

WATER VALVE BOX INSTALLATION FOR 4", 6", 8", AND 12" GATE VALVES

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

REVISION DATE: 08/24/2010
SCALE: NTS
DETAIL NO. W-6.0

WATER MANHOLE RING AND COVER

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

REVISION DATE: 08/24/2010
SCALE: NTS
DETAIL NO. W-7.0

HORIZONTAL THRUST BLOCKING ISOMETRIC VIEWS

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

REVISION DATE: 12/07/2009
SCALE: NONE
DETAIL NO. W-8.0

CONCRETE THRUST BLOCK

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

REVISION DATE: 12/07/2009
SCALE: NTS
DETAIL NO. W-8.1

PIPE SIZE AND DEGREE OF BEND	1" PVC	2" PVC	3" PVC	4" PVC	6" PVC	8" PVC	12" PVC	16" PVC	20" PVC	24" PVC	30" PVC	36" PVC
6" PIPE												
11 1/4"	1,108	1	1	1	1	1	2	1				
22 1/2"	2,207	1	2	2	1	1	1	3	1			
45°	4,328	2	3	3	1	1	2	5	1			
90°	7,996	2	4	5	1	1	2	8	1			
PLUG OR TEE	5,655	2	3	4	1	1	2	6	1			
8" PIPE												
11 1/4"	1,970	1	1	2	1	1	1	2	1			
22 1/2"	3,922	1	2	3	1	1	1	4	1			
45°	7,694	2	4	5	1	1	2	8	1			
90°	14,215	4	8	9	2	2	4	15	2			
PLUG OR TEE	10,653	3	5	6	2	2	3	10	1			
12" PIPE												
11 1/4"	4,433	2	3	3	1	1	2	5	1			
22 1/2"	8,826	3	5	6	2	2	3	9	1			
45°	17,532	5	9	11	3	3	5	18	2			
90°	31,983	8	16	19	4	4	8	32	4			
PLUG OR TEE	22,619	6	12	14	3	3	6	23	3			
16" PIPE												
11 1/4"	7,881	2	4	5	1	1	2	8	1			
22 1/2"	15,691	4	8	10	2	2	4	16	2			
45°	7,694	8	16	19	4	4	8	31	4			
90°	56,861	15	29	35	8	8	15	57	6			
PLUG OR TEE	40,213	10	21	25	5	5	10	41	5			
20" PIPE												
11 1/4"	12,315	3	7	8	2	2	3	13	2			
22 1/2"	24,517	7	13	15	4	4	7	25	3			
45°	48,091	12	24	29	6	6	12	48	5			
90°	88,844	23	45	53	12	12	23	89	9			
PLUG OR TEE	62,632	16	32	38	8	8	16	63	7			
24" PIPE												
11 1/4"	17,734	5	9	11	3	3	5	18	2			
22 1/2"	35,305	9	18	22	5	5	9	36	4			
45°	69,252	18	36	42	9	9	18	70	7			
90°	127,936	32	64	77	16	16	32	128	13			
PLUG OR TEE	90,478	23	46	55	12	12	23	91	10			
30" PIPE												
11 1/4"	27,709	7	14	17	4	4	7	23	3			
22 1/2"	55,163	14	28	34	7	7	14	56	6			
45°	108,206	28	55	65	14	14	28	109	11			
90°	199,900	50	100	120	25	25	50	200	20			
PLUG OR TEE	141,372	36	71	85	18	18	36	142	15			
36" PIPE												
11 1/4"	39,901	10	20	24	5	5	10	40	4			
22 1/2"	79,435	20	40	48	10	10	20	80	8			
45°	156,816	39	79	94	20	20	39	156	16			
90°	247,855	72	144	172	36	36	72	288	29			
PLUG OR TEE	203,575	51	102	122	26	26	51	204	21			

GENERAL NOTES:
1. BASED ON TEST PRESSURE OF 200 P.S.I. ALL AREAS GIVEN IN SQUARE FEET.
2. THE TRUST BLOCK AT AN ANGLE OF 45° TO THE THRUST VECTOR.
3. USE 6" 90° BEND VALUE FOR HYDRANTS FOR ADDITIONAL SAFETY FACTORS.

DURHAM
1 8 8 9
CITY OF DURHAM

REVISION DATE: 12/07/2009
SCALE: NTS
DETAIL NO. W-8.2

BLOW-OFF ASSEMBLY FOR 4", 6", 8", 12", AND 16" WATER MAINS

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

REVISION DATE: 03/18/2010
SCALE: NTS
DETAIL NO. W-9.0

SANITARY SEWER LATERAL

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

REVISION DATE: 03/18/2010
SCALE: NTS
DETAIL NO. SS-1.0

STANDARD SEWER MAIN LATERAL STUB-OUT

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

REVISION DATE: 05/21/2009
SCALE: NTS
DETAIL NO. SS-1.1

NOTE: CONTRACTOR SHALL FIELD LOCATE EXISTING SANITARY SEWER SERVICES PRIOR TO INSTALLATION OF PROPOSED MAIN LINE SANITARY SEWER.

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