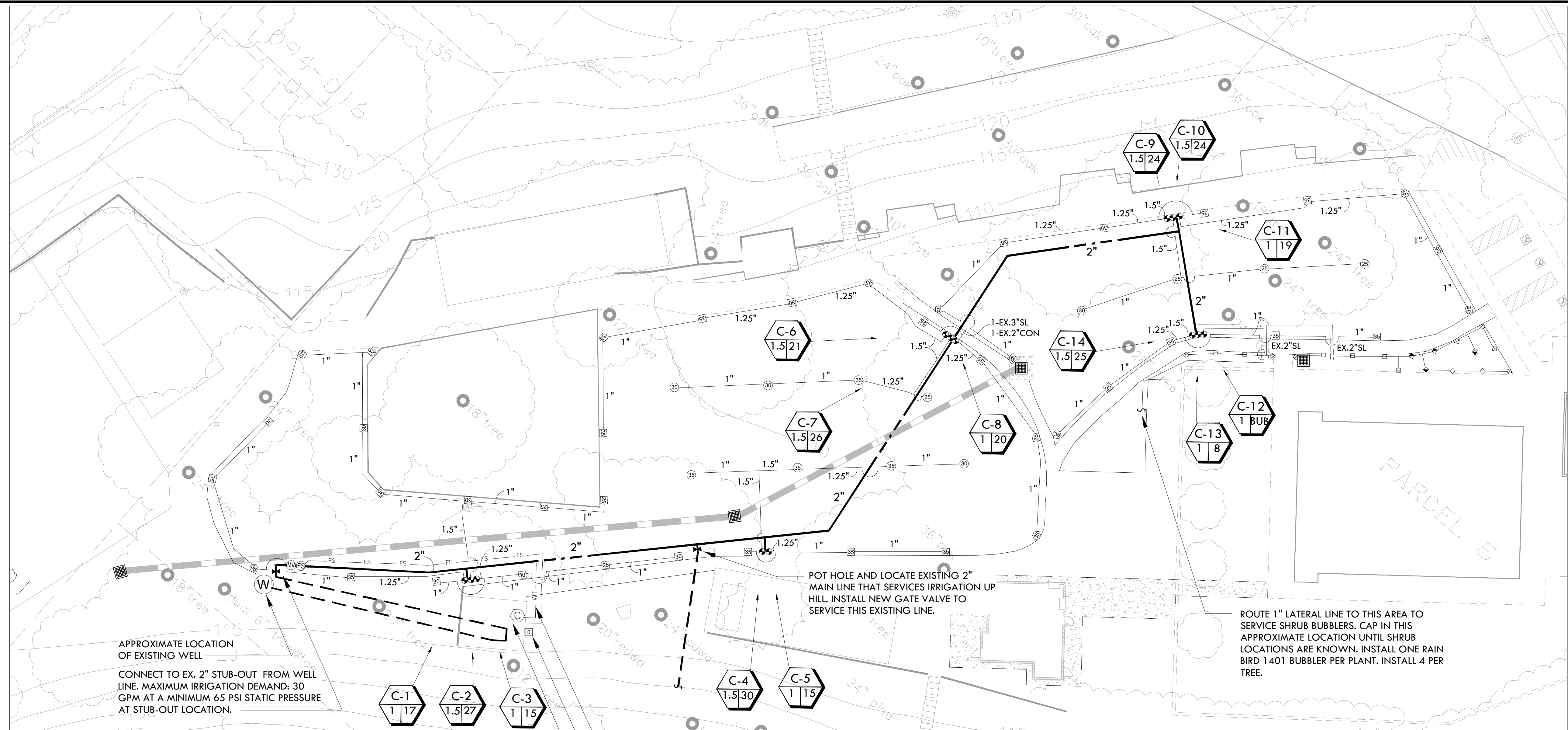


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APPROXIMATE LOCATION OF EXISTING WELL
 CONNECT TO EX. 2" STUB-OUT FROM WELL LINE. MAXIMUM IRRIGATION DEMAND: 30 GPM AT A MINIMUM 65 PSI STATIC PRESSURE AT STUB-OUT LOCATION.

POT HOLE AND LOCATE EXISTING 2" MAIN LINE THAT SERVICES IRRIGATION UP HILL. INSTALL NEW GATE VALVE TO SERVICE THIS EXISTING LINE.

ROUTE 1" LATERAL LINE TO THIS AREA TO SERVICE SHRUB BUBBLERS. CAP IN THIS APPROXIMATE LOCATION UNTIL SHRUB LOCATIONS ARE KNOWN. INSTALL ONE RAIN BIRD 1401 BUBBLER PER PLANT. INSTALL 4 PER TREE.

NOTES:

- IRRIGATION EQUIPMENT MAY BE SHOWN WITHIN HARDSCAPE FOR GRAPHIC CLARITY ONLY. INSTALL ALL IRRIGATION EQUIPMENT WITHIN PLANTED AREAS. IRRIGATION PIPE AND WIRE CROSSING BENEATH HARDSCAPE SURFACES SHALL BE CONTAINED WITHIN SLEEVING OR SCHEDULE 40 PVC CONDUIT. SLEEVING SIZE SHALL BE A MINIMUM OF TWO TIMES THE AGGREGATE DIAMETER OF ALL PIPES CONTAINED WITH SLEEVE. PROVIDE VERTICAL SWEEP FOR ALL ELECTRICAL CONDUIT ON EACH SIDE OF HARDSCAPE AND TERMINATE ENDS AT 12" MINIMUM DEPTH AND 12" FROM HARDSCAPE SURFACE.
- SIZING OF LATERAL PIPE SHALL BE AS FOLLOWS:

1"	7-12 GPM
1.25"	13-20 GPM
1.5"	21-32 GPM
2"	33-50 GPM
2.5"	51-70 GPM

APPROXIMATE ROUTING OF NEW CONTROL WIRES FROM CONTROLLER TO IN BUILDING. UTILIZE EXISTING CONDUIT THAT EXITS THE BUILDING. SAWCUT ACROSS EXISTING PATH TO INSTALL WIRES IN 2" CONDUIT.

WIRELESS RAIN SENSOR. MOUNT ON EVE OF BUILDING. INSTALL SENSOR OPEN TO THE SKY. COORDINATE AND CONFIRM EXACT LOCATION WITH PARK REPRESENTATIVE PRIOR TO INSTALLATION.

REMOVE EXISTING CONTROLLER AND INSTALL IRRIGATION CONTROLLER "C". MOUNT ON INTERIOR WALL AT THIS LOCATION AS DETAILED AND AS DIRECTED BY PARK REPRESENTATIVE. CONNECT TO EX 120 VOLT A.C. POWER.

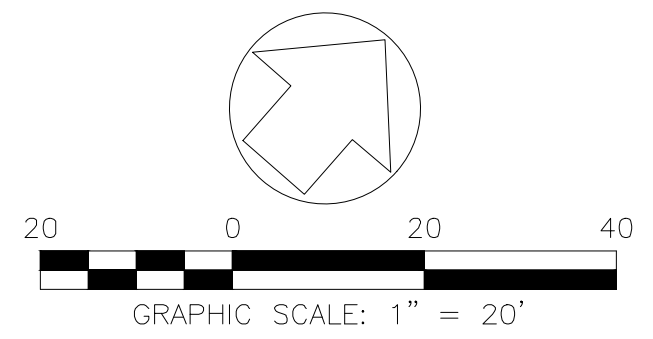
NO.	REVISIONS	APPD	DATE

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**AMBROSE PARK
 IRRIGATION IMPROVEMENT
 IRRIGATION PLAN**

PITTSBURG CONTRA COSTA COUNTY CALIFORNIA



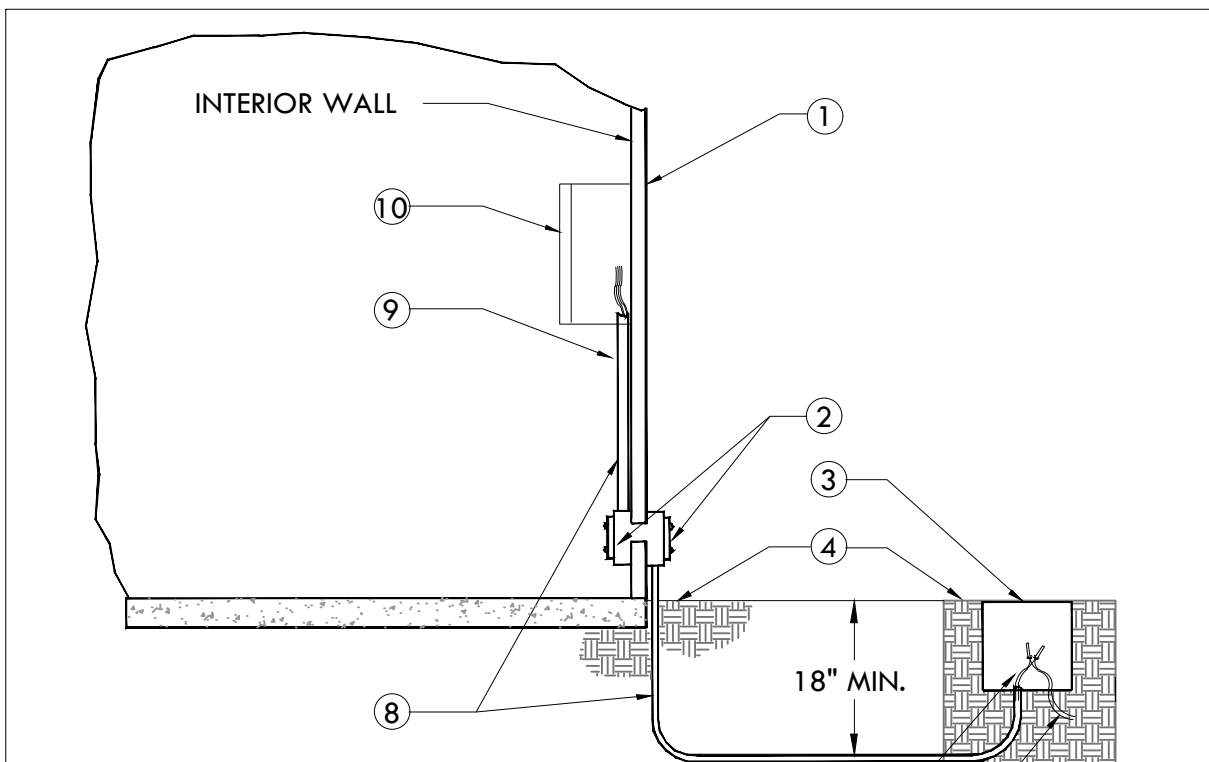
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APPROVED: CM	SHEET NUMBER: 1 OF 3
DATE: 03/25/2022	

IRRIGATION NOTES

- 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. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, CONDUIT, AND OTHER ITEMS WHICH MAY BE REQUIRED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITION AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIMENSIONAL DIFFERENCES. IN THE EVENT OF FIELD DISCREPANCY WITH CONTRACT DOCUMENTS, PLAN THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND ACCORDING TO THE CONTRACT SPECIFICATIONS. NOTIFY AND COORDINATE IRRIGATION CONTROL WORK WITH APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING AND STRUCTURES BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR REQUIRED REVISIONS.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATIONS. ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE NATIONAL ELECTRIC CODE; THE UNIFORM PLUMBING CODE, PUBLISHED BY THE WESTERN PLUMBING OFFICIALS ASSOCIATION; AND OTHER STATE OR LOCAL LAWS OR REGULATIONS. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR REGULATIONS. THE CONTRACTOR SHALL FURNISH WITHOUT ANY EXTRA CHARGE, ANY ADDITIONAL MATERIAL AND LABOR WHEN REQUIRED BY THE COMPLIANCE WITH THESE CODES AND REGULATIONS.
- THE CONTRACTOR SHALL COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH LAYOUT AND INSTALLATION OF THE PLANT MATERIALS TO INSURE THAT THERE WILL BE COMPLETE AND UNIFORM IRRIGATION COVERAGE OF PLANTING IN ACCORDANCE WITH THESE DRAWINGS, AND CONTRACT DOCUMENTS. THE IRRIGATION LAYOUT SHALL BE CHECKED BY THE CONTRACTOR AND OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO CONSTRUCTION TO DETERMINE IF ANY CHANGES, DELETIONS, OR ADDITIONS ARE REQUIRED. IRRIGATION SYSTEM SHALL BE INSTALLED AND TESTED PRIOR TO INSTALLATION OF PLANT MATERIAL.
- THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH.
- IT IS THE RESPONSIBILITY OF THE MAINTENANCE CONTRACTOR AND/OR OWNER TO PROGRAM THE IRRIGATION CONTROLLER(S) TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. THIS INCLUDES MAKING ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS, SLOPES, SUN, SHADE AND WIND EXPOSURE.
- IT IS THE RESPONSIBILITY OF A LICENSED ELECTRICAL CONTRACTOR TO PROVIDE 120 VOLT A.C. (2.5 AMP DEMAND PER CONTROLLER) ELECTRICAL SERVICE TO THE CONTROLLER LOCATION(S). IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE THE ELECTRICAL SERVICE STUB-OUT TO THE CONTROLLER(S). PROVIDE PROPER GROUNDING PER CONTROLLER MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH LOCAL CODES.
- INSTALL NEW BATTERIES IN THE IRRIGATION CONTROLLER(S) TO RETAIN PROGRAM IN MEMORY DURING TEMPORARY POWER FAILURES. USE QUANTITY, TYPE AND SIZE REQUIRED AS PER CONTROLLER MANUFACTURER'S INSTRUCTIONS.
- SCHEDULE A MEETING WHICH INCLUDES REPRESENTATIVES OF THE IRRIGATION CONTROLLER MANUFACTURER, THE MAINTENANCE CONTRACTOR, THE OWNER AND THE IRRIGATION CONTRACTOR AT THE SITE FOR INSTRUCTION ON THE PROPER PROGRAMMING AND OPERATION OF THE IRRIGATION CONTROLLER.
- INSTALL 3" DETECTABLE TAPE ABOVE ALL PRESSURIZED MAIN LINES AS DETAILED. USE CHRISTY MODEL #TA-DT-3-BIRR.
- PROVIDE EACH IRRIGATION CONTROLLER WITH ITS OWN INDEPENDENT LOW VOLTAGE COMMON GROUND WIRE.
- IRRIGATION CONTROL WIRES: SOLID COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND. COMMON GROUND WIRE: SIZE #12-1 WIRE WITH A WHITE INSULATING JACKET. CONTROL WIRE SERVICING REMOTE CONTROL VALVES: SIZE #14-1 WIRE WITH INSULATING JACKET OF COLOR OTHER THAN WHITE. SPLICES SHALL BE MADE WITH 3M-DBY SEAL PACKS OR APPROVED EQUAL.
- 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.
- INSTALL GREEN PLASTIC VALVE BOXES WITH BOLT DOWN, NON HINGED COVER MARKED "IRRIGATION CONTROL VALVE". BOX BODY SHALL HAVE KNOCK OUTS. ACCEPTABLE VALVE BOX MANUFACTURER'S INCLUDE NDS, CARSON OR APPROVED EQUAL.
- 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 PLANTING AREAS.
- THE CONTRACTOR SHALL LABEL CONTROL LINE WIRE AT EACH REMOTE CONTROL VALVE WITH A 2 1/4" X 2 3/4" POLYURETHANE I.D. TAG, INDICATING IDENTIFICATION NUMBER OF VALVE (CONTROLLER AND STATION NUMBER). ATTACH LABEL TO CONTROL WIRE. THE CONTRACTOR SHALL PERMANENTLY STAMP ALL VALVE BOX LIDS WITH APPROPRIATE IDENTIFICATION AS NOTED IN CONSTRUCTION DETAILS.
- FLUSH AND ADJUST IRRIGATION OUTLETS AND NOZZLES FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS. SELECT THE BEST DEGREE OF THE ARC AND RADIUS TO FIT THE EXISTING SITE CONDITIONS AND THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH CONTROL ZONE.
- SET SPRINKLER HEADS PERPENDICULAR TO FINISH GRADE.
- LOCATE BUBBLERS ON UPHILL SIDE OF PLANT OR TREE.
- INSTALL A HUNTER HCV SERIES, KBI CV SERIES, OR APPROVED EQUAL SPRING LOADED CHECK VALVE IN SPRINKLER RISER ASSEMBLIES WHERE LOW OUTLET DRAINAGE WILL CAUSE EROSION AND/OR EXCESS WATER.
- WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, USE CAUTION TO AVOID INJURY TO TREES AND TREE ROOTS. EXCAVATE BY HAND IN AREAS WHERE TWO (2) INCH AND LARGER ROOTS OCCUR. BACK FILL TRENCHES ADJACENT TO TREE WITHIN TWENTY-FOUR (24) HOURS. WHERE THIS IS NOT POSSIBLE, SHADE THE SIDE OF THE TRENCH ADJACENT TO THE TREE WITH WET BURLAP OR CANVAS.
- NOTIFY LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.
- THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.
- IRRIGATION DEMAND: REFER TO PLANS.
- THE EXISTING MAIN LINE SHOWN ON THE DRAWINGS IS DIAGRAMMATIC. VERIFY AND LOCATE EXISTING MAIN LINE IN FIELD. REPORT TO ARCHITECT IN WRITING ANY DEVIATION OF EXISTING MAIN LINE LOCATION FROM THAT SHOWN ON THE DRAWINGS.

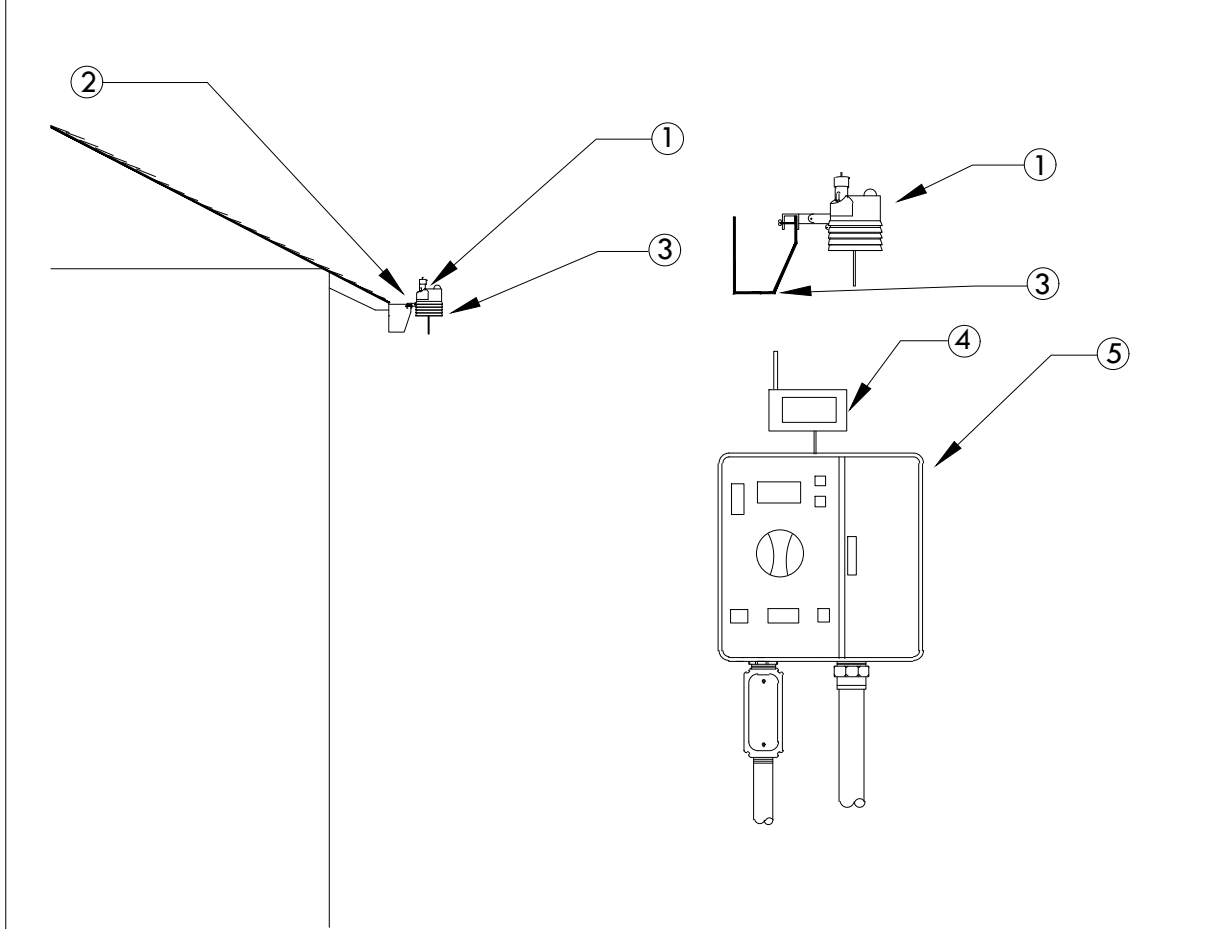
- PIPE SIZING SHOWN ON THE DRAWINGS IS TYPICAL. AS CHANGES IN LAYOUT OCCUR DURING STAKING AND CONSTRUCTION THE SIZE MAY NEED TO BE ADJUSTED ACCORDINGLY.
- PIPE THREAD SEALANT COMPOUND SHALL BE RECTOR SEAL #5.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MINOR CHANGES IN THE IRRIGATION LAYOUT DUE TO OBSTRUCTIONS NOT SHOWN ON THE IRRIGATION DRAWINGS SUCH AS LIGHTS, FIRE HYDRANTS, SIGNS, ELECTRICAL ENCLOSURES, ETC.
- WHEN WORK OF THIS SECTION HAS BEEN COMPLETED AND SUCH OTHER TIMES AS MAY BE DIRECTED, REMOVE ALL TRASH, DEBRIS, SURPLUS MATERIALS AND EQUIPMENT FROM SITE.



- EXTERIOR WALL
 - ELECTRICAL PULL BOX PER ELECTRICAL CODE
 - RECTANGULAR 1.4" X 1.9" SPLICE BOX
 - FINISH GRADE
 - DBY SPLICE KIT
 - PLANTER
 - DIRECT BURIAL LOW VOLTAGE WIRES ROUTED TO REMOTE CONTROL VALVES
 - SCHEDULE 40 GRAY PVC ELECTRICAL CONDUIT WITH SWEEPS FOR LOW VOLTAGE WIRE. ROUTE CONDUIT TO NEAREST PLANTER AND PLACE IN SPLICE BOX.
 - LOW VOLTAGE WIRES TO CONTROLLER
 - CONTROLLER(S)
- NOTE:
WHEN POSSIBLE USE DIRECT WIRE PULLS FROM CONTROLLER TO REMOTE CONTROL VALVES. IF NECESSARY USE MULTI-STRAND WIRE FROM CONTROLLER TO SPLICE BOX. MAKE SPLICES WATER TIGHT WITH DBY CONNECTORS. SPLICES TO OCCUR IN SPLICE BOX ONLY.

1 INTERIOR MOUNTED CONTROLLER

SCALE: NONE



- NOTE: MAXIMUM LINE OF SIGHT FROM SENSOR TO RECEIVER IS 1000 FT. DISTANCE IS LESS IF OBSTRUCTIONS EXIST. SENSOR MUST BE INSTALLED IN "CLEAR SPACE" WHERE IT IS EXPOSED TO UNOBSTRUCTED RAINFALL AND IS CLEAR OF IRRIGATION SPRAY.
- WIRELESS CLIMATE SENSOR TRANSMITTER (EVE/GUTTER MOUNTED)
 - MOUNT SENSOR ON GUTTER/EVE
 - GUTTER/EVE
 - SENSOR RECEIVER
 - CONTROLLER

2 WIRELESS WEATHER SENSOR

SCALE: NONE

IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION	NOZZLE GPM	OPERATING PSI	OPERATING RADIUS (FEET)
☐	5006+-PC-SAM-R/ 5000-MPR-35	RAIN BIRD POP-UP GEAR DRIVEN ROTOR (TURF)	3.81	45	30-35
☐	5006+-PC-SAM-R/ 5000-MPR-35	RAIN BIRD POP-UP GEAR DRIVEN ROTOR (TURF)	1.92	45	30-35
☐	5006+-FC-SAM-R/ 5000-MPR-30	RAIN BIRD POP-UP GEAR DRIVEN ROTOR (TURF)	5.78	45	25-30
☐	5006+-PC-SAM-R/ 5000-MPR-30	RAIN BIRD POP-UP GEAR DRIVEN ROTOR (TURF)	2.96	45	25-30
☐	5006+-PC-SAM-R/ 5000-MPR-30	RAIN BIRD POP-UP GEAR DRIVEN ROTOR (TURF)	1.40	45	25-30
☐	5006+-FC-SAM-R/ 5000-MPR-25	RAIN BIRD POP-UP GEAR DRIVEN ROTOR (TURF)	3.82	45	20-25
☐	5006+-PC-SAM-R/ 5000-MPR-25	RAIN BIRD POP-UP GEAR DRIVEN ROTOR (TURF)	2.0	45	20-25
☐	5006+-PC-SAM-R/ 5000-MPR-25	RAIN BIRD POP-UP GEAR DRIVEN ROTOR (TURF)	1.0	45	20-25
◇	1806-SAM-PRS/ HE-VAN-10	RAIN BIRD POP-UP SPRAY SPRINKLER (TURF)	1.8,0.9,0.45	30	8-10
◇	1806-SAM-PRS/ HE-VAN-8	RAIN BIRD POP-UP SPRAY SPRINKLER (TURF)	1.2,0.6,0.3	30	6-8
☐	1806-SAM-PRS-15 EST	RAIN BIRD POP-UP SIDE STRIP SPRAY SPRINKLER (TURF)	0.5	30	4 X 15
☐	1806-SAM-PRS-15 SST	RAIN BIRD POP-UP SIDE STRIP SPRAY SPRINKLER (TURF)	1.2	30	4 X 30
⊗	1401 SERIES	RAIN BIRD BUBBLER (SHRUB)	0.25	30	TRICKLE
☐	PESB SERIES	RAIN BIRD REMOTE CONTROL VALVE (SIZE SHOWN ON PLANS)			
⊗	T113-K SERIES	NIBCO BRASS GATE VALVE (LINE SIZE)			
⊗	3200-2"	SUPERIOR MASTER VALVE-2" (NORMALLY CLOSED)			
⊗	QS200-20	FLOMEC 2" PVC FLOW SENSOR			
⊗	ESP12LXME/ ESPLXMSM12(1)/ FSM-LXME/	RAIN BIRD ESP-LXME (24) STATION CONTROLLER IN A PLASTIC WALL MOUNTED ENCLOSURE WITH FLOW SMART MODULE.			
⊗	WR2-RFC	RAIN BIRD WIRELESS RAIN/FREEZE SENSOR			
⊗		CONTROLLER AND STATION NUMBER			
⊗		FLOW (GPM)			
⊗		REMOTE CONTROL VALVE SIZE (IN INCHES)			
⊗		ASSOCIATED REMOTE CONTROL VALVE			
NOTE: ALL PIPE SHALL BE PURPLE IN COLOR WITH LABELING APPROVED FOR USE WITH RECYCLED WATER SYSTEMS.					
---	MAIN LINE:	2 1/2" AND SMALLER: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 18" COVER.			
---	SLEEVING:	SCHEDULE 40 PVC PLASTIC PIPE. COVER TO BE AS INDICATED IN SPECIFICATIONS OR AS INDICATED ABOVE FOR PIPE DEPTH OF COVER.			
---	FLOW SENSOR/ MASTER CABLE:	APPROXIMATE ROUTING OF FLOW SENSOR AND MASTER VALVE WIRES IN SEPARATE 1" CONDUITS. REFER TO DETAILS FOR MORE INFORMATION.			
---	WIRE TRENCH:	APPROXIMATE ROUTING OF LOW VOLTAGE WIRE TRENCH.			

NO.	REVISIONS	APPD	DATE

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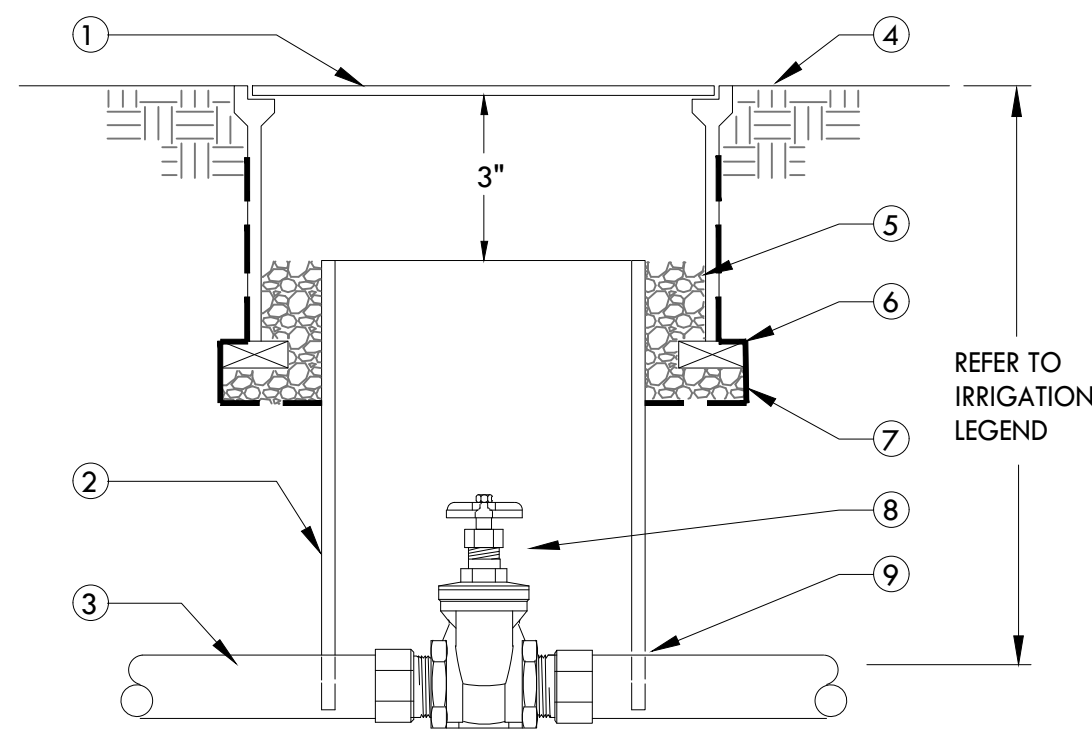
**AMBROSE PARK
IRRIGATION IMPROVEMENT
IRRIGATION LEGEND & NOTES**

PITTSBURG CONTRA COSTA COUNTY CALIFORNIA

DESIGNED: CM	DRAWING NUMBER: 1-2
APPROVED: CM	SHEET NUMBER: 2 OF 3
DATE: 03/25/2022	

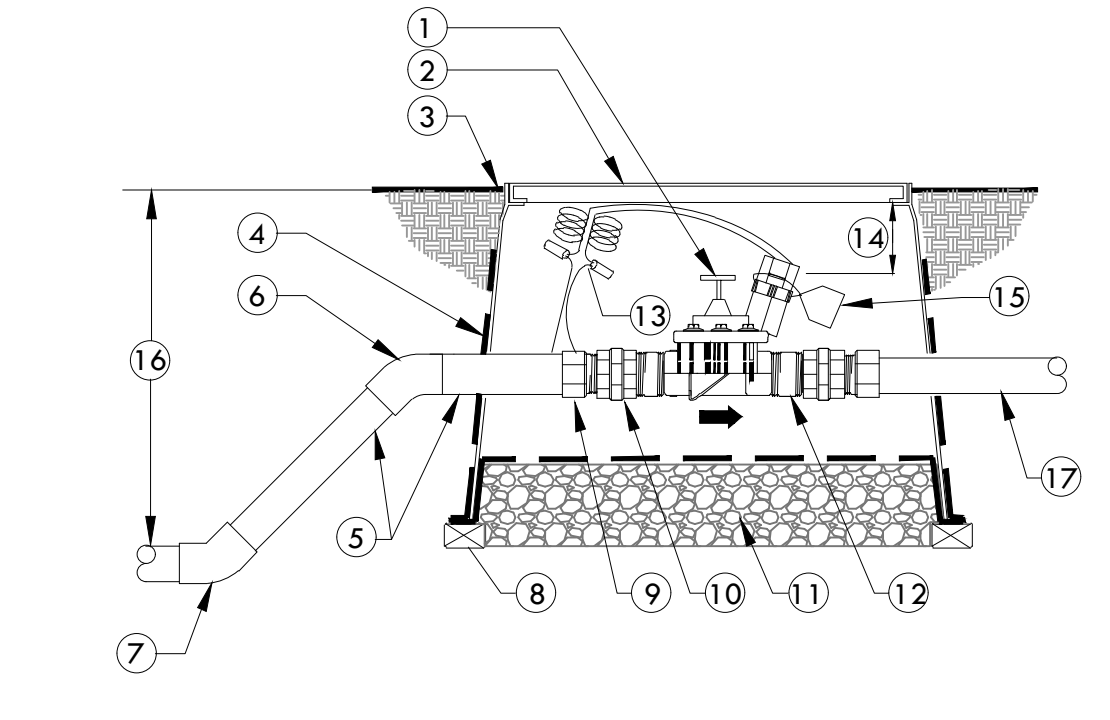
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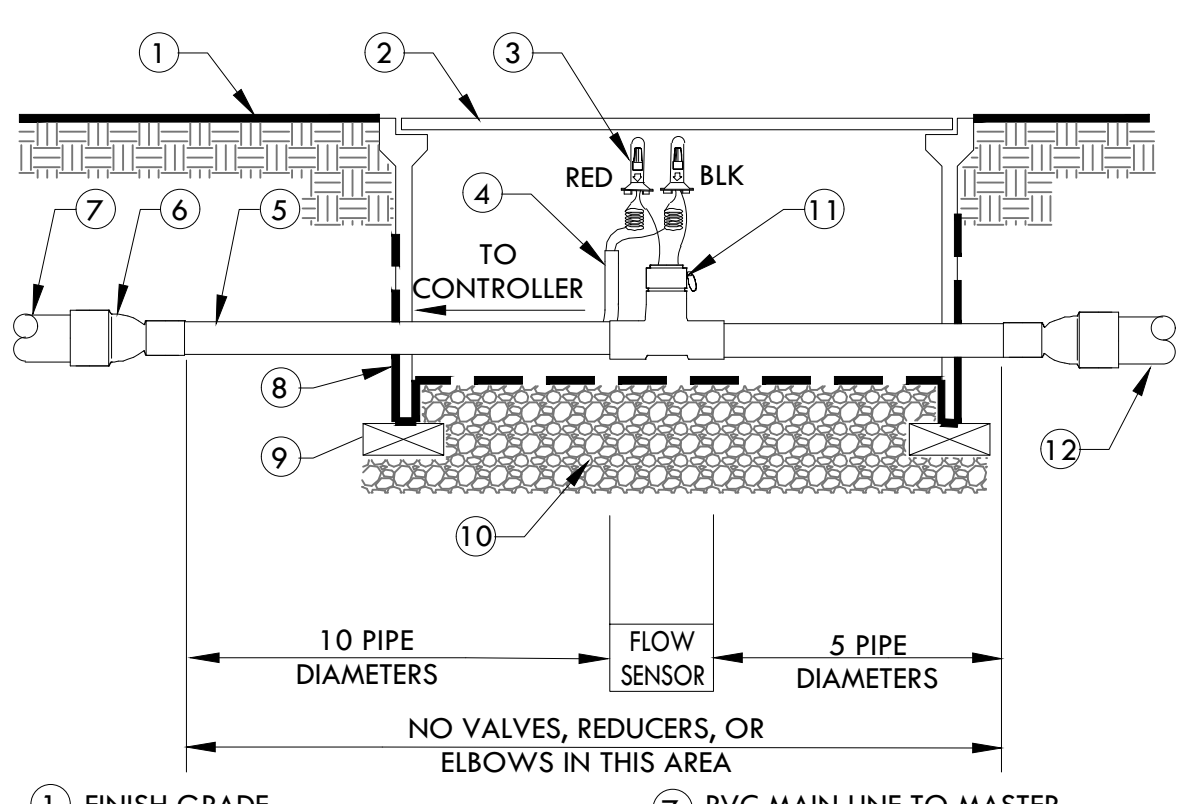
- 1 10" ROUND PLASTIC VALVE BOX WITH BOLT DOWN LID.
- 2 8" CLASS 160 OR SCHEDULE 40 PVC PIPE (NOTCH TO FIT OVER MAIN LINE PIPE).
- 3 PVC MAIN LINE.
- 4 FINISH GRADE.
- 5 PEA GRAVEL OR 3/4" DRAIN ROCK - 4" DEEP (NO SOIL IN VALVE BOX).
- 6 BRICK-2 TOTAL.
- 7 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX.
- 8 GATE VALVE WITH X-TOP HANDLE.
- 9 MALE ADAPTER. REFER TO LEGEND FOR FITTING TYPE.

1 GATE VALVE
SCALE: NONE



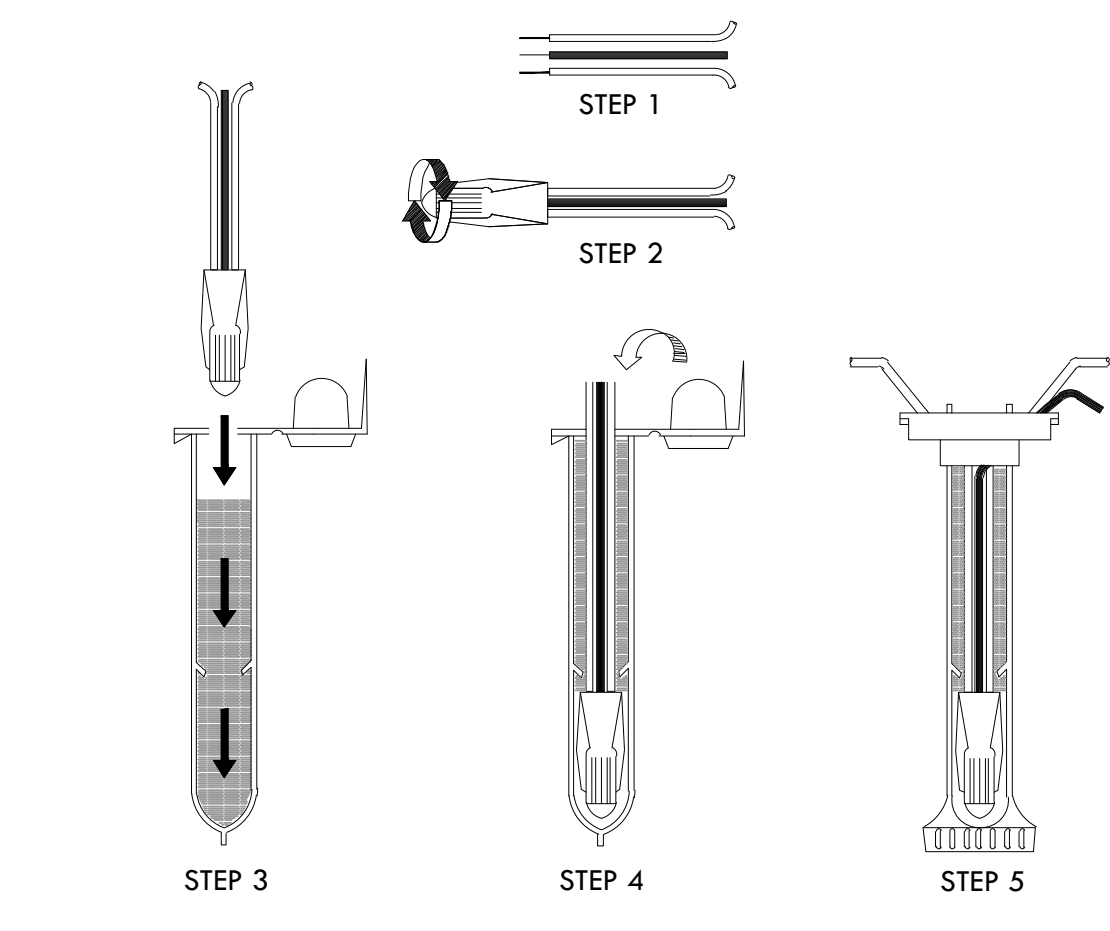
- 1 MASTER CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED (PRESSURE REGULATOR WHERE SHOWN ON PLANS). CENTER WITHIN BOX.
- 2 14" X 19" RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL.
- 3 FINISH GRADE.
- 4 19 GAUGE 1/2" [12mm] SQUARE WIRE MESH. WRAP UP SIDES OF BOX.
- 5 SCH 80 PVC PIPE. LENGTH AS REQUIRED.
- 6 TYP. PVC SCHEDULE 80 45° ELBOW (5x5)-4 TOTAL.
- 7 PVC MAIN LINE FROM BACKFLOW OR PUMP.
- 8 BRICK-ONE ON EACH CORNER.
- 9 SCH 80 PVC MALE ADAPTER- 2 TOTAL.
- 10 SCHEDULE 80 PVC THREADED UNION-2 TOTAL.
- 11 PEA GRAVEL OR 3/4" DRAIN ROCK- 4" [100mm] DEEP BELOW VALVE (NO SOIL IN VALVE BOX).
- 12 3" LONG SCHEDULE 80 PVC NIPPLE-2 TOTAL. MATCH VALVE SIZE.
- 13 VALVE CONTROL WIRE- PROVIDE 3M-DBY SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS WIRE IN A 1" DIAMETER COIL.
- 14 3" MIN 6" MAX.
- 15 VALVE I.D. TAG (CONTROLLER AND STATION NUMBER).
- 16 REFER TO IRRIGATION LEGEND.
- 17 PVC MAIN LINE TO FLOW SENSOR.

2 MASTER CONTROL VALVE
SCALE: NONE



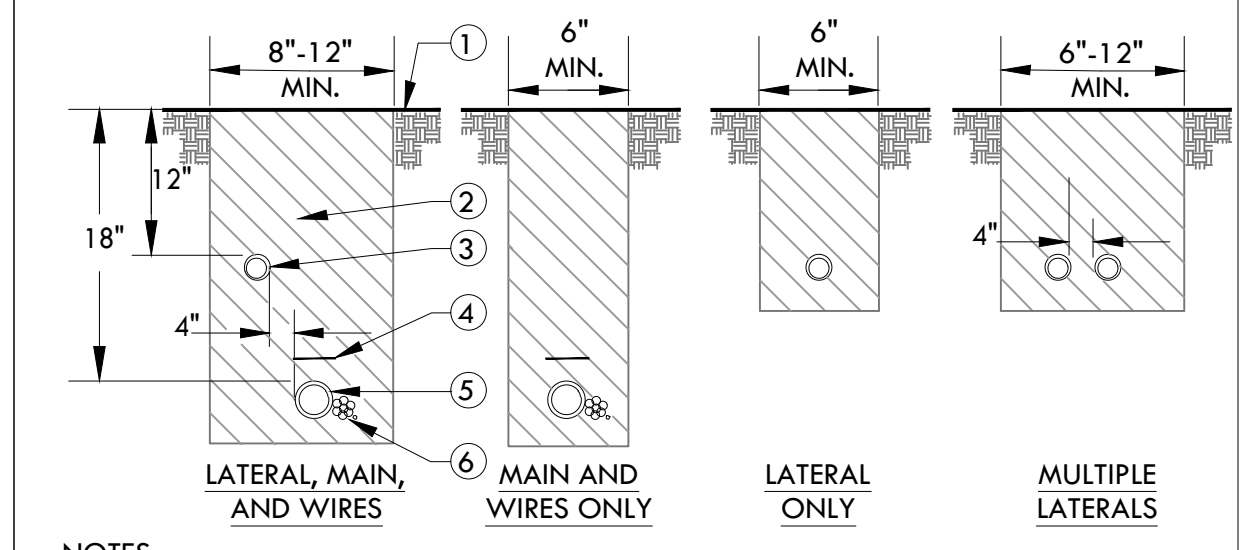
- 1 FINISH GRADE.
- 2 14" X 19" RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL.
- 3 18 GAUGE AWG DIRECT BURIAL WIRE. FLOW SENSOR WIRE MUST BE RUN IN 1" PVC CONDUIT FROM FLOW SENSOR TO CONTROLLER ENCLOSURE. PROVIDE 3M-DBY SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS WIRE IN A 1" DIAMETER COIL.
- 4 1" SCH 40 PVC CONDUIT.
- 5 SCH 80 PVC PIPE.
- 6 SCH 80 PVC REDUCER IF REQUIRED.
- 7 PVC MAIN LINE TO MASTER CONTROL VALVE.
- 8 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX.
- 9 BRICK-ONE ON EACH CORNER.
- 10 PEA GRAVEL OR 3/4" DRAIN ROCK- 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX).
- 11 FLOW SENSOR MUST BE INSTALLED WITH INSERT (TOP) POSITIONED VERTICALLY AND BODY (TEE) POSITIONED HORIZONTALLY.
- 12 PVC MAIN LINE TO IRRIGATION SYSTEM.

3 FLOW SENSOR
SCALE: NONE



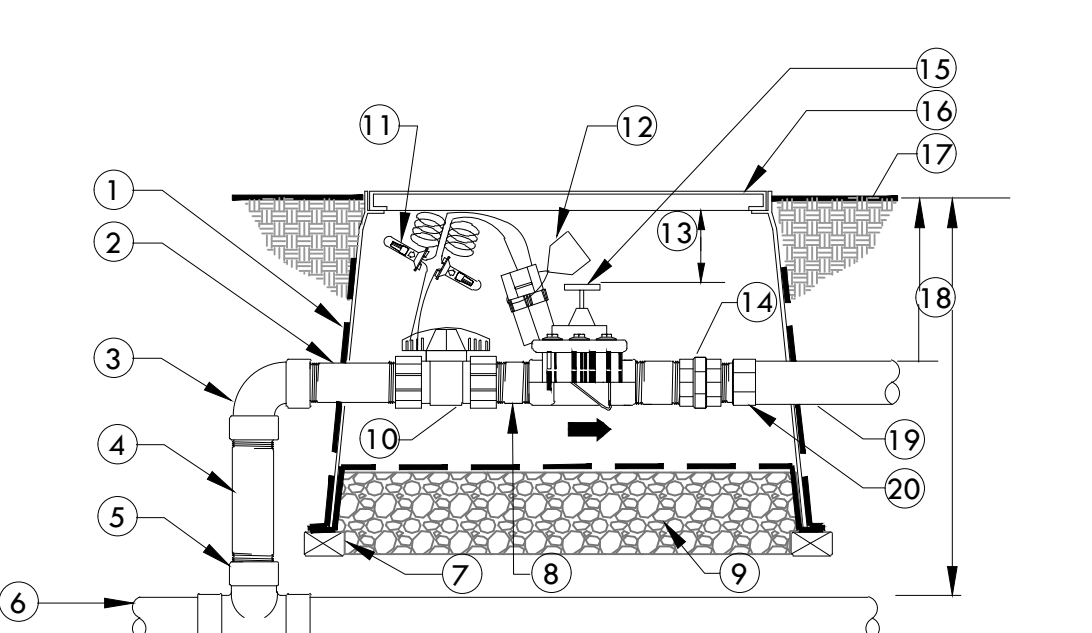
- NOTE:
MAXIMUM # OF WIRES PER CONNECTOR:
• 3-#14 GAUGE
• 2-#12 GAUGE
- INSTRUCTIONS:
1. STRIP WIRES APPROXIMATELY 1/2" FROM ENDS TO EXPOSE WIRE.
2. TWIST CONNECTOR AROUND WIRES CLOCKWISE UNTIL HAND TIGHT, DO NOT OVERTIGHTEN.
3. INSERT WIRE ASSEMBLY TO BOTTOM OF GEL-FILLED TUBE. CHECK TO MAKE SURE CONNECTOR HAS BEEN PUSHED PAST LOCKING FINGERS AND IS SEATED AT THE BOTTOM OF THE TUBE.
4. PLACE WIRES WHICH EXIT TUBE IN WIRE EXIT HOLES AND CLOSE CAP UNTIL IT SNAPS.
5. INSPECT FINAL SPLICE ASSEMBLY THAT IT IS SECURED.

4 WEATHERPROOF WIRE SPLICE ASSEMBLY
SCALE: NONE



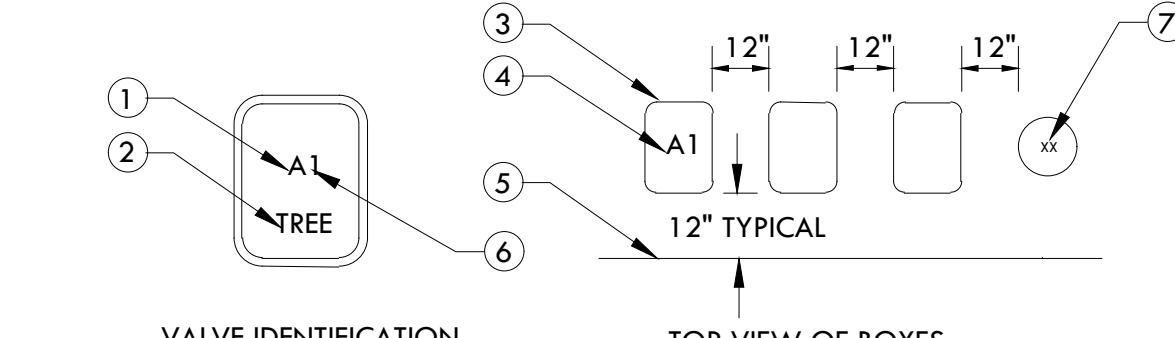
- NOTES:
1. ALL MAIN SUPPLY LINES AND LATERAL LINES SHALL BE PLACED IN SLEEVES UNDER PAVED SURFACES. INSTALL LOW VOLTAGE WIRES WITHIN A SEPARATE CONDUIT UNDER PAVED SURFACES. DO NOT TAPE WIRES WITHIN CONDUIT.
2. USE SALVAGED EXCAVATED FILL AND COMPACT TO ORIGINAL DENSITY IN LANDSCAPE AREAS. ALL OTHER AREAS SHALL BE AT 95% COMPACTION. BACKFILL MATERIAL SHALL BE THE EARTH EXCAVATED FROM THE TRENCHES, FREE FROM ROCKS (ANYTHING LARGER THAN 2"), CONCRETE CHUNKS, AND OTHER FOREIGN OR COARSE MATERIALS.
3. WHEN 12" POP-UP SPRINKLER HEADS ARE USED, INCREASE THE DEPTH OF LATERAL TO 18" AT THE SPRINKLER LOCATION ONLY.
- 1 FINISH GRADE.
 - 2 CLEAN BACKFILL MATERIAL.
 - 3 LATERAL LINE.
 - 4 3" DETECTABLE WARNING TAPE OVER MAIN LINE. INSTALL 3" ABOVE MAIN LINE. USE CHRISTY MODEL #TA-DT-3-BRR FOR POTABLE IRRIGATION SYSTEMS OR #TA-DT-3-PRW FOR RECYCLED IRRIGATION WATER SYSTEMS.
 - 5 MAIN LINE.
 - 6 LOW VOLTAGE CONTROL WIRES, TWO-WIRE CABLE, OR CONDUIT WITH WIRES. FOR MULTIPLE WIRES, TAPE AND BUNDLE WIRES AT 10 FT. INTERVALS. WIRING SHALL BE LAID OUT LOOSELY IN THE TRENCH.

5 TRENCHING
SCALE: NONE



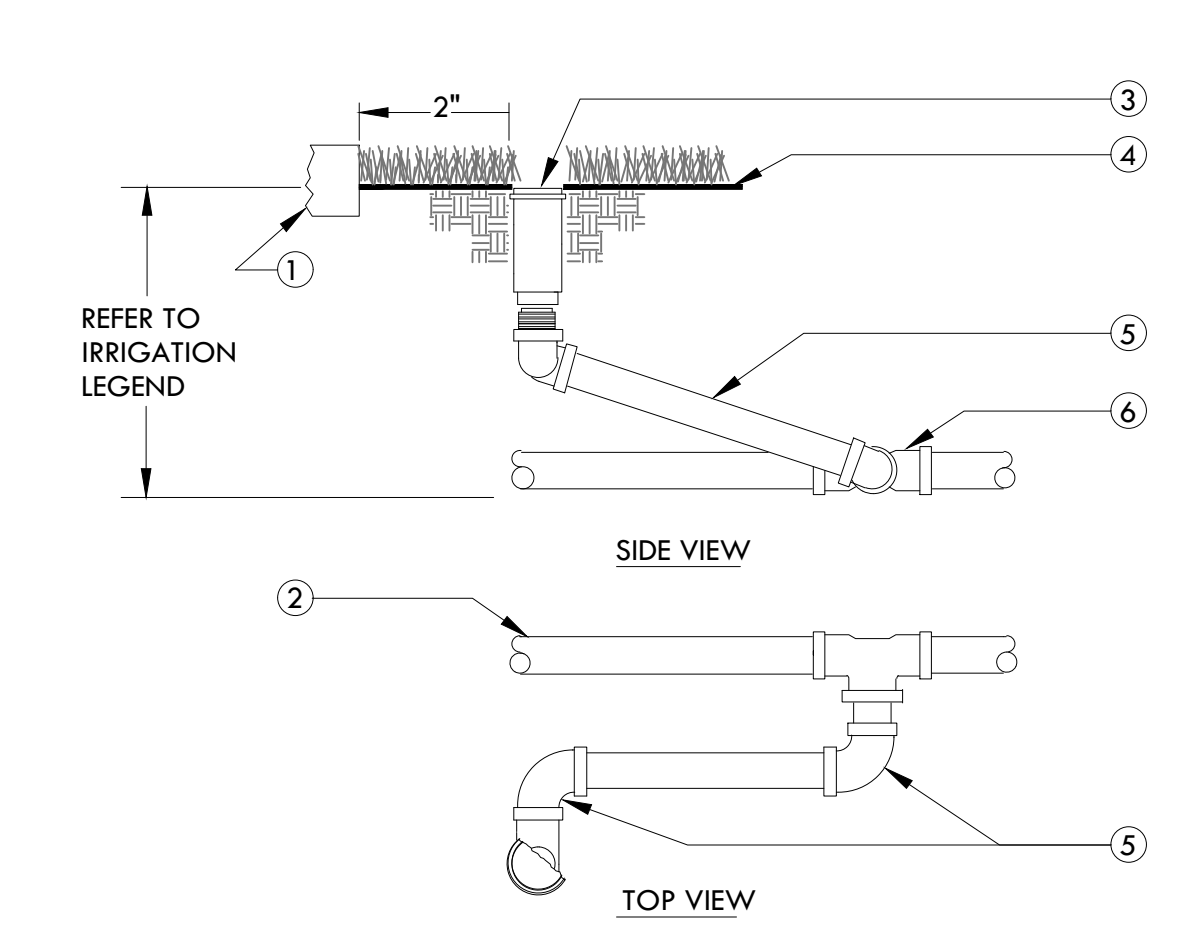
- 1 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX.
- 2 SCH. 80 PVC NIPPLE (8"-12" IN LENGTH). LENGTH AS REQUIRED TO PROVIDE CLEARANCE FOR BALL VALVE HANDLE. MATCH VALVE SIZE.
- 3 SCH. 80 PVC 90° ELBOW (T x T).
- 4 SCH. 80 PVC NIPPLE. LENGTH AS REQUIRED.
- 5 SCH. 40 OR 80 PVC TEE. REFER TO LEGEND FOR TYPE.
- 6 PVC MAIN LINE.
- 7 BRICK-ONE ON EACH CORNER.
- 8 3" LONG SCH. 80 PVC NIPPLE. MATCH VALVE SIZE (2 TOTAL).
- 9 PEA GRAVEL OR 3/4" DRAIN ROCK. 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX).
- 10 SCH. 80 PVC UNION BALL VALVE (ONE PER VALVE).
- 11 VALVE CONTROL WIRE. PROVIDE 3M-DBY SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS WIRE IN A 1" DIA. COIL.
- 12 VALVE I.D. TAG (CONTROLLER AND STATION NUMBER).
- 13 3" MIN 6" MAX.
- 14 SCH. 80 PVC THREADED UNION.
- 15
- 16 14" X 19" RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. ONE VALVE PER BOX- NO EXCEPTIONS. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL.
- 17 FINISH GRADE.
- 18 REFER TO IRRIGATION LEGEND.
- 19 PVC LATERAL LINE.
- 20 SCH. 80 PVC MALE ADAPTER.

6 REMOTE CONTROL VALVE
SCALE: NONE



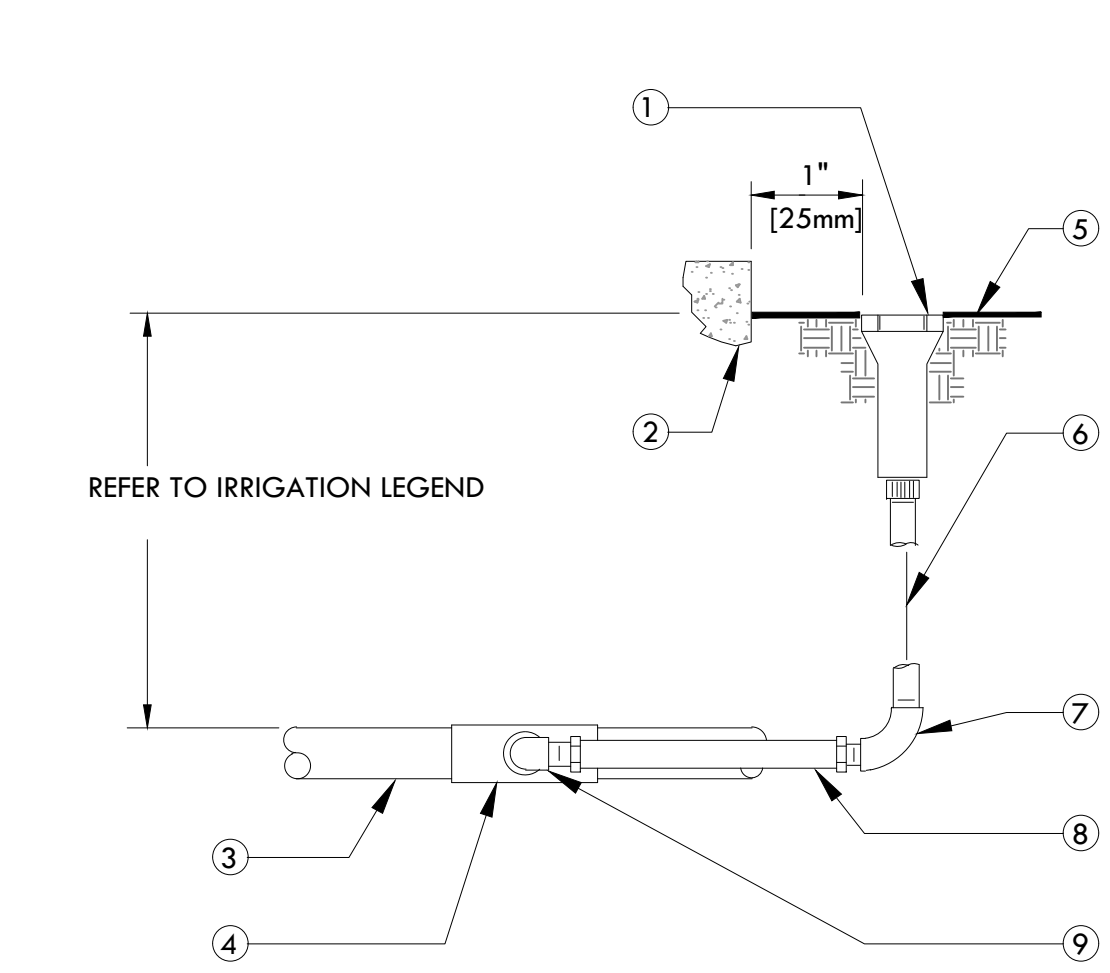
- VALVE IDENTIFICATION
- 1 CONTROLLER ID.
 - 2 ALL TREE VALVES TO HAVE TREE BRANDED INTO LID.
 - 3 RECTANGULAR VALVE BOX.
 - 4 HEAT BRAND VALVE TYPE PER TABLE OR CONTROLLER ID AND STATION NUMBER INTO LID.
 - 5 EDGE OF LAWN, WALK, FENCE, CURB, ETC.
 - 6 STATION NUMBER.
 - 7 ROUND VALVE BOX FOR QCV AND GATE VALVE. HEAT BRAND VALVE TYPE INTO LID PER TABLE.
- | ITEMS TO BRAND: | BRAND CODE |
|----------------------|------------|
| GATE VALVE | GV |
| PRESSURE REDUCER | PRV |
| MASTER VALVE | MV |
| FLOW SENSOR | FS |
| HYDROMETER | HM |
| MAIN LINE AIR RELIEF | ARV |
| REMOTE CONTROL VALVE | A |
| QUICK COUPLER | QC |
| SPLICE BOX | SB |
| PULL BOX | PB |
| LIGHTNING ARRESTOR | LA |
| GROUND ROD | GR |
- INSTRUCTIONS:
1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.
3. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF LAWN, WALK, FENCE, CURB, ETC.
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
6. INSTALL EXTENSION BY VALVE BOX MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE ASSEMBLY FOR EASY ACCESS.

7 VALVE BOX INSTALLATION
SCALE: NONE



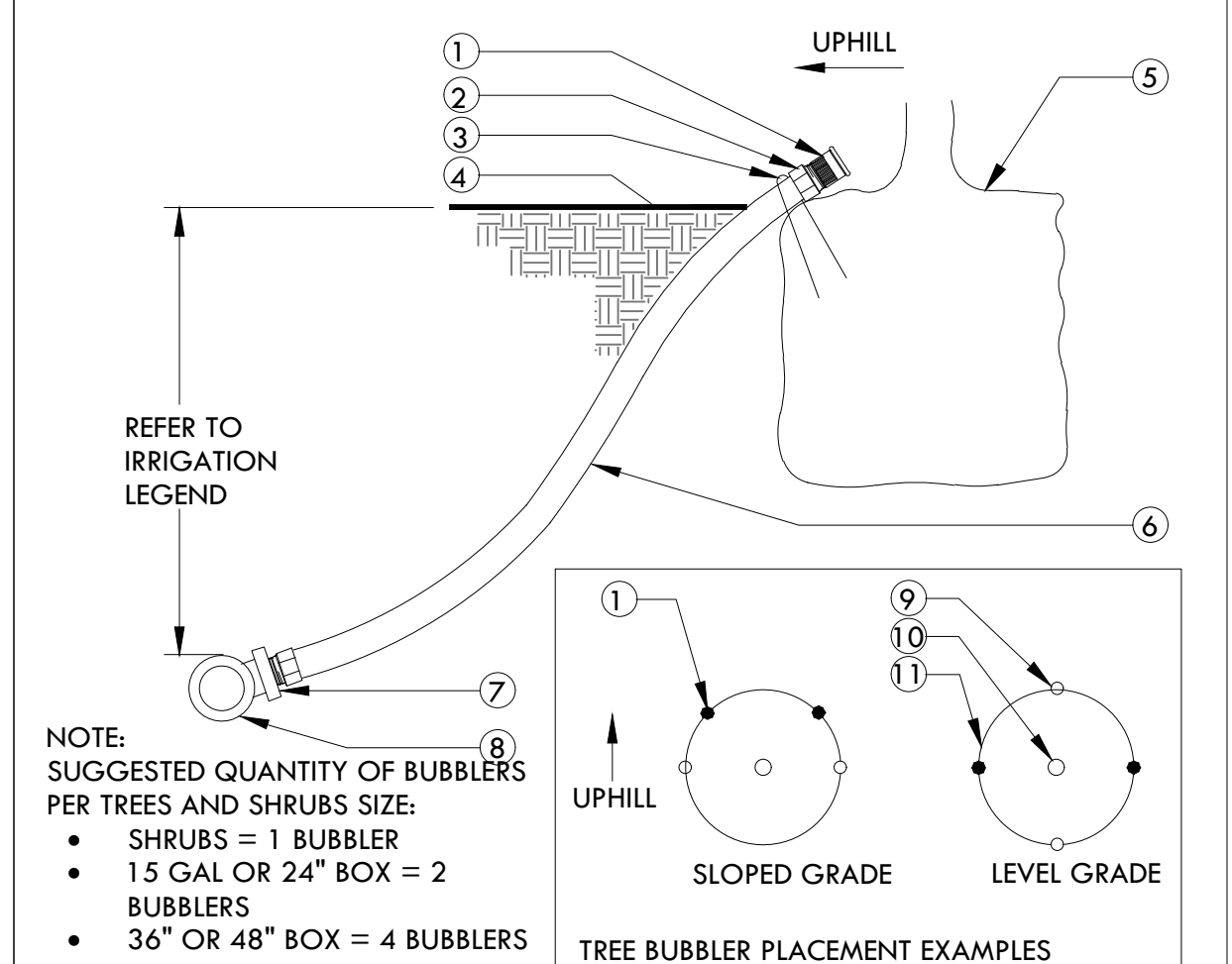
- NOTES:
1. SET SPRINKLER 1" ABOVE FINISH GRADE AT TIME OF INSTALLATION - LOWER TO FINISH GRADE WHEN TURF IS WELL ESTABLISHED.
- 1 WALL, WALK, CURB OR HEADER.
 - 2 PVC LATERAL LINE.
 - 3 POP-UP ROTARY SPRINKLER.
 - 4 FINISH GRADE.
 - 5 UNITIZED SWING JOINT: 3/4"-LASCO MODEL T732-212 1"-LASCO MODEL T932-212.
 - 6 SCHEDULE 40 PVC TEE OR ELBOW WITH THREADED OUTLET.

8 POP-UP ROTARY SPRINKLER - TURF
SCALE: NONE



- 1 POP-UP LAWN SPRAY SPRINKLER.
- 2 WALL, WALK, CURB OR BUILDING.
- 3 PVC LATERAL LINE.
- 4 UPC APPROVED SCHEDULE 40 PVC TEE OR ELBOW.
- 5 FINISH GRADE.
- 6 1/2" [13mm] SCHEDULE 80 PVC THREADED NIPPLE (LENGTH AS REQUIRED - TYPICAL).
- 7 1/2" [13mm] SCHEDULE 40 PVC THREADED 90° ELL.
- 8 1/2" [13mm] FLEXIBLE IPS HOSE 6" [150mm] LONG WITH MALE ADAPTERS OR 1/2" x 6" [13mm x 150mm] FLEXIBLE SWING JOINT WITH A MINIMUM PRESSURE RATING OF 100 PSI [690kPa].
- 9 1/2" [13mm] SCHEDULE 40 PVC STREET ELL.

9 POP-UP SPRAY SPRINKLER - TURF
SCALE: NONE



- NOTE:
SUGGESTED QUANTITY OF BUBBLERS PER TREES AND SHRUBS SIZE:
• SHRUBS = 1 BUBBLER
• 15 GAL OR 24" BOX = 2 BUBBLERS
• 36" OR 48" BOX = 4 BUBBLERS
- TREE BUBBLER PLACEMENT EXAMPLES
- 1 BUBBLER (TO BE INSTALLED ON TOP OF ROOTBALL).
 - 2 1/2" SCH. 40 MALE ADAPTER (2 TOTAL).
 - 3 6" STAPLE.
 - 4 FINISH GRADE.
 - 5 TREE OR SHRUB ROOTBALL.
 - 6 1/2" IPS FLEXIBLE PVC. USE WELD-ON 795 SOLVENT CEMENT OR EQUAL WHEN BONDING PVC HOSE TO FITTINGS.
 - 7 PVC TEE (SST, ELBOW (ST) OR FEMALE ADAPTER).
 - 8 PVC LATERAL LINE.
 - 9 TREE STAKES.
 - 10 TREE OR SHRUB.
 - 11 EDGE OF ROOTBALL (TYPICAL).

10 TREE AND SHRUB BUBBLER
SCALE: NONE

NO.	REVISIONS	APPD	DATE

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**AMBROSE PARK
IRRIGATION IMPROVEMENT
IRRIGATION DETAILS**

PITTSBURG CONTRA COSTA COUNTY CALIFORNIA

DESIGNED: CM	DRAWING NUMBER: I-3
APPROVED: CM	SHEET NUMBER: 3 OF 3
DATE: 03/25/2022	