

### IRRIGATION SCHEDULE

| SYMBOL                       | MANUFACTURER/MODEL/DESCRIPTION   | PSI |
|------------------------------|--|-----|
| 108E-VAN<br>104E-VAN         | RAIN BIRD 1806-U ADJ<br>TURF SPRAY 6.0" POP-UP SPRINKLER WITH CO-MOLDED<br>WIPER SEAL, SIDE AND BOTTOM INLET. 1/2" NPT FEMALE<br>THREADED INLET. | 30  |
| 1401<br>1402<br>1404<br>1408 | RAIN BIRD 1806-1400 FLOOD<br>FLOOD BUBBLER 6.0" POPUP  | 30  |

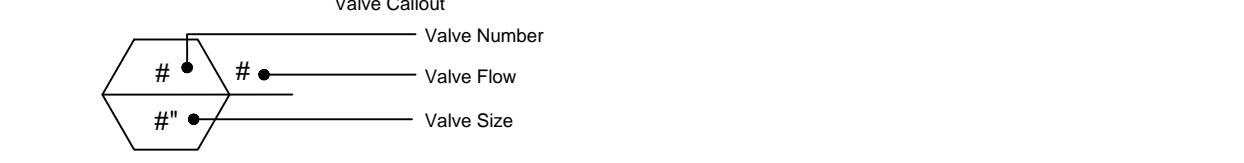
| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION   | PSI |
|--------|--|-----|
| 25     | RAIN BIRD 5006-R-SS-PC-FC-MPR<br>TURF ROTOR, 6.0" POP-UP, STAINLESS STEEL RISER,<br>MATCHED PRECIPITATION ROTOR (MPR NOZZLE), ARC<br>AND RADIUS AS PER SYMBOL. 25 FT=RED, 30 FT=GREEN,<br>35FT=BEIGE. PRESSURE REGULATING. | 25  |
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| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION  |
|--------|---|
| 1      | RAIN BIRD XCZ-100-PRB-COM<br>WIDE FLOW DRIP CONTROL KIT FOR COMMERCIAL<br>APPLICATIONS. 1" BALL VALVE WITH 1" PESB VALVE AND<br>1" PRESSURE REGULATING 40PSI QUICK-CHECK BASKET<br>FILTER. 0.3GPM TO 20GPM.   |
| 2      | RAIN BIRD MDCFCAP<br>DRIPLINE FLUSH VALVE CAP IN COMPRESSION FITTING<br>COUPLER.  |
| 3      | RAIN BIRD ARV050<br>1/2" AIR RELIEF VALVE, MADE OF QUALITY RUST-PROOF<br>MATERIALS, WITH A 6.0" DRIP VALVE BOX (SEB 7XB<br>EMITTER BOX). USE WITH INSTALLATION BELOW SOIL.<br>THE VALVE WILL ALLOW AIR TO ESCAPE THE PIPELINE,<br>THUS PREVENTING WATER HAMMER OR BLOCKAGE. |
| 4      | RAIN BIRD OPERIND<br>DRIP SYSTEM OPERATION INDICATOR, STEM RISES 6"<br>FOR CLEAR VISIBILITY WHEN DRIP SYSTEM IS CHARGED<br>TO A MINIMUM OF 20PSI. INCLUDES 16" OF 1/4"<br>DISTRIBUTION TUBING WITH CONNECTION FITTING<br>PRE-INSTALLED.                                     |

| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION  |
|--------|---|
| 5      | AREA TO RECEIVE DRIPLINE<br>RAIN BIRD XFS-09-18<br>XFS SUB-SURFACE PRESSURE COMPENSATING DRIPLINE<br>W/COPPER SHIELD TECHNOLOGY. 0.9 GPH EMITTERS AT<br>18" O.C. LATERALS SPACED AT 18" APART, WITH<br>EMITTERS OFFSET FOR TRIANGULAR PATTERN. UV<br>RESISTANT. SPECIFY XF INSERT FITTINGS. |

| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION   |
|--------|--|
| 6      | RAIN BIRD PEB<br>1", 1-1/2", 2" PLASTIC INDUSTRIAL VALVES. LOW FLOW<br>OPERATING CAPABILITY, GLOBE CONFIGURATION.  |
| 7      | NIBCO BALL VALVE<br>BRASS, TWO-PIECE, FULL PORT, NPT X NPT, T-PP-600A  |
| 8      | FEBCO 765 1"<br>PRESSURE VACUUM BREAKER, BRASS WITH BALL VALVE<br>SOV. INSTALL 12" (305MM) ABOVE HIGHEST<br>DOWNSTREAM OUTLET AND THE HIGHEST POINT IN THE<br>DOWNSTREAM PIPING. WITH GUARDSHACK (OR EQUAL)<br>ENCLOSURE, POWDER-COATED BLACK. |
| 9      | RAIN BIRD ESP-12LX BASIC<br>12 STATION COMMERCIAL CONTROLLER WITH LXMM<br>METAL WALL-MOUNT CASE.   |
| 10     | RAIN BIRD WR2-RFC<br>WIRELESS RAIN AND FREEZE SENSOR COMBO, INCLUDES<br>1 RECEIVER AND 1 RAIN/FREEZE SENSOR TRANSMITTER.   |

|     |  |
|-----|--|
| --- | IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21<br>PVC CLASS 200 IRRIGATION PIPE. ONLY LATERAL<br>TRANSITION PIPE SIZES 1" AND ABOVE ARE INDICATED<br>ON THE PLAN, WITH ALL OTHERS BEING 3/4" IN SIZE. |
| --- | IRRIGATION MAINLINE: PVC SCHEDULE 40   |
| --- | PIPE SLEEVE: PVC SCHEDULE 40   |



### VALVE SCHEDULE

| NUMBER | MODEL                     | SIZE | TYPE              | GPM   | PSI @ POC | PRECIP    |
|--------|---------------------------|------|-------------------|-------|-----------|-----------|
| 1      | RAIN BIRD PEB             | 1"   | TURF SPRAY        | 7.29  | 37.78     | 1.18 in/h |
| 2      | RAIN BIRD PEB             | 1"   | TURF ROTOR        | 17.29 | 34.96     | 0.72 in/h |
| 3      | RAIN BIRD XCZ-100-PRB-COM | 1"   | BUBBLER           | 7.50  | 40.57     | 1.06 in/h |
| 4      | RAIN BIRD XCZ-100-PRB-COM | 1"   | AREA FOR DRIPLINE | 8.30  | 43.16     | 0.64 in/h |
| 5      | RAIN BIRD PEB             | 1"   | TURF ROTOR        | 17.58 | 37.12     | 0.74 in/h |
| 6      | RAIN BIRD PEB             | 1"   | TURF ROTOR        | 10.90 | 37.01     | 0.62 in/h |

### CRITICAL ANALYSIS

Generated: 2019-01-31 14:04

P.O.C. NUMBER: 01  
Water Source Information:

FLOW AVAILABLE  
Water Meter Size: 1"  
Flow Available: 37.50 gpm

PRESSURE AVAILABLE  
Static Pressure at POC: 65.00 psi  
Elevation Change: 5.00 ft  
Service Line Size: 1 1/2"  
Length of Service Line: 20.00 ft  
Pressure Available: 61.00 psi

DESIGN ANALYSIS  
Maximum Station Flow: 17.58 gpm  
Flow Available at POC: 37.50 gpm  
Residual Flow Available: 19.92 gpm

Critical Station: 4  
Design Pressure: 30.00 psi  
Friction Loss: 2.06 psi  
Fittings Loss: 0.21 psi  
Elevation Loss: 0.00 psi  
Loss through Valve: 6.18 psi  
Pressure Req. at Critical Station: 38.44 psi  
Loss for Fittings: 0.07 psi  
Loss for Main Line: 0.66 psi  
Loss for POC to Valve Elevation: 0.00 psi  
Loss for Backflow: 3.46 psi  
Loss for Water Meter: 0.53 psi  
Critical Station Pressure at POC: 43.16 psi  
Pressure Available: 61.00 psi  
Residual Pressure Available: 17.84 psi

### IRRIGATION DISCLAIMER

THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE-GRADE IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR IRRIGATION CONTRACTOR MAY BE REQUIRED TO MOVE SUCH ITEMS AT HIS OWN COST.

IRRIGATION CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL FINAL QUANTITIES PER DRAWINGS AND SPECIFICATIONS. ANY QUANTITIES PROVIDED ARE PROVIDED AS A CONVENIENCE TO THE CONTRACTOR ONLY AND SHALL NOT BE CONSIDERED ABSOLUTE.

### CONTROLLER NOTE

LOCATE CONTROLLER AT LOCATION SHOWN ON PLAN. VERIFY LOCATION IN FIELD WITH OWNER'S REPRESENTATIVE.

120 VAC POWER TO CONTROLLER LOCATION IS NOT WITHIN THE IRRIGATION CONTRACTOR'S SCOPE OF WORK, AND SHALL BE PROVIDED BY OTHERS. HOOK-UP OF CONTROLLER TO 120 VAC SHALL BE PERFORMED BY THE IRRIGATION CONTRACTOR. IRRIGATION CONTRACTOR SHALL COORDINATE LOCATION OF WIRE SLEEVE PENETRATIONS THROUGH BUILDING WITH OWNER AND GENERAL CONTRACTOR. STATION RUN ORDER SHALL MATCH PLANS.

### SLEEVING / WIRING NOTES:

IN ADDITION TO PROVIDING SLEEVES FOR ALL PIPING UNDER ROADWAYS AND WALKWAYS, THE IRRIGATION CONTRACTOR SHALL PROVIDE AND INSTALL SCH. 40 PVC SLEEVES FOR ALL CONTROLLER WIRES OCCURRING UNDER ALL ROADWAYS AND WALKWAYS. SLEEVES FOR CONTROLLER WIRES SHALL BE 2" DIA. AND CONTAIN NO MORE THAN 25 WIRES.

**BOHLER ENGINEERING NC, PLLC**

WE CAN ASSIST YOU WITH ANY OF THE FOLLOWING:

- LAND SURVEYING
- SUSTAINABLE DESIGN
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- PERMITTING SERVICES
- LANDSCAPE ARCHITECTURE
- TRANSPORTATION SERVICES

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- MINNEAPOLIS, MN
- NORFOLK, VA
- PITTSBURGH, PA
- PORTLAND, ME
- RICHMOND, VA
- ROCKFORD, IL
- SOUTH FLORENCE, SC
- TAMPA, FL
- WASHINGTON, DC

### REVISIONS

| REV | DATE | COMMENT | BY |
|-----|------|---------|----|
|     |      |         |    |
|     |      |         |    |
|     |      |         |    |
|     |      |         |    |

**811**

KNOW WHAT'S BELOW  
ALWAYS CALL 811  
BEFORE YOU DIG

It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

PROJECT No.: TD180033  
DRAWN BY: CMR  
CHECKED BY: RM  
DATE: 01/08/19  
SCALE:  
CAD I.D.:

PROP. SITE PLAN DOCUMENTS FOR

**BRAKES PLUS**

LOCATION OF SITE  
SW CORNER OF S. GOLIAD ST AND YELLOW JACKET LN  
LOTS 1 & 2, BLOCK A, BILLY PEOPLES ADDITION NO. 1  
ROCKWALL, TX 75087  
ROCKWALL COUNTY

**BOHLER ENGINEERING**

6017 MAIN STREET  
FRISCO, TX 75034  
Phone: (469) 458-7300  
TX@BohlerEng.com

REGISTERED LANDSCAPE ARCHITECT  
CHRISTOPHER M. ROSS  
3358  
02/01/19

SHEET TITLE:  
**LANDSCAPE IRRIGATION**

SHEET NUMBER:  
**L-1.2**

CASE NUMBER:



NOTE: THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN DRAWINGS, RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE DESIGNER DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. AS SUCH, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND UNCOVERING EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED IMPROVEMENTS AND UTILITY CONNECTION POINTS PRIOR TO THE START OF CONSTRUCTION TO ASCERTAIN EXACT MATERIALS, LOCATIONS, ELEVATIONS, ETC. AND THEIR POTENTIAL CONFLICT WITH PROPOSED IMPROVEMENTS. GC SHALL CONSULT WITH CONSTRUCTION MANAGER AND ENGINEER AS APPROPRIATE BEFORE PROCEEDING WITH WORK.

**EVERGREEN DESIGN GROUP**

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