

MATCHLINE - REF SHEET (IR1)

HARVESTING SYSTEM

- PUMP WILL START VIA PRESSURE DROP SENSED IN WATER MAINLINE AND REGULATE A CONSTANT PRESSURE AT VARIABLE FLOW RATE. PUMP WILL RETIRE BASED UPON AN ADJUSTABLE MINIMUM WATER DEMAND (FLOW) AND SUSTAINED REGULATE PRESSURE.
- WATER WILL BE DRAWN OUT OF TANK, ONCE USER ADJUSTABLE LEVEL SETPOINT IS SATISFIED THE CITY FILL VALVE WILL OPEN ALLOWING WATER TO ENTER INTO THE STORAGE TANK. CITY WATER LEVEL CONTROLS WILL BE SET SO TO MAINTAIN A LOW WATER LEVEL IN THE TANK, LEAVING THE MOST AMOUNT OF ROOM TO HARVEST THE NEXT RAINFALL EVENT. IF TANK LEVEL CONTINUES TO DROP WITH FILL VALVE OPEN, PUMP WILL SHUT DOWN ON LOW LEVEL ALARM. PUMP WILL RE-ENABLE UPON USER ADJUSTABLE ALARM RE-SET LEVEL. FILL VALVE WILL REMAIN OPEN AND OPERATE INDEPENDENTLY OF PUMP ALARM LOGIC.
- PUMP SYSTEM WILL TOTALIZE ALL WATER PUMPED AND ALL CITY MAKE UP WATER USED. AUTOMATIC DISCHARGE FILTRATION SHALL BE FLUSHED UPON (3) INPUTS. DIFFERENTIAL PRESSURE, TOTAL GALLONS PUMPED, AND TIMED INTERVAL WHICHEVER OCCURS FIRST. FILTER SHALL ALSO HAVE ALARM AFTER (3) FLUSH CYCLES AND PRESSURE DIFFERENTIAL IS NOT RESTORED TO CLEAN SCREEN.
- TANK PRE-FILTER WILL FLUSH ON TIME OF DAY CLOCK, SET FOR EVERY DAY AT TIME OPPOSITE IRRIGATION USAGE TIME.
- OWNER RESPONSIBLE FOR CITY WATER METER, BACKFLOW PREVENTER AND ANY OTHER REGULATING DEVICES THAT MAY BE REQUIRED. OWNER RESPONSIBLE FOR VERIFYING CITY WATER CAPACITY MUST SUPPLY A MIN 100GPM TO TANK.

SYSTEM SHALL HAVE THE FOLLOWING ALARMS AT MINIMUM

- HIGH DISCHARGE PRESSURE
- LOW DISCHARGE PRESSURE
- VFD FAULT
- LOW LOW LEVEL SHUT DOWN (HARD FAULT)
- LOW LEVEL ALARM (SOFT FAULT)
- DISCHARGE FILTER ALARM
- PIPE FILL ALARM (SYSTEM CAN NOT PRESSURIZE)
- LOSS OF PHASE OR PHASE REVERSAL
- HIGH VOLTAGE
- LOW VOLTAGE
- CONTROL POWER ALARM

CONTROLLER

120 VAC POWER REQUIRED

BIO-FILTRATION SYSTEM PUMP

FLOW: 7.4 GPM
 PRESSURE: 50 PSI
 POWER: 460V 3PHASE (13AMPS)
 SKID SIZE: 50" X 34"
 (NEC CLEARANCE IN FRONT OF PANEL, 36"-42" SEE CODES)
 ALL PIPING ROUTED THROUGH BUILDING TO BE PROVIDED ON MECHANICAL ENGINEERING PLANS

25,000 GALLON CORGAL STEEL WATER TANK

34" DIAMETER X 8' HIGH
 (MIN 25,000 GALLON NOMINAL CAPACITY)
 GRAVITY MAX. 500 PSI (TREATMENT, DIVERTED TO DRY) 14" RICH OVER-ELBOW STAND PIPE WITHIN TANK

INSTALLATION GENERAL NOTES

- THE SYSTEM DESIGN ASSUMES A MINIMUM DYNAMIC PRESSURE FOR THE IRRIGATION SYSTEM OF 65 PSI (PER CITY ENGINEER), AT A MAXIMUM DISCHARGE OF 10 GPM AT THE 1 1/4-INCH IRRIGATION POINT-OF-CONNECTION (POC), TAP, METER, BACKFLOW, AND MASTER VALVE SHALL ALL BE THE SAME SIZE. VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION.
- READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
- COORDINATE UTILITY LOCATES ("CALL BEFORE YOU DIG") OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
- DO NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND, NOTES, OR SPECIFICATIONS ARE DISCOVERED, BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
- THE DRAWINGS ARE DIAGRAMMATIC. THEREFORE, THE FOLLOWING SHOULD BE NOTED:
 - ALTHOUGH IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR CLARITY, INSTALL IRRIGATION PIPE AND WIRING IN LANDSCAPED AREAS WHENEVER POSSIBLE.
 - TREE AND SHRUB LOCATIONS AS SHOWN ON LANDSCAPE PLANS TAKE PRECEDENCE OVER IRRIGATION EQUIPMENT LOCATIONS. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS, AND ARCHITECTURAL FEATURES.
 - USE ONLY STANDARD TEES AND ELBOW FITTINGS. USE OF TEES IN THE BULLNOSE CONFIGURATION, OR USE OF CROSS TYPE FITTINGS IS NOT ALLOWED.
- PROVIDE THE FOLLOWING COMPONENTS TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT:
 - TWO (2) OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVES.
- THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF IRRIGATION SLEEVING. SLEEVES ARE REQUIRED FOR BOTH PIPING AND ELECTRICAL WIRING AT EACH HARDCAPE CROSSING. COORDINATE INSTALLATION OF SLEEVING WITH OTHER TRADES. ANY PIPE OR WIRE WHICH PASSES BENEATH EXISTING HARDCAPE WHERE SLEEVING WAS NOT INSTALLED WILL REQUIRE HORIZONTAL BORING BY THE IRRIGATION CONTRACTOR. PIPE SLEEVES SHALL BE SIZED TWICE THE NOMINAL SIZE OF THE PIPE PASSING THROUGH.
- INSTALL ALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.
- THE FOLLOWING SHOULD BE NOTED REGARDING PIPE SIZING: IF A SECTION OF UNSIZED PIPE IS LOCATED BETWEEN THE IDENTICALLY SIZED SECTIONS, THE UNSIZED PIPE IS THE SAME NOMINAL SIZE AS THE TWO SIZED SECTIONS. THE UNSIZED PIPE SHOULD NOT BE CONFUSED WITH THE DEFAULT PIPE SIZE NOTED IN THE LEGEND.
- INSTALL TWO (2) #14 AWG CONTROL WIRES ON STANDARD WIRE SYSTEMS, FOR USE AS SPARES. INSTALL SPARE WIRES FROM CONTROLLER LOCATION TO EACH DEAD-END OF MAINLINE. COIL 3 FEET OF WIRE IN VALVE BOX.

CONSTRUCTION NOTES

- THE IRRIGATION SYSTEM POINT-OF-CONNECTION (POC) SHALL BE DOWNSTREAM OF THE IRRIGATION WATER TAP AND METER INSTALLED BY OTHERS AT THE APPROXIMATE LOCATION SHOWN. INSTALL BACKFLOW PREVENTION UNIT AND MASTER VALVE ASSEMBLY AS INDICATED. VERIFY EXACT LOCATION OF POC WITH OWNER'S REPRESENTATIVE.
- WALL MOUNT THE IRRIGATION CONTROLLER AT THE APPROXIMATE LOCATION SHOWN. COORDINATE ELECTRICAL POWER TO THE CONTROLLER WITH THE OWNER'S REPRESENTATIVE. CARE SHOULD BE TAKEN TO INSTALL THE IRRIGATION CONTROLLER IN A LOCATION THAT IS ACCESSIBLE FOR MAINTENANCE, AND SCREENED FROM VIEW EITHER BEHIND ENTRY WALLS, NEXT TO BUILDINGS, OR BEHIND PLANT MATERIAL. FINAL LOCATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- THE WATER QUALITY HARVESTING DISCHARGE POINT-OF-CONNECTION SHALL BE DOWNSTREAM OF THE WATER QUALITY CISTERN TANK(S) AND PUMP SKID AT THE 1.25-INCH TYPE K COPPER STUB INSTALLED BY OTHERS AT THE APPROXIMATE LOCATION SHOWN. INSTALL ISOLATION GATE VALVE ASSEMBLY AND ROUTE MAINLINE AS INDICATED. VERIFY EXACT LOCATION WITH MECHANICAL ENGINEER AND OWNERS REPRESENTATIVE.

IRRIGATION PIPE SCHEDULE

CLASS 200 PVC PIPE	
SIZE	FLOW (GPM)
1"	0-15
1-1/4"	16-25
1-1/2"	26-35
2"	36-55
2-1/2"	56-80
3"	81-110
4"	111-200

IF THERE IS A DISCREPANCY BETWEEN PIPE SIZES SHOWN ON THE DRAWINGS AND THIS PIPE SCHEDULE, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE IRRIGATION DESIGNER FOR CLARIFICATION.

IRRIGATION LEGEND

- SLEEVES: CLASS 200 PVC
- POINT-OF-CONNECTION ASSEMBLY
- MAINLINE PIPE: CLASS 200 PVC
1 1/4-INCH SIZE UNLESS OTHERWISE INDICATED
- LATERAL PIPE TO BUBBLERS:
1-INCH SIZE UNLESS OTHERWISE INDICATED
- LATERAL PIPE TO BUBBLERS:
1-INCH SIZE UNLESS OTHERWISE INDICATED
- INLINE DRIP TUBING: NETAFAIM TLVCV26-12 WITH RAINBIRD XQF DRIPLINE HEADER
- INLINE DRIP TUBING (BIO-FILTRATION): NETAFAIM TLRW26-12 WITH RAINBIRD XQF DRIPLINE HEADER
- REMOTE CONTROL DRIP VALVE ASSEMBLY: RAIN BIRD XRC-PRB-100-COM
- QUICK COUPLING VALVE ASSEMBLY: RAIN BIRD 5RC
- ISOLATION GATE VALVE ASSEMBLY: MATCO 514/10RT
- FLOW SENSOR ASSEMBLY: WEATHERMATIC SLFSI-T10
- BACKFLOW PREVENTION ASSEMBLY: LF850
- WATER METER AND CURB STOP ASSEMBLY: BY OTHERS
- MASTER VALVE ASSEMBLY: WEATHERMATIC MAX-DW
- FLUSH CAP ASSEMBLY
- UNCONNECTED PIPE CROSSING

- A1 INDICATES CONTROLLER AND STATION NUMBER
- 14 INDICATES LATERAL DISCHARGE (GPM)
- 1" INDICATES VALVE SIZE (INCHES)
- Turf INDICATES LANDSCAPE APPLICATION

IRRIGATION CONTROLLER UNIT WITH ETHERNET

CONTROLLER A: WEATHERMATIC VAR #11704
 THIS IRRIGATION CONTROLLER INCLUDES A WEATHERMATIC SMARTLINK VAR PACKAGE SYSTEM AND MANAGED SERVICES. PLEASE CONTACT PARRY WEBB WITH WEATHERMATIC FOR PRICING 303-638-6268

- INLINE TREE RING DRIP ASSEMBLY: RAIN BIRD XFS-CV-09-12
- BUBBLER ASSEMBLY: TWO(2) RAINBIRD 1402
PRESSURE 30 PSI FLOW: 0.50 GPM EA

SITE PLAN APPROVAL SHEET OF _____

FILE NUMBER: SP-2018-0472C APPLICATION DATE: 10.5.18

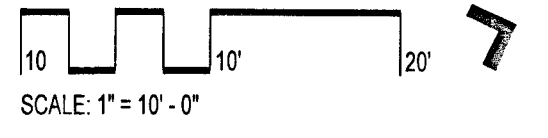
APPROVED BY COMMISSION ON _____ UNDER SECTION 112 OF CHAPTER 25-5 OF THE CITY OF AUSTIN CODE

EXPIRATION DATE (25-5-8.1, LDC) 4/27/22 PLANNING MANAGER Johnson

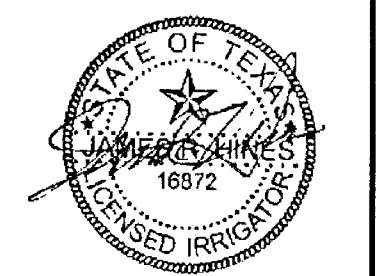
DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT
 RELEASED FOR GENERAL COMPLIANCE 4/27/18 ZONING Cbb

REV. 1 _____ CORRECTION 1 _____
 REV. 2 _____ CORRECTION 2 _____
 REV. 3 _____ CORRECTION 3 _____

FINAL PLAT MUST BE RECORDED BY THE PROJECT EXPIRATION DATE, IF APPLICABLE. SUBSEQUENT SITE PLANS WHICH DO NOT COMPLY WITH THE CODE CURRENT AT THE TIME OF FILING, AND ALL REQUIRED BUILDING PERMITS AND/OR A NOTICE OF CONSTRUCTION (IF A BUILDING PERMIT IS NOT REQUIRED) MUST ALSO BE APPROVED PRIOR TO THE PROJECT EXPIRATION DATE.



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MAY 22, 2019

44 EAST
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 AUSTIN, TRAVIS COUNTY, TEXAS 78701
 IRRIGATION PLAN NORTH