

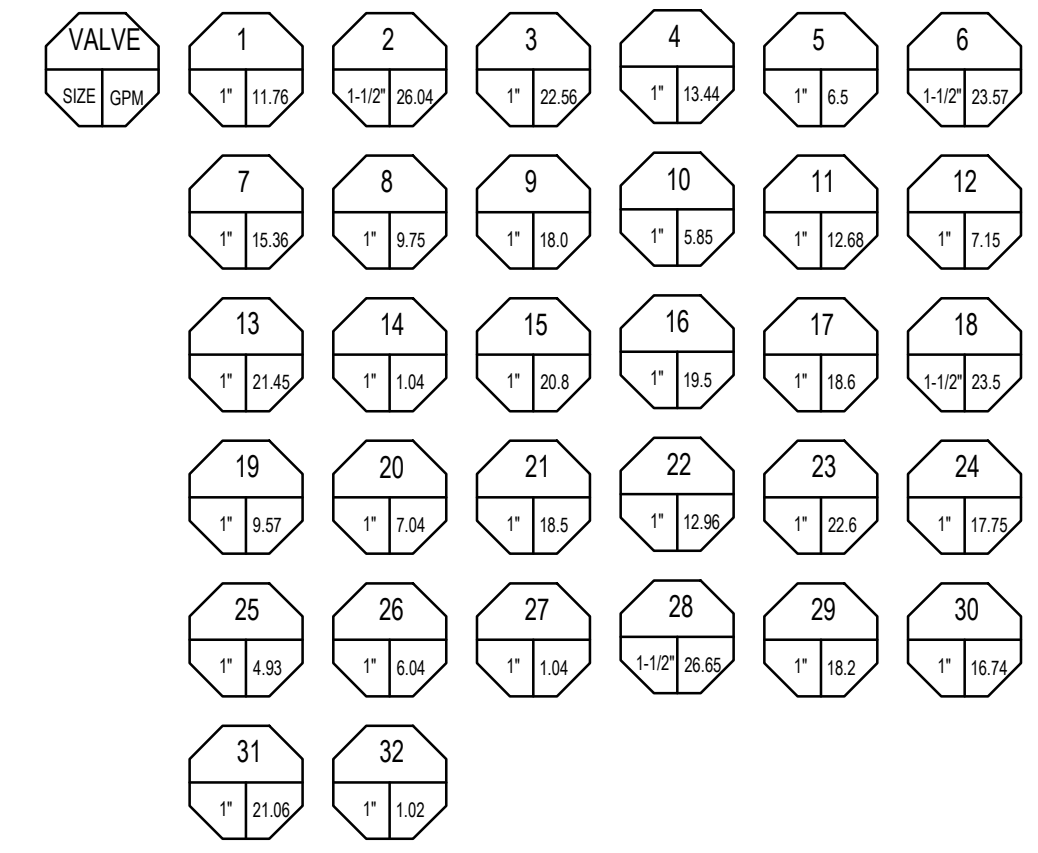
IRRIGATION LEGEND:

**IRRIGATION LEGEND**

SYM.	MANUFACTURER MODEL NUMBER DESCRIPTION	RADIUS	G.P.M.	P.S.I.
☉	RAINBIRD RD12-S-P-45-F-R-VAN24-360 ROTARY HEAD	23'	3.48	45
☉	RAINBIRD RD12-S-P-45-F-R-VAN24-180 ROTARY HEAD	23'	1.68	45
☉	RAINBIRD RD12-S-P-45-F-R-VAN24-90 ROTARY HEAD	23'	.84	45
☉	RAINBIRD RD12-S-P-45-F-R-VAN24-360 ROTARY HEAD	20'	2.52	45
☉	RAINBIRD RD12-S-P-45-F-R-VAN24-180 ROTARY HEAD	20'	1.30	45
☉	RAINBIRD RD12-S-P-45-F-R-VAN-90 ROTARY HEAD	20'	.65	45
☉	RAINBIRD RD04-S-P-45-F-R-VAN24-360 ROTARY HEAD	20'	2.52	45
☉	RAINBIRD RD04-S-P-45-F-R-VAN24-180 ROTARY HEAD	20'	1.30	45
☉	RAINBIRD RD04-S-P-45-F-R-VAN24-90 ROTARY HEAD	20'	.65	45
☉	RAINBIRD RD04-S-P-45-R-VAN24-360 ROTARY HEAD	19'	2.35	45
☉	RAINBIRD RD04-S-P-45-R-VAN24-180 ROTARY HEAD	19'	1.20	45
☉	RAINBIRD RD04-S-P-45-R-VAN24-90 ROTARY HEAD	19'	.60	45
☉	RAINBIRD RD04-S-P-30-U12-SERIES-U-12F SPRAY NOZZLE	12'	2.60	30
☉	RAINBIRD RD04-S-P-30-U12-SERIES-U-12H SPRAY NOZZLE	12'	1.30	30
☉	RAINBIRD RD04-S-P-30-U12-SERIES-U-120 SPRAY NOZZLE	12'	.65	30
X	RAINBIRD RD04-S-P-30-HE-VAN-15-SERIES-360 SPRAY NOZZLE	15'	3.70	30
V	RAINBIRD RD04-S-P-30-HE-VAN-15-SERIES-180 SPRAY NOZZLE	15'	1.85	30
V	RAINBIRD RD04-S-P-30-HE-VAN-15-SERIES-90 SPRAY NOZZLE	15'	.93	30
⚡	RAINBIRD RD04-S-P-30-F-HE-VAN-12-SERIES-360 SPRAY NOZZLE	11'	2.16	30
⚡	RAINBIRD RD04-S-P-30-F-HE-VAN-12-SERIES-180 SPRAY NOZZLE	11'	1.08	30
⚡	RAINBIRD RD04-S-P-30-F-HE-VAN-12-SERIES-90 SPRAY NOZZLE	11'	.54	30
⚡	RAINBIRD RD04-S-P-30-F-U-SERIES-U-10F SPRAY NOZZLE	9'	1.5	30
⚡	RAINBIRD RD04-S-P-30-F-U-SERIES-U-10H SPRAY NOZZLE	9'	.75	30
⚡	RAINBIRD RD04-S-P-30-F-U-SERIES-U-10Q SPRAY NOZZLE	9'	.37	30
---	RAINBIRD XFS-CV-06-18 SUB-SURFACE DRIPLINE	18" O.C.	60 GPH	45
---	RAINBIRD XFS-CV-09-12 SUB-SURFACE DRIPLINE	12" O.C.	90 GPH	45



CONTROLLER VALVES:



EQUIPMENT	MODEL	DESCRIPTION
☐		1-1/2" WATER METER - EXISTING
☑	FEBCO 825Y	2" REDUCED PRESSURE BACKFLOW DEVICE w/ WYE STRAINER 60-MESH AND STAINLESS STEEL STRONGBOX ENCLOSURE
☑	FEBCO 825YA	3/4" REDUCED PRESSURE BACKFLOW DEVICE w/ STAINLESS STEEL STRONGBOX ENCLOSURE
☑	WILKENS 500 SERIES	2" PRESSURE REGULATOR
☉	CALSENSE FM-1.0B	1" FLOW SENSOR
☉	SUPERIOR 3200-200-RW	2" MASTER VALVE, NORMALLY CLOSED
☉	NIBCO T-585	LINE-SIZE FULL PORT BRONZE BALL VALVE
☉	RAINBIRD EFB-CP-PRS-D	REMOTE CONTROL GLOBE VALVE, SIZE AS SHOWN, ADD PRESSURE REGULATOR AS NEEDED
☉	RAINBIRD XCZ-PRB-100-COM	1" DRIP ZONE VALVE KIT IN-LINE w/ 200MESH FILTER AND 40 PSI REGULATOR
☉	RAINBIRD 44 DLRC	1" QUICK COUPLER POTABLE w/ 2 KEYS 44s-DK
☉	NETAFIM TLSOV	MANUAL FLUSH VALVE FOR DRIP SYSTEM
☉	RAINBIRD ARV050	AIR RELIEF VALVE KIT
☉	CALSENSE ET3000	CALSENSE 24 STATION STAINLESS STEEL PEDESTAL MOUNTED CONTROLLER ASSEMBLY #ET2000-48-LR-M-Ro-SSDR
---	APPROVED	SCH. 40 PVC MAINLINE, SIZE AS SHOWN, MIN. COVER 24"
---	APPROVED	SCH. 40 PVC POTABLE LINE, SIZE AS SHOWN, MIN. COVER 24"
---	APPROVED	SCH. 40 PVC LATERAL LINE, SIZE AS SHOWN, MIN. COVER 12"
---	APPROVED	SCH. 40 PVC LATERAL LINE, SIZE AS SHOWN, MIN. COVER 120" ON GRADE W/ RESISTANT PIPE
---	APPROVED	SCH. 40 PVC SLEEVES, SIZED 2X LARGER THAN PIPE TO BE INSERTED, UNLESS OTHERWISE NOTED
---	APPROVED	SCH. 40 PVC WIRE SLEEVE, SIZE AS REQUIRED, UNLESS OTHERWISE NOTED.

IRRIGATION NOTES:

- THIS SYSTEM IS DIAGRAMATIC. ALL PIPE, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHEREVER POSSIBLE.
- 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 OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR MUST ASSUME FULL RESPONSIBILITY FOR REVISIONS NECESSARY.
- SYSTEM DESIGN IS BASED ON MINIMUM OPERATING PRESSURE SHOWN AT EACH POINT OF CONNECTION WITH MAXIMUM GPM DEMAND SPECIFIED. IRRIGATION CONTRACTOR SHALL VERIFY ALL PRESSURES ON SITE PRIOR TO CONSTRUCTION TO OWNER'S CONSTRUCTION REPRESENTATIVE.
- IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, CURBS, ETC. HE SHALL COORDINATE ALL HIS WORK WITH THE GENERAL CONTRACTOR AND OTHER SUB-CONTRACTORS FOR LOCATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADS, PAVING AND STRUCTURES.
- MAINLINE FEEDER BETWEEN POINT OF CONNECTION, METER, AND BACKFLOW PREVENTER TO BE OF MATERIAL REQUIRED BY LOCAL WATER DISTRICT.
- IN ADDITION TO THE SLEEVES SHOWN ON THE PLAN, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ADDITIONAL SLEEVES OF SUFFICIENT SIZE UNDER ALL PAVED AREAS PRIOR TO PAVING UPON APPROVAL OF THE OWNER'S REPRESENTATIVE, IF REQUIRED TO OPERATE SYSTEMS.
- IRRIGATION CONTRACTOR SHALL FLUSH ALL LINES AND ADJUST ALL HEADS FOR MAXIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKS, STREETS, AND BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST NOZZLE RADIUS TO FIT UNUSUAL SITE CONDITIONS FOR APPROVAL PURPOSES AT NO EXTRA CHARGE. CALL LANDSCAPE ARCHITECT 48 HOURS IN ADVANCE FOR ANY COVERAGE TESTS.
- QUALITY CONTROL OBSERVATION SEQUENCES ARE FOUND IN THE SPECIFICATIONS.
- CLEAN-UP ON A DAILY BASIS PER OWNER'S REPRESENTATIVE'S APPROVAL.

**POINT OF CONNECTION NOTE:**  
CONTRACTOR TO MAKE POINT OF CONNECTION IMMEDIATELY DOWNSTREAM OF NEW 1-1/2" DOMESTIC WATER METER (BY OTHERS). REFER TO UTILITY PLANS FOR MORE INFORMATION. EXTEND PRESSURE MAINLINE TO EQUIPMENT AND VALVES AS SHOWN. EXISTING STATIC PRESSURE: 114 PSI SYSTEM DESIGN PRESSURE: 89 PSI MAXIMUM G.P.M. DEMAND: 50 GPM

**CONTROLLER NOTE:**  
AUTOMATIC IRRIGATION CONTROLLERS TO BE WITHIN A STAINLESS STEEL PEDESTAL, MAKE AND MODEL AS SPECIFIED ON IRRIGATION LEGEND. INSTALLATION LOCATION APPROXIMATE, 110 VOLT POWER PROVIDED BY OWNER. IRRIGATION CONTRACTOR SHALL PROVIDE AND BATTERIES IN EACH CONTROLLER FOR BACKUP POWER.

**RAIN SENSOR NOTE:**  
CONTRACTOR TO INSTALL A WIRELESS RAIN SENSOR ON WALL OR FENCE IN AREA TO COLLECT RAIN WATER. CONTRACTOR TO INSTALL PER MANUFACTURERS RECOMMENDATIONS.

**WATER EFFICIENT LANDSCAPE WORKSHE**  
Non-Residential Landscape Projects

Reference ET to the area: **54.6**

Estimated Total Water Use (ETWU):  
ETWU is calculated using the following formula: (E) (A) (ETAF) (LA)

Planting Method	Planting Method	Planting Efficiency (%)	ETAF (E) (A)	ETAF x Area (sq ft)	ETAF x Area (sq ft)	ETAF x Area (sq ft)	ETAF x Area (sq ft)
Regular Landscape Areas							
Regular Landscape Areas							
Special Landscape Areas							
Special Landscape Areas							

ETAF Calculations  
Regular Landscape Areas  
Total ETAF x Area: 1129  
Total Area: 18,489  
Average ETAF: 0.41

All Landscape Areas  
Total ETAF x Area: 2799  
Total Landscape Area (LA): 38,259  
Sitewide ETAF: 0.73

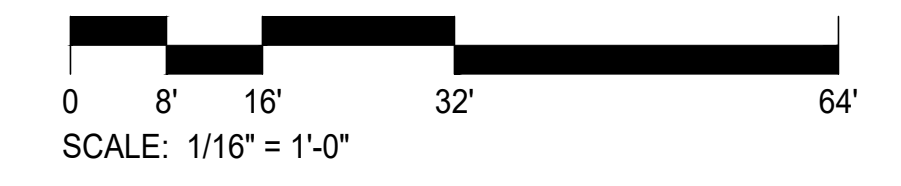
**PRESSURE LOSS CALCULATION** August 29, 2021

INFO. SOURCE: PH. NO. \_\_\_\_\_

VALVE NUMBER: V-1 IRRIG. TYPE: ROTARY GPM: 11.8

STATIC WATER PRESSURE @ WATER METER: 114.0

SIZE	DESCRIPTION	LENGTH	LOSS	
2"	COP SERVICE LINE	10	0.16	
1-1/2"	WATER METER		11.8	
2"	BACKFLOW PREVENTER		11.8	
2"	MASTER VALVE		11.8	
1"	FLOW SENSOR		11.8	
2"	PRESSURE REGULATOR		11.8	
1-1/2"	GATE / BALL VALVE		11.8	
1"	REMOTE CONTROL VALVE		11.8	
1-1/2"	MAINLINE	147	0.44	
	MAINLINE		0.00	
1-1/4"	LATERAL LINE	55	0.95	
3/4"	LATERAL LINE	20	0.12	
3/4"	LATERAL LINE	100	0.44	
	LATERAL LINE		0.00	
	TOTAL PVC LATERAL LINE LOSS		0.99	
	PVC LATERAL LINE FITTING LOSS (10%)		0.10	
	TOTAL FRICTION LOSS		21.6	
	ELEVATION @ METER	1065.0	HEAD ELEVATION	1101.0
	ELEVATION DIFFERENCE	36.0		15.6
	PSI REQUIRED AT HEAD			43.0
	TOTAL PSI REQUIRED			81.6
	REGULATED PRESSURE @ POC (IF APPLICABLE)			95.0
	RESIDUAL PRESSURE (MUST BE POSITIVE)			13.4



L.A. SEAL

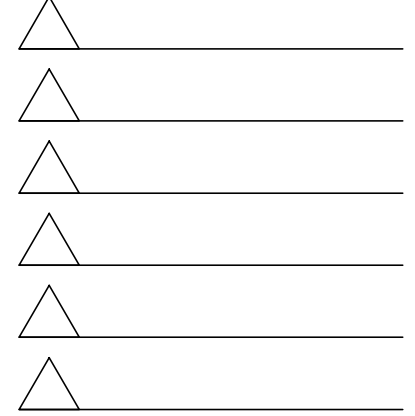
PROJECT/CLIENT

IRRIGATION  
STARDUST PARK  
JEFF CHAMLEE  
DIAMOND BAR, CA

SHEET TITLE

HEAD LAYOUT  
IRRIGATION PLAN

REVISIONS



DRAWN BY

RISTIN WILSON

CHECKED BY

JEFF CHAMLEE

DATE

09/05/2021

SCALE

1/16" = 1'-0"

JOB NUMBER

123-4

SHEET NUMBER

L-101  
01 OF 01 SHTS.