

THE EXISTING IRRIGATION SYSTEM WILL BE MODIFIED TO PROVIDE NEW MAINLINE ROUTING AND AUTOMATED IRRIGATION FOR THE PROPOSED COLUMBARIUM AREA. NEW LATERAL PIPE AND SPRINKLERS WILL BE INSTALLED TO IRRIGATE THE NEW AREAS. EXISTING MAINLINE PIPE, CONTROL WIRE, REMOTE CONTROL VALVES AND MAINLINE VALVES WILL BE RELOCATED.

EXISTING IRRIGATION CONTROLLER "C" WITH EXISTING CONTROL WIRES ROUTED TO THE COLUMBARIUM WILL BE USED.

1. THE SYSTEM DESIGN ASSUMES A MINIMUM DYNAMIC PRESSURE FOR THE IRRIGATION SYSTEM OF 90 PSI. CONTRACTOR TO VERIFY EXISTING PUMP OPERATION AND PRESSURE AND FLOW AT EACH POINT-OF-CONNECTION, REPORT ANY DISCREPANCIES TO RESIDENT ENGINEER PRIOR TO CONSTRUCTION.

3. COORDINATE UTILITY LOCATIONS (CALL BEFORE YOU DIG) OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND CONDITIONS BEFORE EXCAVATING.

5. THE DRAWINGS ARE DIAGRAMMATIC. THEREFORE, THE FOLLOWING SHOULD BE NOTED:

B. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS, ARCHITECTURAL FEATURES, STORM DRAINS, AND SIGNS.

6. SELECT NOZZLES FOR ROTARY SPRINKLERS WHICH PROVIDE COMPLETE AND ADEQUATE COVERAGE IF SITE CONDITIONS ARE NOT AS SHOWN. CAREFULLY ADJUST THE RADIUS OF THROW AND ARC OF EACH ROTARY SPRINKLER TO PROVIDE THE BEST PERFORMANCE AND MINIMIZE OVERSPRAY.

7. WITH REGARD TO PIPE SIZING, THE FOLLOWING SHOULD BE NOTED:

IF A SECTION OF UNSIZED PIPE IS LOCATED BETWEEN TWO 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.

8. CONTRACTOR IS RESPONSIBLE FOR FINAL VALVE BOX AND SPRINKLER ELEVATION IN RELATION TO THE SURROUNDING FINAL GRADE.

9. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING IRRIGATION EQUIPMENT. ANY EXISTING IRRIGATION EQUIPMENT INCLUDING VALVES, WIRES, PIPES AND FITTINGS THAT ARE DISTURBED DURING CONSTRUCTION WILL BE REPLACED AT THE CONTRACTORS EXPENSE WITH MATCHING EQUIPMENT. PRIOR TO CONSTRUCTION LOCATE THE EXISTING IRRIGATION EQUIPMENT AND PIPE IN THE CONSTRUCTION AREA AND MARK WITH THE COR.

① POINT-OF-CONNECTION: THE DESIGN ASSUMPTION IS THAT THE EXCAVATION FOR THE BACK OF THE COLUMBARIUM WALL WILL UNCOVER AND DAMAGE THE EXISTING MAINLINE PIPE AND CONTROL WIRE. EXCAVATE AND EXPOSE THE EXISTING MAINLINE PIPE AND CONTROL WIRE. LOCATE AND IDENTIFY THE MAINLINE SYSTEM SHUT DOWN WITH THE CONTRACTING OFFICER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION. CUT MAINLINE PIPE AT LOCATIONS INDICATED AND REMOVE THE PIPE BETWEEN CUTS. CAP PIPE WITH ELECTROFUSION WELD FITTINGS. LEGALLY DISPOSE OF PIPE AND WIRE OFF SITE. SOIL OUT THREE FEET OF EACH CONTROL PIPE AT EACH LOCATION AND INSTALL COBLED WIRE IN A STANDARD VALVE BOX.

② VERIFY CONTINUITY OF EXISTING WIRE IMPACTED BY THE PROJECT PRIOR TO CONSTRUCTION BY OPERATING EACH SOLENOID FROM THE CONTROLLER. REPORT ANY SOLENOIDS THAT WILL NOT ENERGIZE TO THE CONTRACTING OFFICER'S REPRESENTATIVE. OPERATION OF THE SOLENOID CAN BE DONE AUDIBLY, BY FEEL OR WITH A MULTI-METER. EXCESS WATER DOES NOT NEED TO BE TURNED ON. IN THE EVENT THAT THE REMOTE CONTROL VALVES ADJUST AND NOT OPERABLE ELECTRICALLY FROM THE CONTROLLER CONTACT THE CONTRACTING OFFICER'S REPRESENTATIVE ABOUT TROUBLE SHOOTING AND REPAIR. LABEL WIRE ENDS WITH STATION NUMBER WHILE TESTING CONTINUITY.

③ REMOVE SPRINKLERS, ISOLATION GATE VALVE AND REMOTE CONTROL VALVE INDICATED AND TURN OVER TO OWNERS REPRESENTATIVE ON SITE.

④ REMOVE SPRINKLERS AND SWING JOINTS INDICATED FOR RELOCATION. INSTALL RELOCATED SWING JOINTS ON NEW HDPE SADDLES AT THE LOCATIONS INDICATED ON THE DRAWINGS.

1 POINT-OF-CONNECTION: CONNECT NEW HDPE IRRIGATION MAINLINE PIPE TO EXISTING MAINLINE PIPE USING ELECTROFUSION REPAIR COUPLINGS. ROUTE NEW MAINLINE AS INDICATED ON PLANS, REUSE SLEEVES UNDER ROADWAYS WHERE APPLICABLE. BACKFILL HOLES AND COMPACT TO MATCH SURROUNDING. REPLACE DAMAGED SOD WITH NEW SOD, REFER TO PLANTING SPECIFICATION SECTION 330000 FOR NEW SOD INFORMATION.

2. CONNECT NEW AWG#12 WIRE TO EXISTING WIRE SUB-OUTS AT BOTH END USING 3M-DBY/R SPLICE CONNECTIONS. INSTALL WIRE SPICES IN STANDARD VALVE BOX. NEW WIRE COLOR TO MATCH EXISTING, TEST NEW WIRE CONNECTIONS PER SPECIFICATIONS.

— IR — EXISTING IRRIGATION MAINLINE PIPE HDPE

— NEW HDPE MAINLINE

----- EXISTING HDPE SUBMAINLINE PIPE

----- NEW HDPE SUBMAIN PIPE

—— NEW LATERAL PIPE CL 200 PVC

⊗ EXISTING ISOLATION GATE VALVE


 EXISTING QUICK COUPLING VALVE


EXISTING SUBMAIN ISOLATION GATE VALVE

NEW REMOTE CONTROL VALVE ASSEMBLY

POP-UP SPRINKLER: RAIN BIRD MPR SERIES ON 1804-SAM-PRS @ 30 PSI
RADIUS: 5' FLOW (GPM): 0 - 0.10 H = 0.30 E = 0.41

▲▲▲	RADIUS: 5'	FLOW (GPM):	Q - 0.10	H - 0.20	F - 0.41
▲▲▲	RADIUS: 8'	FLOW (GPM):	Q - 0.26	H - 0.52	F - 1.05

	RADIUS: 10'	FLOW (GPM):	Q - 0.39	H - 0.79	F - 1.58
	RADIUS: 12'	FLOW (GPM):	Q - 0.65	H - 1.30	F - 2.60



	RADIUS: 12'	FLOW (GPM):	Q = 0.83	H = 1.50	F = 2.60
	RADIUS: 15'	FLOW (GPM):	Q = 0.92	H = 1.85	F = 3.70

VALVE IN HEAD ROTOR SPRINKLER TORO 850 @ 70 PSI

*NUMBER WITHIN IS NOZZLE

NUMBER WITHIN IS NOZZLE

NOZZLE FLOW(G)

 	54	29.9	75
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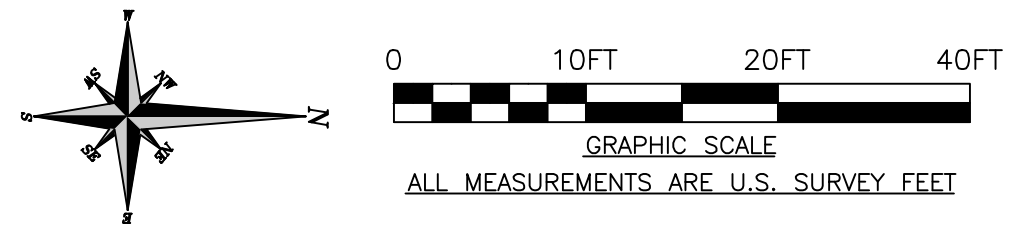
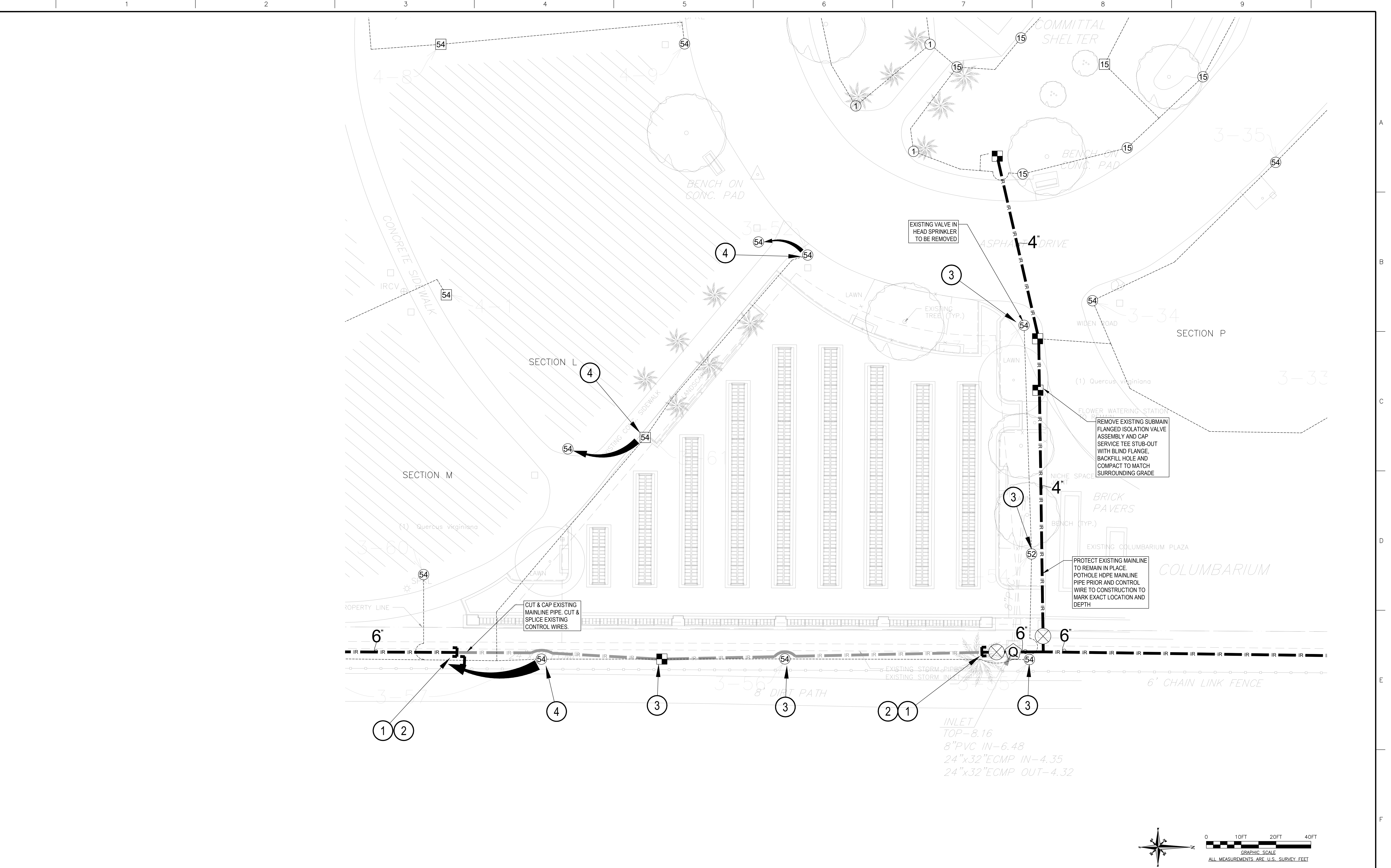
 EXISTING IRRIGATION CONTROLLER ASSEMBLY:
LOCATED AT ADMIN BUILDING

INDICATES CONTROLLER AND STATION NUMBER
INDICATES LATERAL DISCHARGE IN GPM
INDICATES REMOTE CONTROL VALVE SIZE IN INCHES

1. SEE SECTION 01 56 39 FOR FULL TREE PROTECTION REQUIREMENTS.
2. PREPARATION: ALL TREES SHALL BE THOROUGHLY WATERED TWO WEEKS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
3. PROTECTION ZONE: WITHIN 10 FEET OF A TREE TRUNK, OR WITHIN THE OUTER EXTENT OF THE TREE CANOPY DRILLPILE, OR WITHIN TREE PROTECTION FENCE AREA AS SHOWN ON PLANS, WHICHEVER IS GREATER.
- a. MARK PROTECTION ZONES OUTSIDE OF FENCES WITH TEMPORARY PAINT PRIOR TO STARTING CONSTRUCTION IN THAT AREA.
4. NO MATERIALS, EQUIPMENT, OR TOOLS ARE TO BE STORED WITHIN PROTECTION ZONES, INCLUDING SOIL PILES, PIPE, ETC.
5. BEFORE OPERATING VEHICLES OR EXCAVATING WITHIN PROTECTION ZONES PROVIDE THE FOLLOWING:
 - a. TREE PROTECTION FENCE: AS SHOWN ON PLANS.
 - b. ROOT ZONE PROTECTION: CONSTRUCTION VEHICLES AND EQUIPMENT SHALL NOT DRIVE OVER EXPOSED TURF OR SOIL WITHIN THE PROTECTION ZONE. USE CONSTRUCTION MATTING.
 - b.a. USE ONLY TURF-TIRED VEHICLES. NO TRACKED VEHICLES ALLOWED.
 - b.b. FOR ONE-TIME TRAFFIC, PROVIDE 1-INCH THICK PLYWOOD CONSTRUCTION MATTING TO PROTECT SOIL FROM COMPACTION AND RUTTING.
 - b.c. IF VEHICLES WILL DRIVE OVER AN AREA MORE THAN ONCE, PROVIDE HEAVY CONSTRUCTION MATTING CONSISTING OF THE FOLLOWING: GEOTEXTILE FABRIC WITH 8-INCH THICKNESS OF COARSELY SHREDDED WOOD CHIPS ON TOP.
 - c. TRUNK PROTECTION - FOR TREES OVER 12 INCH CALIPER: PROTECT THE TRUNK OF THE TREE FROM ACCIDENTAL MECHANICAL DAMAGE WHEN OPERATING EQUIPMENT BY ATTACHING SCRAP LUMBER TO THE TRUNK WITH NYLON WEBBING STRAPS. DO NOT USE NAILS OR BOLTS.
6. WHEN EXCAVATING IN PROTECTION ZONES:
 - a. EXPOSE ROOTS WITHOUT DAMAGING THEM BY USING A SUPERSONIC AIR TOOL OR BY HAND METHODS TO 12" DEPTH. NOTIFY COR IF ROOTS OVER 1" DIAMETER ARE ENCOUNTERED.
 - b. PROTECT EXPOSED ROOTS BY IMMEDIATELY WRAPPING WITH WET BURLAP AND KEEP MOIST. DO NOT LEAVE THE TRENCH OPEN FOR LONGER THAN 4 HOURS, QUICKLY REPLACE THE SOIL AND SOAK WITH WATER TO PACK.
 - c. IF POSSIBLE, LEAVE ROOTS IN PLACE, OR RELOCATE. USE HAND METHODS IF NECESSARY.
 - d. DO NOT CUT ROOTS LARGER THAN 1 INCH DIAMETER WITHOUT APPROVAL FROM CO/COR. CUT SMALLER ROOTS THAT CANNOT BE RELOCATED AND THAT INTERFERE WITH CONSTRUCTION WITH SHARP PRUNING INSTRUMENTS; DO NOT BREAK OR CHOP.
7. MAINTENANCE AND RESTORATION:
 - a. WATER TREES THOROUGHLY IMMEDIATELY AFTER ANY EXCAVATION OR VEHICLE TRAFFIC AND EVERY 2 WEEKS THEREAFTER IN DRY WEATHER, UNTIL IRRIGATION SYSTEM IS FULLY FUNCTIONAL.
 - b. PERFORM VERTICAL MULCHING WHEREVER CONSTRUCTION MATTING WAS USED. DRILL 2 INCH DIAMETER HOLES 12 INCHES DEEP USING A POWER AUGER. START BEYOND THE TREE'S STRUCTURAL ROOT PLATE AND DRILL ON A 18 X18 INCH GRID WITHIN THE CRITICAL ROOT ZONE. IF LARGE WOODY ROOTS ARE ENCOUNTERED, AVOID ROOT DAMAGE BY SLIGHTLY MOVING THE DRILL HOLE. BACKFILL THE HOLES WITH COMPOST OR COMPOSTED MULCH.
 - c. RESTORE TURF TO ORIGINAL CONDITION WITH SOD.
8. PENALTY FOR NONCOMPLIANCE WITH TREE PROTECTION REQUIREMENTS: \$500 PER INCIDENT. IF ADDITIONAL, IF VIOLATIONS OCCUR THE COR MAY REQUIRE THE CONTRACTOR TO HIRE A LICENSED ARBORIST TO OBSERVE WORK IN PROTECTION ZONES AND MAKE RECOMMENDATIONS AT NO ADDITIONAL EXPENSE TO THE GOVERNMENT.
9. CONTRACTOR IS RESPONSIBLE FOR KEEPING LAWN MOWED INSIDE TREE PROTECTION FENCE IF LEFT IN PLACE FOR MORE THAN ONE WEEK.

NATIONAL CEMETERY
ADMINISTRATION
OFFICE OF DESIGN
AND CONSTRUCTION






BID SET - FOR CONSTRUCTION

Revisions:	Date


CONSULTANTS:



KCI
TECHNOLOGIES

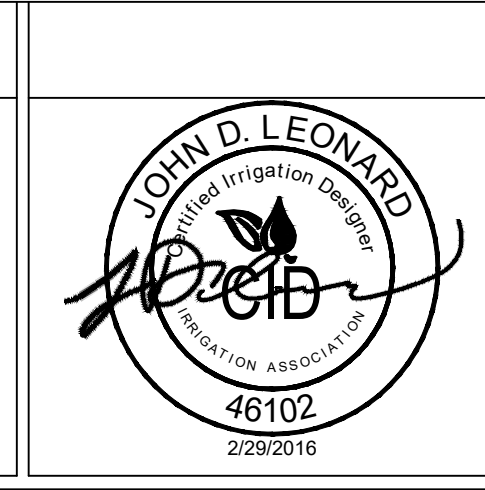
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LANDSCAPE ARCHITECT:



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Drawing Title

IRRIGATION DEMOLITION PLAN

Approved Project Director

Project Title

4, 145 NICHE COLUMBARIUM

Location Bay Pines National Cemetery
10000 Bay Pines Boulevard St. Petersburg, FL 33708

Date FEBRUARY 29, 2016

Checked RWB

Drawn JDL


Project Number
830CM3016

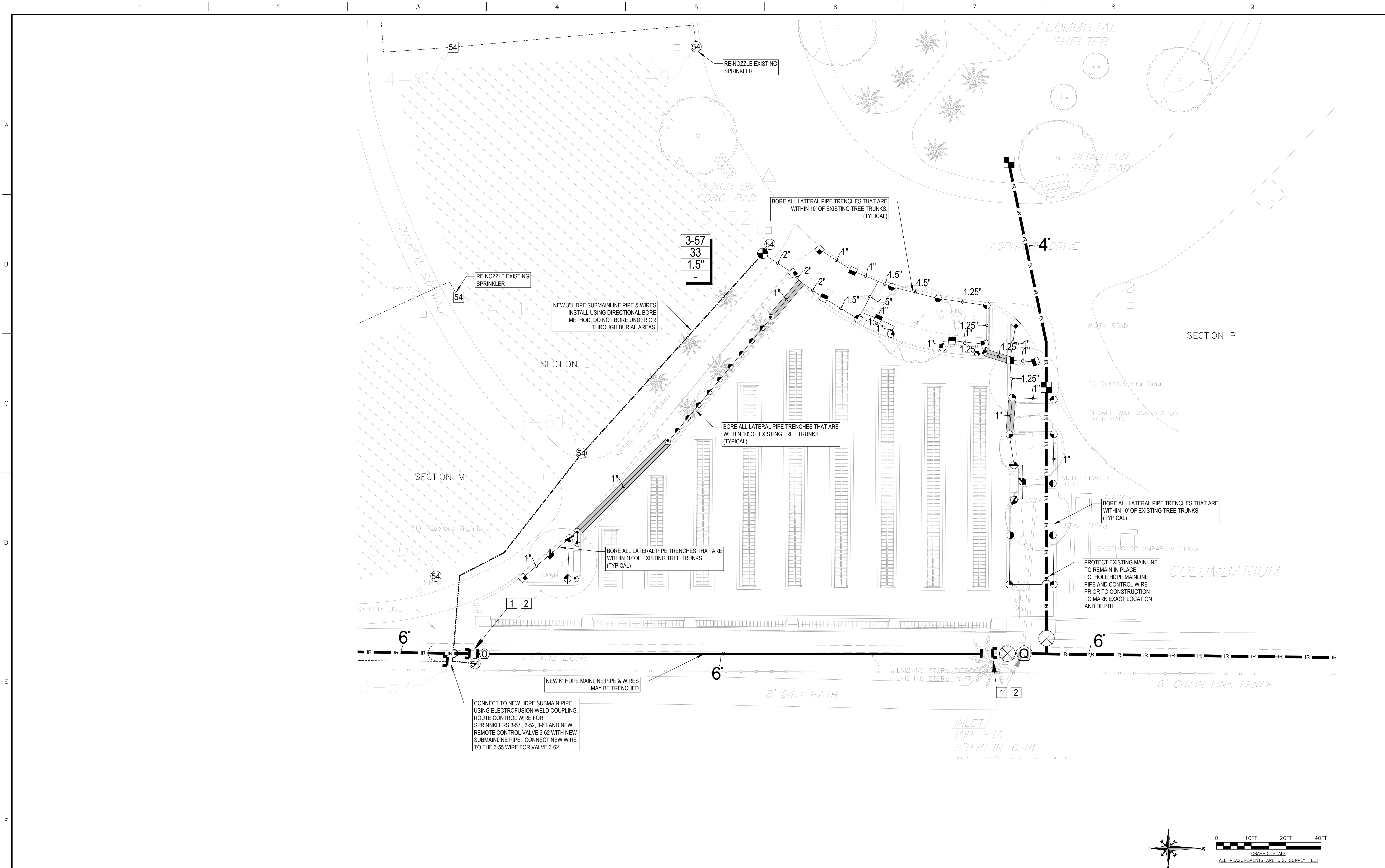
Building Number
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Drawing Number
I-11

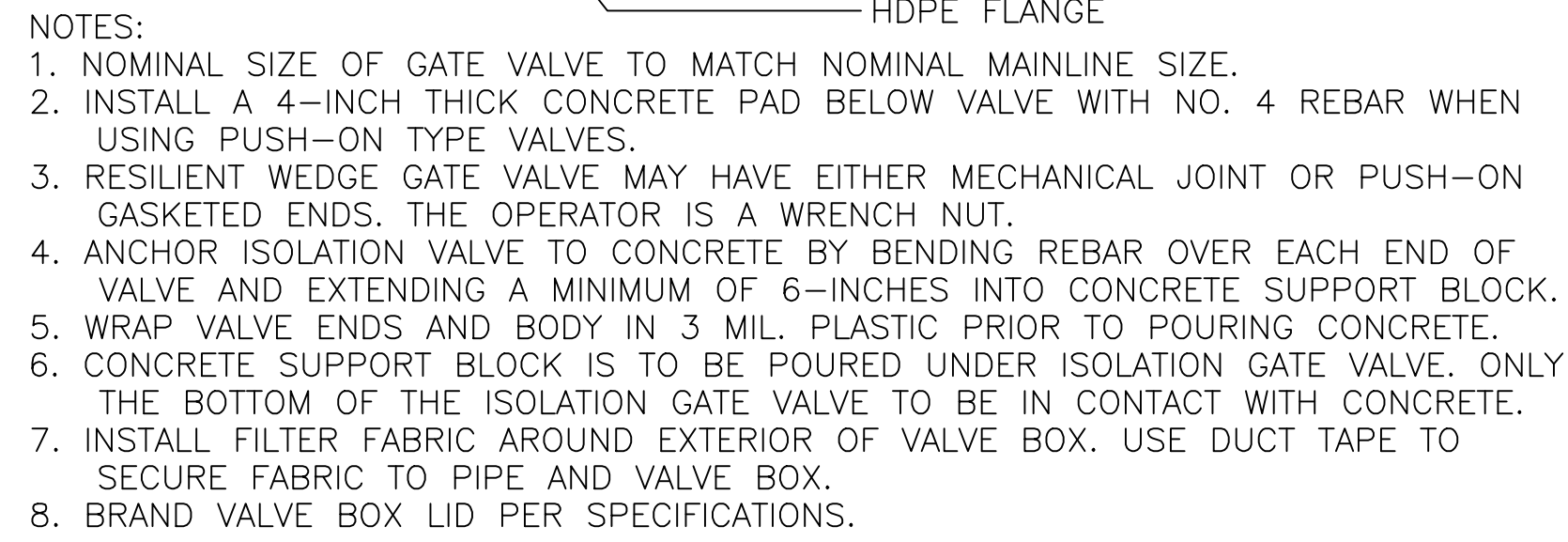
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ADMINISTRATION
OFFICE OF DESIGN
AND CONSTRUCTION**

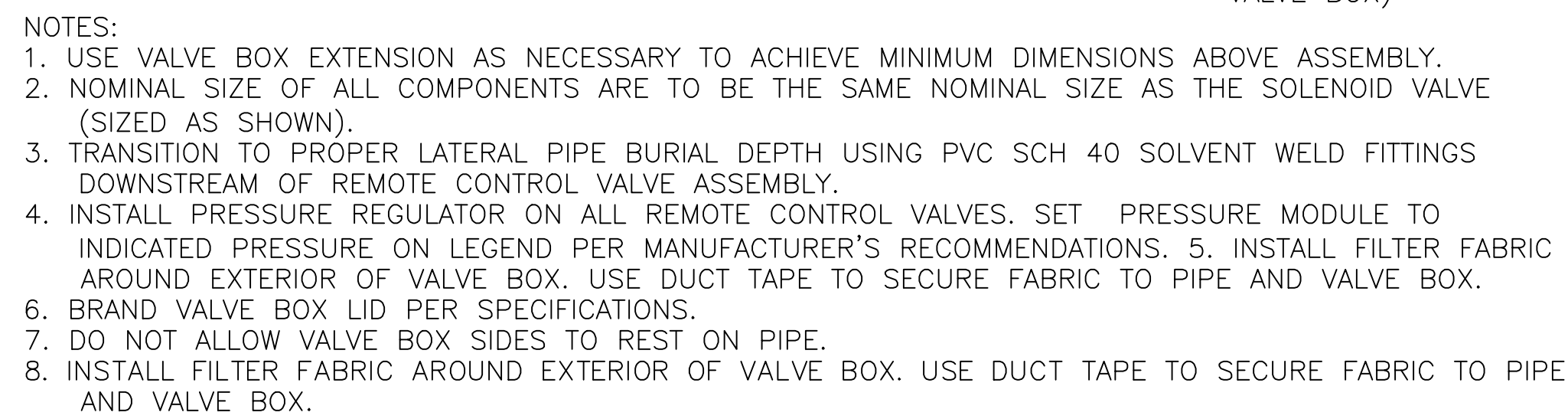
 **Department of
Veterans Affairs**



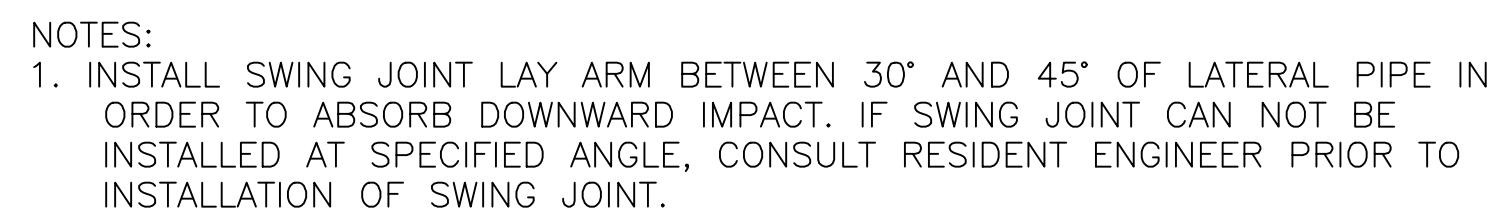
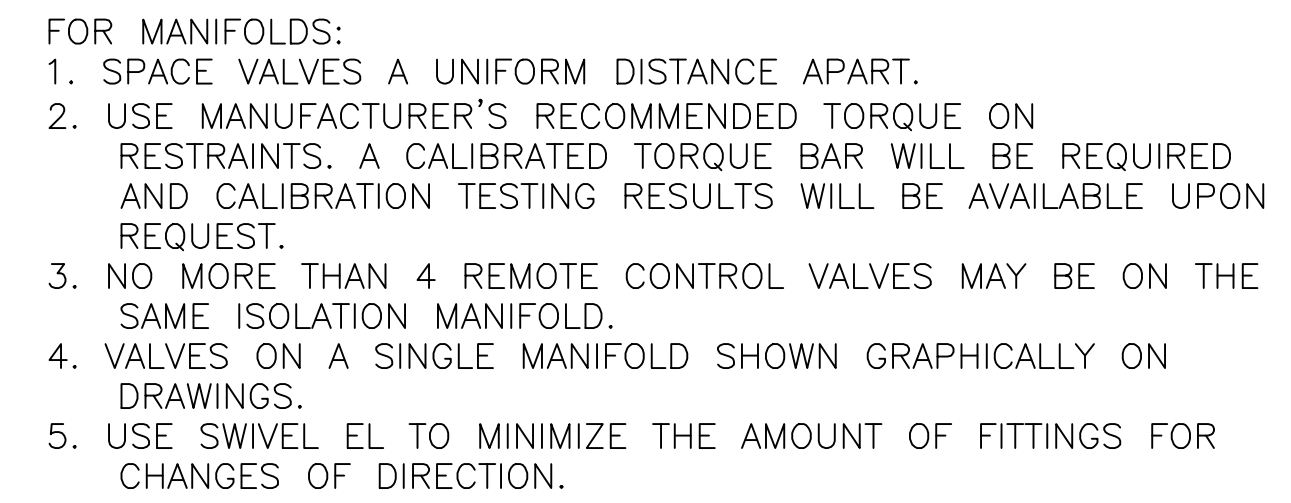
Revisions:		CONSULTANTS:		LANDSCAPE ARCHITECT:		Drawing Title		Project Title		Project Number		NATIONAL CEMETERY ADMINISTRATION OFFICE OF DESIGN AND CONSTRUCTION			
								4, 145 NICHE COLUMBARIUM		830CM3016					
						IRRIGATION PLAN		Location Bay Pines National Cemetery 10000 Bay Pines Boulevard St. Petersburg, FL 33708		Building Number -					
								Approved: Project Director		Date FEBRUARY 29, 2016		Checked RWB	Drawn JDL	Drawing Number I-12	
												Dwg. 22 of 23			



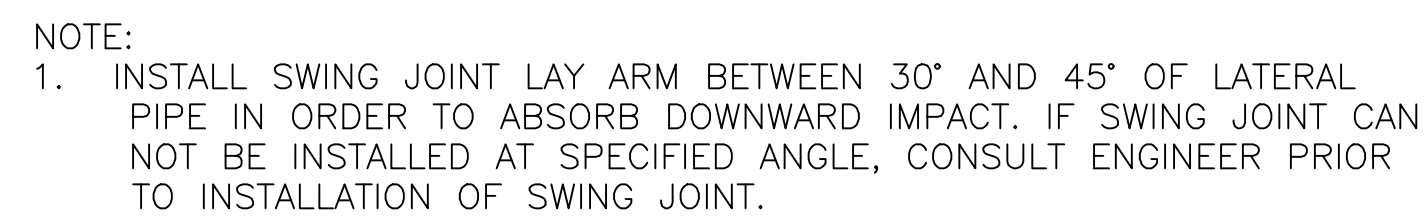
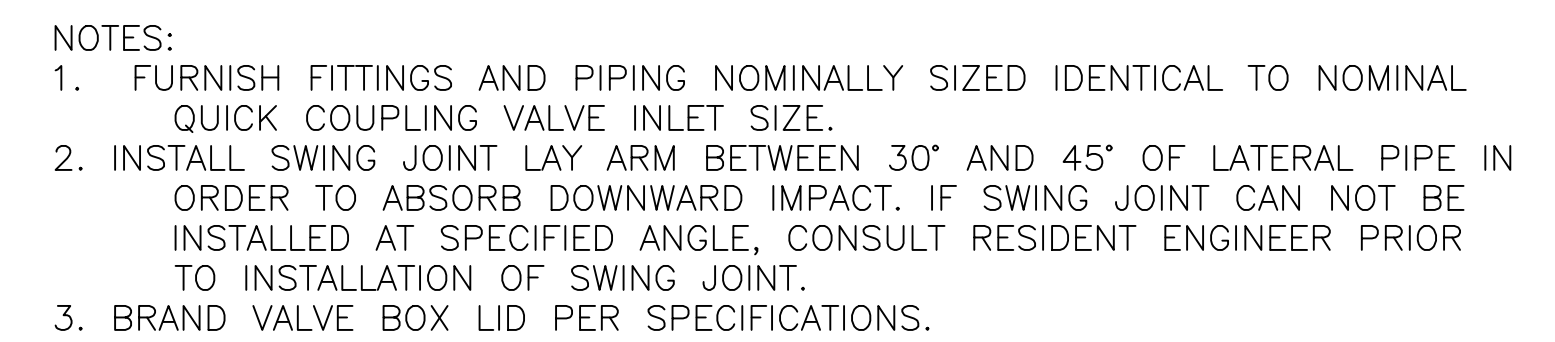
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one eighth inch = one foot	one half inch = one foot	one inch = one foot	one and one half inches = one foot	three inches = one foot
one quarter inch = one foot	three eighths inch = one foot	three quarters inch = one foot		

VA FORM 08-6231