

## MWELO STATEMENT

"I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE PLAN"

Stychen A. Hovanis	8/23/2022
STEPHEN A. KOVANIS	DATE
REGISTERED LANDSCAPE ARCHITECT CA #6197	

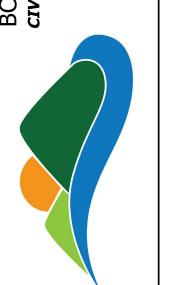
#### PLANTING NOTES

- 1. ALL WORK IS TO BE PERFORMED UNDER THE DIRECTION OF A LICENSED LANDSCAPE CONTRACTOR (C-27 LICENSE) OR CERTIFIED BY THE STATE OF CALIFORNIA FOR THE TYPE OF WORK SHOWN ON THE PLANS.
- 2. A MINIMUM THREE INCH (3") LAYER OF SHREDDED WOOD MULCH (ARBOR MULCH) SHALL BE APPLIED ON ALL EXPOSED SOIL SURFACES OF PLANTING AREAS EXCEPT IN TURF AREAS, CREEPING OR ROOTING GROUNDCOVERS, OR DIRECT SEEDING APPLICATIONS WHERE MULCH IS CONTRAINDICATED. "GORILLA HAIR" REDWOOD MULCH IS PROHIBITED.
- CONTRACTOR IS TO SUBMIT SOIL SAMPLES FROM TYPICAL PLANTING AREAS TO A LABORATORY FOR ANALYSIS AND RECOMMENDATIONS. SOIL SAMPLING SHALL BE CONDUCTED IN ACCORDANCE WITH LABORATORY PROTOCOL, INCLUDING PROTOCOLS REGARDING ADEQUATE SAMPLING DEPTH FOR THE INTENDED PLANTS. THE SOIL ANALYSIS SHALL INCLUDE:
  - a. SOIL TEXTURE
  - b. INFILTRATION RATE DETERMINED BY LABORATORY TEST OR SOIL TEXTURE INFILTRATION RATE TABLE
  - c. PH d. TOTAL SOLUBLE SALTS
  - e. SODIUM
  - f. PERCENT ORGANIC MATTER g. RECOMMENDATIONS
- 4. THE SOIL ANALYSIS REPORT SHALL BE MADE AVAILABLE, IN A TIMELY MANNER, TO THE PROFESSIONALS PREPARING THE LANDSCAPE DESIGN PLANS AND IRRIGATION DESIGN PLANS TO MAKE ANY NECESSARY ADJUSTMENTS TO THE DESIGN PLANS.
- 5. INCORPORATE COMPOST OR NATURAL FERTILIZER INTO THE SOIL TO A MINIMUM DEPTH OF 8" AT A MINIMUM RATE OF 6 CUBIC YARDS PER 1000 SQUARE FEET OR PER SPECIFIC AMENDMENT RECOMMENDATIONS FROM A SOILS LABORATORY REPORT.
- 6. IF A GRADING PERMIT IS REQUIRED, THE SOIL ANALYSIS REPORT SHALL BE SUBMITTED TO THE CITY WITH THE CERTIFICATE OF COMPLETION. IF A GRADING PERMIT IS NOT REQUIRED, THE SOIL ANALYSIS REPORT SHALL BE SUBMITTED TO THE CITY WITH THE LANDSCAPE DOCUMENTATION PACKAGE.
- 7. THE PROJECT APPLICANT, OR HIS/HER DESIGNEE, SHALL SUBMIT DOCUMENTATION VERIFYING IMPLEMENTATION OF SOIL ANALYSIS REPORT RECOMMENDATIONS TO THE CITY WITH CERTIFICATE OF COMPLETION."
- 8. A MINIMUM OF 8" OF NON-MECHANICALLY COMPACTED SOIL SHALL BE AVAILABLE FOR WATER ABSORPTION AND ROOT GROWTH IN PLANTED
- 9. PLANTS SHALL BE OF QUALITY NURSERY STOCK, FREE OF PESTS AND DISEASES, AND CONFORM TO THE SIZE SPECIFICATIONS OF THE PLANT LEGEND AND THE LATEST EDITION OF THE AMERICAN NURSERYMAN STANDARDS.
- 10. ALL PLANT LOCATIONS SHOWN ARE DIAGRAMMATIC AND SHALL BE CONFIRMED IN THE FIELD BY THE LANDSCAPE ARCHITECT, PROVIDE 48 HOURS ADVANCE NOTICE TO SCHEDULE SITE VISITS. CONTRACTOR IS TO ADJUST ALL PLANTING WITH UTILITY LOCATIONS OR OTHER OBSTACLES NOT SHOWN ON THESE PLANS. ANY CONFLICTS BETWEEN LOCATIONS OF PROPOSED PLANTING AND UTILITIES OR OTHER OBSTRUCTIONS ARE TO BE
- 11. PLANT QUANTITIES ARE FOR INFORMATIONAL USE ONLY. IN THE CASE OF ANY DISCREPANCIES BETWEEN PLANT QUANTITIES AND SYMBOLS SHOWN, THE PLANTING PLAN SHALL GOVERN. NOTIFY THE LANDSCAPE ARCHITECT IF CLARIFICATION IS NEEDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PLANTS AS SHOWN ON THE DRAWINGS.
- 12. PLANTS ARE TO BE INSTALLED IN A TRIANGULAR SPACING PATTERN UNLESS OTHERWISE NOTED.

CALLED TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.

- 13. NURSERY TRAINING STAKES SHALL BE REMOVED AT THE TIME OF PLANTING. BACKFILL HOLES WITH AMENDED PLANTING SOIL. TREES AND OTHER PLANTINGS THAT REQUIRE STAKING SHALL BE INSTALLED PER DETAIL.
- 14. TREES SHALL BE CAPABLE OF SUPPORTING THEMSELVES WHEN STAKED. TREES WHICH HAVE BEEN "TOPPED" OR CUT ALONG THE LEAD TRUNK WILL BE REJECTED. TREES CLOSER THAN 8' TO PAVEMENTS OR FOUNDATIONS SHALL HAVE A ROOT BARRIER INSTALLED. PRODUCT TO BE NDS #SM-2420 OR APPROVED EQUAL.
- 15. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE LANDSCAPE INSTALLATION FOR 60 DAYS UPON FINAL ACCEPTANCE. PLANTS IN AN UNHEALTHY OR DISTRESSED STATE SHALL BE REPLACED AT THE SAME SIZE AND SPECIFICATION AS THE ORIGINAL AT NO ADDITIONAL COST TO THE OWNER. ALL TREES SHALL BE GUARANTEED FOR ONE YEAR AND ALL SHRUBS AND GROUND COVER SHALL BE GUARANTEED FOR 6 MONTHS UPON FINAL ACCEPTANCE.
- 16. UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEERING DEVELOPMENT SERVICES INSPECTOR A COMPLETED AND SIGNED "CERTIFICATE OF COMPLETION" STATING THAT THE PROJECT HAS BEEN INSTALLED AS DESIGNED.
- 17. THE CERTIFICATE OF COMPLETION SHALL BE ACCOMPANIED BY AN IRRIGATION AUDIT, IRRIGATION SCHEDULE AND MAINTENANCE SCHEDULE, AS DESCRIBED IN THE CITY ORDINANCE.
- 18. A FINAL CITY INSPECTION SHALL BE PERFORMED. THE INSTALLATION CONTRACTOR SHALL ATTEND THIS INSPECTION AND MAKE ALL REQUIRED REPAIRS AND ADJUSTMENTS TO ACHIEVE APPROVAL AND COMPLETION FROM THE CITY. TO SCHEDULE AN INSPECTION, CONTACT ENGINEERING DEVELOPMENT SERVICES AT (707) 543-4611.

DATE			
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PLA 6197 Exp. 6/30/23

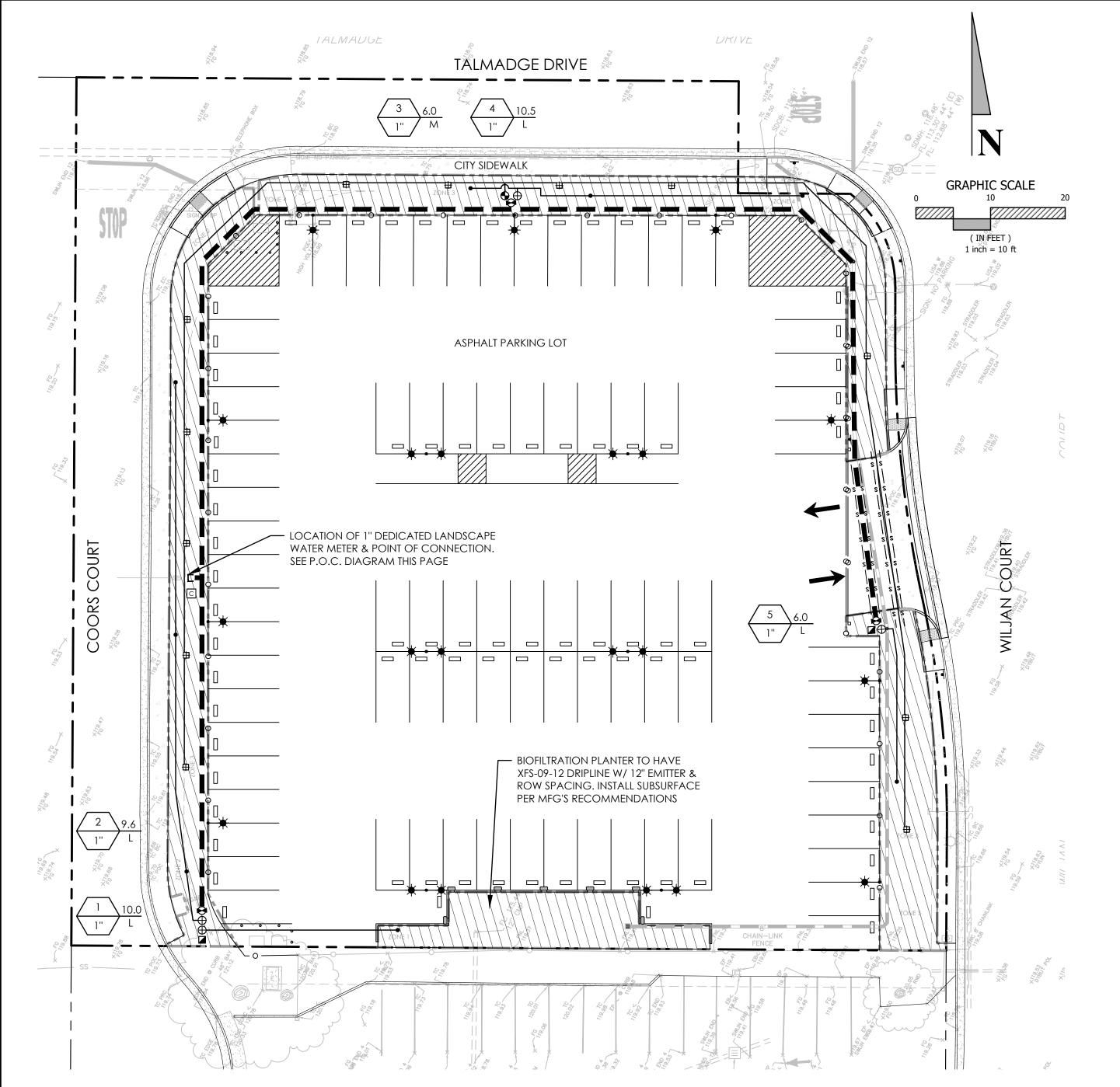
Date: 08/23/22

Job: 1311-19

Drawn: SK Scale: AS SHOWN

APN: 043-134-047

Permit #:



## HYDROZONE TABLE

MW=Moderate Water Use Plants LW=Low Water Use Plants

A.) Net Evapotranspiration Calculation

#### Hydrozone Table This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package. Please complete the hydrozone table(s) for each hydrozone. Use as many tables as necessary to provide the square footage of landscape area per hydrozone. Hydrozone\* Method\*\* Valve (Sq. Ft.) Lands cape Area Moderate (Bio Planter) Moderate (Trees) 32% 18% 7450 100%Total Summary Hydrozone Table Hydrozone\* Area (Sq. Ft.) High Water Use 0% Moderate Water Use 21% Low Water Use 79% Total = 7450\*\*Irrigation Method HW= High Water Use Plants MS=Micro-spray

## WATER BUDGET CALCS. 'APPENDIX A'

The following calculations will help you determine your site specific water budget and establish a planting mix that will allow you to meet your water budget. Your Estimated Total Water Use must be less than your Maximum Applied Water Allowance

Maximum Applied Water Allowance

R=Rotor B=Bubbler D=Drip

Maximum Applied Water Allowance (MAWA) C MAWA = (ETo) (0.62)[(0.45x LA) + (0.55 x SLA)]ETo = Annual Net Reference Evapotranspiration (inches 0.45 = ET Adjustment Factor LA = Landscaped Area (square feet) 0.62 = Conversion factor (to gallons per square foot)SLA = Portion of the landscape area identified as Special Landscape Area (square feet) 0.55 = the additional ET adjustment factor for Special Landscape Area (1.0 - 0.45 = 0.55

Net Evapotranspiration Calculation = Annual ETo B.) Adjusted Landscape Area Calculation 3352.5 Sum of Adjusted Landscape Area = 3352.5

A.) Net Evapotranspiration Calculation  $\label{eq:new_potential} \textbf{Net Evapotranspiration Calculation} \quad = \quad \textbf{Annual ETo} \quad \textbf{-} \quad \textbf{Effective Rainfall}$ B.) Adjusted Landscape Area Calculation

> Irrigation Efficiency Factor
> Square footage of landscape on drip Fotal square footage of landscape

## IRRIGATION LEGEND

SYMBOL	MFG.	MODEL #	DESCRIPTION	DETAIL
M	N/A	N/A	1" DEDICATED LANDSCAPE WATER METER & SERVICE BY OTHERS	
	FEBCO	LF825Y-QT1	1" REDUCED PRESSURE ZONE ASSEMBLY, INSTALL PER CITY STD. 876	BF/L3.1
Г	N/A	N/A	1" IRRIGATION POINT OF CONNECTION DOWNSTREAM OF BACKFLOW DEVICE	N/A
PR	FEBCO	LFU5B-Z3	LEAD-FREE PRESSURE REDUCING VALVE, SIZE PER LINE, SET TO 55 P.S.I.	PR/L3.1
8	NIBCO	N/A	BALL VALVE, FULL PORT, SIZE PER LINE	BV/L3.0
С	HUNTER	N/A	ICORE IC-600-M 6 STA. CONTROLLER W/ ACC-PED METAL PEDESTAL	CO/L3.0
MV	HUNTER	IBV-101G-FS	1" BRASS MASTER VALVE, NORMALLY CLOSED	MV/L3.0
FS	HUNTER	FCT-150	1-1/2" FLOW CLICK FLOW SENSOR, RANGE 5-35 G.P.M.	MV/L3.0
•	HUNTER	ICV-101G	1" ICV SERIES REMOTE CONTROL VALVE W/ FLOW CONTROL	RC/L3.0
$\oplus$	HUNTER	ICZ-101LF-40	DRIP ZONE KIT W/ 1" ICV GLOBE VALVE & 1" HFR-100-075 40 P.S.I. REGULATOR	DZ/L3.0
	RAINBIRD	33DLRC	3/4" QUICK COUPLER W/ DOUBLE TRACK KEY LUG & LOCKING RUBBER COVER	QC/L3.1
	ZONE 1	N/A	HYDROZONE BOUNDARY	N/A

#### PIPE

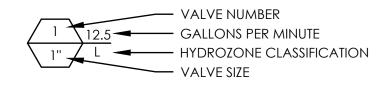
SYMBOL	DESCRIPTION	DETAIL
	1-1/2" PRESSURE MAINLINE, SCH. 40 PVC	TS/L3.0
	NON-PRESSURE LATERAL PIPE, SCH. 40 PVC, SIZED PER CHART ON PLAN	TS/L3.0
	SCH. 40 PVC SLEEVES, SEE NOTES	TS/L3.0

### **DRIP IRRIGATION & EMISSION DEVICES**

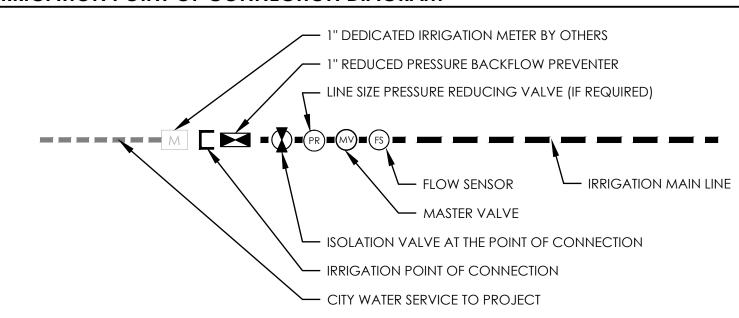
SYMBOL	MFG.	DESCRIPTION	
	RAINBIRD	XFCV-06-18 DRIPLINE W/ PRESSURE COMPENSATION & 3.5 PSI CHECK VALVE FOR ON-SURFACE APPLICATIONS. OPENING PRESSURE-14.5 PSI. OPERATING PRESSURE; 20-60PSI. FLOW RATE 0.6 GPH; 18" ROW & EMITTER SPACING. FITTINGS: XF SERIES 17MM INSERT FITTINGS, EASY FIT COMPRESSION FITTINGS OR TLF TWIST LOCK FITTINGS.	DI/L3.1
<b>#</b>	RAINBIRD	TREE BUBBLERS; (1) ROOT WATERING SYSTEM #RWS-B-C-1401, & (1) 1401 FLOOD BUBBLER INSTALLED AT SURFACE, EACH SYMBOL REPRESENTS BOTH EMISSION DEVICES	TB/L3.0

### PIPE SIZING CHART

ZONE FLOW	PIPE SIZE
0 - 4 GPM	DRIPLINE TUBING
0 - 7 GPM	3/4" PVC
7.1 - 12 GPM	1" PVC
12.1 - 22 GPM	1 1/4" PVC
22.1 - 30 GPM	1 1/2" PVC



# IRRIGATION POINT OF CONNECTION DIAGRAM



## **IRRIGATION NOTES**

- SPECIFICATIONS, LOCALLY APPLIED CODES AND STANDARDS, AND MANUFACTURERS' PRODUCT REQUIREMENTS. WORK IS TO BE EXECUTED BY A LICENSED LANDSCAPE CONTRACTOR (C-27 LICENSE). CONTRACTOR SHALL BE CAPABLE OF QUALITY WORKMANSHIP AND THE SAFE USE OF PROPER EQUIPMENT.
- 2. THESE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, AND OTHER IRRIGATION COMPONENTS MAY BE SHOWN WITHIN PAVED AREAS FOR GRAPHIC CLARITY ONLY AND ARE TO BE INSTALLED WITHIN PLANTING AREAS.
- 3. CONTRACTOR IS TO BE FAMILIAR WITH ALL STRUCTURAL AND FINISHED CONDITIONS AFFECTING THE CONTRACT WORK AND PLAN ACCORDINGLY. COORDINATE IRRIGATION WORK WITH APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, PAVING AND STRUCTURES BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY REQUIRED REVISIONS.
- 4. SCHEDULE FIELD INSPECTIONS WITH LANDSCAPE ARCHITECT AND PROVIDE 48 HOURS ADVANCE NOTICE.
- 5. THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM AVAILABILITY OF 30 G.P.M. AND OPERATING PRESSURE OF 55 P.S.I. AT THE POINT OF CONNECTION DOWNSTREAM OF THE BACKFLOW DEVICE. CONTRACTOR IS TO NOTIFY LANDSCAPE ARCHITECT IF THESE DEMANDS CANNOT BE MET PRIOR TO COMMENCING ANY WORK.
- 6. TEST ALL PRESSURE LINES AT 150 P.S.I. FOR 2 HOURS PRIOR TO BACKFILLING TRENCH. IF LEAKS DEVELOP, MAKE ALL NECESSARY REPAIRS AND REPEAT TEST UNTIL PRESSURE IS HELD.
- 7. SLEEVES SHALL BE SCH. 40 PVC, TWICE THE DIAMETER OF THE PIPING OR WIRING BUNDLE THAT IT HOLDS, AND EXTEND A MINIMUM 18" BEYOND THE EDGE OF SURFACES. SLEEVE ALL PIPES AND WIRE BUNDLES SEPARATELY.

- 1. THE IRRIGATION SYSTEM SHALL BE ASSEMBLED AND INSTALLED ACCORDING TO THE IRRIGATION PLANS, DESIGN 8. COORDINATE EXACT CONTROLLER LOCATION WITH OWNER. COORDINATE POWER SUPPLY AND SLEEVING WITH GENERAL CONTRACTOR. ALL 120V ELECTRICAL POWER SUPPLY WORK TO BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR AND MEET ALL APPLICABLE CODES. LANDSCAPE CONTRACTOR SHALL MAKE ALL HARDWIRE CONNECTIONS FOR CONTROL WIRES.
  - 9. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR MINOR CHANGES IN THE IRRIGATION LAYOUT DUE TO OBSTRUCTIONS NOT SHOWN ON THE IRRIGATION DRAWINGS SUCH AS LIGHTS, FIRE HYDRANTS, SIGNS, ELECTRICAL ENCLOSURES, ETC.
  - 10. IRRIGATION CONTROL WIRES SHALL BE SOLID COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND AND CONTINUOUS FROM THE CONTROLLER (NO SPLICES). COMMON GROUND WIRE: SIZE #12-1 WIRE WITH A WHITE INSULATING JACKET. CONTROL WIRE SERVICING REMOTE CONTROL VALVES SHALL BE SIZE #14-1 WIRE WITH A RED INSULATING JACKET. SPLICES SHALL BE MADE WITH 3M-DBY SEAL PACKS OR APPROVED EQUAL. SPLICING OF LOW VOLTAGE WIRES IS PERMITTED IN VALVE BOXES ONLY.
  - 11. INSTALL TWO SPARE CONTROL WIRES OF A DIFFERENT COLOR ALONG THE ENTIRE MAIN LINE, LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES. TAPE WIRES TOGETHER TO AMIN LINE EVERY TEN FEET. DO NOT TAPE WIRES TOGETHER WHERE CONTAINED WITHIN SLEEVES
  - 12. INSTALL REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, INSTALL EACH BOX AN EQUAL DISTANCE FROM THE WALK, CURB, BUILDING OR LANDSCAPE FEATURE AND PROVIDE 12" BETWEEN BOX TOPS. ALIGN THE SHORT SIDE OF RECTANGULAR VALVE BOXES PARALLEL TO WALK, CURB, BUILDING OR LANDSCAPE FEATURE. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS ONLY.
  - 13. FOR PLANTS INSTALLED ON SLOPES, LOCATE EMITTER OUTLETS AND BUBBLERS ON UPHILL SIDE OF PLANT OR

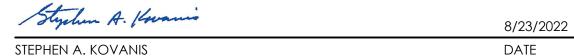
- 14. ALL MATERIALS PROVIDED BY THE CONTRACTOR SHALL BE NEW OR VIABLE AND FREE OF ANY CONTAMINATION OR DAMAGE. MATERIALS NOT SPECIFICALLY ADDRESSED IN THESE SPECIFICATIONS OR ASSOCIATED NOTES AND DRAWINGS BUT ARE UNDERSTOOD AS NECESSARY TO COMPLETE THE PROJECT AS A MATTER OF INDUSTRY STANDARDS SHALL NEVERTHELESS BE PROVIDED BY THE CONTRACTOR.
- 15. PRESSURE REGULATING DEVICES ARE REQUIRED IF WATER PRESSURE IS BELOW OR EXCEEDS THE RECOMMENDED PRESSURE OF THE SPECIFIED IRRIGATION DEVICES.
- 16. CHECK VALVES OR ANTI-DRAIN VALVES ARE REQUIRED ON ALL SPRINKLER HEADS WHERE LOW POINT DRAINAGE COULD OCCUR.
- 17. THE CONTRACTOR SHALL KEEP A DETAILED REDLINE PLAN OF THE INSTALLATION AS IT PROGRESSES. THIS "AS-BUILT" PLAN SHALL SHOW ANY DISCREPANCIES TO THE DESIGN PLANS, LOCATION OF POINT OF CONNECTION, MAIN LINE AND LATERAL PIPE LAYOUT, WIRE PATH, VALVES, SPRINKLER HEADS, ETC. AND BE SUBMITTED TO THE OWNER FOR APPROVAL. UPON ACCEPTANCE, THE AS-BUILT PLAN SHALL BE REDUCED TO 11x17 AND PERMANENTLY MOUNTED IN THE CONTROLLER ENCLOSURE. THE APPROVED AS-BUILT SHALL BE A CONDITION OF COMMENCEMENT OF THE MAINTENANCE PERIOD.
- 18. A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.
- 19. A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE DESIGNER OF THE LANDSCAPE PLANS, IRRIGATION PLANS, OR THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.
- 20. AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION. ALL LANDSCAPE IRRIGATION AUDITS SHALL BE CONDUCTED BY A CITY CERTIFIED LANDSCAPE IRRIGATION AUDITOR OR A THIRD PARTY CERTIFIED LANDSCAPE IRRIGATION AUDITOR.

- 21. A REGULAR MAINTENANCE SCHEDULE SHALL BE SUBMITTED WITH THE CERTIFICATE OF COMPLETION AND SHALL INCLUDE, BUT NOT BE LIMITED TO, ROUTINE INSPECTION; AUDITING, ADJUSTMENT AND REPAIR OF THE IRRIGATION SYSTEM AND ITS COMPONENTS; AND REMOVING OBSTRUCTIONS TO EMISSION DEVICES.
- 22. THE CONTRACTOR SHALL GUARANTEE THE IRRIGATION SYSTEM FOR A PERIOD OF 12 MONTHS BEYOND THE DATE OF FINAL ACCEPTANCE. ALL MATERIALS AND WORKMANSHIP REQUIRING REPAIRS OR REPLACEMENT SHALL BE PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. REPAIRS SHALL BE MADE WITHIN A 48 HOUR TIMEFRAME, AND IMMEDIATELY SHOULD THEY POSE A SAFETY ISSUE.

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