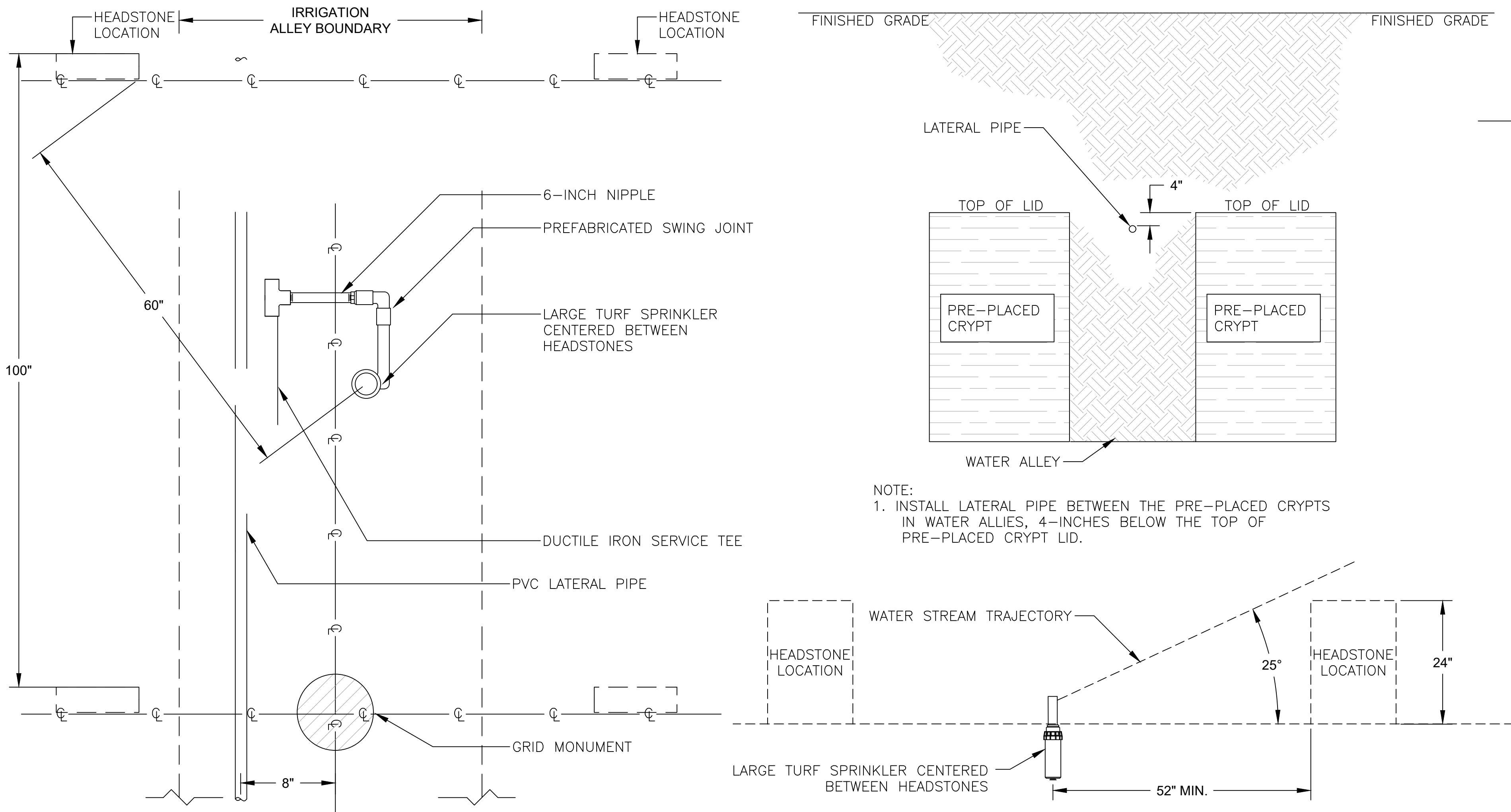


three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot
one sixteenth inch = one foot

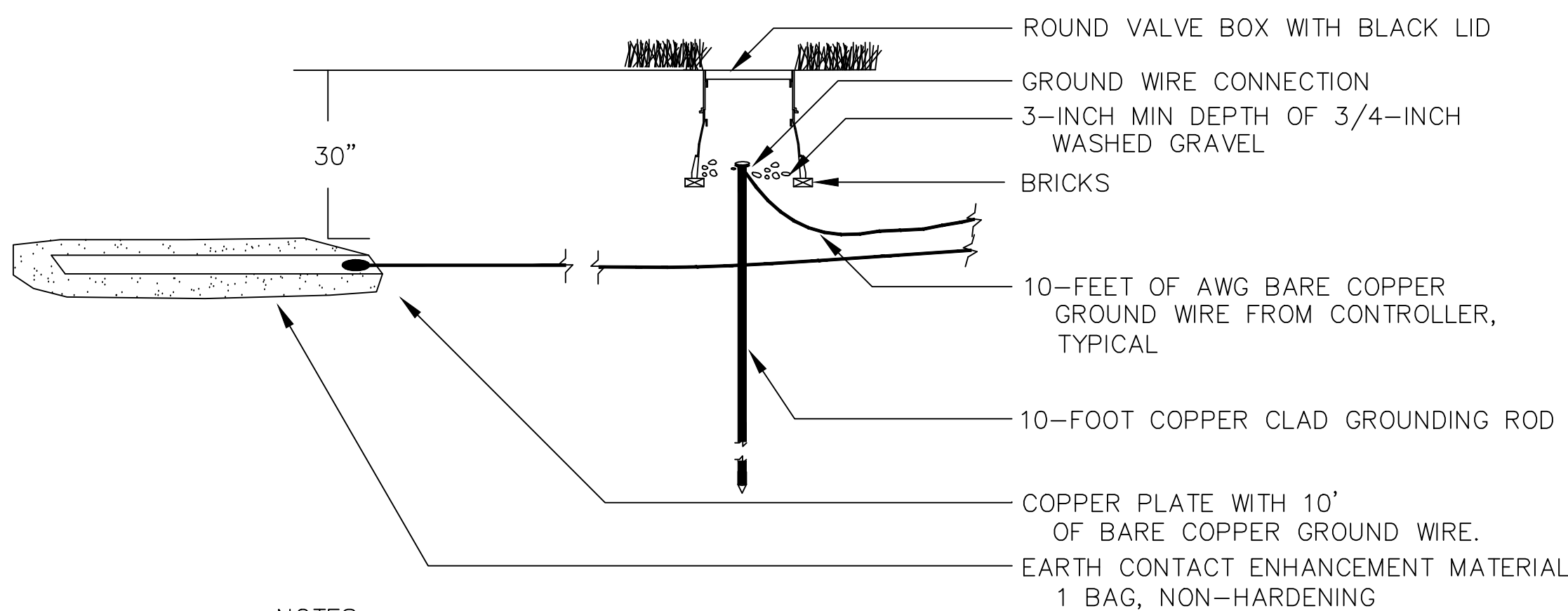


- NOTES:
1. CONTRACTOR IS RESPONSIBLE FOR STAKING TRENCH LOCATION IN THE CORRECT LOCATION WITHIN ALLEYS.
 2. CENTER OF SPRINKLER WILL BE ALIGNED WITH CENTERLINE OF ALLEY.
 3. CENTER SPRINKLERS BETWEEN THE HEADSTONES AS INDICATED TO AVOID DISRUPTION OF THE WATER STREAM FROM THE NOZZLE. A MINIMUM OF 52-INCHES SEPARATION BETWEEN THE SPRINKLERS AND UPRIGHT MONUMENTS MUST BE MAINTAINED.

PREPLACED CRYPT

SPRINKLER PLACEMENT

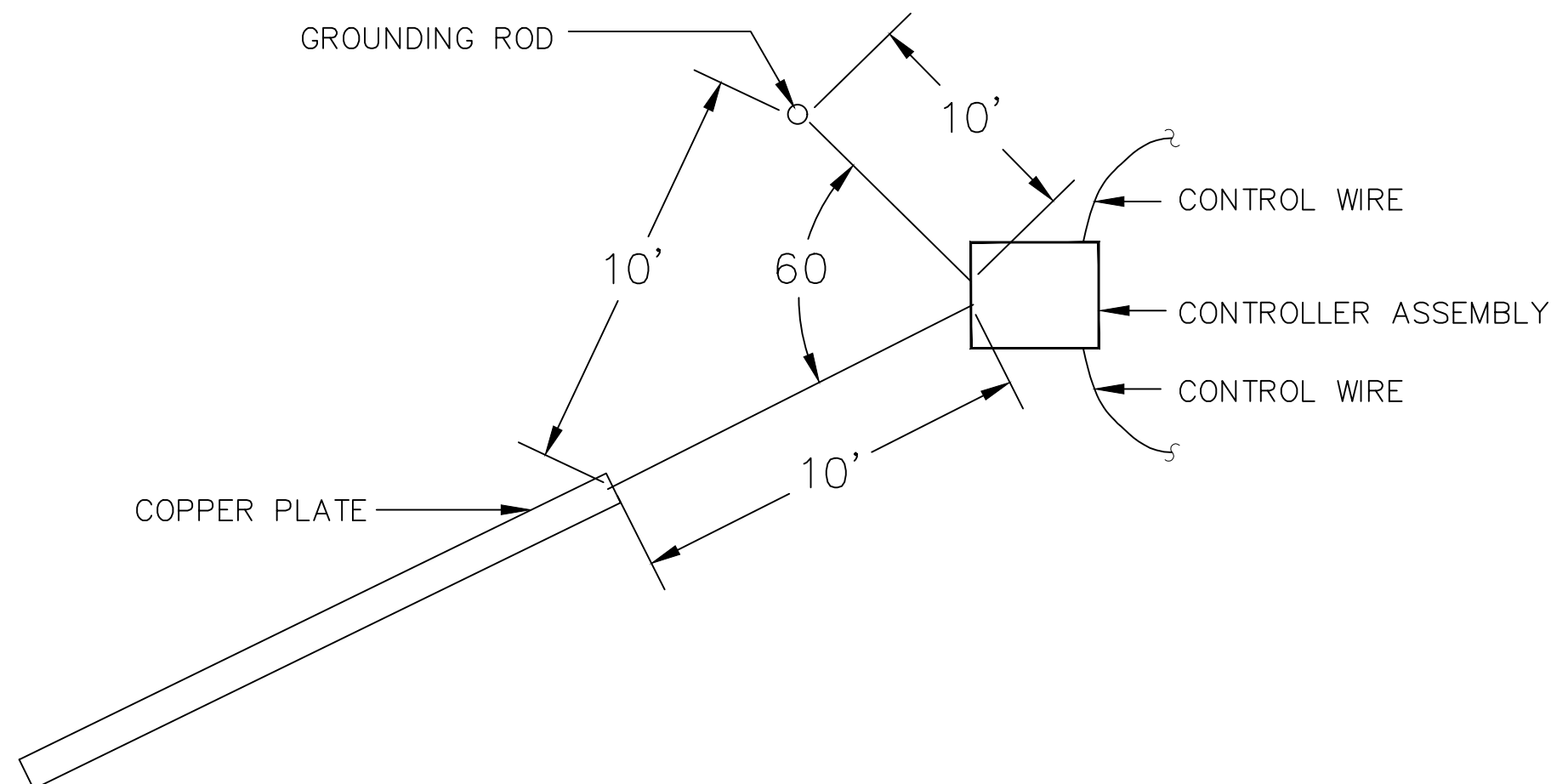
NOT TO SCALE



- NOTES:
1. REFER TO TO IRRIGATION CONTROLLER ASSEMBLY (THIS SHEET) FOR ADDITIONAL INFORMATION.
 2. BRAND VALVE BOX LID PER SPECIFICATIONS.
 3. DO NOT ROUTE CONTROL WIRES AND BARE COPPER GROUND WIRE IN COMMON TRENCH.

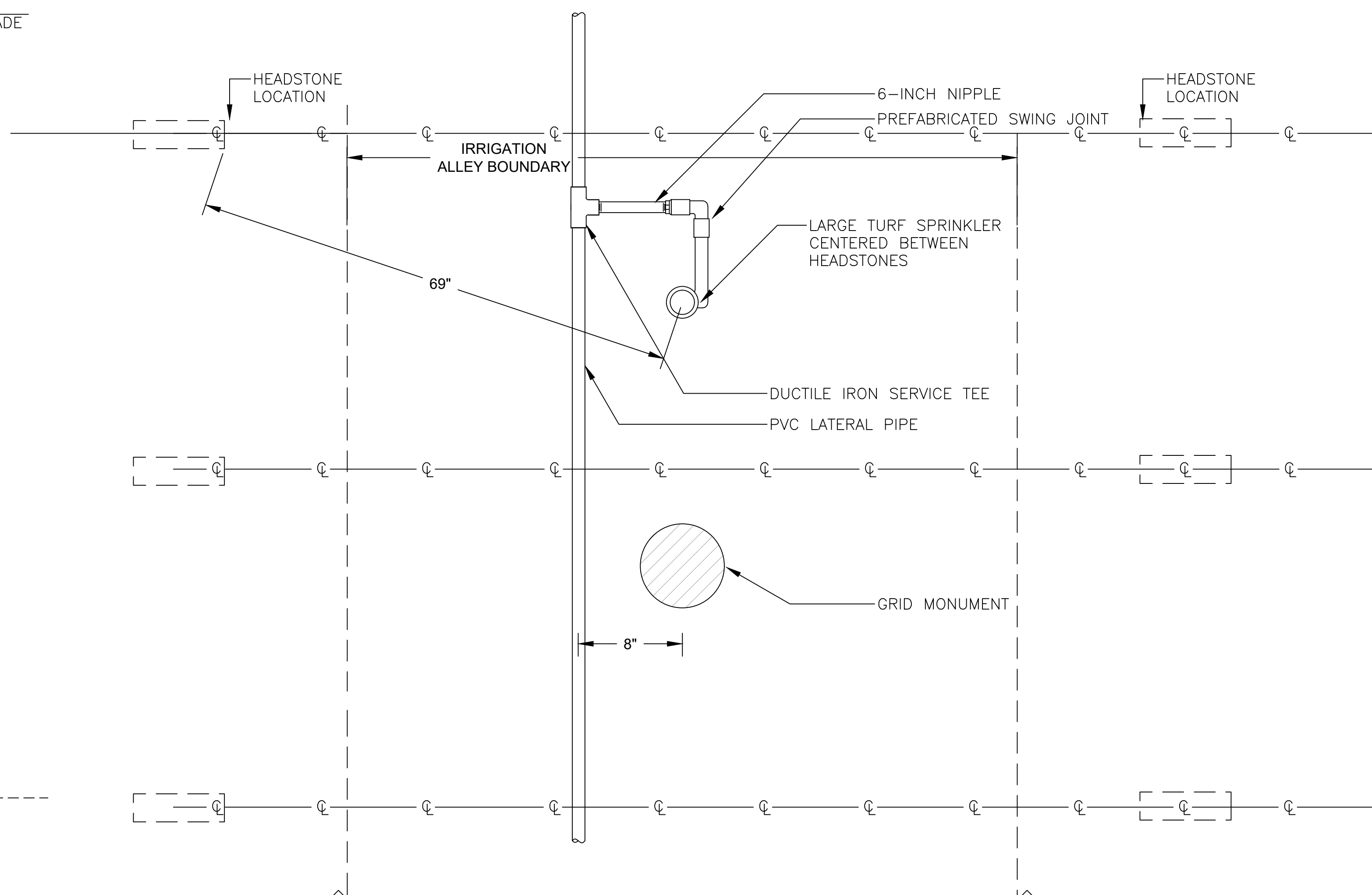
CONTROLLER GROUNDING DETAIL

NOT TO SCALE

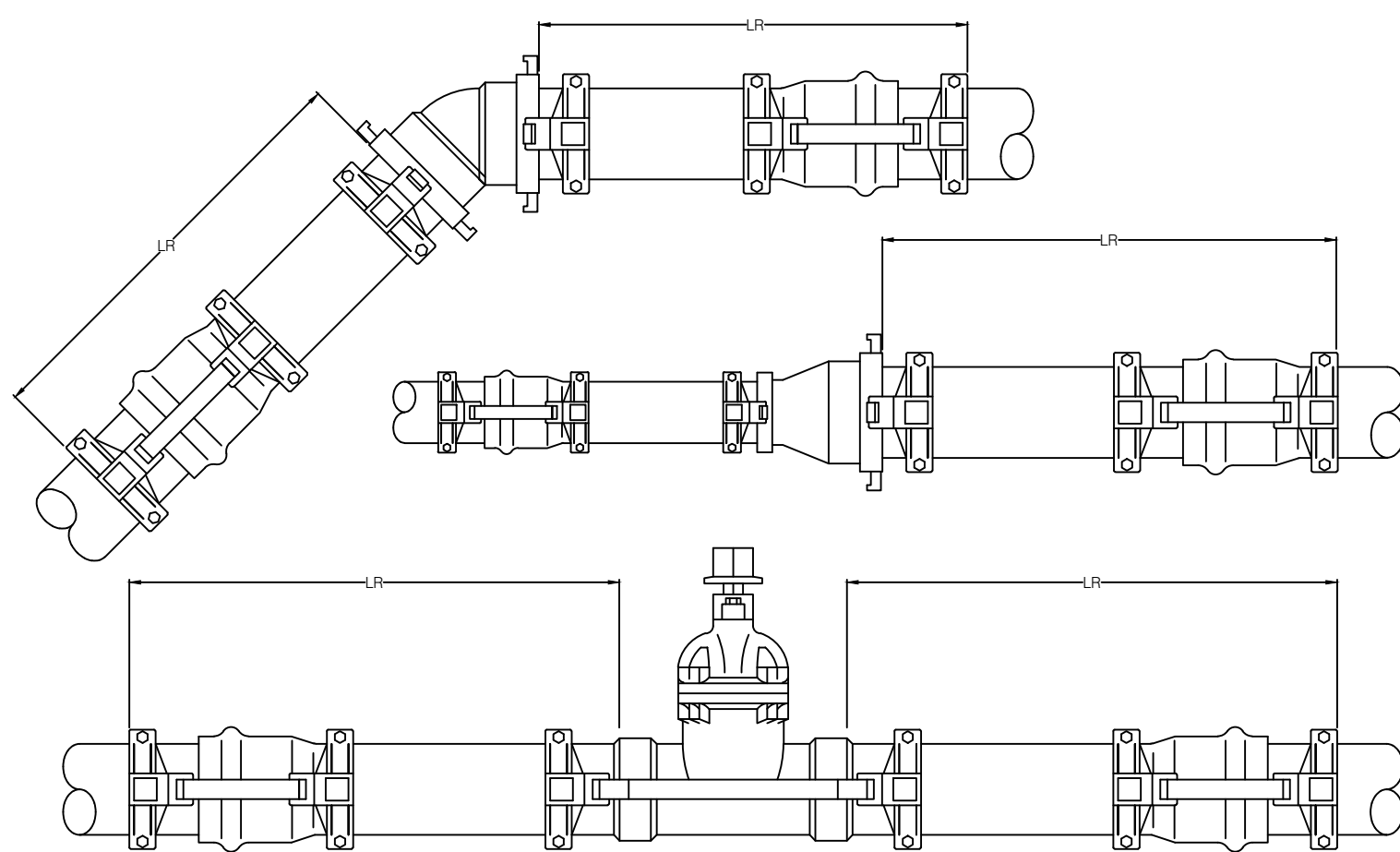


JOINT RESTRAINT

NOT TO SCALE



INGROUND CREMANS





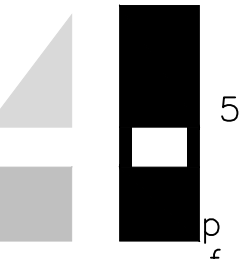


RESTRAINED LENGTH OF PIPE REQUIRED

FITTING SIZE	11 1/4' BEND (LF)	22 1/2' BEND (LF)	45° BEND (LF)	90° BEND (LF)	TEE (LF)	DEAD END (LF)
3"	1.4	2.8	5.9	14.3	17.4	24.8
4"	1.7	3.4	7.1	17.1	22.5	29.9

- NOTES:
1. INSTALL AND TEST MAINLINE ACCORDING TO MANUFACTURER'S INSTALLATION SPECIFICATIONS.
 2. REFER TO SPECIFICATIONS FOR ALL TRENCH DEPTHS AND WIDTHS.
 3. JOINT RESTRAINT LENGTH ASSUMES MAXIMUM OPERATING PRESSURE OF 100 PSI AND 2 FOOT DEPTH OF COVER IN A SANDY SOIL.
 4. JOINT RESTRAINT LENGTH ASSUMES A TYPE 2 TRENCH (BACKFILL LIGHTLY CONSOLIDATED TO CENTERLINE OF PIPE).
 5. TEE RUN LENGTH IS ASSUMED TO BE 10 FEET.

BID DOCUMENTS

CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title IRRIGATION DETAILS		Project Title SALISBURY NATIONAL CEMETERY GRAVESITE EXPANSION		Project Number 876CM3021		NCA DESIGN AND CONSTRUCTION SERVICE Department of Veterans Affairs						
 Consulting Engineers and Scientists 131 12th St. North Birmingham, AL 35203 P (205) 942-2388 F (205) 443-5302		 PEAKS TO PLAINS DESIGN 404 NORTH 31ST STREET, SUITE 405 BILLINGS, MONTANA 59101 (406) 294-9499 • (406) 294-9470 FAX WWW.PEAKSTOPPLAINS.COM		 Aqua Engineering Inc. 3202 West Main Suite C Rapid City, South Dakota 57702 phone:605.343.9806 fax:605.341.7395		 JOHN D. LEONARD Professional Irrigation Designer 46102		 FOUR FRONT DESIGN INC. 517 7th street rapid city sd 57701 p 605.342.9470 f 605.342.2377 www.4front.biz			Approved Project Director		Location SALISBURY NATIONAL CEMETERY SALISBURY, NC		Drawing Number I-106 Dwg 63 of 63	
Revisions:		Date		Date		Date		Checked RWB			Drawn JDL		Date 7/22/16			