

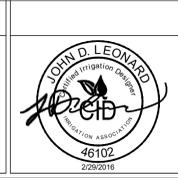
**BID SET - FOR CONSTRUCTION**

Revisions:	Date:

**CONSULTANTS:**

**KCI**  
TECHNOLOGIES

**Aqua Engineering**  
Inc.  
Water Solutions



**LANDSCAPE ARCHITECT:**

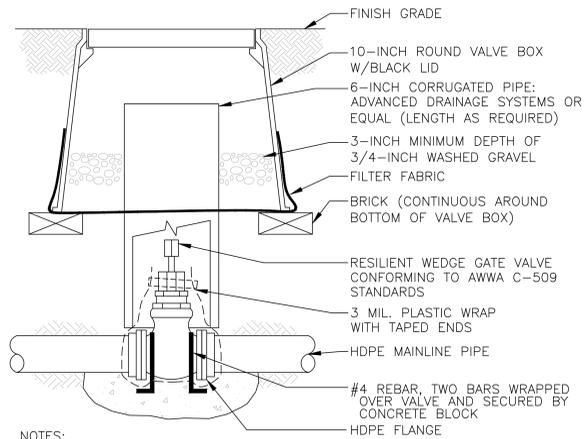
**M·T·R**  
LANDSCAPE ARCHITECTS  
101 Bellevue Road Pittsburgh, PA 15229 (412) 931-6455

Drawing Title	<b>IRRIGATION PLAN</b>
Approved Project Director	

Project Title	<b>4, 145 NICHE COLUMBARIUM</b>
Location	Bay Pines National Cemetery 10000 Bay Pines Boulevard St. Petersburg, FL 33708
Date	FEBRUARY 29, 2016
Checked	RWB
Drawn	JDL

Project Number	830CM3016
Building Number	-
Drawing Number	<b>I-12</b>
Dwg.	22 of 23

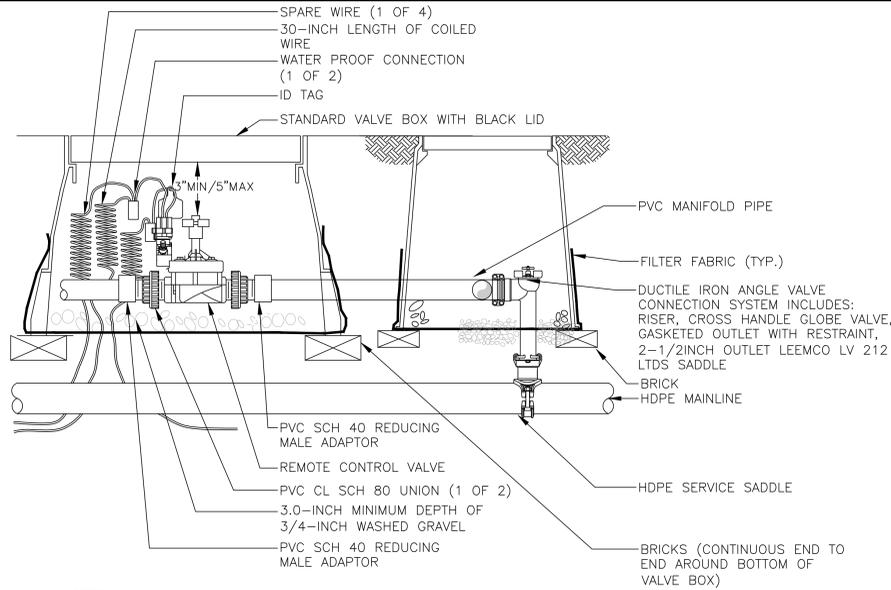
**NATIONAL CEMETERY ADMINISTRATION OFFICE OF DESIGN AND CONSTRUCTION**  
 Department of Veterans Affairs



- NOTES:
1. NOMINAL SIZE OF GATE VALVE TO MATCH NOMINAL MAINLINE SIZE.
  2. INSTALL A 4-INCH THICK CONCRETE PAD BELOW VALVE WITH NO. 4 REBAR WHEN USING PUSH-ON TYPE VALVES.
  3. RESILIENT WEDGE GATE VALVE MAY HAVE EITHER MECHANICAL JOINT OR PUSH-ON GASKETED ENDS. THE OPERATOR IS A WRENCH NUT.
  4. ANCHOR ISOLATION VALVE TO CONCRETE BY BENDING REBAR OVER EACH END OF VALVE AND EXTENDING A MINIMUM OF 6-INCHES INTO CONCRETE SUPPORT BLOCK.
  5. WRAP VALVE ENDS AND BODY IN 3 MIL. PLASTIC PRIOR TO POURING CONCRETE.
  6. CONCRETE SUPPORT BLOCK IS TO BE POURED UNDER ISOLATION GATE VALVE. ONLY THE BOTTOM OF THE ISOLATION GATE VALVE TO BE IN CONTACT WITH CONCRETE.
  7. INSTALL FILTER FABRIC AROUND EXTERIOR OF VALVE BOX. USE DUCT TAPE TO SECURE FABRIC TO PIPE AND VALVE BOX.
  8. BRAND VALVE BOX LID PER SPECIFICATIONS.

### 1 ISOLATION GATE VALVE ASSEMBLY

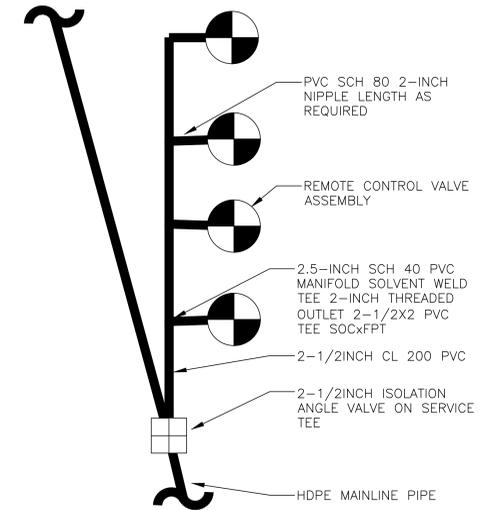
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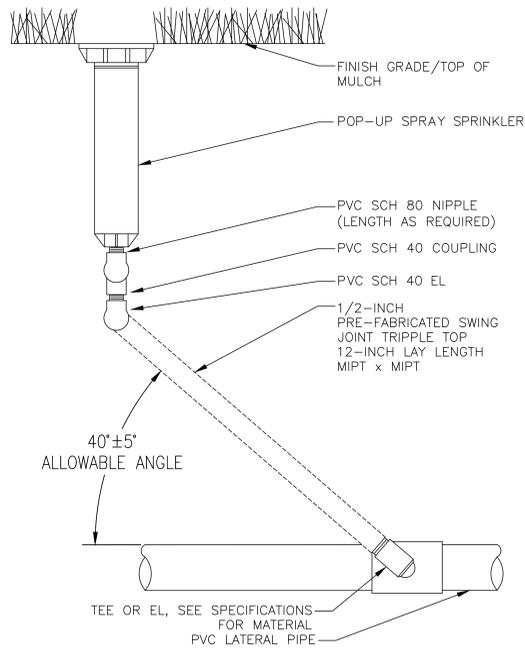
- NOTES:
1. USE VALVE BOX EXTENSION AS NECESSARY TO ACHIEVE MINIMUM DIMENSIONS ABOVE ASSEMBLY.
  2. NOMINAL SIZE OF ALL COMPONENTS ARE TO BE THE SAME NOMINAL SIZE AS THE SOLENOID VALVE (SIZED AS SHOWN).
  3. TRANSITION TO PROPER LATERAL PIPE BURIAL DEPTH USING PVC SCH 40 SOLVENT WELD FITTINGS DOWNSTREAM OF REMOTE CONTROL VALVE ASSEMBLY.
  4. INSTALL PRESSURE REGULATOR ON ALL REMOTE CONTROL VALVES. SET PRESSURE MODULE TO INDICATED PRESSURE ON LEGEND PER MANUFACTURER'S RECOMMENDATIONS. 5. INSTALL FILTER FABRIC AROUND EXTERIOR OF VALVE BOX. USE DUCT TAPE TO SECURE FABRIC TO PIPE AND VALVE BOX.
  6. BRAND VALVE BOX LID PER SPECIFICATIONS.
  7. DO NOT ALLOW VALVE BOX SIDES TO REST ON PIPE.
  8. INSTALL FILTER FABRIC AROUND EXTERIOR OF VALVE BOX. USE DUCT TAPE TO SECURE FABRIC TO PIPE AND VALVE BOX.

### 2 REMOTE CONTROL VALVE ASSEMBLY

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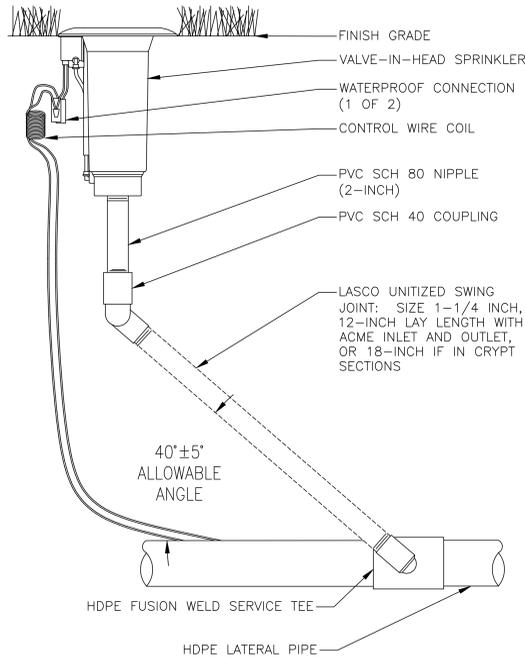
- FOR MANIFOLDS:
1. SPACE VALVES A UNIFORM DISTANCE APART.
  2. USE MANUFACTURER'S RECOMMENDED TORQUE ON RESTRAINTS. A CALIBRATED TORQUE BAR WILL BE REQUIRED AND CALIBRATION TESTING RESULTS WILL BE AVAILABLE UPON REQUEST.
  3. NO MORE THAN 4 REMOTE CONTROL VALVES MAY BE ON THE SAME ISOLATION MANIFOLD.
  4. VALVES ON A SINGLE MANIFOLD SHOWN GRAPHICALLY ON DRAWINGS.
  5. USE SWIVEL EL TO MINIMIZE THE AMOUNT OF FITTINGS FOR CHANGES OF DIRECTION.



- NOTES:
1. INSTALL SWING JOINT LAY ARM BETWEEN 30° AND 45° OF LATERAL PIPE IN ORDER TO ABSORB DOWNWARD IMPACT. IF SWING JOINT CAN NOT BE INSTALLED AT SPECIFIED ANGLE, CONSULT RESIDENT ENGINEER PRIOR TO INSTALLATION OF SWING JOINT.

### 3 POP-UP SPRAY SPRINKLER ASSEMBLY

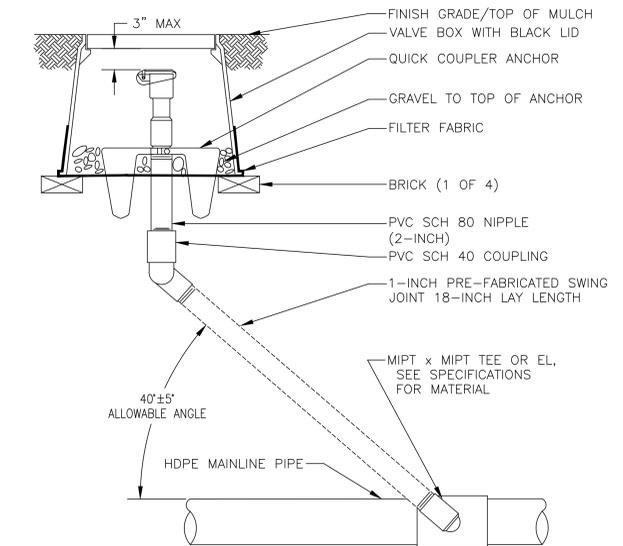
NTS



- NOTE:
1. INSTALL SWING JOINT LAY ARM BETWEEN 30° AND 45° OF LATERAL PIPE IN ORDER TO ABSORB DOWNWARD IMPACT. IF SWING JOINT CAN NOT BE INSTALLED AT SPECIFIED ANGLE, CONSULT ENGINEER PRIOR TO INSTALLATION OF SWING JOINT.

### 4 POP-UP ROTOR SPRINKLER ASSEMBLY

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- NOTES:
1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.
  2. INSTALL SWING JOINT LAY ARM BETWEEN 30° AND 45° OF LATERAL PIPE IN ORDER TO ABSORB DOWNWARD IMPACT. IF SWING JOINT CAN NOT BE INSTALLED AT SPECIFIED ANGLE, CONSULT RESIDENT ENGINEER PRIOR TO INSTALLATION OF SWING JOINT.
  3. BRAND VALVE BOX LID PER SPECIFICATIONS.

### 5 QUICK COUPLING VALVE ASSEMBLY

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BID SET - FOR CONSTRUCTION

Revisions	Date

**CONSULTANTS:**

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<b>Drawing Title</b>	<b>Project Title</b>	<b>Project Number</b>	<b>NATIONAL CEMETERY ADMINISTRATION OFFICE OF DESIGN AND CONSTRUCTION</b>
IRRIGATION DETAILS	4, 145 NICHE COLUMBARIUM	830CM3016	
<b>Approved Project Director</b>	<b>Location</b>	<b>Drawing Number</b>	<b>Department of Veterans Affairs</b>
	Bay Pines National Cemetery 10000 Bay Pines Boulevard St. Petersburg, FL 33708	I-13	
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