




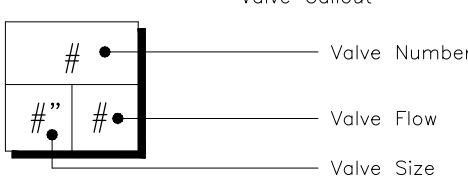
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
 1401 1402 1404 1408	TREE BUBBLER RAIN BIRD 1806-SAM-PRS-1400 FLOOD BUBBLER 6.0" POPUP WITH CHECK VALVE AND PRESSURE REGULATOR	30

<u>SYMBOL</u>	<u>MANUFACTURER/MODEL/DESCRIPTION</u>
	REMOTE VALVE RAIN BIRD FEB; SOLENOID VALVE. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.
	SHUT-OFF VALVE SCH. 80 FVC BALL VALVE BY SPEARS.
	MASTER VALVE 1" PLASTIC REMOTE CONTROL VALVE. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION. SIZE AS NOTED.
	BACKFLOW DEVICE 1" FEBCO 850 DOUBLE CHECK VALVE.
	CONTROLLER RAIN BIRD ESPME. MODULAR OUTDOOR CONTROLLER. 120V POWER.
	RAIN AND FREEZE SENSOR RAIN BIRD WR2-RFC WIRELESS COMBO, INCLUDES 1 RECEIVER AND 1 RAIN/FREEZE SENSOR TRANSMITTER.
	WATER METER 3/4" IRRIGATION ONLY WATER METER, REF. CIVIL

IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21
LATERALS 3/4" & LARGER LABELED W/ ALL OTHER
BEING 1/2" CLASS 315 PVC.

IRRIGATION MAINLINE: PVC SCHEDULE 40

PIPE SLEEVE: PVC SCHEDULE 40



0 20 40 60 80 feet

 $1'' = 20'$

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P.O.C. NUMBER: 01

Water Source Information: IRRIGATION ONLY WATER METER, REF. CIVIL

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FLOW AVAILABLE
Water Meter Size: 3/4"
Flow Available: 11.22 gpm

PRESSURE AVAILABLE	
Static Pressure at POC:	82.00 psi
Elevation Change:	5.00 ft
Service Line Size:	3/4"
Length of Service Line:	20.00 ft
Pressure Available:	76.00 psi

DESIGN ANALYSIS	
Maximum Station Flow:	11.00 gpm
Flow Available at POC:	11.22 gpm
Residual Flow Available:	0.22 gpm

Critical Station:	1
Design Pressure:	30.00 psi
Friction Loss:	0.72 psi
Fittings Loss:	0.07 psi
Elevation Loss:	0.00 psi
Loss through Valve:	10.27 psi
Pressure Req. at Critical Station:	41.07 psi
Loss for Fittings:	0.03 psi
Loss for Main Line:	0.32 psi
Loss for POC to Valve Elevation:	0.00 psi
Loss for Backflow:	6.46 psi
Loss for Master Valve:	1.78 psi
Loss for Water Meter:	1.31 psi
Critical Station Pressure at POC:	50.97 psi
Pressure Available:	76.00 psi
Residual Pressure Available:	25.03 psi

PIPE SIZING REQUIREMENTS: (Based on Class 200 PVC laterals except 1/2" laterals to be Class 315 PVC)				(Class 315)
0.1 gpm	to	4.0 gpm	1/2"	
4.1 gpm	to	8.0 gpm	3/4"	
8.1 gpm	to	13.0 gpm	1"	
13.1 gpm	to	23.0 gpm	1-1/4"	
23.1 gpm	to	32.0 gpm	1-1/2"	
32.1 gpm	to	53.0 gpm	2"	
53.1 gpm	to	74.0 gpm	2-1/2"	

NOTE: SIZE LATERAL PIPE SUCH THAT NO TWO SPRAY HEADS WITHIN THE SAME ZONE MAY VARY BY MORE THAN 10% IN PSI. RULE-OF-THUMB PIPE SIZING IS NOT ACCEPTABLE NOR PERMITTED IN RUNS LONGER THAN 100'.

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PSI @ POC	PRECIP
1	NETAFIM LVCZ58010075-HF	1"	AREA FOR DRIPLINE	9.05	41.07	50.97	0.96 in/h
2	REMOTE VALVE	1"	BUBBLER	11.00	38.52	50.17	3.40 in/h
3	NETAFIM LVCZ58010075-HF	1"	AREA FOR DRIPLINE	5.66	38.72	46.69	0.97 in/h

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NUMBER	MODEL	TYPE	PRECIP	IN/WEEK	MIN/WEEK	GAL/WEEK	GAL/DAY
1	NETAFIM LVC2580 I 0075-HF	AREA FOR DRIPLINE	0.96 in/h	1	63	569.8	284.9
2	REMOTE VALVE	BUBBLER	3.40 in/h	1	18	198	99
3	NETAFIM LVC2580 I 0075-HF	AREA FOR DRIPLINE	0.97 in/h	1	63	356.3	178.1
		TOTALS:			144	1,124	562.1

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IT WILL BE NECESSARY TO DIVIDE RUN TIMES INTO 2 TO 3 CYCLES TO MINIMIZE RUNOFF. A TYPICAL SCHEDULE WOULD ALLOW WATERING TO OCCUR TWO DAYS PER WEEK. TOTAL WATERING TIME WOULD BE DIVIDED BY THE NUMBER OF WATERING DAYS. THIS SCHEDULE IS DESIGNED FOR SUMMER WATER USAGE AND ESTABLISHMENT OF NEW PLANTING. CONTRACTOR IS TO PROGRAM RUN TIMES TO ADJUST THROUGHOUT THE YEAR AS NEEDED IN ORDER TO MAINTAIN PLANTS IN HEALTHY GROWING CONDITION. CONTRACTOR IS TO ADJUST RUN TIMES TO ALLOW FOR WINDY WEATHER IN ORDER TO REDUCE WATER RUNOFF. CONTRACTOR IS TO ADJUST RUN TIMES AS NOT TO ALLOW FOR IRRIGATION RUNOFF OR OVER-SATURATION OF THE SOIL. SHOULD THE MUNICIPALITY DESIGNATE A HIGHER STAGE OF WATER RESTRICTIONS, IT WILL BE NECESSARY FOR THE CONTRACTOR TO ADJUST THE RUN TIMES ACCORDINGLY. IT WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO MONITOR WEATHER AND ADJUST RUN TIMES AS NEEDED TO AVOID OVER-WATERING. PROVIDE SUPPLEMENTAL WATERING, SECURE VARIANCES AS NEEDED, AND PAY ANY PENALTY FEES ACCRUED.

AUGUST 2020

CITY OF SAN ANTONIO
DEVELOPMENT SERVICES
1901 S. ALAMO
P.O. BOX 839966
SAN ANTONIO, TX 78283

RE: THE FRIENDLY SPOT

TO WHOM IT MAY CONCERN:

I, JASON S. LOCHTE, A LI

I, JASON S. LOCHTE, A LICENSED IRRIGATOR IN THE STATE OF TEXAS DO CERTIFY THAT THE IRRIGATION PLAN SUBMITTED CONFORMS TO THE IRRIGATION DESIGN AND EQUIPMENT STANDARDS SET OUT IN 35-510 (J) AND 35-511(C)(6) OF THE CITY OF SAN ANTONIO UNIFIED DEVELOPMENT CODE AND ALSO COMPLIES WITH THE REQUIREMENTS OF CHAPTER 344 §§ 344.60, 344.61, § 344.62 OF THE TEXAS ADMINISTRATIVE CODE.

IF FURTHER INFORMATION IS NEEDED, PLEASE FEEL FREE
TO CONTACT ME AT (210) 821-6570.

SINCERELY,

JASON S. LOCHE
TEXAS LICENSED IRRIGATOR NO. 11893

NOTE:
A LETTER FROM A LICENSED IRRIGATOR (INSTALLER) SHALL BE REQUIRED CERTIFYING THAT THE IRRIGATION SYSTEM WAS INSTALLED IN ACCORDANCE WITH THE CERTIFIED LANDSCAPE PLAN. THE IRRIGATION LETTER REQUIRED FOR THE CERTIFICATE OF OCCUPANCY CAN BE LEFT WITH THE TEST AND MEASURE (T&M) REPORT IN A WATERPROOF, WATER TIGHT BAG WHICH WILL BE COLLECTED UPON REQUEST BY THE PLUMBING INSPECTOR. THE LETTER MAY ALSO BE SUBMITTED AT THE DEPARTMENT OF DEVELOPMENT SERVICES BUILDING WHEN APPLYING FOR THE CERTIFICATE OF OCCUPANCY FOR NEW CONSTRUCTION.

NOTE: THE SITE INFORMATION SHOWN ON THIS PLAN IS FROM A SITE PLAN PROVIDED BY THE OWNER, ARCHITECT, OR CIVIL ENGINEERING COMPANY HIRED BY THE OWNER. VERIFY ALL DIMENSIONS WITH THE DIMENSIONAL CONTROL PLAN AND COORDINATE WITH ALL OTHER CONTRACT DOCUMENTS ASSOCIATED WITH THIS PROJECT.