

IRRIGATION LEGEND

SYMBOL	MFG	MODEL NO.	DESCRIPTION	RADIUS	GPM	PSI
●	RAINBIRD	1812-SAM-PRS-8Q	POP-UP SPRAY	8"	26	30
●	RAINBIRD	1812-SAM-PRS-8H	POP-UP SPRAY	8"	52	30
●	RAINBIRD	1812-SAM-PRS-8F	POP-UP SPRAY	8"	1.05	30
●	RAIN BIRD	1812-SAM-PRS-12Q	POP-UP SPRAY	12"	65	30
●	RAIN BIRD	1812-SAM-PRS-12H	POP-UP SPRAY	12"	1.30	30
●	RAIN BIRD	1812-SAM-PRS-12F	POP-UP SPRAY	12"	2.60	30
●	RAINBIRD	1812-SAM-PRS-15Q	POP-UP SPRAY	15"	.92	30
●	RAINBIRD	1812-SAM-PRS-15H	POP-UP SPRAY	15"	1.85	30
●	RAINBIRD	1812-SAM-PRS-15F	POP-UP SPRAY	15"	3.70	30
●	RAINBIRD	1812-SAM-PRS-5Q	POP-UP SPRAY	5"	.20	30
●	RAINBIRD	1812-SAM-PRS-5H	POP-UP SPRAY	5"	1.10	30
●	RAINBIRD	1812-SAM-PRS-5F	POP-UP SPRAY	5"	2.20	30
●	RAINBIRD	1804-SAM-PRS-8Q	POP-UP SPRAY	8"	.56	30
●	RAINBIRD	1804-SAM-PRS-8H	POP-UP SPRAY	8"	1.12	30
●	RAINBIRD	1804-SAM-PRS-8F	POP-UP SPRAY	8"	2.24	30
●	RAINBIRD	1804-SAM-PRS-15Q	POP-UP SPRAY	15"	.92	30
●	RAINBIRD	1804-SAM-PRS-15H	POP-UP SPRAY	15"	1.85	30
●	RAINBIRD	1804-SAM-PRS-15F	POP-UP SPRAY	15"	3.70	30
●	RAINBIRD	1804-SAM-PRS-5Q-B	POP-UP STREAM BUBBLER	5"	3.70	30
●	RAINBIRD	1804-SAM-PRS-5Q-T-B	POP-UP STREAM BUBBLER	5"	.50	30

USE PCS SCREENS TO ADJUST RADIUS. NO OVERSPRAY IS ALLOWED. CONTRACTOR MAY SUBSTITUTE TORO 10' NOZZLES AS NEEDED IN PLACE OF 8' NOZZLES.

①	RAINBIRD	5004-PC-SAM-1.0	ROTOR	25'	.80	35
②	RAINBIRD	5004-PC-SAM-2.0	ROTOR	26'	1.77	35
③	RAINBIRD	5004-FC-SAM-4.0	ROTOR	28'	3.84	35
④	RAINBIRD	5004-PC-SAM-1.0	ROTOR	28'	.97	35
⑤	RAINBIRD	5004-PC-SAM-2.0	ROTOR	32'	1.99	35
⑥	RAINBIRD	5004-FC-SAM-4.0	ROTOR	37'	3.86	35
⑦	RAINBIRD	5004-PC-SAM-1.0	ROTOR	25'	.80	35
⑧	RAINBIRD	5004-PC-SAM-2.0	ROTOR	26'	1.77	35
⑨	RAINBIRD	5004-FC-SAM-4.0	ROTOR	28'	3.84	35
⑩	RAINBIRD	5004-PC-SAM-1.0	ROTOR	28'	.97	35
⑪	RAINBIRD	5004-PC-SAM-2.0	ROTOR	32'	1.99	35
⑫	RAINBIRD	5004-FC-SAM-4.0	ROTOR	37'	3.86	35

2 1/2" GRISWOLD 2230 MASTER VALVE / PRESSURE REGULATOR.
EXISTING 4" REDUCED PRESSURE TYPE BACKFLOW DEVICE - VERIFY LOCATION IN FIELD.
2" (DOMESTIC) EXISTING WATER METER - VERIFY ON SITE FOR EXACT LOCATION.
NIBCO BRASS BALL VALVE OR EQUAL - LINE SIZE
RAINBIRD PESB-PRS REMOTE CONTROL VALVE - SIZES INDICATED
IRRIGATION CONTROLLER - SEE NOTE
PVC SCH 40 LATERAL LINE - 1/2" COVER IN PLANTING AREAS, PVC SCH 40-24" COVER UNDER PAVING.
PVC SCH. 40 MAINLINE 1 1/2" AND SMALLER CLASS 315 2" AND LARGER - 18" COVER IN PLANTING AREAS/ 24" COVER UNDER PAVING - SIZES INDICATED
PVC CLASS 200 WIRE SLEEVE - SIZES AND LOCATION BY CONTRACTOR.
PVC SCHEDULE 40 MAIN AND LATERAL LINE SLEEVE 2 X DIA. OF PIPE.
INDICATES VALVE NUMBER
INDICATES CONTROLLER
INDICATES VALVE GPM
INDICATES VALVE SIZE
* CONTRACTOR TO PULL (6) LABELED CONTROL WIRES AND (1) COMMON WIRE TO THESE LOCATIONS FOR FUTURE DEVELOPMENT. LOCATE WIRES WITH A 36" LOOP IN A MARKED VALVE BOX. NOTE THESE LOCATIONS IN CONTROLLER ENCLOSURE.

Quick Coupler (RFI 80)

IRRIGATION NOTES

DIAGRAMMATIC PLAN
THIS SYSTEM IS DIAGRAMMATIC. ALL PIPE, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS AND JOINT TRENCHES WHEREVER POSSIBLE.

SPRINKLER ADJUSTMENT REQUIRED
THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND PREVENT OVERSPRAY ONTO WALKS AND ROADWAYS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITIONS. CONTRACTOR TO USE PRESSURE COMPENSATING SCREENS WHEN RADIUS IS REDUCED MORE THAN FIFTY PERCENT (50%).

FIELD CONDITIONS
DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS INDICATED ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR GRADE DIFFERENCES EXIST AND SHOULD BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR MUST ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS REQUIRED.

SWING JOINTS
INSTALL ALL HEADS WITH TRIPLE SWING JOINTS, USING STREET ELLS, AS PER DETAIL.

MINIMUM PRESSURE AND MAXIMUM GALLONS REQUIRED
THE SPRINKLER SYSTEM DESIGN IS BASED ON A MINIMUM OPERATIONAL PRESSURE AND A MAXIMUM DEMAND AT THE POINT OF CONNECTION, AS NOTED ON THE PLAN. BEFORE INSTALLING THE SYSTEM, CHECK POINT OF CONNECTION AND IMMEDIATELY NOTIFY CONTRACTING OFFICER IF PRESSURE IS NOT AS NOTED OR THE REQUIRED GALLONS PER MINUTE IS NOT AVAILABLE.

WATER LINE UNDER PAVING
ALL MAINLINE UNDER PAVING SHALL BE INSTALLED 24" DEEP. ALL LATERAL LINES UNDER PAVING SHALL BE SCH 40 PVC AND INSTALLED 24" DEEP.

SYSTEM COVERAGE
THE IRRIGATION CONTRACTOR IS TO ADJUST HEAD LOCATIONS IN THE FIELD IN ORDER TO GUARANTEE 100% COVERAGE. CONTRACTOR TO CONTACT THE CONTRACTING OFFICER PRIOR TO ANY MAJOR CHANGES RESULTING IN ADDITIONAL COST TO THE OWNER.

CONTROLLER NOTE 'A'
CONTRACTOR TO INSTALL AN IRRITROL SYSTEMS MC PLUS SERIES (36) STATION IRRIGATION CONTROLLER IN A STAINLESS STEEL ENCLOSURE, MODEL #CA1-IR1-36, BY UNITED GREENTECH. 800 427 0779.
CONTRACTOR TO PROVIDE 110V CONTINUOUS POWER.
INCLUDE WITH CONTROLLER A WCS 'RAIN GUARD' RAIN SHUT OFF DEVICE.
LOCATE IN AN AREA FREE FROM OVERHEAD OBSTRUCTION.
COORDINATE LOCATION WITH CITY REP. AND LANDSCAPE ARCHITECT.

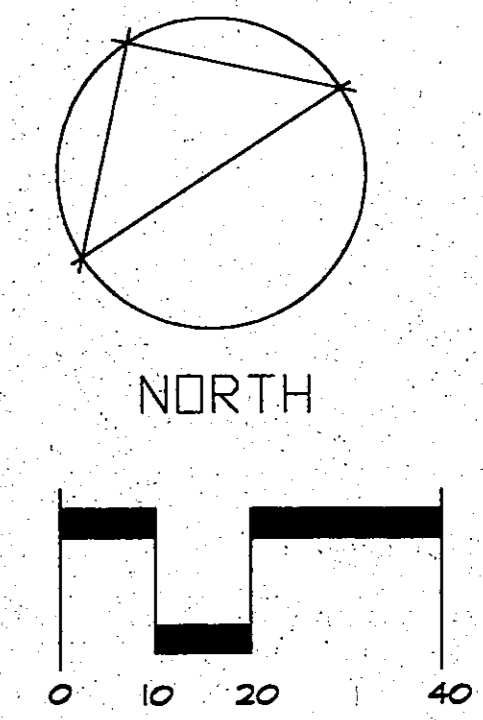
WORST CONDITION CALC.

VALVE A6 @ 39 GPM

SIZE	ITEM	LOSS
2"	EXISTING WATER METER	1.3
2"	EXISTING BACKFLOW DEVICE	13.0
3"	GATE VALVE	1.8
1 1/2"	REMOTE CONTROL VALVE	2.7
3"	CL 315 MAINLINE	0.19
2"	CL 315 MAINLINE	N/A
	SCH 40 PVC LATERAL LINES	4.8
	IRRIGATION HEAD PRESSURE ELEVATION LOSS	N/A
	SYSTEM LOSS	53.79
	10% RESIDUAL PRESSURE	5.4
	TOTAL SYSTEM LOSS	59.19
	AVAILABLE PRESSURE	115 PSI
	RESIDUAL PSI	+ 55.8 PSI
	SET REGULATOR @ 85 PSI WITH A NORMALLY OPEN MASTER VALVE.	

POINT OF CONNECTION 'A'
EXISTING REDUCED PRESSURE TYPE BACKFLOW DEVICE.
CONTRACTOR TO INSTALL A NEW MASTER VALVE / PRESSURE REGULATOR AND MASTER VALVE RELAY TO CONTROLLER.
COORDINATE THESE LOCATIONS WITH OWNER REPRESENTATIVE AND LANDSCAPE ARCHITECT.

AVAILABLE PRESSURE : 115 PSI
DESIGN PRESSURE : 59 PSI
MAXIMUM DEMAND : 39 GPM



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CENTER EXPANSION
31501 Palos Verdes Drive West
Rancho Palos Verdes, CA

Irrigation Plan

DRAWN	CHECKED	DATE	SCALE	JOB. NO.	SHEET
	JDC	2.11.04	1"=20'-0"	232	

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11 OF 69 SHEETS

On the Architect's proposal, the contractor shall be responsible for obtaining all necessary permits and for the design and construction of the irrigation system. The contractor shall be responsible for the design and construction of the irrigation system. The contractor shall be responsible for the design and construction of the irrigation system.