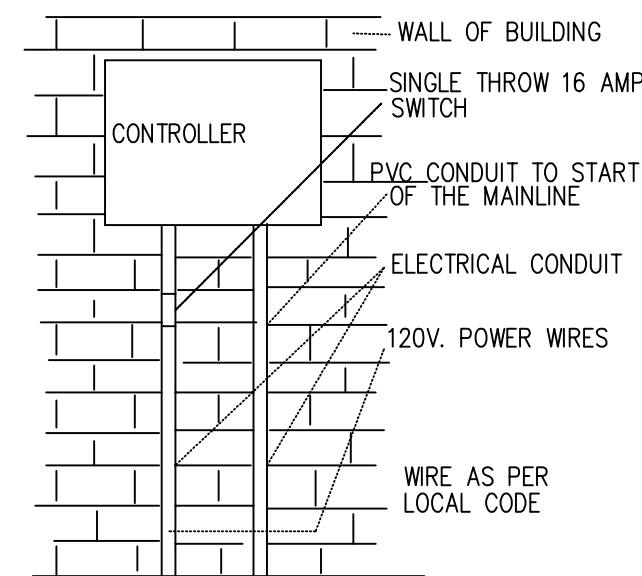
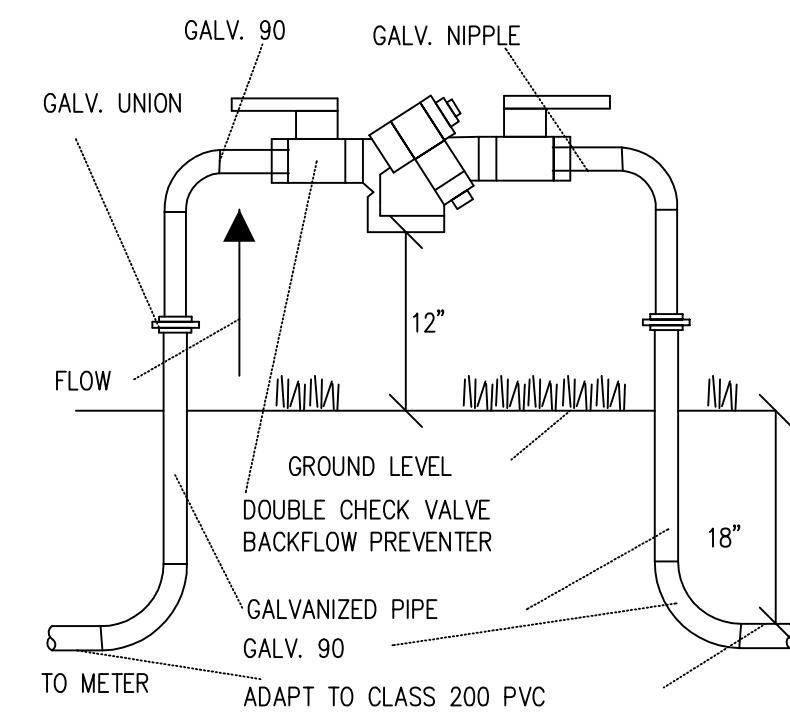


# IRRIGATION NOTES

- CONTRACTOR SHALL INSTALL A COMPLETE IRRIGATION SYSTEM WHICH PROVIDES 100% COVERAGE OF ALL PLANTED AND GRASSED AREAS. HEAD SPACING IS TO BE EQUAL TO THE RADIUS OF THE GIVEN SPRINKLER HEADS. PROVIDE ALL PIPING, VALVES, VALVE BOXES, SPRINKLER HEADS AND WIRING AS REQUIRED FOR A COMPLETE AND OPERATIONAL IRRIGATION SYSTEM.
- SPRINKLER LINES AND HEAD LOCATIONS SHOWN ARE ESSENTIALLY DIAGRAMMATIC.
- ANY PIPING SHOWN OUTSIDE THE PROPERTY LINE OR RUNNING OUTSIDE A LANDSCAPE AREA IS SHOWN THERE FOR CLARITY ONLY. ALL LINES SHALL BE INSTALLED ON THE PROPERTY AND INSIDE THE LANDSCAPED AREAS.
- ADJUST DESIGN OF SYSTEM WHERE NECESSARY TO AVOID CONFLICTS IN THE FIELD WITH LANDSCAPING OR UTILITY LINES.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS REQUIRED FOR THE INSTALLATION OR CONSTRUCTION OF THE WORK INCLUDED IN THIS CONTRACT.
- CONTRACTOR TO PROVIDE A DOUBLE DETECTOR CHECK VALVE AT THE POINT OF WATER SERVICE IN ADDITION TO AN IRRIGATION METER. COORDINATE LOCATION WITH OTHER UTILITIES AND GENERAL CONTRACTOR.
- ADJUST SPRINKLER HEAD RADIUS AND PATTERN (WHERE APPLICABLE) TO OBTAIN MAX. COVERAGE FOR TURF AND SHRUBS ELIMINATING ANY OVERTHROW ONTO SIDEWALKS, PAVEMENT, OR BUILDING STRUCTURE.
- ALL IRRIGATION PIPING WHICH IS LOCATED UNDER PAVEMENT SHALL BE ENCASED IN A SLEEVE TWO SIZES LARGER THAN THE IRRIGATION LINE.
- COORDINATE LOCATION OF IRRIGATION CONTROLLER WITH OWNER AND GENERAL CONTRACTOR.
- PROVIDE A RAIN SWITCH EQUIVALENT TO TORO RAIN SWITCH #850-74. MOUNT ON BUILDING OR TRASH ENCLOSURE IN AN INCONSPICUOUS LOCATION EXPOSED TO NORMAL RAINFALL AND PER MFRS. SUGGESTIONS.
- OBTAIN INSPECTION AND APPROVAL OF ALL BURIED PIPING PRIOR TO BACKFILLING.
- SPRINKLER HEAD MODEL NUMBERS SHOWN REFLECT TORO SPRINKLERS. ANY SPRINKLERS OF EQUAL QUALITY MAY BE USED WITH THE APPROVAL OF THE OWNER.
- IRRIGATION CONTROLLER SHALL BE TORO CUSTOM COMMAND CONTROLLER MODEL #CC-P09 OR APPROVED EQUAL. VERIFY CONTROLLER OPTIONS WITH OWNER. COORDINATE POWER REQUIREMENTS WITH GENERAL CONTRACTOR.
- PROGRAM IRRIGATION CONTROLLER TO PROVIDE 1 INCH OF WATER PER WEEK. SCHEDULE HEADS TO OPERATE DURING MORNING HOURS.
- ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18" OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.
- ALL POP-UP ROTORS AND SPRAYS SHALL BE INSTALLED USING AN 18" PVC FLEX PIPE CONNECTION. DO NOT USE FUNNY PIPE.
- ALL IRRIGATION SLEEVES SHALL BE 4" IN DIAMETER AND INSTALLED BY GENERAL CONTRACTOR AT TIME OF UTILITY CONSTRUCTION.
- ALL CONTROL WIRE SPLICES SHALL BE MADE IN VALVE BOXES USING SNAP-TITE CONNECTORS AND SEALANT.
- ELECTRICAL SERVICE TO ALL EQUIPMENT SHALL BE PROVIDED TO A JUNCTION BOX AT THE EQUIPMENT LOCATION BY OTHERS.
- ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP.

## 1 RPZ BACKFLOW PREVENTER



## 4 CONTROLLER DETAIL

NTS

# IRRIGATION CALCULATION

AREA TO BE WATERED: 3,198  
 SOIL TYPE: SANDY  
 DRIP LINE FLOW RATE: .53 GPH PER EACH DRIP EMITTER.  
 DRIP SPACING: 12" APART,  
 LATERAL SPACING: 16" APART.  
 246.8 X .53 GPH DRIPPER = 1.46" PER HOUR  
 16" ROW SPACING X 12" DRIPPER SPACING

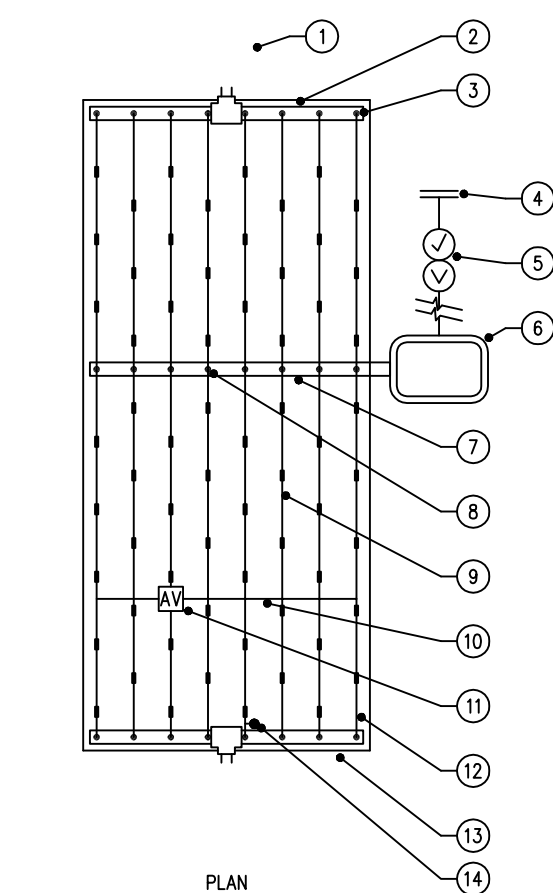
# IRRIGATION LEGEND

LOW -FLOW DRIP IRRIGATION  
 RGP-212-10 .53 GPH

## VALVES

- DZK-EZF-075-LF
- CLASS 200 PVC MAIN LINE
- CLASS 160 PVC LATERAL LINE
- PVC SLEEVE 4" IN DIAMETER
- PIPE CROSSOVER
- BACKFLOW PREVENTER
- IRRIGATION METER
- CONTROLLER LOCATION MODEL # CC-P09
- RAIN SENSOR LOCATION

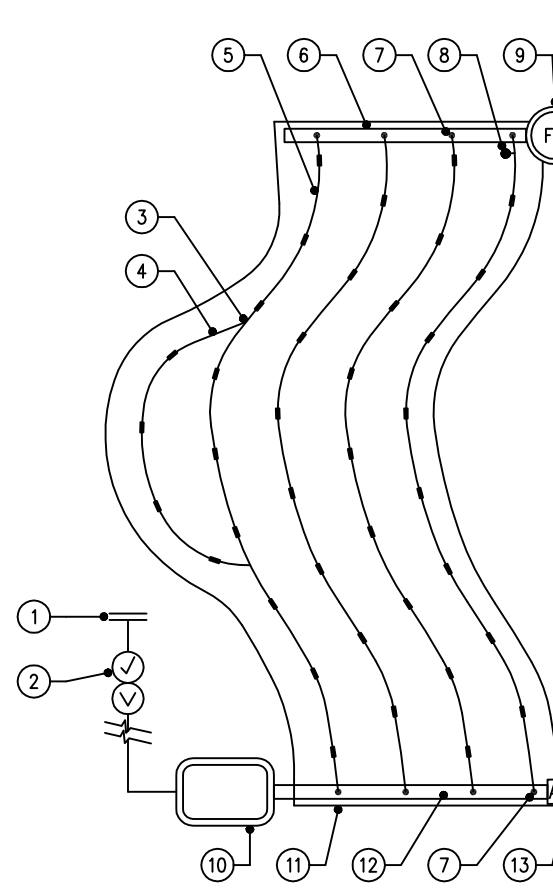
- NOTE: PRESSURE REGULATING CONTROL VALVES AND/OR IRRIGATION HEADS SHALL BE USED AS NECESSARY TO PREVENT MISTING DUE TO EXCESSIVE PRESSURE.
- NOTE: MODEL NOS. SHOWN REFLECT TORO SPRINKLER HEADS. ANY HEADS OF EQUAL QUALITY MAY BE USED WITH THE APPROVAL OF THE OWNER.
- NOTE: ALL IRRIGATION SYSTEMS SHALL BE OPERATED AND MAINTAINED IN ACCORDANCE WITH MARION COUNTY LDC ARTICLE 8.2.101(6)
- NOTE: ALL LANDSCAPE INSTALLATION PROFESSIONALS, IRRIGATION INSTALLATION AND MAINTENANCE PROFESSIONALS SHALL MEET ALL REQUIREMENTS IN ACCORDANCE WITH MARION COUNTY LDC ARTICLE 8.2.10n - LICENSING AND CERTIFICATION



## 2 CENTER FEED LAYOUT

NTS

- TORO DL2000 AUTOMATIC FLUSH VALVE (FDH-H-FIP) PLUMBED TO TUBING (10'-1)
- PVC FLUSH MANIFOLD
- TORO DL2000 MANFOLD-TO-ELBOW CONNECTION (TYP.)
- POINT OF CONNECTION
- BACKFLOW PREVENTER
- REMOTE CONTROL VALVE WITH FILTER AND PRESSURE REGULATOR
- PVC SUPPLY MANIFOLD
- TORO DL2000 MANFOLD-TO-TEE CONNECTION
- TORO DL2000 DRIPLINE LATERAL (RGP-212-10)
- AR/VACUUM RELIEF LATERAL TORO DL2000 BLANK TUBING (A710) PLUMBED TO TORO DL2000 BLANK TUBING (A710) AT EACH HIGH POINT
- TORO DL2000 AR/VACUUM RELIEF VALVE (V0-500-34) PLUMBED TO TORO DL2000 BLANK TUBING (A710) AT EACH HIGH POINT
- PERIMETER LATERALS 2" TO 4" FROM EDGE
- AREA PERIMETER
- TORO DL2000 OPERATION INDICATOR (DL-MPS)

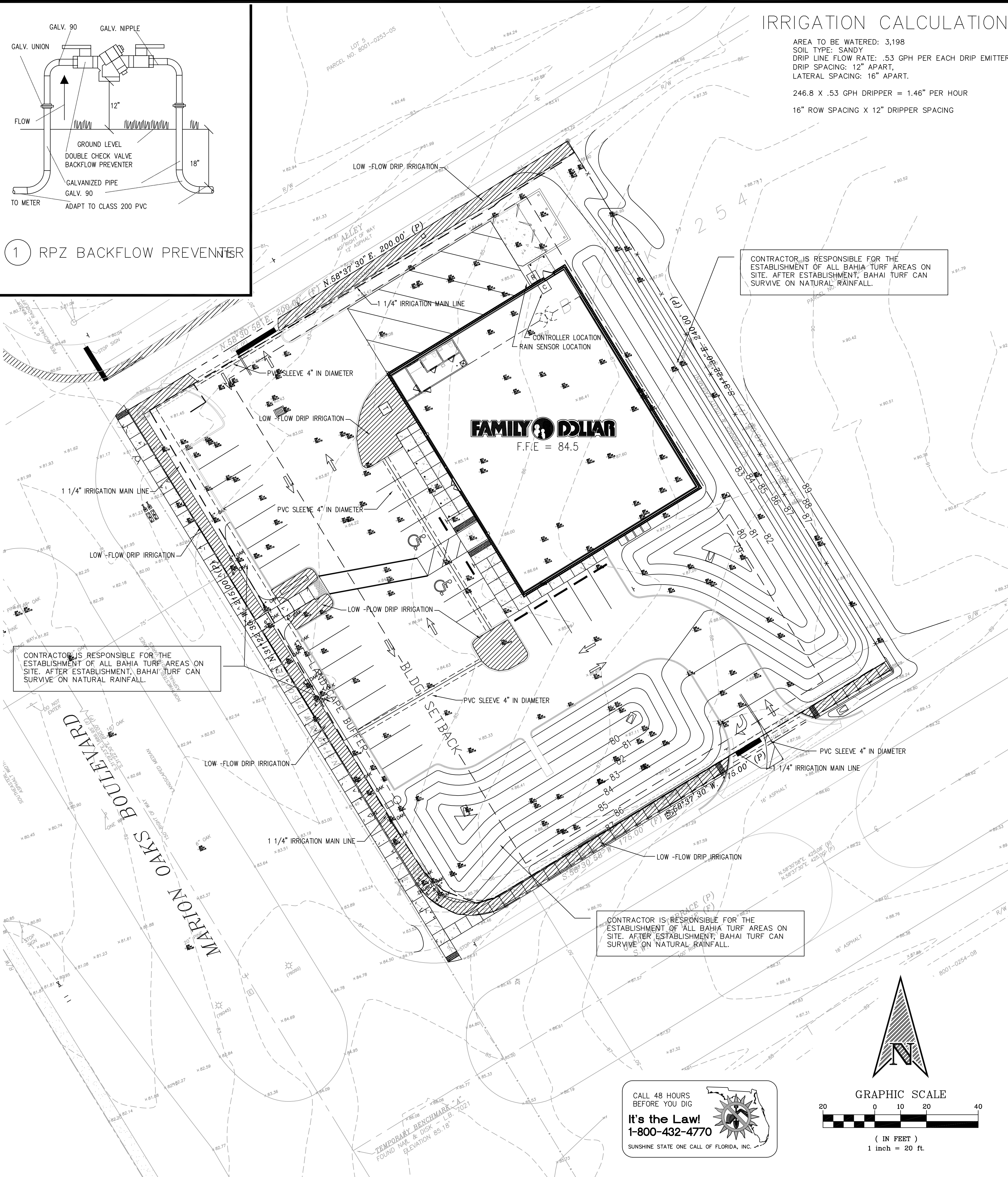


## 3 ODD CURVES LAYOUT

NTS

- POINT OF CONNECTION
- BACKFLOW PREVENTER
- TORO DL2000 TEE (DL-1-9017)
- PERIMETER LATERALS 2" TO 4" FROM EDGE
- TORO DL2000 DRIPLINE (RGP-212-10)
- PVC FLUSH MANIFOLD
- TORO DL2000 MANFOLD-TO-ELBOW CONNECTION (TYP.)
- TORO DL2000 OPERATION INDICATOR (DL-MPS)
- TORO DL2000 AUTOMATIC FLUSH VALVE (FDH-H-FIP) PLUMBED TO TUBING
- REMOTE CONTROL VALVE WITH FILTER AND PRESSURE REGULATOR
- AREA PERIMETER
- PVC SUPPLY MANIFOLD
- TORO DL2000 AR/VACUUM RELIEF VALVE (V0-500-34) PLUMBED TO TUBING

NOTE: THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE SHALL NOT EXCEED THE MAXIMUM RUN LENGTH. SEE TORO SURFACE IRRIGATION DESIGN GUIDE (FORM NO. 490-2953).

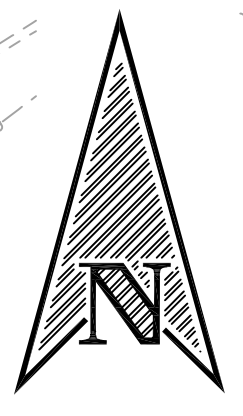
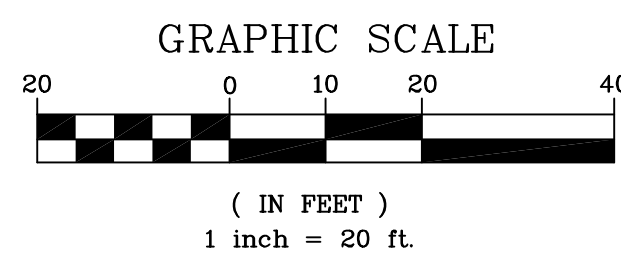


CONTRACTOR IS RESPONSIBLE FOR THE ESTABLISHMENT OF ALL BAHIA TURF AREAS ON SITE. AFTER ESTABLISHMENT, BAHIA TURF CAN SURVIVE ON NATURAL RAINFALL.

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By:	
Revision/Issue:	DRC COMMENTS
Date:	6-18-10
No.:	1

SEAL

CARLOS A. BARRIOS, PE  
 PE No. 61415



**FAMILY DOLLAR**

MARION OAKS BLVD.  
 MARION COUNTY, FLORIDA

IRRIGATION PLAN

Date: 05/10/10 Sheet: IR1  
 Project #: 2010.001