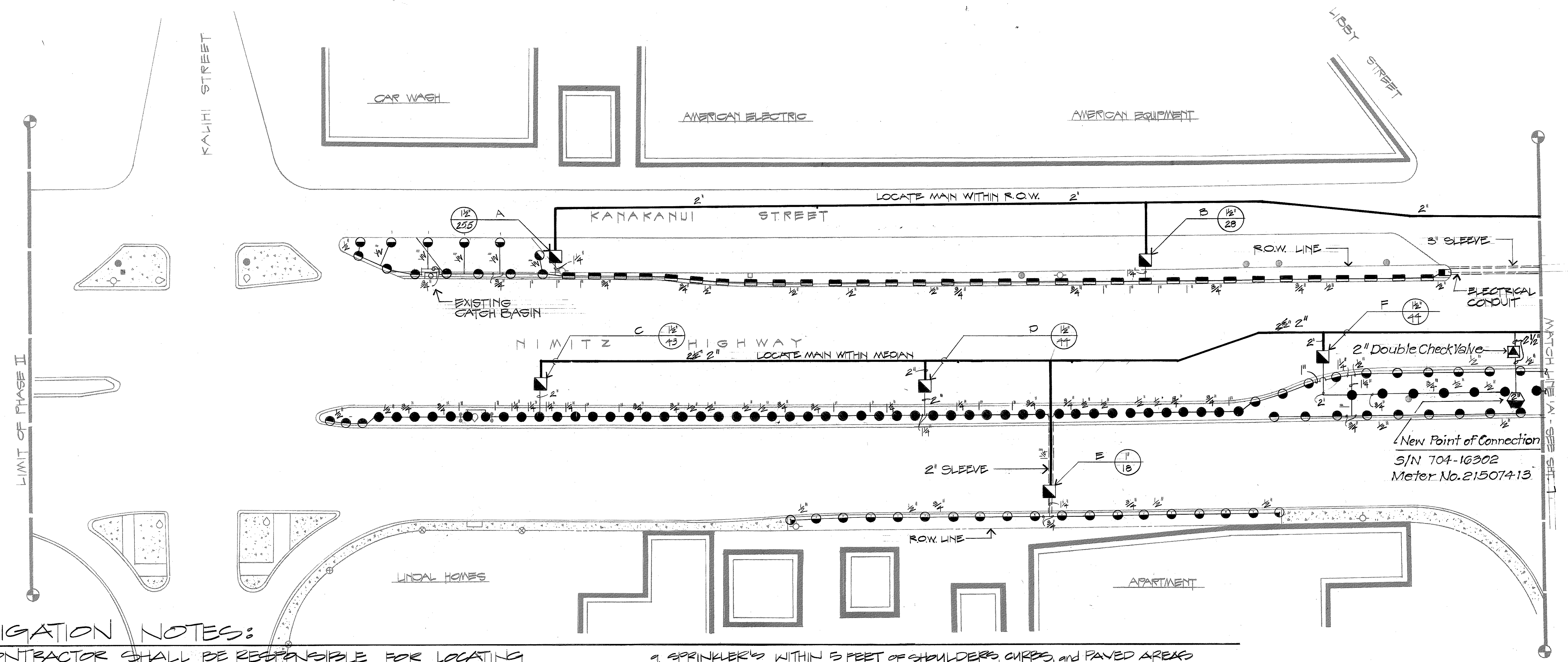


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	92A-03-82	1982	6	14



IRRIGATION NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING and PROTECTING ALL EXISTING UTILITIES.
2. ALL EXPOSED PIPE TO BE GRAY PVC OR PAINTED FLAT GRAY.
3. CONTRACTOR SHALL CONFIRM ALL SITE DIMENSIONS and CONDITIONS and REPORT ANY DISCREPANCIES TO DEPT. OF TRANSPORTATION.
4. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS and OBSERVE ALL LOCAL CODES and REGULATIONS.
5. PLAN IS DIAGRAMATIC. PLACE HEADS TO PROVIDE COVERAGE IN ALL PLANTING AREAS. INSTALL VALVES WITHIN PLANTING AREAS and PIPE WITHIN PLANTING AREAS WHERE NO SLEEVE IS INDICATED.
6. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF SLEEVES and CONDUIT AS NEEDED TO COMPLETE PLAN AS DRAWN.
7. CONTRACTOR TO PROVIDE CONDUIT FOR HECO. PRIMARY SERVICE CONDUCTORS SHALL BE CONCRETE ENCASED. NON METALLIC CONDUIT RUN UNDER THE TRAVELED WAY OR UNDER SHOULDER SHALL BE CONCRETE ENCASED. STEEL OR SCHED. 80 PVC CONDUIT RUN ELSEWHERE UNDERGROUND SHALL BE DIRECTLY BURIED NON-METALLIC, MIN. 1-INCH SIZE. SEE DETAIL SHT. 10. EXPOSED CONDUIT SHALL BE STEEL.
8. ONLY SCHEDULE 80 PVC SHALL BE USED UNDER PAVING.

9. SPRINKLERS WITHIN 5 FEET OF SHOULDERS, CURBS, and PAVED AREAS SHALL BE INSTALLED ON SKIN JOINTS. ALL OTHER SPRINKLERS IN SHRUB and GROUND COVER AREAS SHALL BE INSTALLED ON FLEX RISERS.
10. CONTROL VALVES, GATE VALVES, and DOUBLE CHECK VALVES TO BE LOCATED AT LEAST 4 FEET FROM CURB and PAVED AREAS.
11. ALL SPRINKLER RISERS TO BE SCHEDULE 80 PVC.
12. FOUR 1-CUBIC FOOT THRUST BLOCKS AT ALL TEES and ELBS ALONG MAIN.
13. ADJUST ALL HEADS FOR MAXIMUM COVERAGE and MINIMUM OVERTHROW.
14. CONFIRM WATER PRESSURE ON SITE - NOTIFY DEPARTMENT OF TRANSPORTATION IMMEDIATELY OF ANY DISCREPANCIES.

APPROVED FOR CROSS-CONNECTION CONTROL REQUIREMENTS:

F. J. J. J. 11/9/81
BOARD OF WATER SUPPLY DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

HONOLULU GATEWAY
BEAUTIFICATION PROJECT
PHASE TWO

IRRIGATION PLAN

DATE: JULY 1981
SHEET NO. 1 OF 6 SHEETS

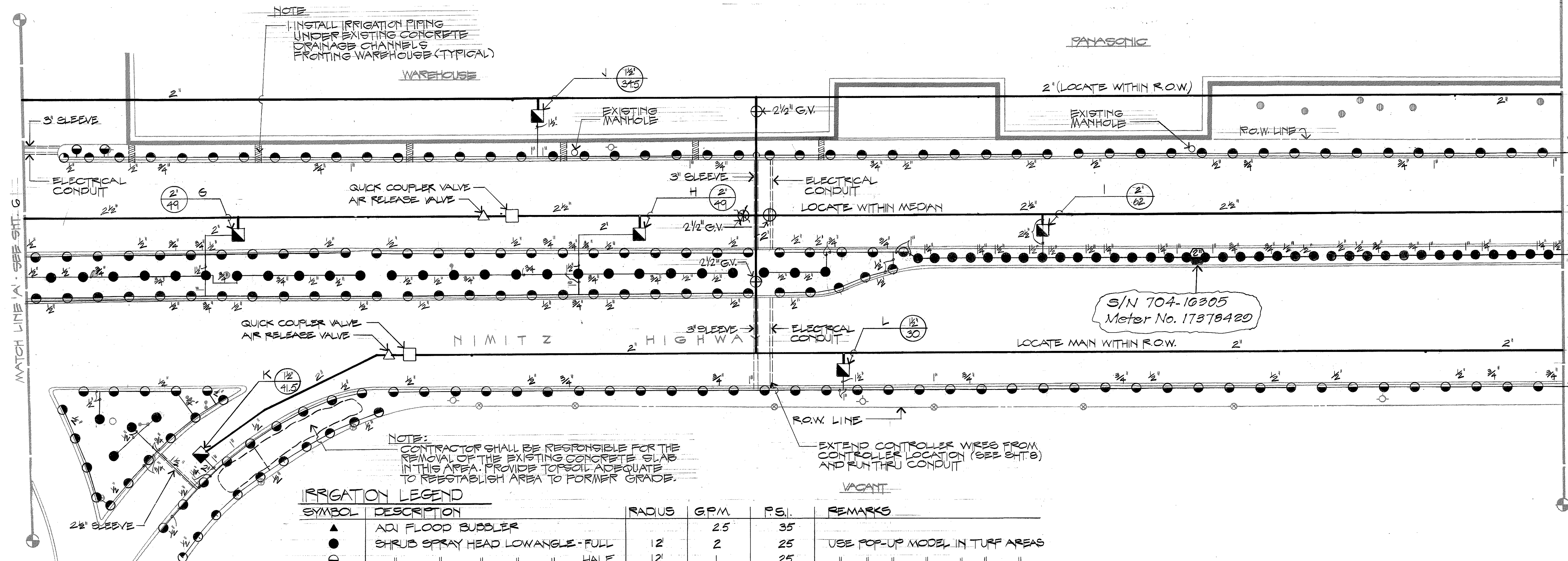
DATE	.....
SURVEY PLOTTED BY	.....
DESIGNED BY	.....
NOTED BY	.....
CHECKED BY	.....

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEET
HAWAII	HAW.	92A-03-82	1982	7	14

NOTE: PLAN IS DIAGRAMMATIC FOR CLARITY.
INSTALL ALL VALVES WITHIN PLANTING
AREAS AND ALL PIPES WITHIN PLANTING
AREAS WHERE NO SLEEVE IS SHOWN

NOTE

1. INSTALL IRRIGATION PIPING
UNDER EXISTING CONCRETE
DRAINAGE CHANNELS
FRONTING WAREHOUSE (TYPICAL)

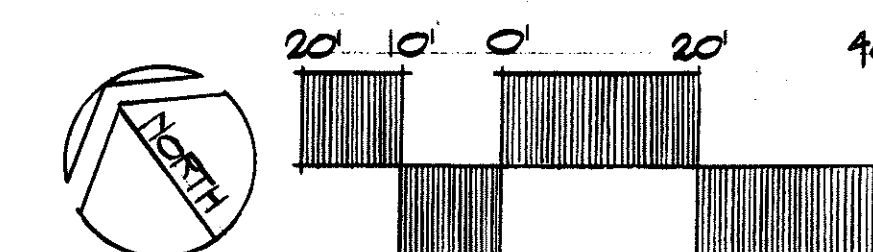


IRRIGATION LEGEND			RADIUS	GPM	P.S.I.	REMARKS
▲	ADI FLOOD BUDDLER			25	35	
●	SHRUB SPRAY HEAD LOW ANGLE - FULL	12	2	25		USE POP-UP MODEL IN TURF AREAS
◐	" " " " HALF	12	1	25		" " " " " " "
◑	" " " " QUARTER	12	.5	25		" " " " " " "
■	GEAR DRIVEN STREAM ROTOR - HALF	28'	2.77	40		
▣	" " " " QUARTER	28'	1.34	40		
▤	SHRUB SPRAY SIDE STRIP HEAD	4'x24'	1.25	25		
▥	" " END STRIP HEAD	4'x15'	.5	25		
▧	ELECTRIC VALVE	⊕ - VALVE SIZE ⊙ - TOTAL GPM				BRASS
⊕	BRASS GATE VALVE					
▲	2" DOUBLE CHECK VALVE					
□	QUICK COUPLER VALVE					
△	AIR RELEASE VALVE					
⊗	AUTOMATIC ELECTRIC CONTROLLER					23 STATION
⊙	EXISTING 1/2" WATER METER					
—	CLASS 200 PVC PIPE					EXCEPT UNDER PAVING, SEE NOTE #8
—	" " " " PRESSURIZED					
===	ELECTRICAL CONDUIT / SLEEVES					SEE NOTE # 7

23 STATION

EXCEPT UNDER PAYING, SEE NOTE #8

SEE NOTE # 7



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

HONOLULU GATEWAY
BEAUTIFICATION PROJECT
PHASE TWO

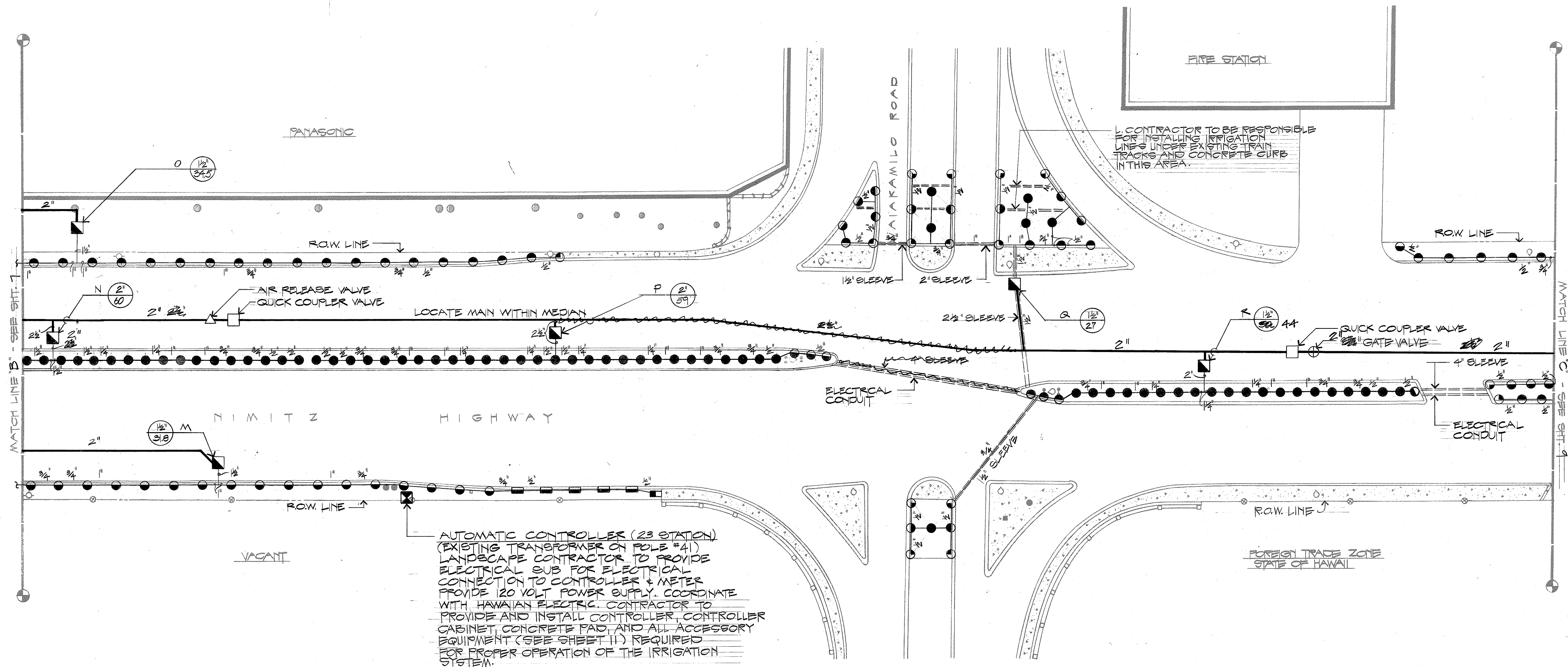
IRRIGATION PLAN

DATE: JULY 1981

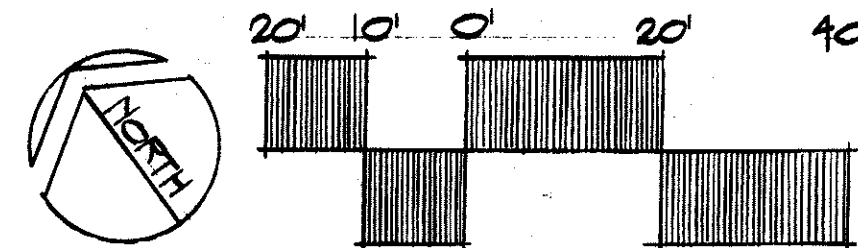
SHEET No. 2 OF 6 SHEETS

10

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	92A-03-82	1982	8	14



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



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
**HONOLULU GATEWAY
BEAUTIFICATION PROJECT
PHASE TWO**

IRRIGATION PLAN

DATE: JULY 1981
SHEET NO. 3 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	92A-03-82	1982	9	14

AUTOMATIC CONTROLLER PROGRAM

STATION	VALVE CONNECTION	MINUTES	DAYS
2	A	33	MWF
3	B	33	MWF
4	C	33	MWF
5	D	33	MWF
6	E+L	33	MWF
7	F	33	MWF
8	G	33	MWF
9	H	33	MWF
10	I	33	MWF
12	J	33	TTHS
13	K	33	TTHS
14	L	33	TTHS
15	M	33	TTHS
16	N	33	TTHS
17	O	33	TTHS
18	P	33	TTHS
19	Q	33	TTHS
20	R	33	TTHS
21	S	38	MTWTHFS
22	T	38	MTWTHFS
23	U	38	MTWTHFS

TOTAL OPERATING TIME PER DAY

MWF = 6 HOURS, 8 MINUTES
TTHS = 6 HOURS, 8 MINUTES

PROGRAMMING NOTES:

1. THIS PROGRAM IS DESIGNED TO PROVIDE APPX. 2" OF WATER PER WEEK FOR ALL PLANTING AREAS
2. OPERATOR SHALL ADJUST WATERING TIME AFTER PLANT ESTABLISHMENT PERIOD, AND TO COMPENSATE FOR VARIABLE SITE CONDITIONS
3. OPERATE THE SYSTEM IN THE EARLY A.M. HOURS. CONTACT DEPT. OF TRANSPORTATION FOR APPROPRIATE HOURS.

WATER METER DATA

S/N - 708-14904
METER # 13903390 TOG
1. HIGH GPM : 70 GPM
2. LOW GPM : 30 GPM
3. GAL/DAY : 17,570
4. GAL/WEEK : 104,502

EXISTING 16" C.I. WATER MAIN

POINT OF CONNECTION

S/N - 708-14904
METER NO. 13903390 TOG
PSI = 60
2" DOUBLE CHECK VALVE

QUICK COUPLER VALVE

Electrical Conduit Under Bridge

New Location

New Point of Connection
S/N 708-140540
Meter No. 2252016

2" Double Check Valve

STATE OF HAWAII

LOCATE THIS SEGMENT OF PIPE WITHIN R.O.W.

GROUND COVER/SHRUB MASS LINES (TYP)

ELECTRICAL CONDUIT

QUICK COUPLER VALVE

AIR RELEASE VALVE

R.O.W. LINE

LOCATE MAIN WITHIN MEDIAN

LOCATE VALVE WITHIN MEDIAN

2 1/2" SLEEVE

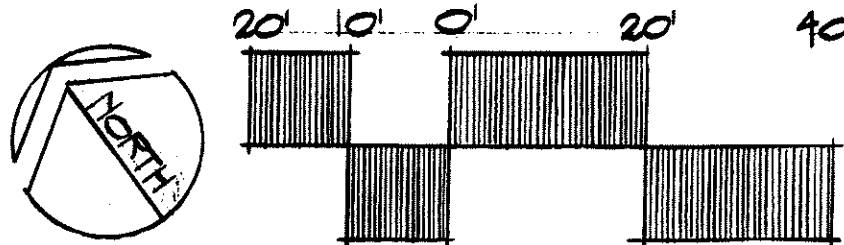
FOREIGN TRADE ZONE
STATE OF HAWAII

CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING IRRIGATION LINE UNDER EXISTING PAVING AND EXISTING IRON RAILROAD TRACKS IN THIS AREA.

CONTRACTOR TO SAWCUT THROUGH EXISTING CONCRETE PAVES TO INSTALL IRRIGATION LINES AS SHOWN. BACKFILL TRENCH TO MEET EXISTING GRADE (TYPICAL)

MATCH LINE 'C' SEE SHEET 8

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	



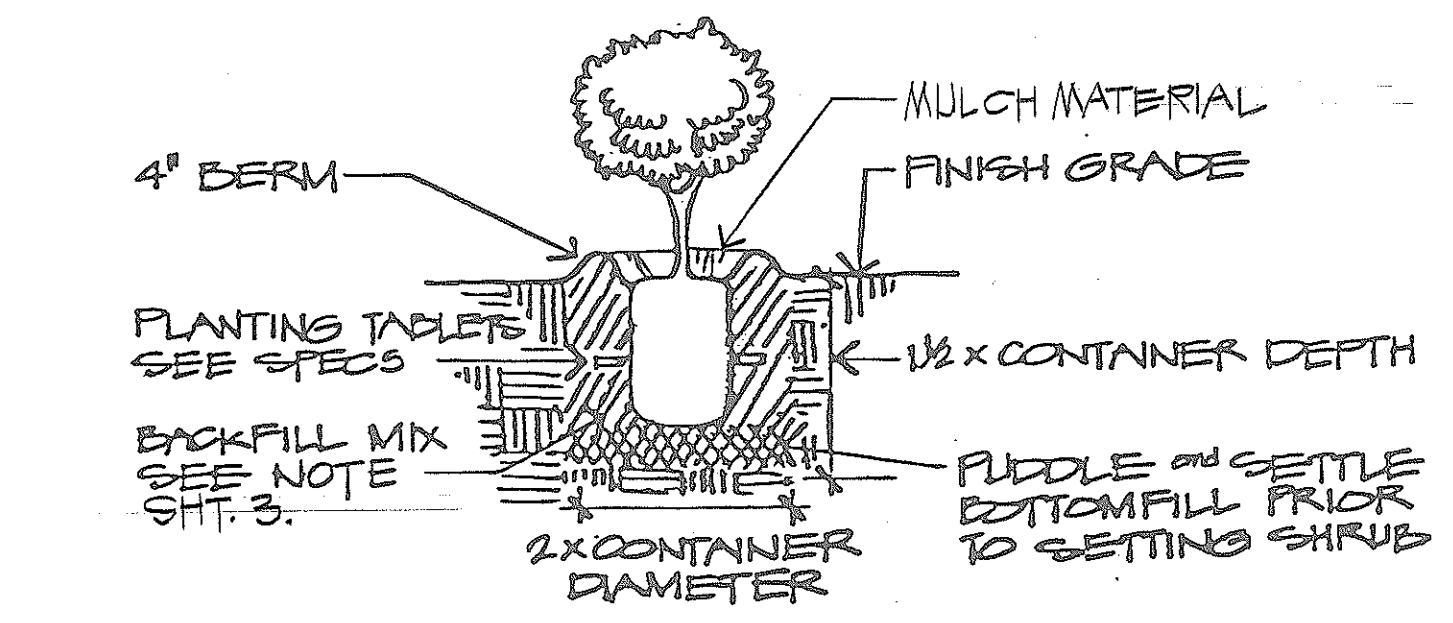
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

HONOLULU GATEWAY
BEAUTIFICATION PROJECT
PHASE TWO

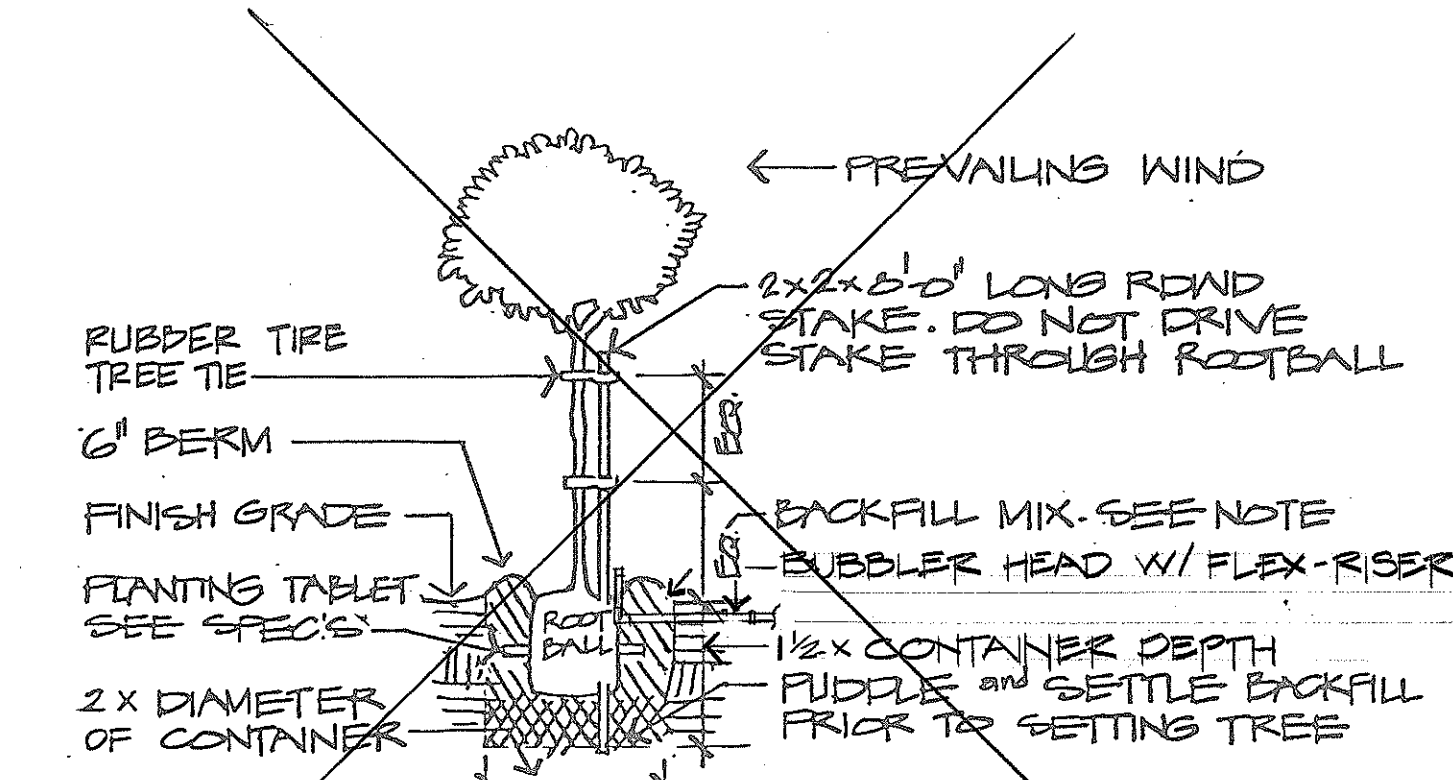
IRRIGATION PLAN

DATE: JULY 1981
SHEET NO. 4 OF 6 SHEETS

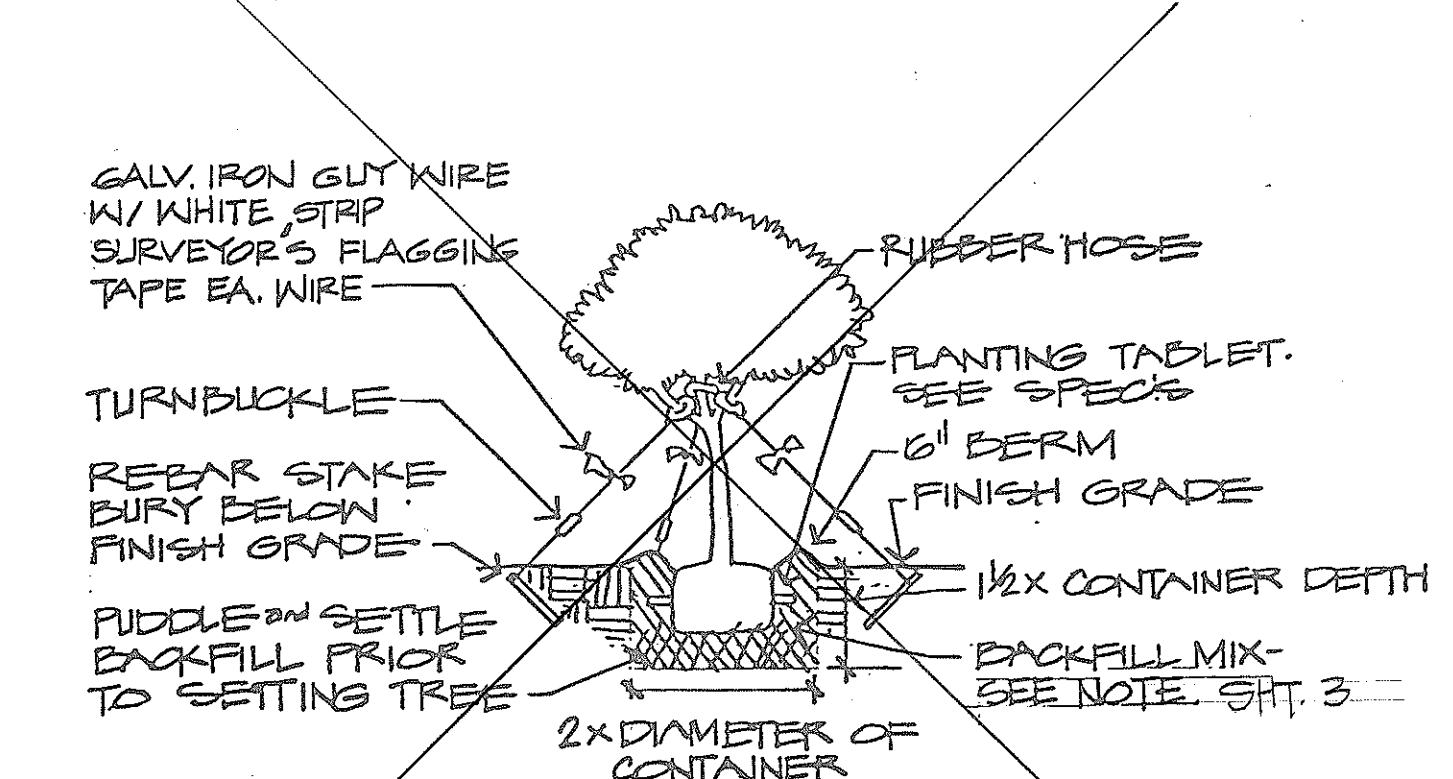
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	92A-03-B2	1982	10	14



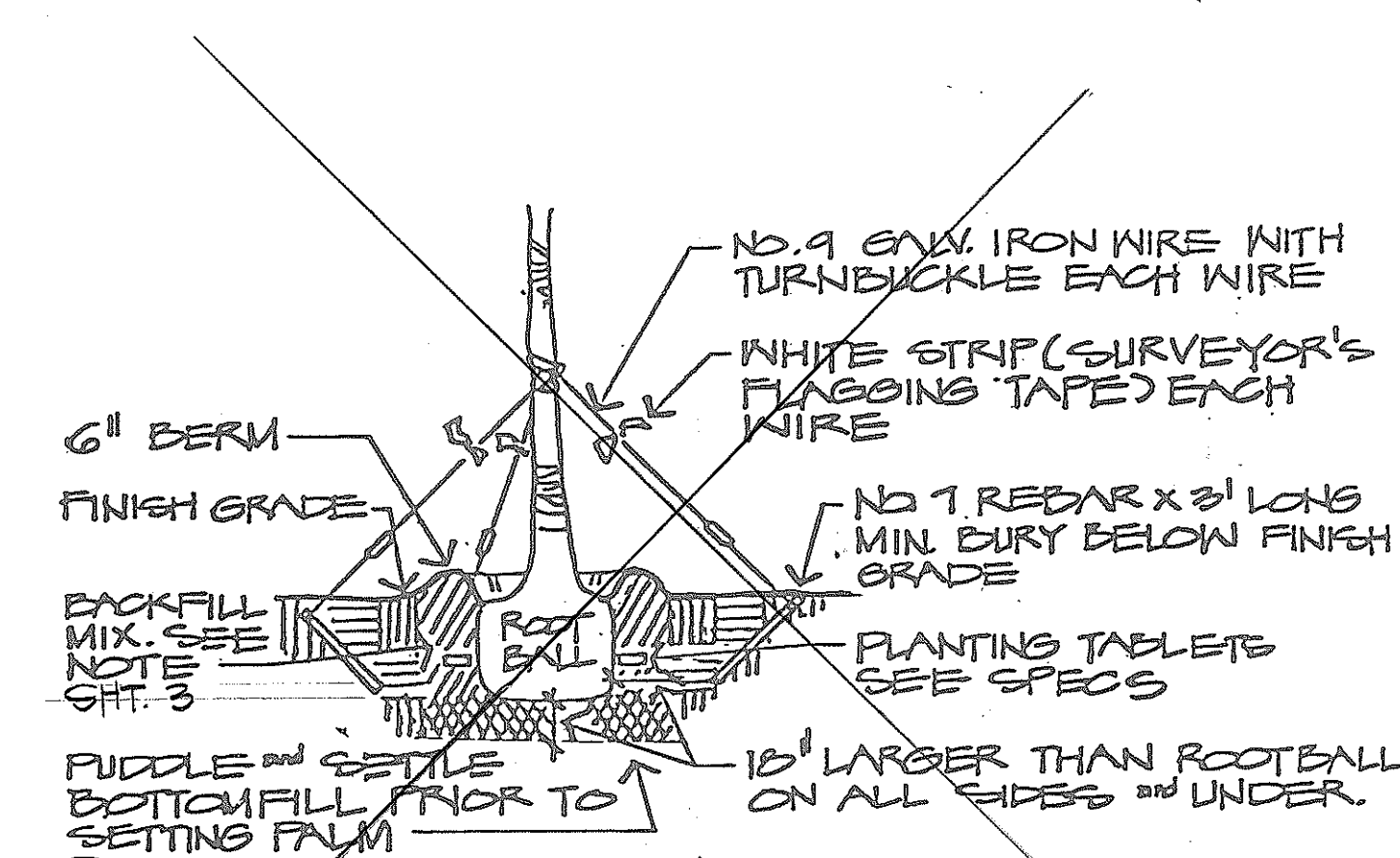
A SHRUB PLANTING DETAIL
NO SCALE



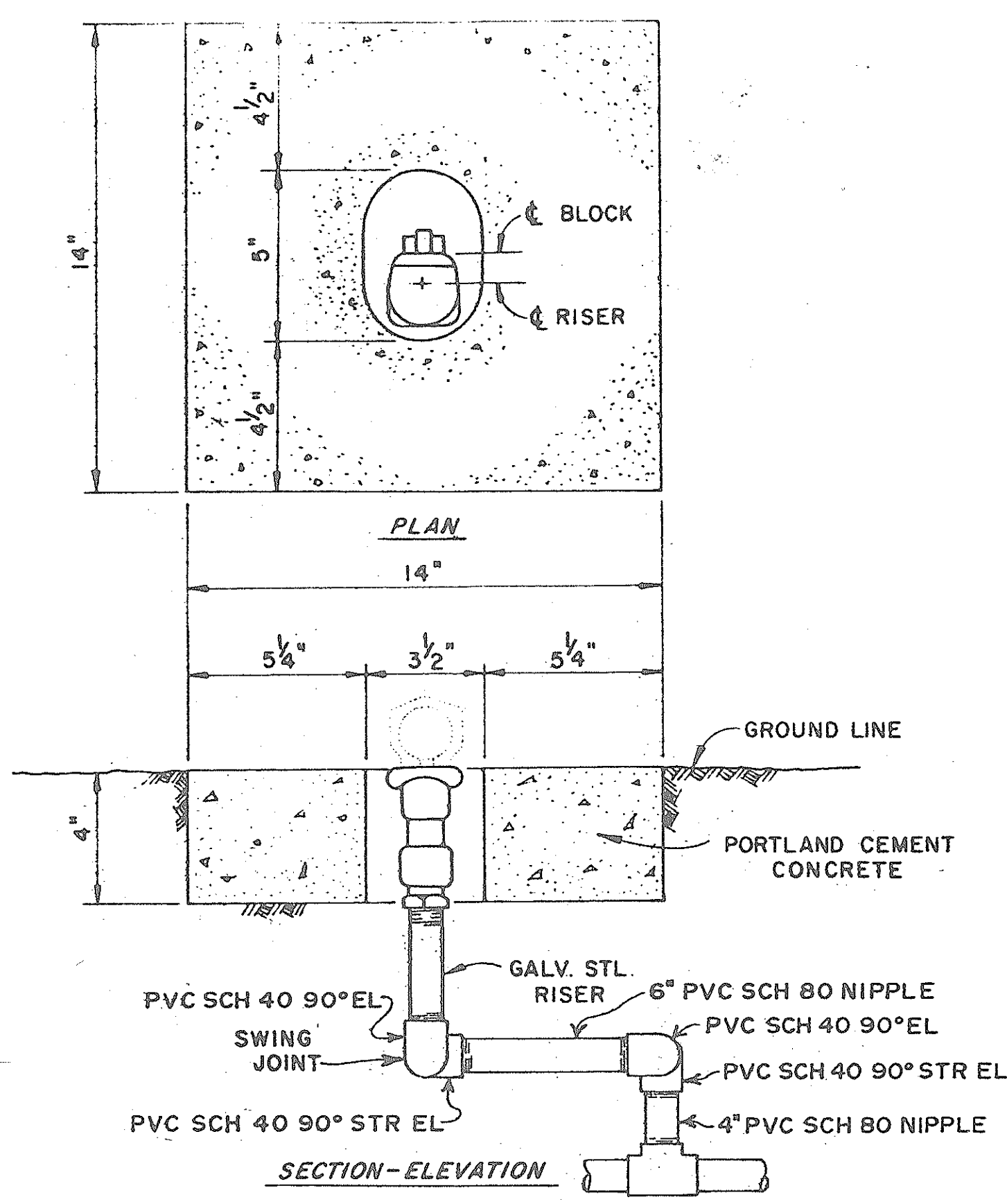
B TREE PLANTING and STAKING DETAIL
NO SCALE



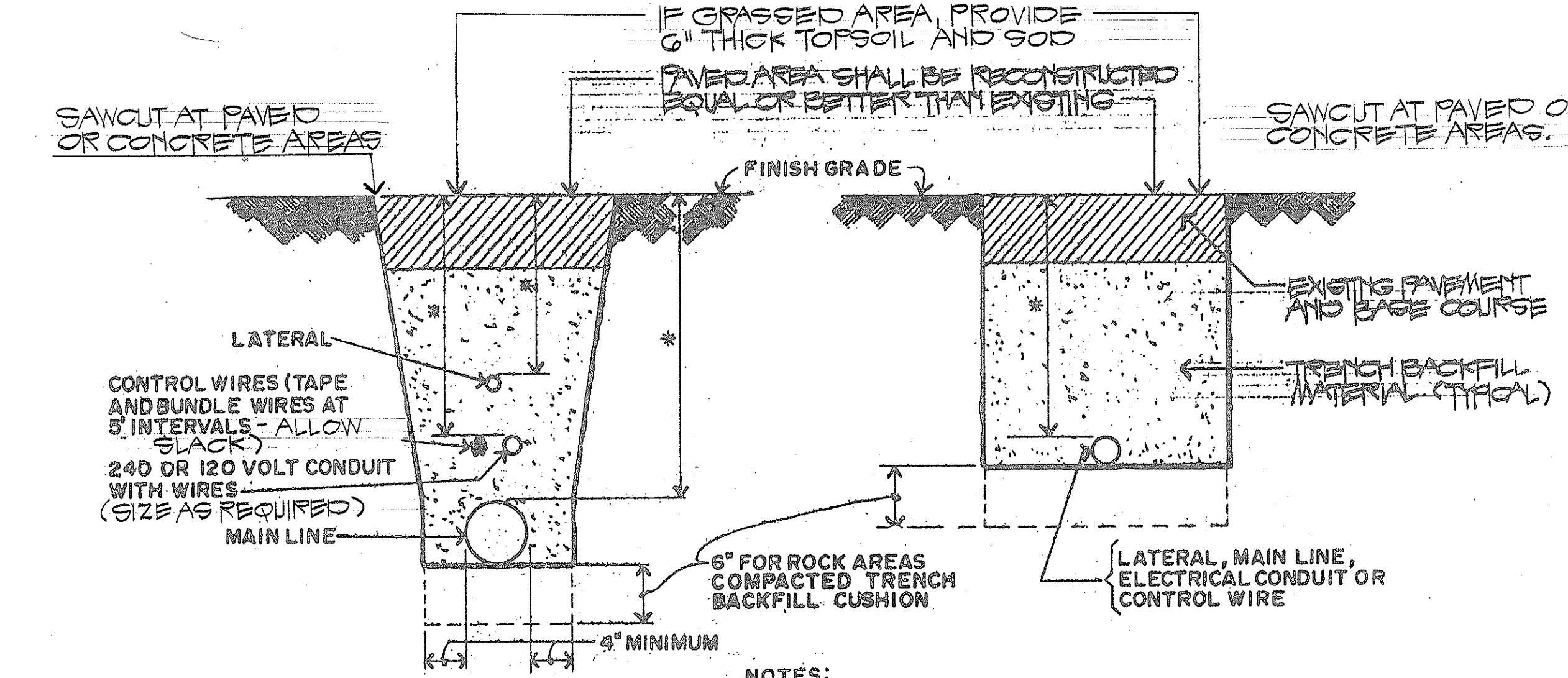
C TREE PLANTING and GUYING DETAIL
NO SCALE



D PALM PLANTING and GUYING DETAIL
NO SCALE

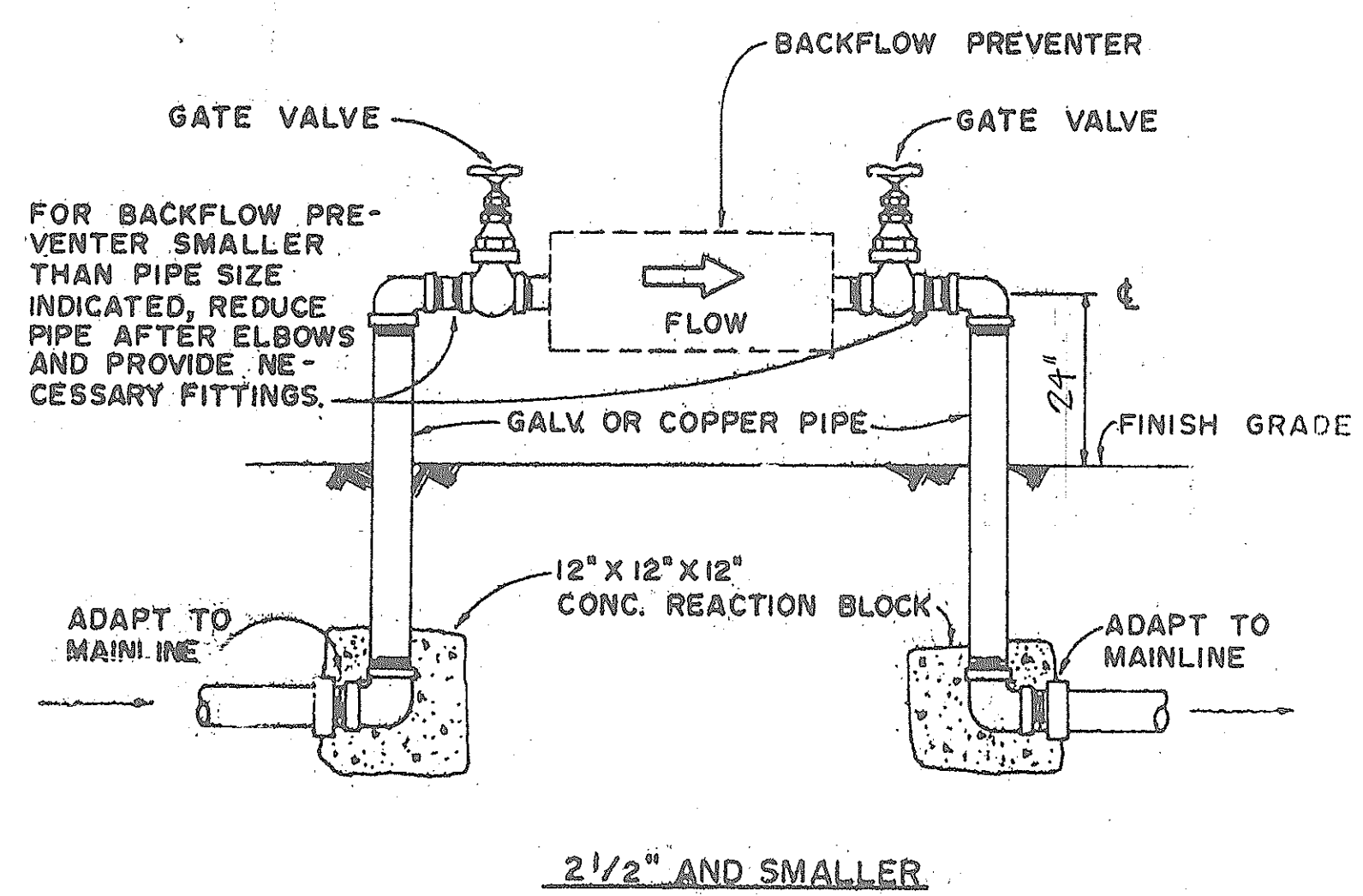


E VALVE PROTECTOR and CONNECTION
FOR QUICK COUPLING VALVE
NO SCALE



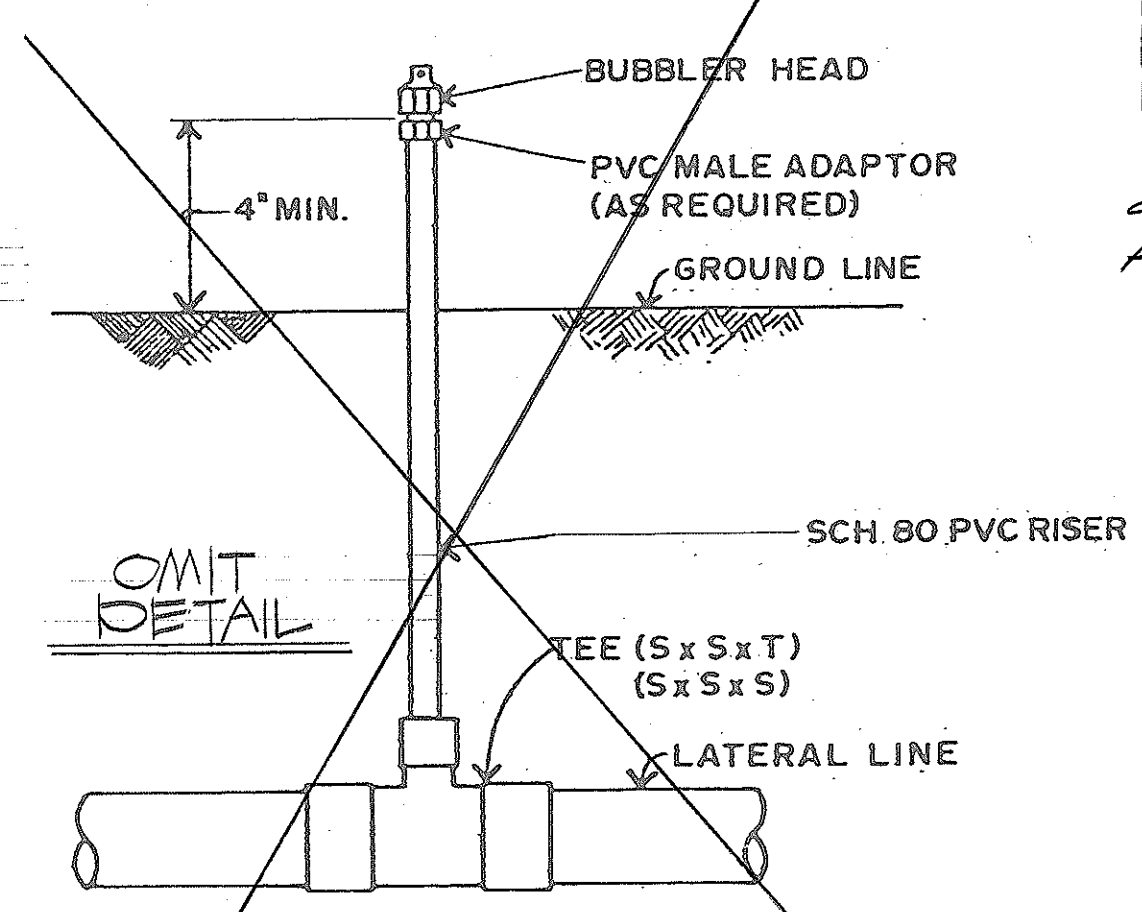
	MINIMUM * COVER
SPRINKLER LATERALS	6"
SPRINKLER MAINS	24"
1/2" TO 2 1/2"	18"
3" OR 4"	24"
OVER 4"	30"
ELECTRICAL CONDUIT	24"
CONTROL WIRES	24"

F TRENCH DETAIL
NO SCALE

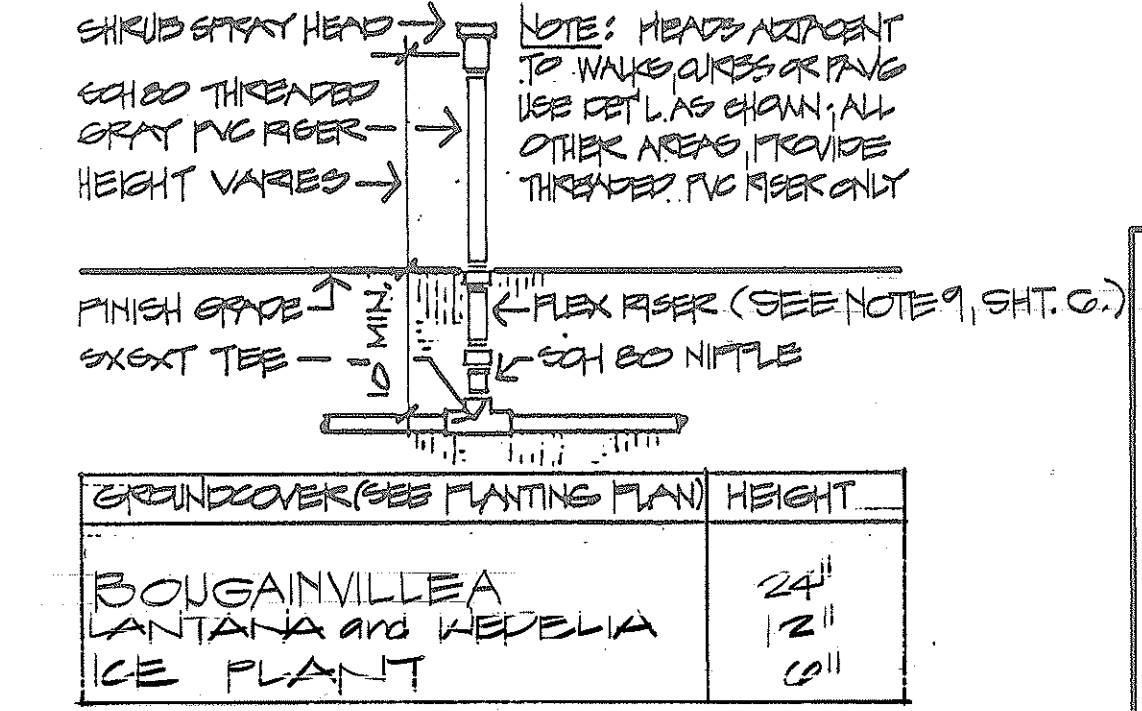


- NOTES:**
1. ONLY ONE TYPE OF PIPE AND FITTINGS SHALL BE USED.
 2. BACKFLOW PREVENTION UNIT SHALL BE PRIME COATED AND PAINTED WITH TWO COATS OF DARK GREEN ENAMEL PAINT TO THE FINISH GRADE.
 3. DUCTILE IRON, CAST IRON OR GALVANIZED PIPE BELOW FINISH GRADE SHALL BE PAINTED WITH TWO COATS OF ASPHALT PAINT.
 4. THERE SHALL BE NO OBSTRUCTION WITHIN A DISTANCE OF TWO (2) FEET SURROUNDING THE BACKFLOW PREVENTION UNIT.
 5. BACKFLOW PREVENTION DEVICE SHALL BE B.W.S. APPROVED MODEL.

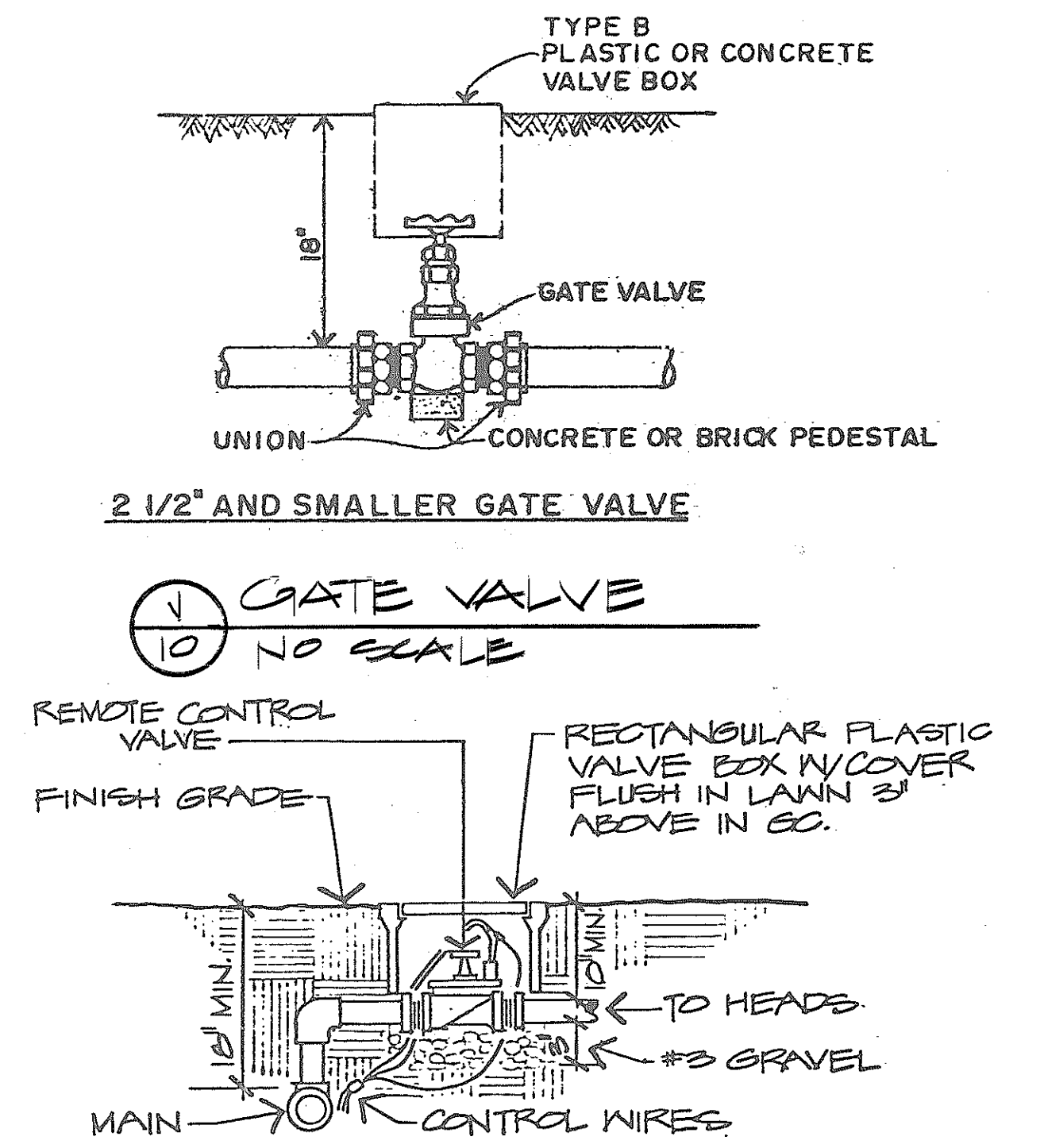
G BACKFLOW PREVENTION
NO SCALE



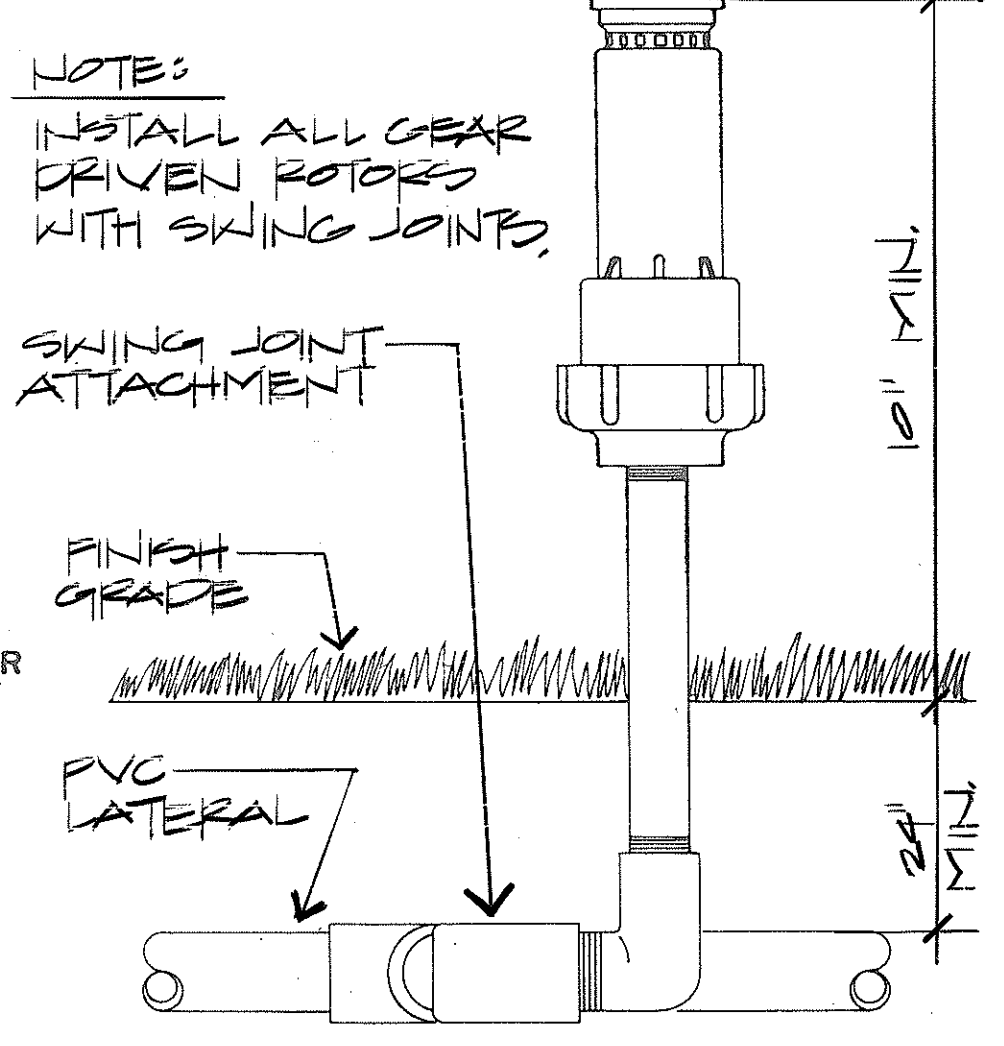
H SPRINKLER DETAIL
NO SCALE



I SHRUB HEAD ON RISER
NO SCALE



J GATE VALVE
NO SCALE



K REMOTE CONTROL VALVE
NO SCALE

NOTES:
INSTALL ALL GEAR DRIVEN ROTORS WITH SWING JOINTS.

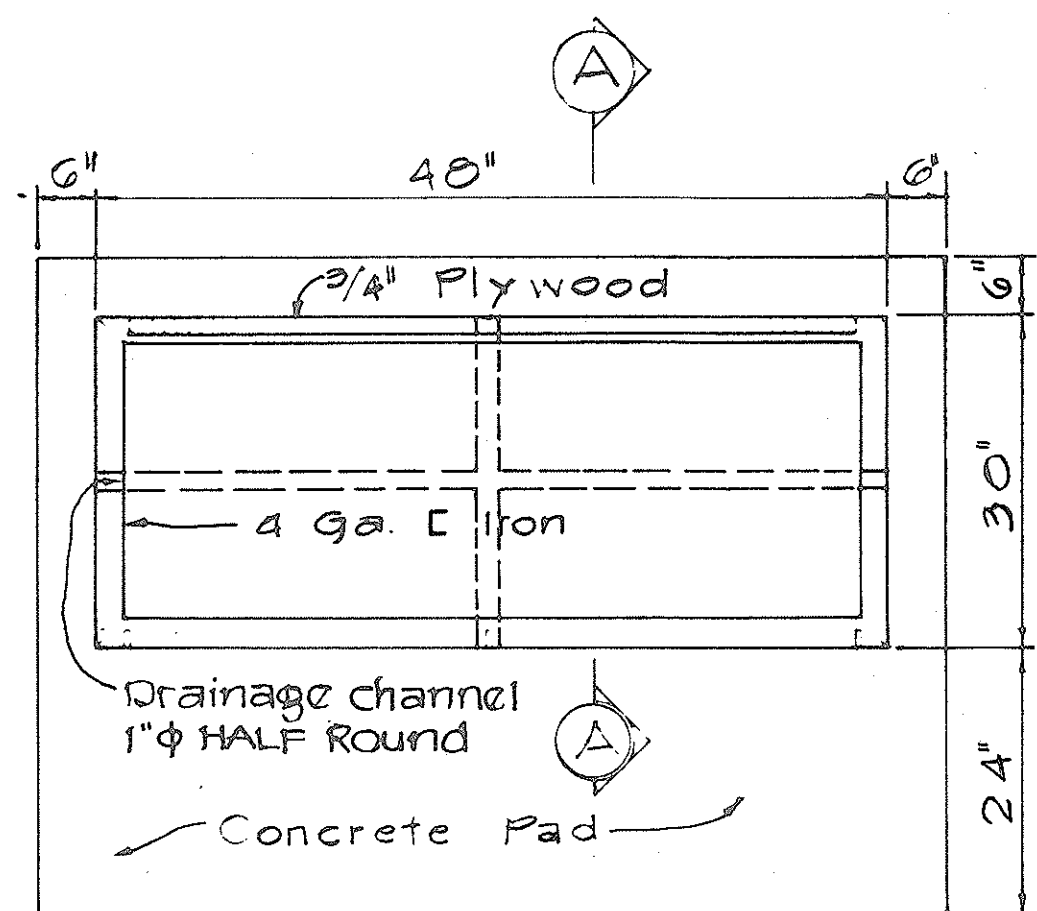
L GEAR DRIVEN ROTOR
NO SCALE

SHRUB SPRAY HEAD	NOTE: HEADS ADJACENT TO WALKWAYS OR RANG USE DET. AS SHOWN; ALL OTHER AREAS PROVIDE THREADED PVC RISER ONLY	HEIGHT
BOUGAINVILLEA		24"
LANTANA and WEDELIA		12"
ICE PLANT		6"

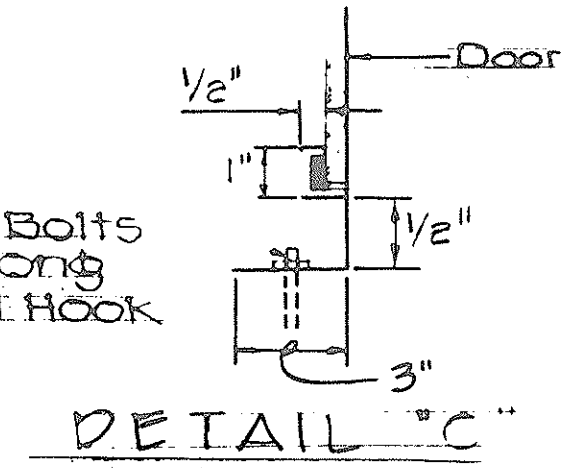
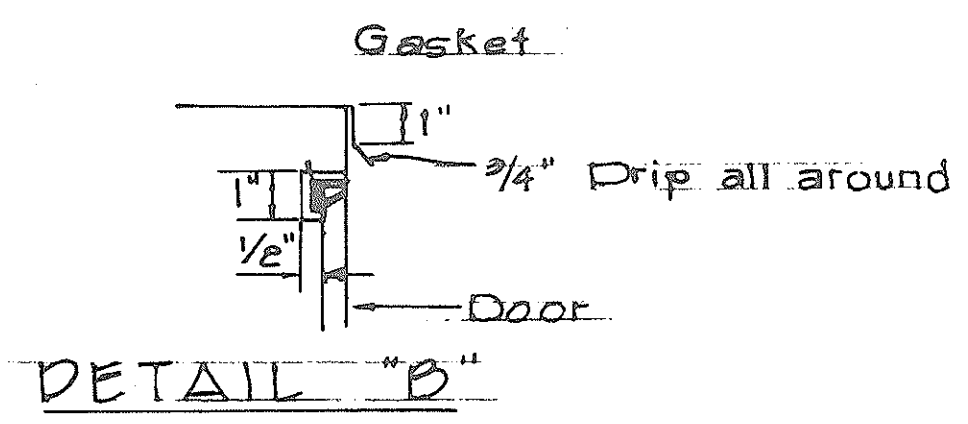
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
**HONOLULU GATEWAY
BEAUTIFICATION PROJECT
PHASE TWO**
DETAILS
DATE: JULY 1981
SHEET NO. 5 OF 6 SHEETS

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

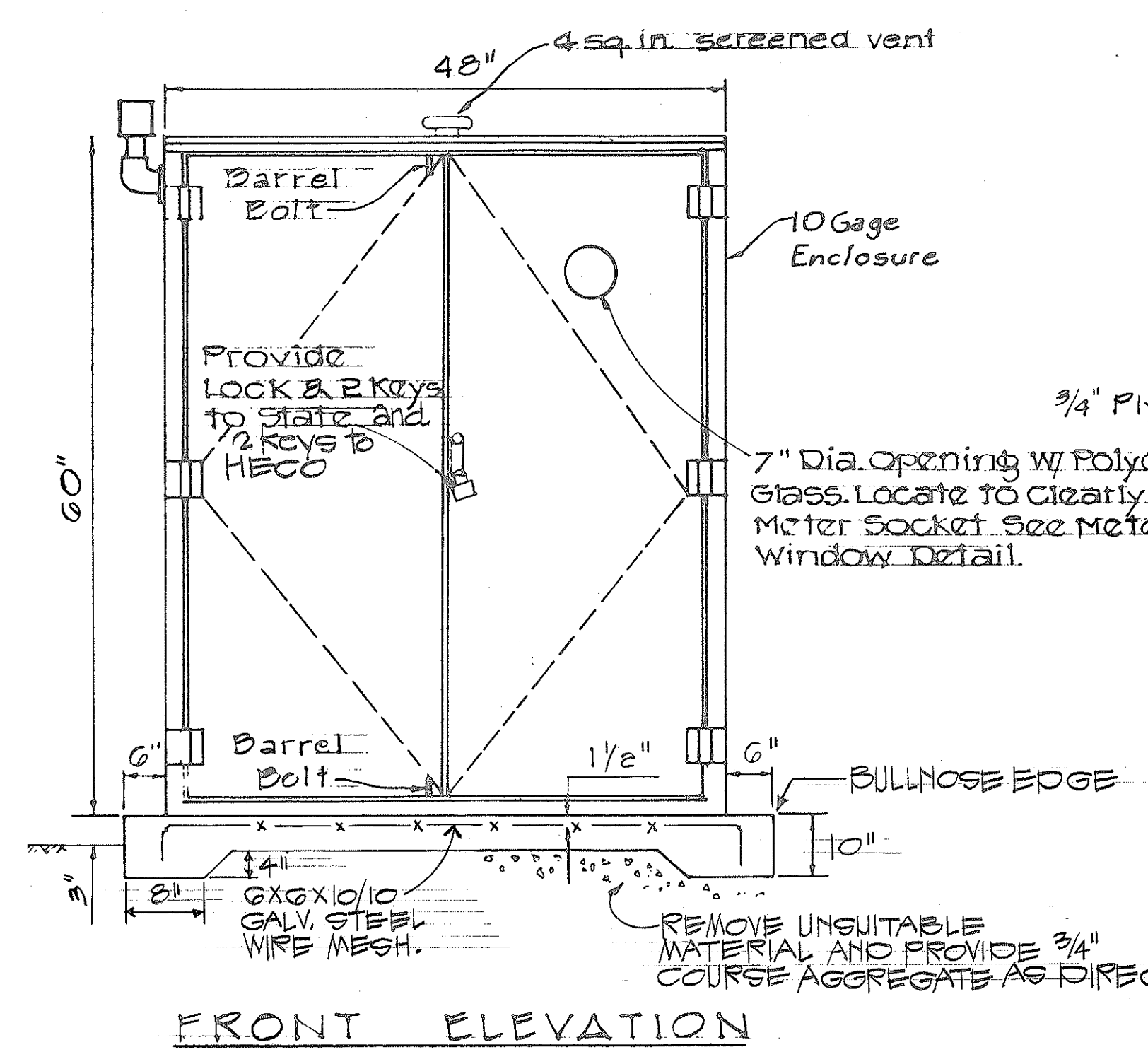
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	92A-03-82	1982	11	14



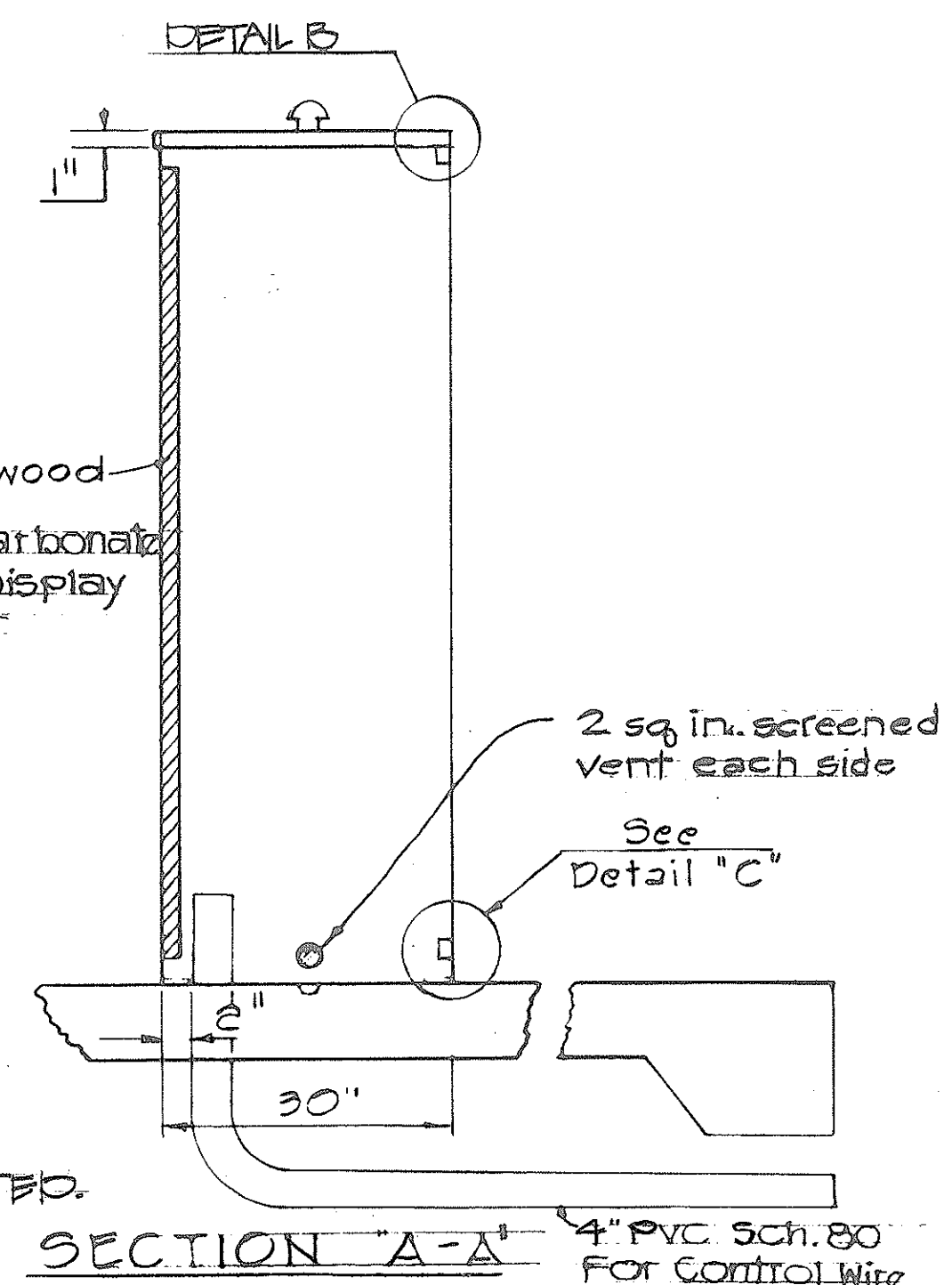
PLAN



(4) Anchor Bolts
5/8" x 4" Long
Gal. Plated Hook
Length 1"

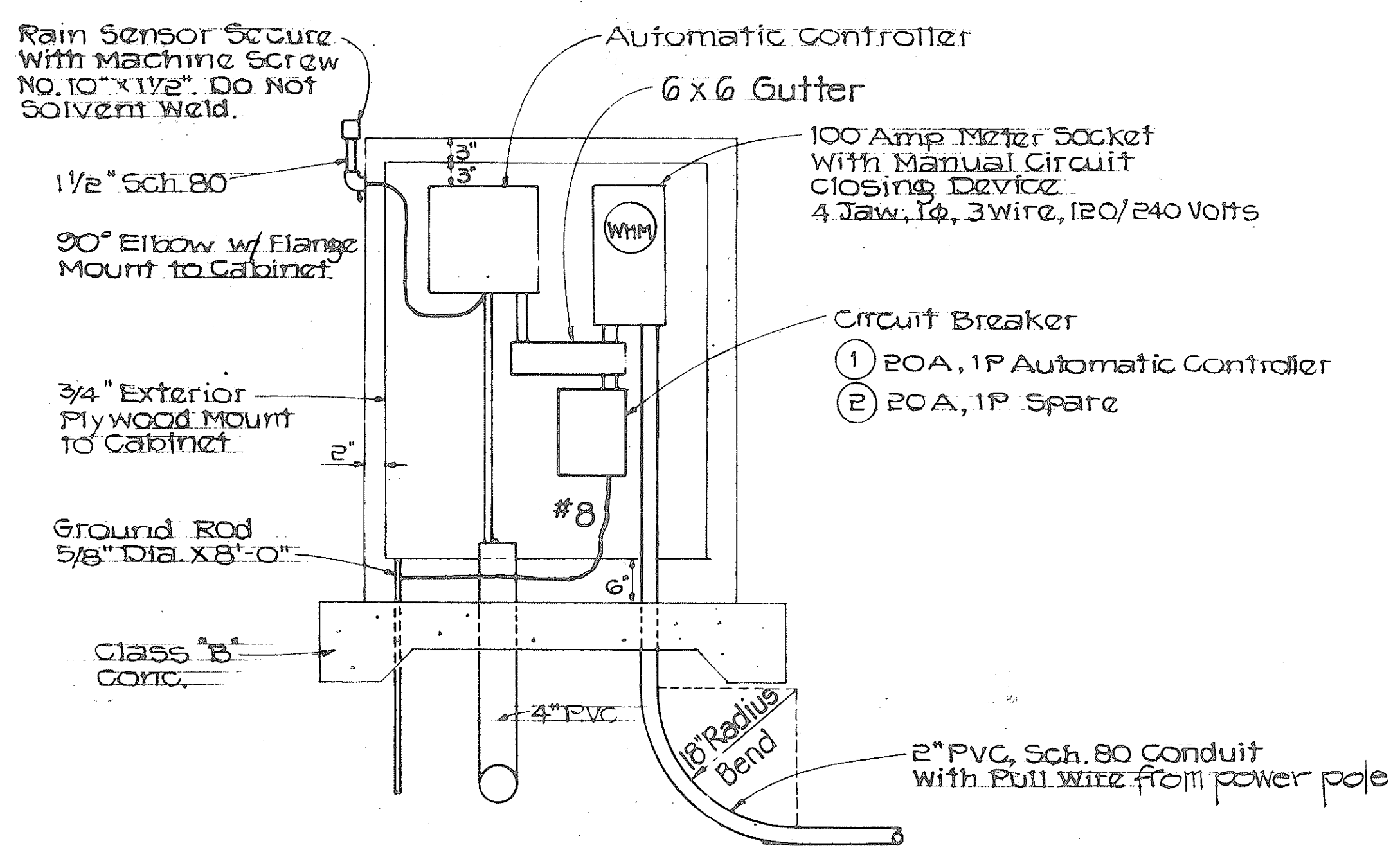


FRONT ELEVATION

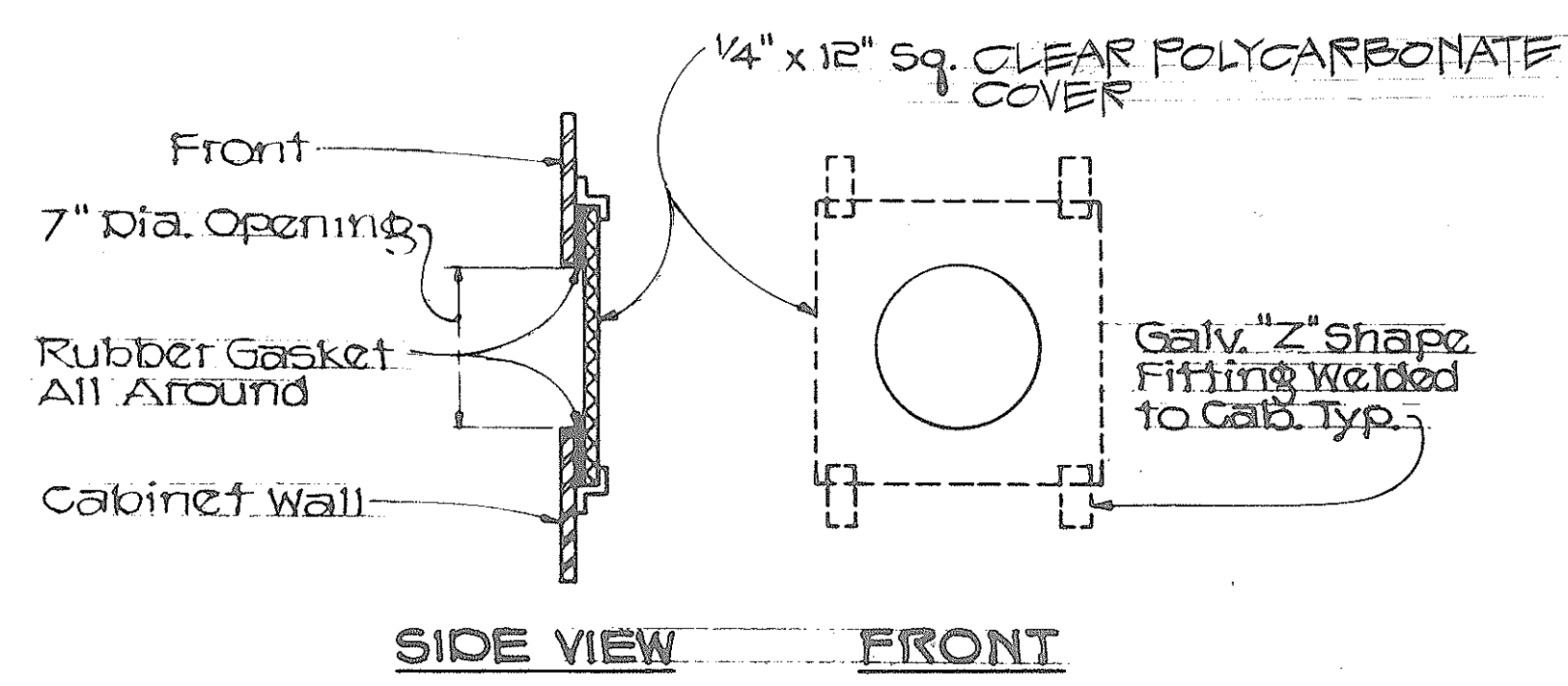


SECTION A-A

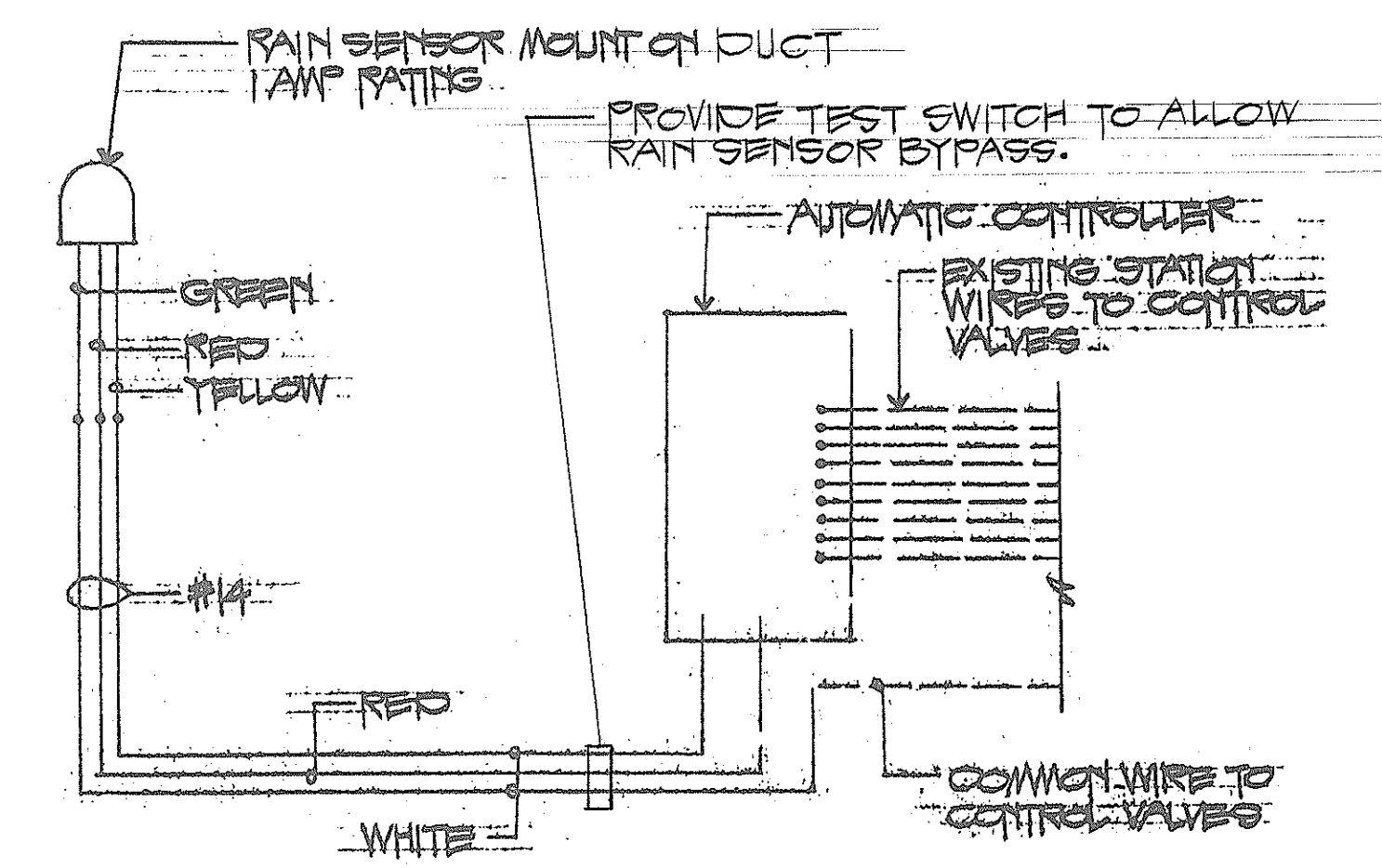
METER and AUTOMATIC CONTROLLER CABINET DETAIL
NO SCALE



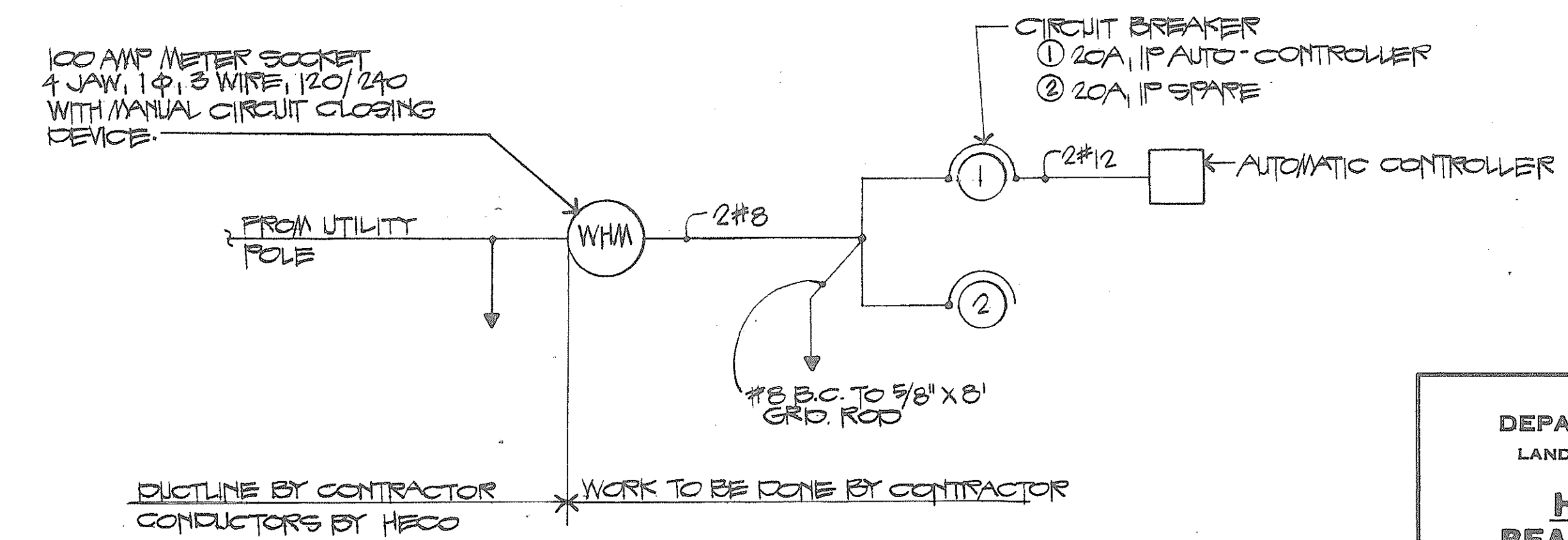
INTERIOR ELEVATION
SCALE: 3/4" = 1'-0"



METER WINDOW DETAIL
NO SCALE



RAIN SENSOR WIRE DIAGRAM
AT AUTOMATIC CONTROLLER



SERVICE CONNECTION ONE-LINE DIAGRAM
NO SCALE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

**HONOLULU GATEWAY
BEAUTIFICATION PROJECT
PHASE TWO**

DETAILS

DATE: JULY 1981
SHEET NO. 6 OF 6 SHEETS

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