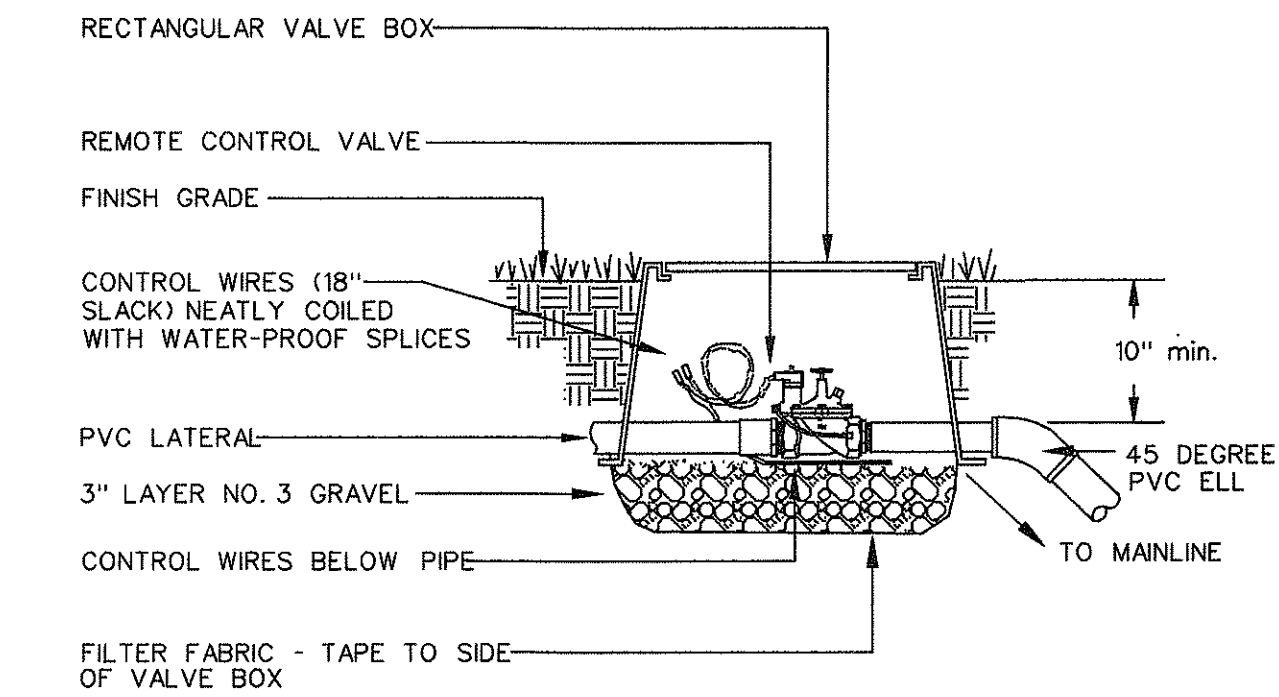
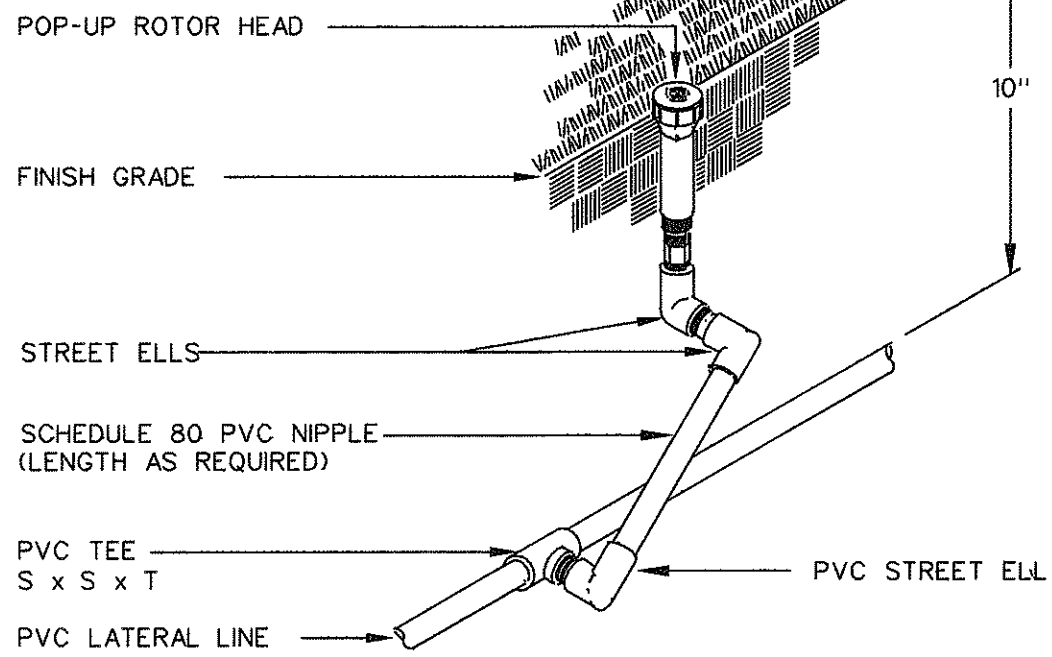


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-099-1(19)	2001	103	105



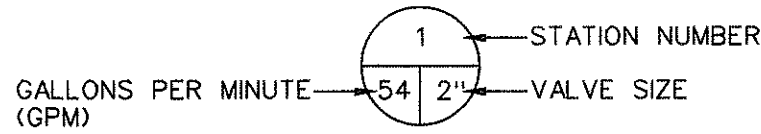
1 PRESSURE REGULATING VALVE  
NOT TO SCALE CADD REF: IRR-210

NOTE: 1. KBI OR LASCO SWING JOINTS MAY BE USED UPON APPROVAL BY LANDSCAPE ARCHITECT.  
2. INSTALL PART CIRCLE POP-UP HEADS 6\"/>



4 ROTOR POP-UP HEAD  
NOT TO SCALE CADD REF: IRR-101

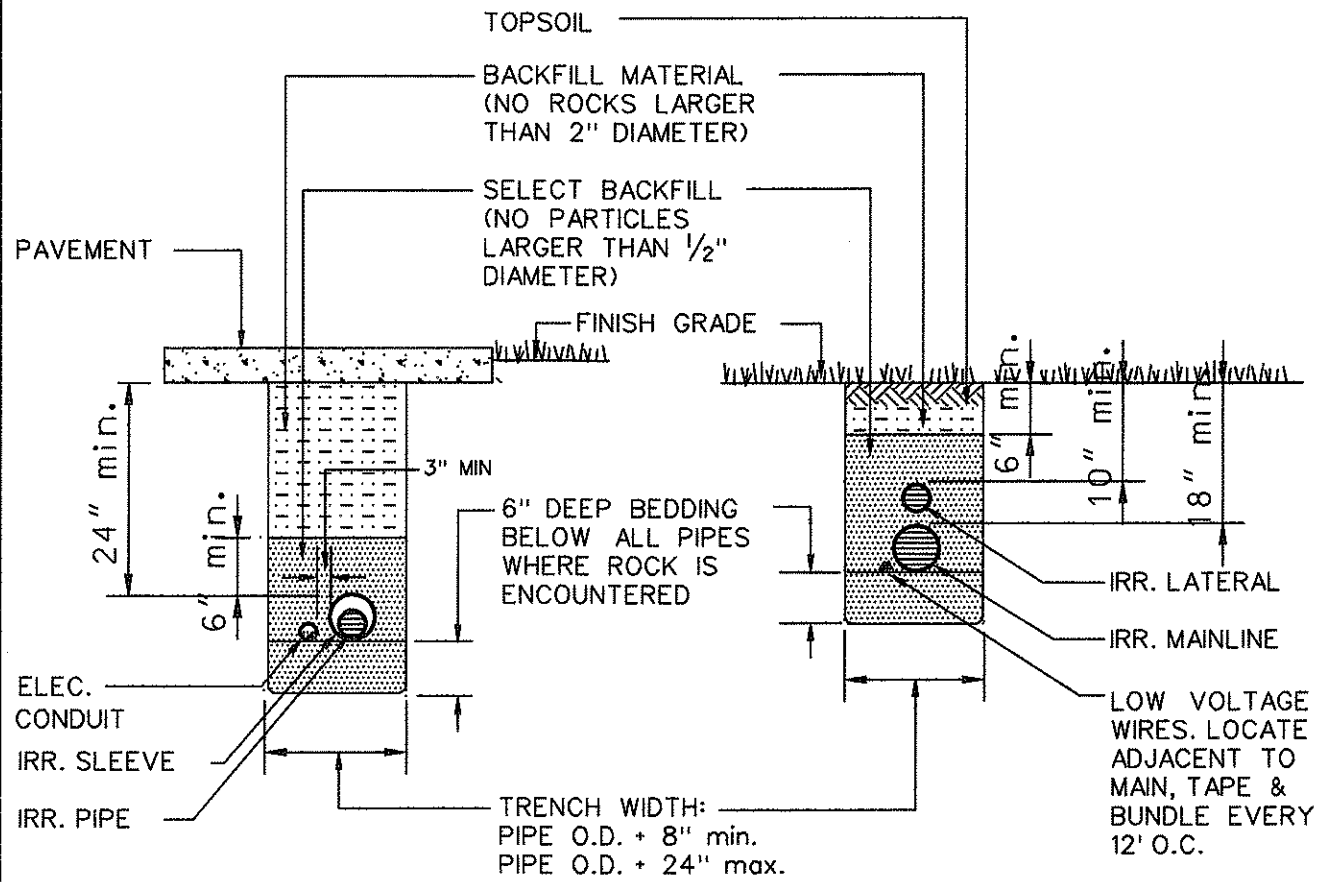
IRRIGATION MATERIAL SCHEDULE			
SYMBOL	DESCRIPTION	MANUFACTURER/ CATALOG NUMBER	DETAIL
	REMOTE CONTROL VALVE	RAINBIRD EFB-CP-PRS-B SERIES OR APPROVED EQUAL, SIZE AS NOTED	NO. 6, SHT. L-3
	IRRIGATION MAINLINE	SCHEDULE 40 PVC, SIZE AS NOTED LAVENDER COLOR	NO. 2, SHT. L-2
	IRRIGATION LATERAL	CLASS 200 PVC, SIZE AS NOTED LAVENDER COLOR	NO. 2, SHT. L-2
	IRRIGATION SLEEVE	SCHEDULE 40 PVC, SIZE AS NOTED	NO. 2, SHT. L-2
	IRRIGATION CONDUIT	SCHEDULE 80 PVC, SIZE AS NOTED	NO. 2, SHT. L-2



IRRIGATION HEAD SCHEDULE					
HEAD SYMBOL	ANGLE	MANUFACTURER/ CATALOG NUMBER	G.P.M.	P.S.I.	RAD.
ROTOR HEAD		RAINBIRD 1800 SERIES (OR APPROVED EQUAL)			
4\"/>	90 °	PGH-ADJ-01 LA	0.5-0.8	30-60	28'-30'
4\"/>	180 °	PGH-ADJ-03 LA	0.9-1.3	30-60	31'-32'
SPRAY HEAD					
12\"/>	90 °	1812-SAM-PRS-15Q 1800 NP COVER (1804-SAM-PRS-15Q IN LAWN AREAS)	1.3-1.85	15-30	11'-15'
12\"/>	180 °	1812-SAM-PRS-15H 1800 NP COVER (1804-SAM-PRS-15H IN LAWN AREAS)	1.3-1.85	15-30	11'-15'
SPRAY HEAD					
12\"/>	EST	1812-SAM-PRS-15EST 1800 NP COVER	0.45-0.61	15-30	4'X 15'
12\"/>	SST	1812-SAM-PRS-15SST 1800 NP COVER	0.89-1.21	15-30	4'X 30'

### IRRIGATION NOTES

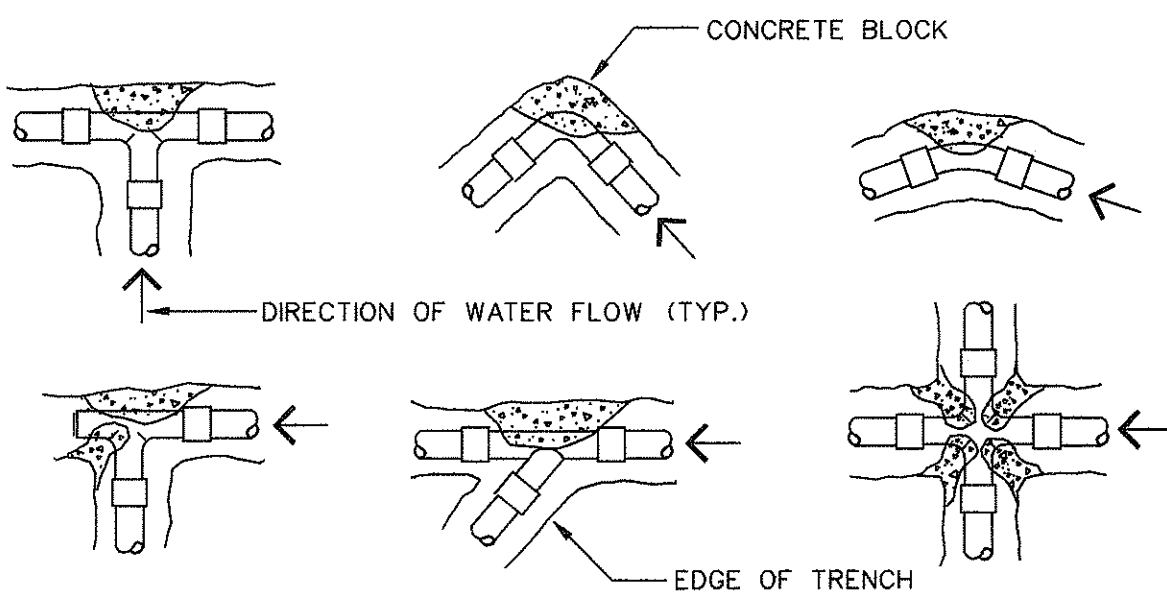
- THIS PLAN IS DIAGRAMMATIC. IRRIGATION SYSTEM IS SUBJECT TO FIELD ADJUSTMENTS DUE TO UNANTICIPATED SITE CONDITIONS. LOCATE ALL MAINLINES, LATERALS, VALVES AND SPRINKLER HEADS WITHIN PLANTING AREAS, UNLESS OTHERWISE NOTED. PLACE MAINLINE IN PLANTING AREAS WHERE NO SLEEVES ARE SHOWN. AVOID ANY CONFLICT BETWEEN UNDERGROUND UTILITIES, STRUCTURES AND PLANTINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES. BURY ALL IRRIGATION LINES UNDER PAVING 24\"/>
- THIS IRRIGATION SYSTEM WAS DESIGNED WITH A MINIMUM STATIC WATER PRESSURE OF 80 PSI AT THE POINT OF CONNECTION. NOTIFY THE PROJECT ENGINEER, IF WATER PRESSURE IS LESS THAN 50 PSI OR GREATER THAN 90 PSI.
- CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS AND OBSERVE ALL LOCAL CODES AND REGULATIONS. THE CONTRACTOR SHALL CONFIRM ALL SITE DIMENSIONS AND CONDITIONS, AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
- CONTRACTOR IS TO COORDINATE THE INSTALLATION OF ALL SLEEVES, CONDUITS, MAINLINES AND LATERALS UNDER PAVEMENT AND THROUGH WALLS. CONTRACTOR SHALL ASSURE THAT THESE ITEMS ARE LAID PRIOR TO PLACEMENT OF PAVEMENT OR WALL STRUCTURES.
- CONTRACTOR SHALL INSTALL IRRIGATION LINES, WIRES, VALVES AND HEADS PER SPECIFICATIONS. EXISTING GATE VALVES, POINT OF CONNECTION, ETC. ARE DERIVED FROM THE BEST AVAILABLE INFORMATION AND ON SITE INSPECTIONS. THE CONTRACTOR SHALL VERIFY THOSE POINTS OF CONNECTION NOTED AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
- LOCATE AND INSTALL ALL SPRINKLER HEADS 6\"/>
- INSTALL ALL IRRIGATION EQUIPMENT IN PLANTING AREAS.



2 TRENCH & WIRING DETAIL  
NOT TO SCALE CADD REF: IRR-402

THRUST BLOCK BEARING AREA (SQ. FT.)				
PIPE SIZE	1 1/4\"/>	3"	4"	6"
TEES/ELLS	1.00	1.00	1.25	3.2
90 BENDS	1.00	1.25	2.00	4.5
45 BENDS	1.00	1.00	1.00	2.4

NOTE:  
INSTALL THRUST BLOCK AT ALL MAINLINE BENDS, TEES OR ELLS AS SHOWN BELOW. THRUST BLOCKS SHALL BE MINIMUM OF (1) CU. FT. REDI-MIX CONCRETE OR 2500 PSI 28 DAY CONCRETE.



3 THRUST BLOCK DETAIL  
NOT TO SCALE CADD REF: IRR-401

SURVEY PLOTTED BY	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**IRRIGATION NOTES,**  
**LEGEND AND DETAILS**  
KAMEHAMEHA HIGHWAY  
Halawa Stream Bridge (Inbound) Replacement  
Federal Aid Project No. BR-099-1(19)  
Scale: 1"=20'-0"  
Date: Jan., 2001