

REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

BASED ON TEST PRESSURE OF 200 PSI

SIZE AND DEGREE OF BEND	STATIC THRUST IN POUNDS	FAIRLY DRY CLAY 4,000 LB/SQFT	SOFT CLAY 2,000 LB/SQFT	GRAVEL, COARSE 16,000 LB/SQFT	DRY CLAY - ALWAYS DRY 8,000 LB/SQFT	SAND - COMPACT/FIRM 8,000 LB/SQFT	SAND - CLEAN & DRY 4,000 LB/SQFT	ROCK 10,000 LB/SQFT	TIE RODS REQUIRED
6"									
11.25°	1108	1	1	1	1	1	1	1	
22.50°	2207	1	2	2	1	1	1	1	
45°	4328	2	3	3	1	1	2	1	
90°	7996	2	4	5	1	1	2	1	
PLUG	5665	2	3	4	1	1	2	1	2- 1/2" DIA.
8"									
11.25°	1970	1	1	2	1	1	2	1	
22.50°	3922	1	2	3	1	1	3	1	
45°	7694	2	4	5	1	1	5	1	
90°	14215	4	8	9	2	2	8	2	
PLUG	10053	3	5	6	2	2	6	1	2- 5/8" DIA.
12"									
11.25°	4433	2	3	3	1	1	2	1	
22.50°	8826	3	5	6	2	2	3	1	
45°	17312	5	9	11	3	3	5	2	
90°	31983	8	16	19	4	4	8	4	
PLUG	22619	6	12	14	3	3	6	3	4- 3/4" DIA.

REACTION BEARING AREAS ARE IN SQUARE FEET MEASURED IN A VERTICAL PLANE IN THE TRENCH SIDE AT AN ANGLE OF 90° TO THE THRUST VECTOR

NOTES:

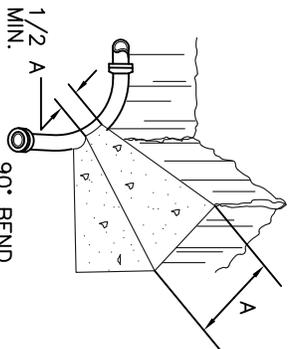
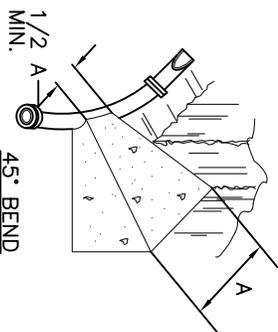
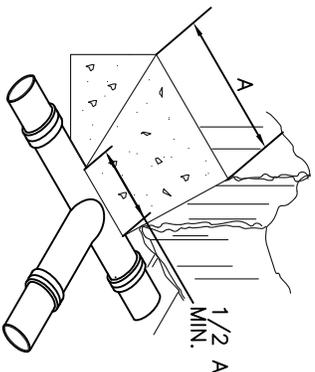
1. CONCRETE SHALL BE 3000 PSI.
2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT FITTINGS.
3. ALL BENDS AND INTERSECTIONS SHALL HAVE CONCRETE THRUST BLOCKING.
4. USE 6" 90° BEND VALUE FOR HYDRANTS FOR ADDITIONAL SAFETY FACTORS.

CITY OF HIGH POINT
NORTH CAROLINA
ENGINEERING SERVICES DEPARTMENT

APPROVED: *BK* FEBRUARY 4, 2007
 DIRECTOR

ISSUED 02-01-07
 REVISIONS

TEE INTERSECTION



STANDARD DRAWING FOR
THRUST BLOCKING
 FOR 6" - 12" WATER LINE

THRUSTBLOCK.DWG

232.00

SHEET 1 OF 1