

GENERAL IRRIGATION SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES, CONTRACT DRAWINGS, CONTRACT SPECIFICATIONS, AND APPENDIX "F" OF THE FLORIDA BUILDING CODE.

IRRIGATION DESIGN BASED ON "PLANTING PLAN", CONTRACTOR SHALL REFER TO THIS PLAN TO COORDINATE SPRINKLER LOCATIONS AND PIPE ROUTING WITH NEW AND EXISTING PLANT LOCATIONS.

THIS PLAN SHALL BE USED AS A GUIDE ONLY. IRRIGATION SHALL BE INSTALLED TO MATCH ON SITE CONDITIONS AND TO OVERCOME THE INHERENT INACCURACIES THAT RESULT WHEN DESIGNING FROM BASE PLANS.

THIS IRRIGATION HAS BEEN DESIGNED AS A TYPICAL BLOCK VALVE TYPE USING TORO SPRINKLERS, IN-LINE VALVES AND CONTROL SYSTEM. A RAIN SENSOR SHALL BE INSTALLED TO CONSERVE WATER.

IRRIGATION SHALL BE INSTALLED AND MAINTAINED TO MINIMIZE UNDESIRABLE OVERTHROW ONTO PAVEMENT, SIDEWALKS, AND BUILDINGS.

CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH SITE CONDITIONS, AND SHALL REFER TO THE PLANS FOR ADDITIONAL INFORMATION.

TO ENSURE PROPER OPERATION, SOURCE SIZE, VALVE SIZES, ZONE CAPACITIES, AND SPRINKLER, PIPE AND WIRE SIZES, AND INSTALLATION NOTES AND DETAILS SHALL BE FOLLOWED AS SHOWN.

CONTRACTOR IS TO PROVIDE AN AS-BUILT DRAWING OF THE IRRIGATION SYSTEM TO THE OWNER AND LANDSCAPE ARCHITECT.

PIPING

PIPE ROUTING IS SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR ON SITE CONDITIONS.

PIPE SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES, SECTION "F" OF THE FLORIDA BUILDING CODE, AND PIPE MANUFACTURER'S INSTRUCTIONS.

PIPE ROUTED UNDER HARDSCAPED AREAS SHALL BE SLEEVED IN SCH 40 PVC. EACH SLEEVE SHALL BE (1) BURIED TO A MINIMUM DEPTH OF 24", (2) TWO PIPE SIZES LARGER THAN CARRIER PIPE, AND (3) EXTENDED 3' BEYOND HARDSCAPED AREA ON EACH END. CONTRACTOR SHALL REFER TO LOCATION OF EXISTING SLEEVES.

PIPE SIZED TO LIMIT FLOW VELOCITIES TO 5 FEET/SECOND AND TO LIMIT FRICTION LOSS IN THE PIPING NETWORK.

PIPE SHALL BE INSTALLED AT SUFFICIENT DEPTH BELOW GROUND TO PROTECT IT FROM HAZARD SUCH AS VEHICULAR TRAFFIC OR ROUTINE OCCURRENCES WHICH OCCUR IN THE NORMAL USE AND MAINTENANCE OF THE PROPERTY. DEPTHS OF COVER SHALL MEET OR EXCEED SCS CODE 430-DD. REFER TO THE APPLICABLE DETAIL FOR ADDITIONAL INFORMATION.

BACKFILL SHALL BE OF SUITABLE MATERIAL, FREE OF ROCKS, STONES, AND OTHER DEBRIS THAT WOULD DAMAGE IRRIGATION SYSTEM COMPONENTS.

SPRINKLER VALVE SHALL BE INSTALLED FOR ISOLATION. THIS VALVE SHALL BE TO LINE SIZE AND INSTALLED IN A VALVE BOX. LOCATION SHALL BE IN AN ACCESSIBLE LOCATION, APPROVED BY THE DEPARTMENT. DRAINAGE, FENCES, SITE LIGHTING, PREVAILING WIND, MOUNDING, ETC., TO ENSURE PROPER COVERAGE WITH MINIMAL UNDESIRABLE OVERTHROW. A PRIME OBJECTIVE SHALL BE TO ELIMINATE OVERTHROW ONTO PAVEMENT, SIDEWALKS, AND THE RESIDENCE.

POP-UP TYPE LOCATED IN SOD, MULCH, AND GROUND COVERS SHALL BE INSTALLED ON FLEXIBLE SWING JOINTS CONSISTING OF THICKWALLED POLY PIPE AND 1/2" INSERT ELBOWS.

EACH SPRINKLER SHALL BE EQUIPPED WITH THE APPROPRIATE PRECISION SPRAY NOZZLE AND SHALL HAVE THE X-FLOW FEATURE.

ADJUSTMENT FEATURES OF SPRINKLERS SPECIFIED SHALL BE UTILIZED TO ENSURE PROPER COVERAGE WITH MINIMAL UNDESIRABLE OVERTHROW. LOW ANGLE, FLAT SPRAY, AND ADJUSTABLE ARC NOZZLES SHALL BE USED TO MINIMIZE OVERTHROW.

SPRINKLERS LOCATED ADJACENT TO HARDSCAPED AREAS SHALL BE INSTALLED AWAY FROM HARDSCAPED AREAS TO MINIMIZE OVERTHROW AND THE CHANCE OF DAMAGE BY VEHICLES, PEDESTRIANS, AND LAWN MAINTENANCE PERSONNEL. AS A GENERAL RULE, 6" POP-UP SPRAY HEADS SHALL BE INSTALLED IN 4", SHRUB HEADS AND 12" POP-UP SPRAY HEADS SHALL BE INSTALLED IN 12".

CONTROL SYSTEM

CONTROLLER SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES AND MANUFACTURER'S INSTRUCTIONS. PROPER GROUNDING EQUIPMENT SHALL BE PROVIDED.

CONTROLLER LOCATION SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE. A 110 VAC ELECTRIC SOURCE IS REQUIRED.

CONTROL LINES FROM AUTOMATIC CONTROLLER TO IN-LINE AUTOMATIC VALVES SHALL BE #14 AWG DIRECT BURIAL UT TYPE WHICH SHALL BE: (1) INSTALLED IN ACCORDANCE WITH LOCAL CODES, (2) INSTALLED IN SCH 40 PVC WIRE CONDUIT, (3) BURIED TO A MINIMUM DEPTH OF 15", (4) COLORED CODED TO FACILITATE TROUBLESHOOTING, AND (5) SPLICED MOSTLY AT VALVE LOCATIONS. SPLICES SHALL BE MADE WATERPROOF USING APPROVED METHODS. SPARE WIRES SHALL BE ROUTED FROM THE CONTROLLER IN ALL DIRECTIONS TO THE FARTHEST VALVES CONTROLLED.

AN INDIVIDUAL CONTROL WIRE SHALL BE ROUTED TO EACH VALVE AND VALVES WHICH OPERATE SIMULTANEOUSLY SHALL BE TIED TOGETHER AT THE CONTROLLER.

AUTOMATIC VALVE LOCATIONS ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR ON SITE CONDITIONS. EACH VALVE SHALL BE INSTALLED IN A VALVE BOX. A MINIMUM OF ONE CUBIC FOOT OF GRAVEL SHALL BE PROVIDED PER BOX TO PROMOTE DRAINAGE.

THE RAIN SENSOR SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

TIMING AND PRECIPITATION

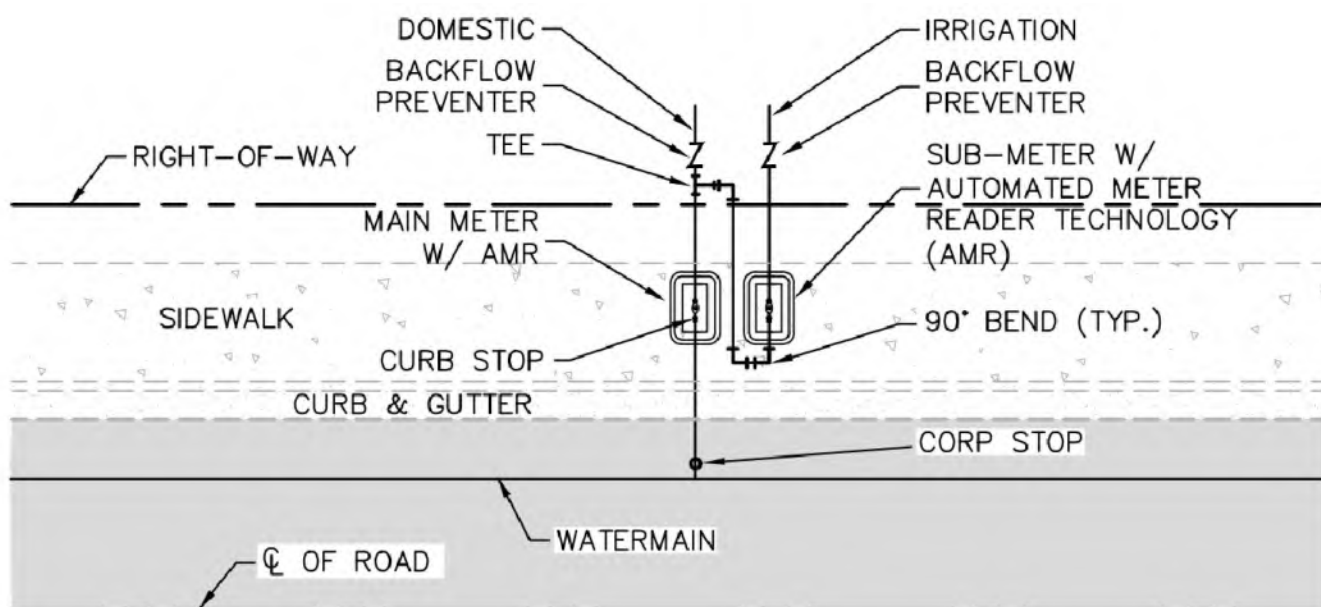
TIMING OF EACH STATION SHALL BE SET IN THE FIELD TO MATCH LOCAL REQUIREMENTS. REFER TO ZONE SUMMARY CHART FOR RECOMMENDED RUN TIMES TO APPLY 1.0 INCHES/WEK.

1 IRRIGATION NOTES

SCALE: NTS

NOTES:

- THE ASSEMBLY SHALL BE INSTALLED WITH MINIMUM HORIZONTAL CLEARANCES OF 30 INCHES FREE FROM OBSTRUCTIONS IN ALL DIRECTIONS.
- GUARD POSTS SHALL BE INSTALLED IF THE ASSEMBLY IS EXPOSED TO POSSIBLE DAMAGE FROM VEHICULAR TRAFFIC, AS DETERMINED BY THE DEPARTMENT.
- THE ASSEMBLY SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION, APPROVED BY THE DEPARTMENT.
- PIPING SHALL BE SCHEDULE 40 BRASS OR TYPE K COPPER PIPE WITH THREADED FITTINGS IN ACCORDANCE WITH MISC CONSTRUCTION SPECIFICATIONS FOR DOMESTIC WATER MAINS. PVC PIPING IS NOT ACCEPTED BY MADO.
- THE DEPARTMENT SHALL HAVE UNRESTRICTED AND CONTINUOUS ACCESS TO THE VACUUM BREAKER ASSEMBLY.
- SEE SPECIFICATIONS AND CONTACT DEPARTMENT FOR CURRENTLY APPROVED TYPES OF BACKFLOW PREVENTION ASSEMBLIES AND PRESSURE VACUUM BREAKERS (SEE WS 4-10 SHEET 4 OF 4)

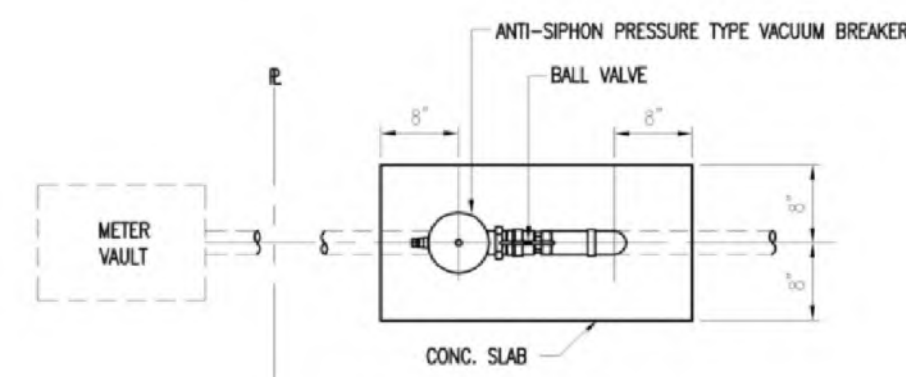


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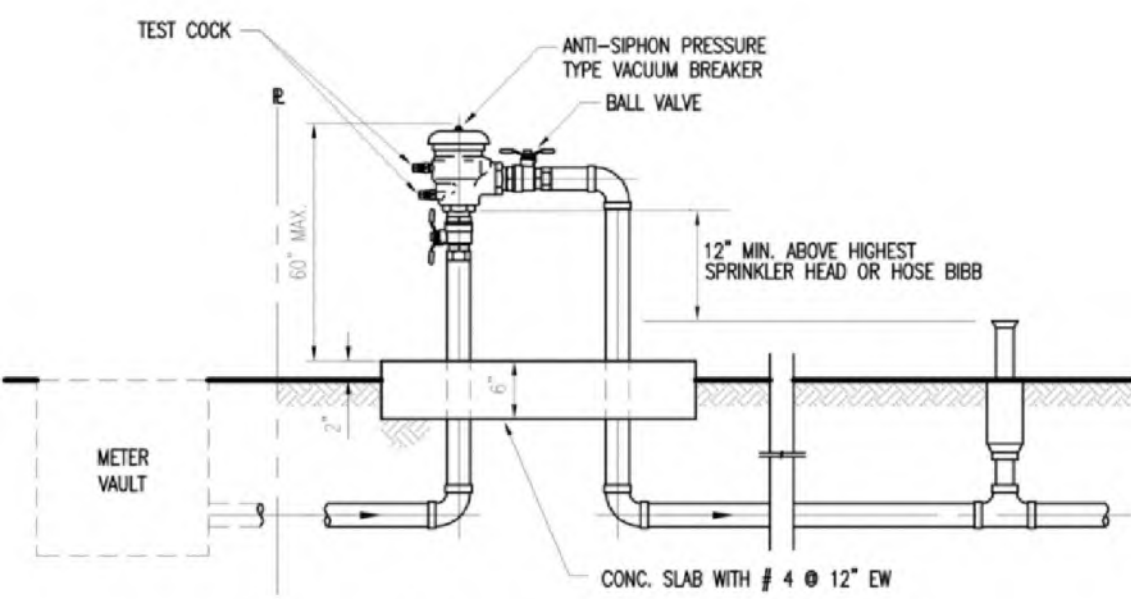
- MUST USE RECTANGULAR BOX TO ACCOMMODATE BOTH THE SUB-METER AND SHUT-OFF VALVE.
- MUST HAVE SHUT-OFF VALVE ON INLET SIDE BEFORE METER.
- MUST PLACE SUB-METER BOX WITHIN 5 FEET OF MAIN METER, EASILY ACCESSIBLE TO METER READER.
- MUST CALL METER SHOP AT 305-673-7681 WHEN INSTALLATION IS COMPLETED FOR FINAL INSPECTION IN ORDER TO OBTAIN SEWER CREDIT.
- SUB-METER CANNOT BE LARGER THAN THE DOMESTIC METER WATER SERVICE LINE.

2 SUB-METER INSTALLATION DETAIL

SCALE: N.T.S.



PLAN VIEW



3 VACUUM BREAKER

N.T.S.

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
1	Toro 252-26 Globe	1"	Turf Rotor	15.58	307.3	69.9	73.1	0.83 in/h
2	Toro DZK-EZF-1-MF	1"	Area for Dripline	11.96	303.2	51.1	64.4	1.07 in/h
3	Toro 252-26 Globe	1"	Turf Rotor	13.95	313.2	59.7	73.1	0.78 in/h
4	Toro DZK-EZF-1-MF	1"	Area for Dripline	11.71	298.9	51.1	64.8	1.07 in/h
5	Toro DZK-EZF-1-MF	1"	Area for Dripline	11.57	182.9	51.1	66.0	1.07 in/h
6	Toro 252-26 Globe	1"	Turf Spray	17.0	135.6	57.7	55.3	0.87 in/h
7	Toro DZK-EZF-1-MF	1"	Area for Dripline	9.94	115.7	50.7	65.6	1.07 in/h
8	Toro 252-26 Globe	1"	Turf Spray	9.89	94.6	36.8	51.9	0.85 in/h
9	Toro DZK-EZF-1-MF	1"	Area for Dripline	14.41	95.8	51.4	69.9	1.07 in/h
10	Toro DZK-EZF-1-MF	1"	Area for Dripline	15.85	107.4	53.3	73.5	1.07 in/h
11	Toro DZK-EZF-1-MF	1"	Area for Dripline	15.53	217.8	52.6	73.5	1.07 in/h
12	Toro DZK-EZF-1-MF	1"	Area for Dripline	15.35	434.9	52.2	66.3	1.07 in/h
13	Toro DZK-EZF-1-MF	1"	Area for Dripline	0.77	840.7	38.5	52.4	1.08 in/h
14	Toro DZK-EZF-1-MF	1"	Area for Dripline	0.83	732.7	38.5	51.8	1.07 in/h
	Common Wire				1.087			

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Toro 5702-6LP-PC 5 Series Turf Spray, 6" Pop-Up, with a Zero Flush Seal. Low Pressure Sealing, allowing for pop-up and retraction at lower pressures. 1/2" Female-Threaded Inlet. Ideal for small to medium landscape areas.	9	30
	Toro 5702-6LP-PC 12" radius Turf Spray, 6" Pop-Up, with a Zero Flush Seal. Low Pressure Sealing, allowing for pop-up and retraction at lower pressures. 1/2" Female-Threaded Inlet. Ideal for small to medium landscape areas.	10	30
	Toro 5702-6LP-PC 15" radius Turf Spray, 6" Pop-Up, with a Zero Flush Seal. Low Pressure Sealing, allowing for pop-up and retraction at lower pressures. 1/2" Female-Threaded Inlet. Ideal for small to medium landscape areas.	11	30
	Toro 5702-6LP-PC ADJ Turf Spray, 6" Pop-Up, with a Zero Flush Seal. Low Pressure Sealing, allowing for pop-up and retraction at lower pressures. 1/2" Female-Threaded Inlet. Ideal for small to medium landscape areas.	2	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Toro 300-00 02 3.0" turf pop-up multi-stream rotor with nine fixed arcs from 90 to 360. 01, 02, 03 nozzles have radius from 16" to 30", and 63 and 93 nozzles are low flow.	4	50
	Toro 300-00 03 3.0" turf pop-up multi-stream rotor with nine fixed arcs from 90 to 360. 01, 02, 03 nozzles have radius from 16" to 30", and 63 and 93 nozzles are low flow.	10	50

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Toro DZK-EZF-1-MF 1" Medium Flow Drip Control Valve Kit. With 1" EZ-Flow Plus Valve, Toro Y-Filter, and Medium-Flow Pressure Regulator and Fittings. 5gpm-20gpm.	10
	Toro T-FCH-H-FIPT Flush Valve, plumbed to flush manifold at low point.	10
	Toro T-YD-500-34 1/2" Air Vent- MIPT Air Release and Vacuum Relief Valve	10
	Area to Receive Dripline Toro RGP-412 Sub-Surface Pressure Compensating Landscape Dripline with ROOTGUARD technology. 1.00 GPH emitters at 12" O.C. Dripline laterals spaced at 18" apart, with emitters offset for triangular pattern.	6,425 l.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY

	Toro DZK-EZF-1-MF 1" Reduced Pressure Backflow Preventer	1
	Toro EVO-040D-SC with (01) EMOD-12 16 Station Outdoor Controller. Includes one 12-station Expansion Module. With Smart Connect so Controller can communicate wirelessly with a number of add-on devices. Ideal for residential and light-commercial applications.	1
	Toro Rain Sensor TWRS Wireless Rain Sensor Transmitter and Receiver. Mount Sensor Transmitter as noted or approved, mount Sensor Receiver next to Irrigation Controller as noted or approved, use controller power or optional transformer. Adjustable rain shut-off point.	1
	Water Meter 1"	1
	Irrigation Lateral Line: PVC Schedule 40 1/2"	501.2 l.f.
	Irrigation Lateral Line: PVC Schedule 40 3/4"	136.9 l.f.
	Irrigation Lateral Line: PVC Schedule 40 1"	136.0 l.f.
	Irrigation Lateral Line: PVC Schedule 40 1 1/4"	50.6 l.f.
	Irrigation Mainline: PVC Schedule 40 1/2"	1,117 l.f.
	Irrigation Mainline: PVC Schedule 40 1"	6.4 l.f.
	Irrigation Mainline: PVC Schedule 40 1 1/4"	573.7 l.f.
	Pipe Sleeve: PVC Class 200 SDR 21	99.3 l.f.

	Valve Callout
	Valve Number
	Valve Flow
	Valve Size