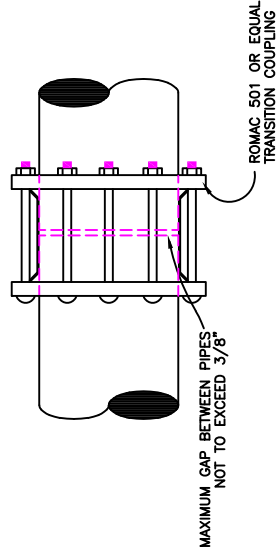


NOTES:

1. ALL PIPE TO COMPLY WITH SPECIFICATIONS FOR WATER MAIN PIPING.
2. OFFSET DISTANCE SHALL BE MINIMUM NECESSARY TO ACHIEVE 0.5' MINIMUM CLEARANCE.
3. ALL JOINTS SHALL BE RESTRAINED AS NECESSARY

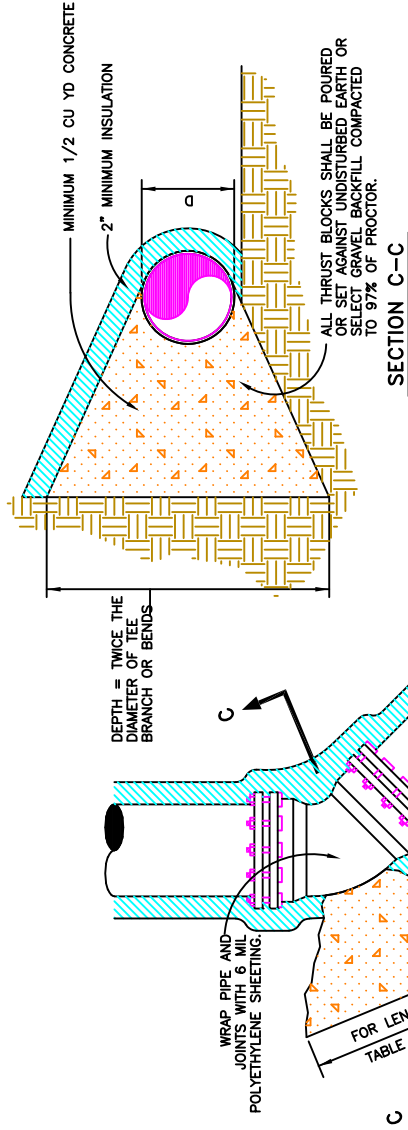
TYPICAL RELOCATION DETAIL

A NOT TO SCALE



ADAPTATION - STEEL TO DUCTILE IRON PIPE

D NOT TO SCALE



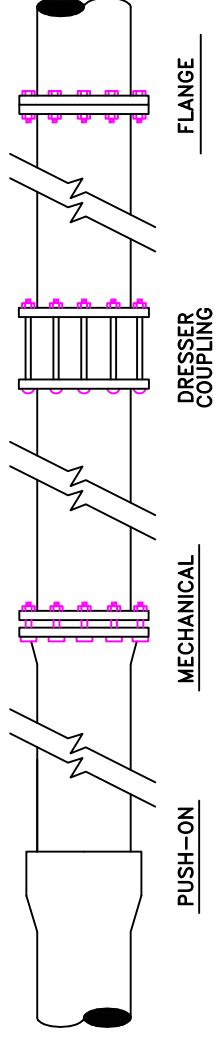
BEND DEGREES	LENGTH OF BEARING AREA					
	D=4"	D=6"	D=8"	D=10"	D=12"	D=14"
22°30'	0'-10"	0'-10"	1'-2"	1'-4"	1'-8"	2'-0"
45°	1'-8"	1'-8"	2'-2"	2'-9"	3'-3"	3'-9"
60°**	2'-2"	2'-2"	2'-10"	3'-6"	4'-3"	5'-0"
90°	3'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"

* FOR BENDS GREATER THAN 5', BUT LESS THAN 22°30', USE LENGTH FOR A 22°30'.

** FOR DEAD END, TEE, OR CROSS, USE LENGTH FOR A 60° BEND.

THRUST BLOCK DETAILS

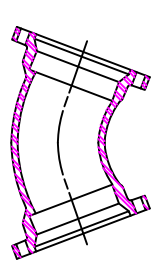
E NOT TO SCALE



WHEN USING DIP, ALL FOUR JOINT TYPES SHALL BE ALLOWED. WHEN USING STEEL PIPE FOR SERVICE LINES, DRESSER AND FLANGE FITTINGS ONLY WILL BE ALLOWED. FLANGED JOINTS/FITTINGS ARE NOT ACCEPTABLE UNDERGROUND (EXCEPT AT HYDRANT BASE)

WATER PIPE JOINTS

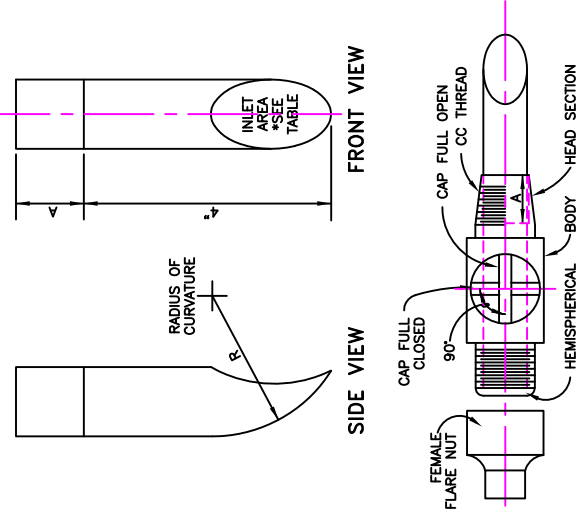
B NOT TO SCALE



DIP FITTINGS SHALL BE MECHANICAL JOINT COMPACT FITTINGS CONFORMING TO AWWA C153

PIPE FITTINGS

C NOT TO SCALE



PIPE LENGTHS REQUIRED AT TEES AND ELBOWS

F NOT TO SCALE

PITORIFICE BASIC DIMENSIONS			
NOMINAL SIZE	A (INCHES)	R (INCHES)	AREA INLET (IN ²)
3/4	.75	2	0.75
1	1	2.25	1.34
1 1/2	1.25	2.75	3.00
2	1.25 TO 1.5	3.25	5.4

STANDARDS FOR PITORIFICE TYPE CORPORATION STOPS

G NOT TO SCALE

12/16/20	NEW LOGOS	CWH	PLAN SCALE: NOT TO SCALE	DESIGNED	RHP/GSC	APPROVED
JAN 07	UPDATE	MJB	PLOT SCALE: 1=1	DRAWN	NBB/DAL	
	REVISION	BY		CHECKED	MJB	USA ENGINEER
				DATE	FEB 1998	FILE: STANDARD DETAILS WD2