 2-inch PVC electric conduit in concrete jacket as shown.
4. Adjust existing 2-inch irrigation pipe connection to 4-inch pipe.
5. Realign new 24-inch RCP Class III Drain Line to clear utilities at the Area Elem. School fence corner.
6. Above work to be compensated under Item No. 616.1501 Realign 4" Irrigation Pipe and 2" Electrical Conduit in Concrete Jacket



RELOCATION PLAN
Not to scale



SECTION A
Not to scale

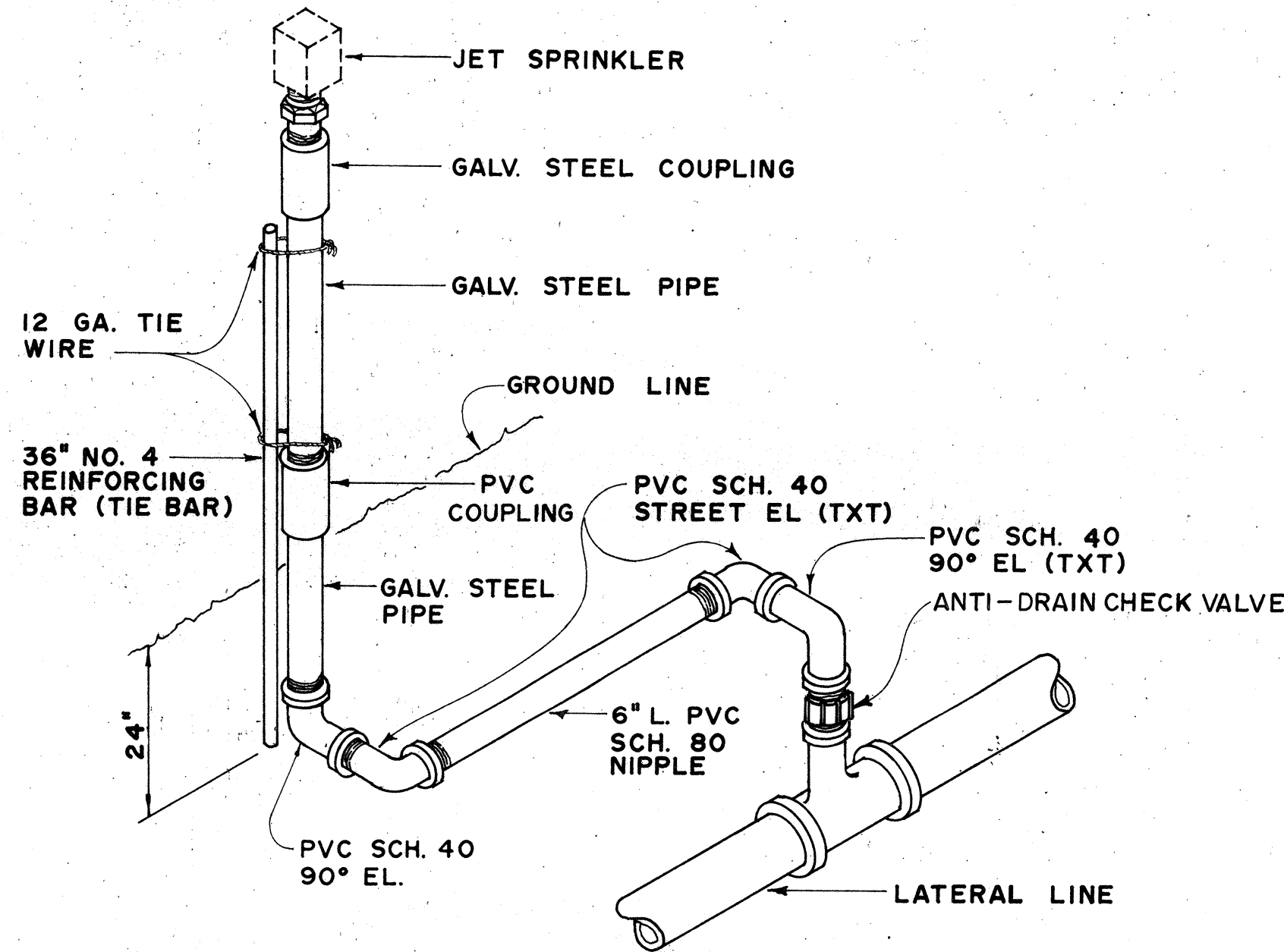
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
DRAWN BY		
DESIGNED BY		
CHECKED BY		
NO.		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

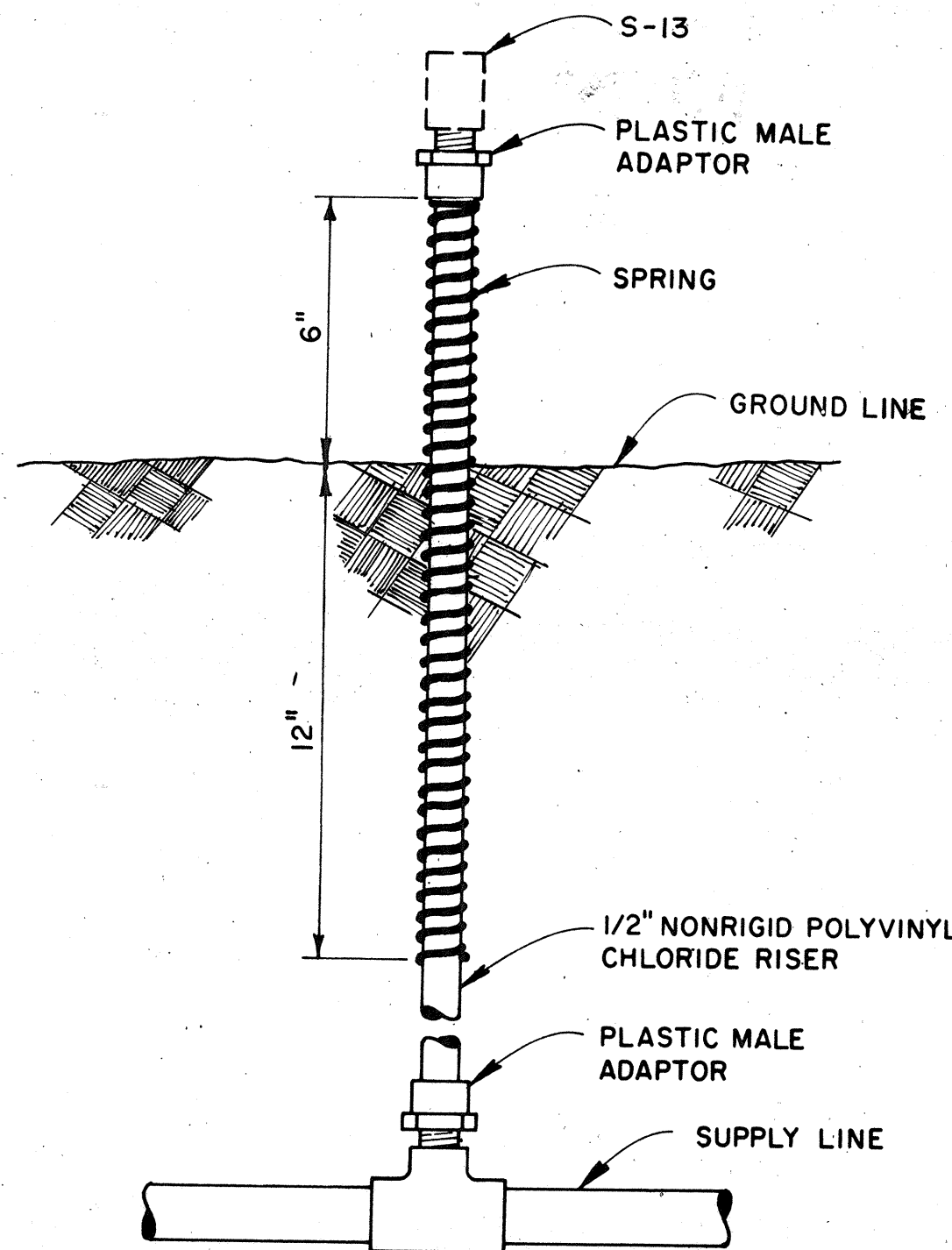
RELOCATION OF 4 INCH
SPRINKLER LINE AND 2 INCH
ELECTRIC LINE AT RAMP A
STATION 17+97
CONTRACT CCO No. 2

SHEET No. OF SHEETS

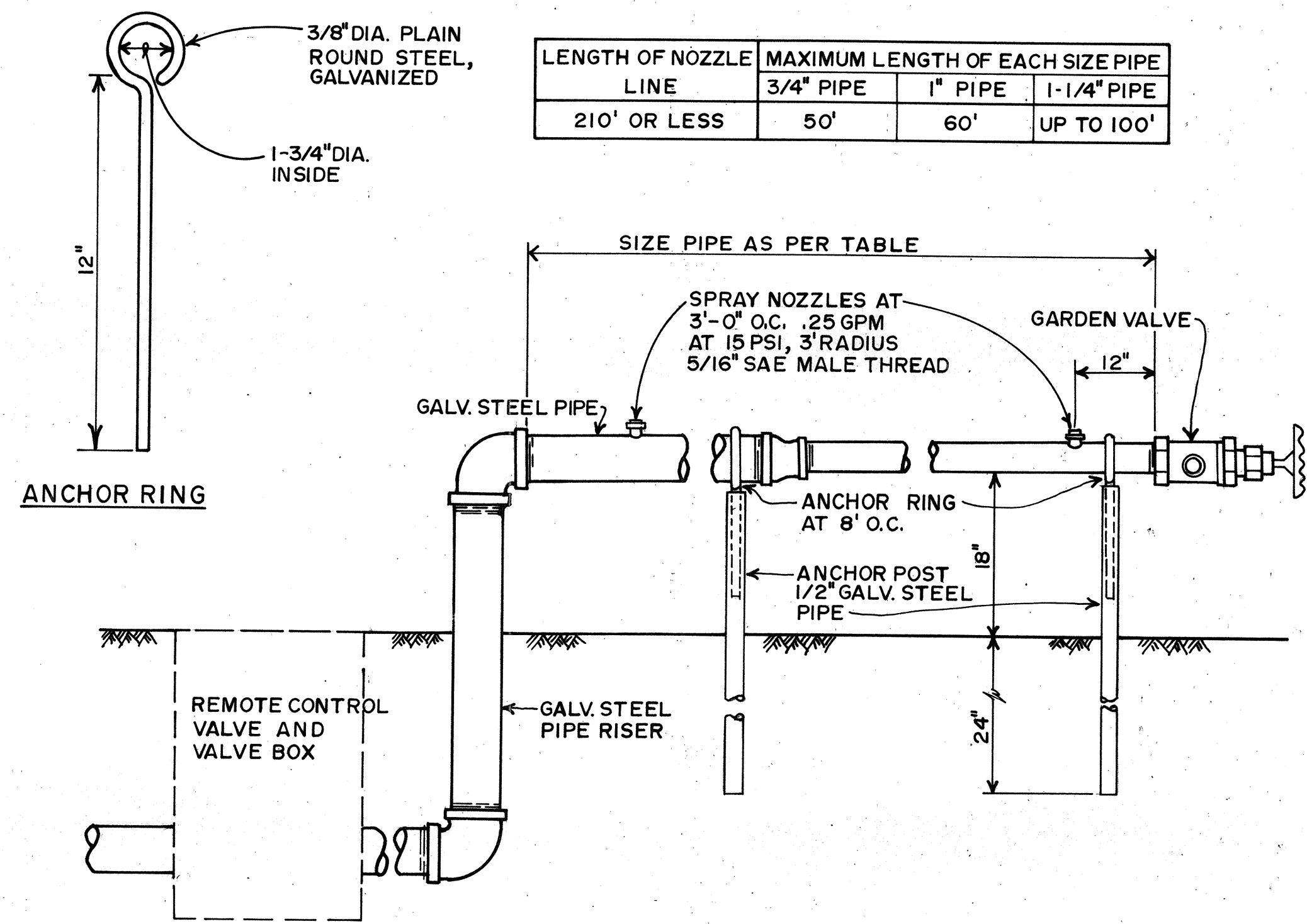
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HI-1(144):13	1977	49	52



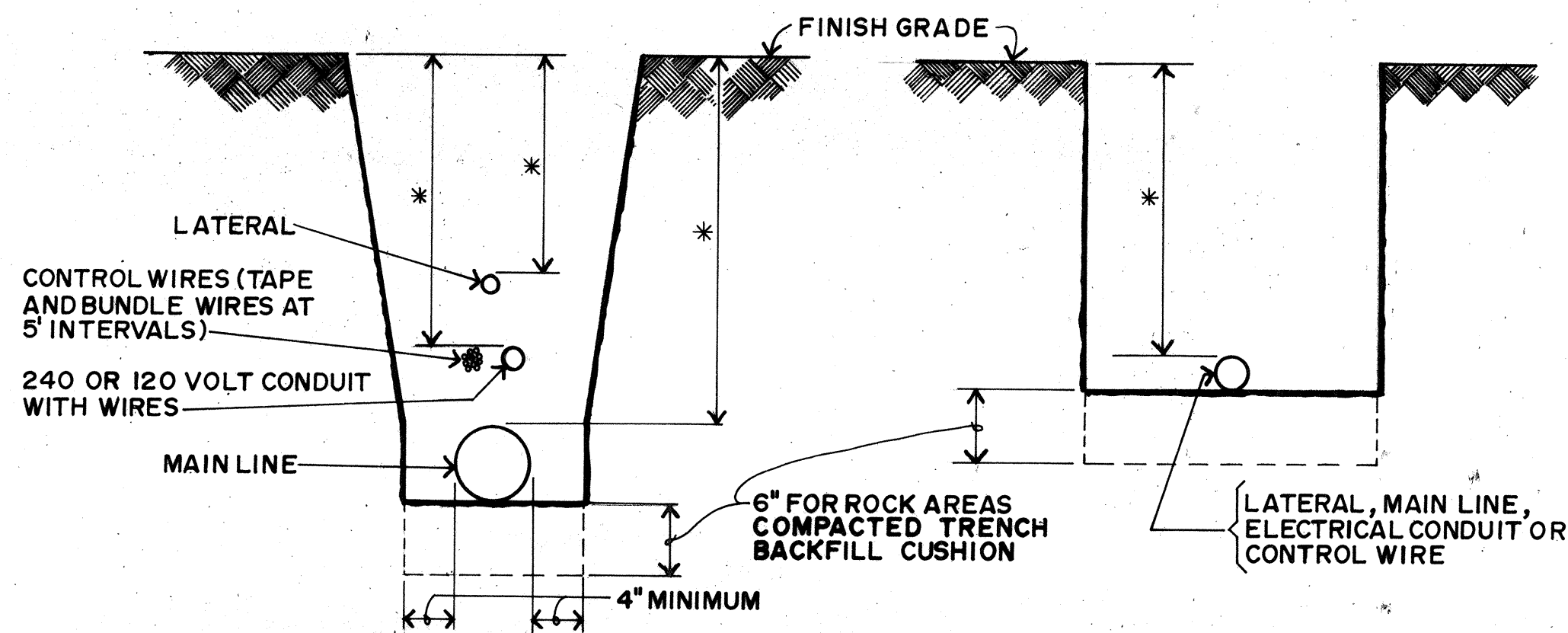
JET SPRINKLER DETAIL
J-25P, J-35P & J-30F



RISER ASSEMBLY FOR S-13 SPRINKLERS



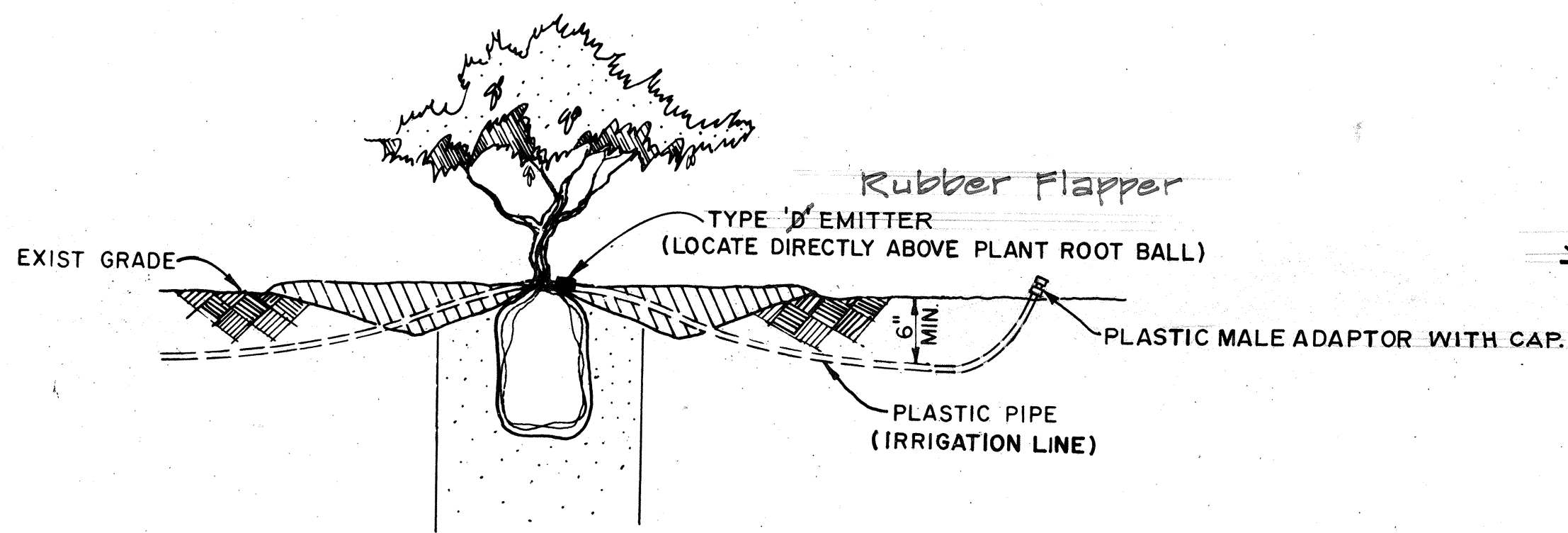
NOZZLE LINE ON ANCHOR POST



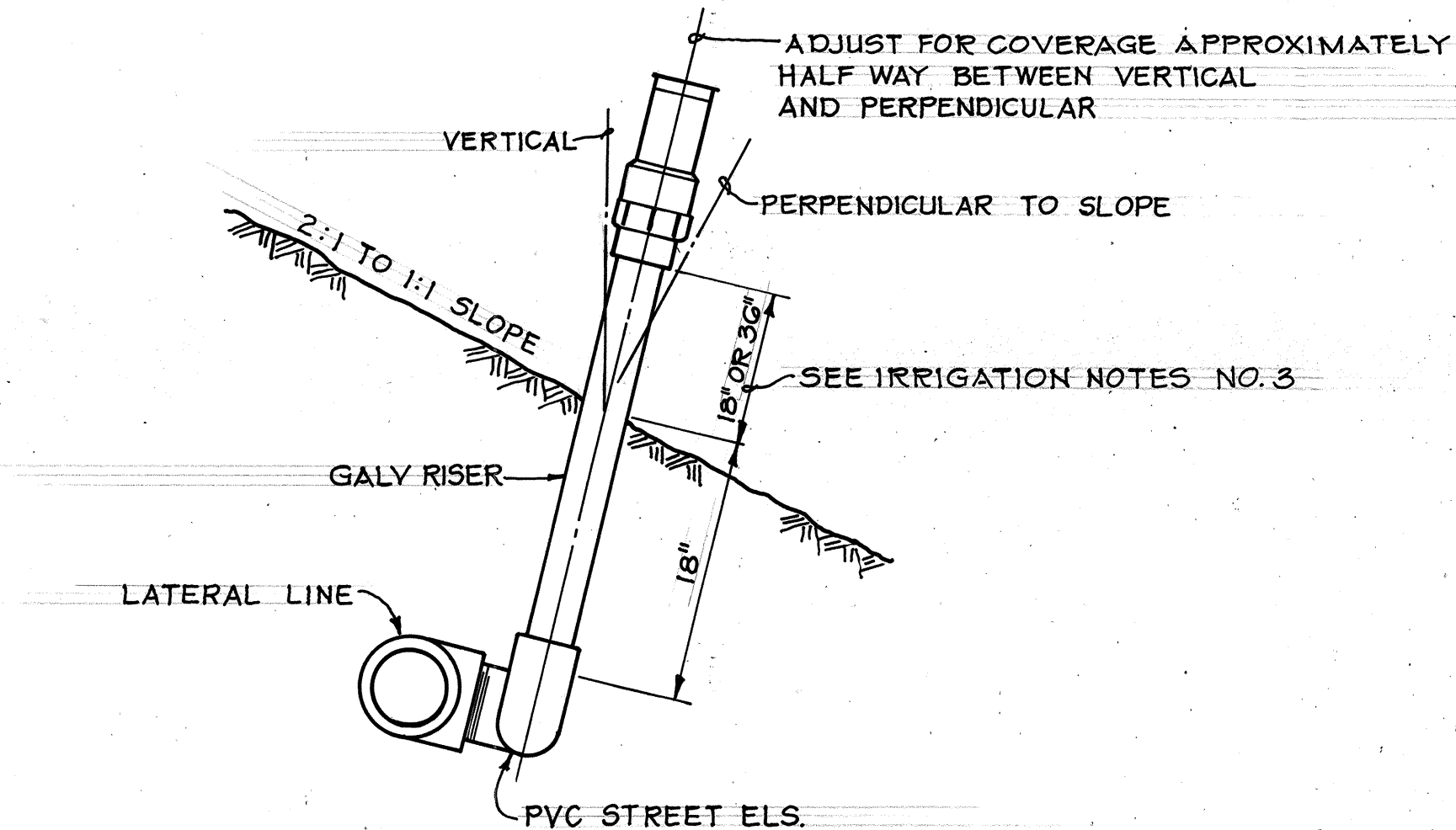
	MINIMUM COVER	
SPRINKLER LATERALS	18"	
SPRINKLER MAINS		
1/2" TO 2 1/2"	18"	
3" OR 4"	24"	
OVER 4"	30"	
ELECTRICAL CONDUIT	24"	
CONTROL WIRES	24"	

- 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".

TRENCH DETAIL



PLASTIC PIPE (IRRIGATION LINE)



SHRUBBERY HEAD DETAIL S-30H

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

IRRIGATION DETAILS
INTERSTATE ROUTE H-1
EXIT RAMP TO AIEA
PROJ. NO. I-HI-1(144):13

NOT TO SCALE
DATE: JUNE, 1977

SHEET No. 2 OF 2 SHEETS

DATE: _____
SURVEY PLOTTED BY: _____
DRAWN BY: _____
CHECKED BY: _____
NOTED BY: _____

No. _____