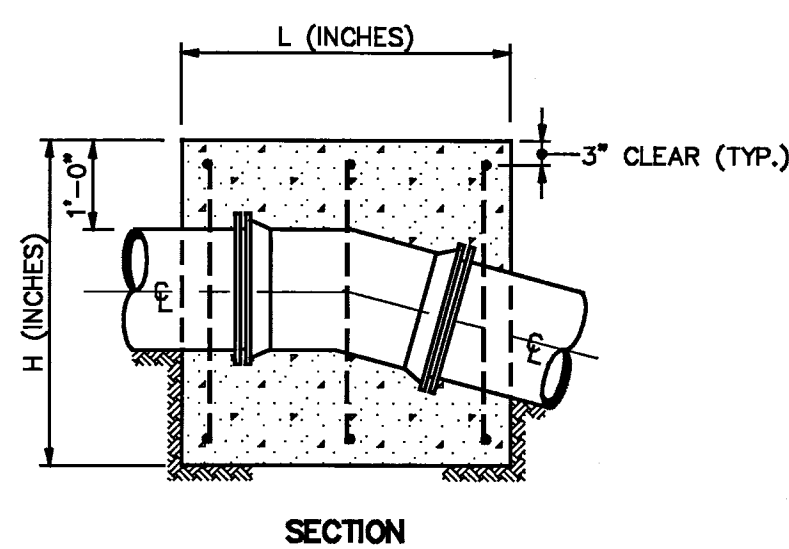
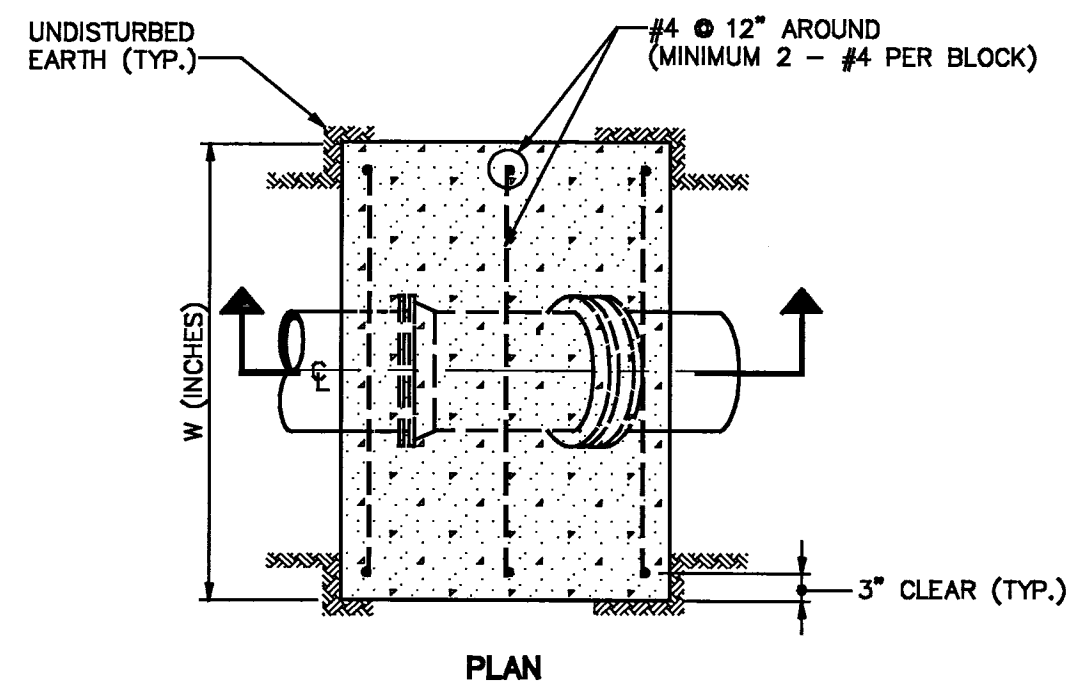
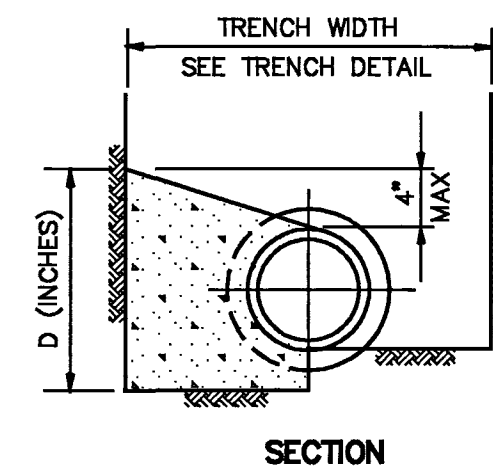
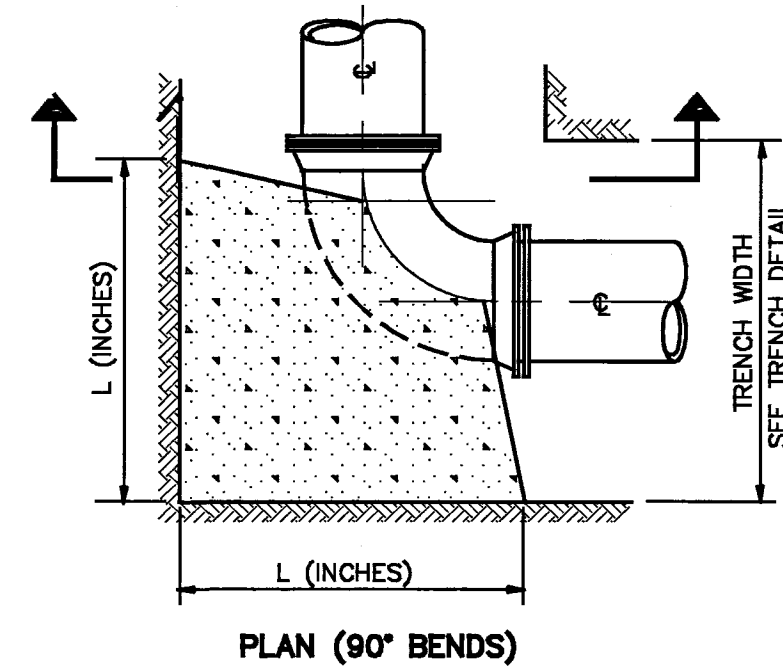




SIZE OF PIPE	DEGREE OF BEND											
	11 1/4"			22 1/2"			45°			90°		
	L	W	H	L	W	H	L	W	H	L	W	H
3"	12	27	27	13	27	27	18	30	27	25	30	27
4"	12	28	28	16	30	28	22	36	28	27	48	28
6"	12	48	30	16	52	30	30	48	30			
8"	12	63	32	18	60	32						
10"	16	60	34									
12"	20	54	36									
14"												
20"												
24"												

VERTICAL OVER BENDS

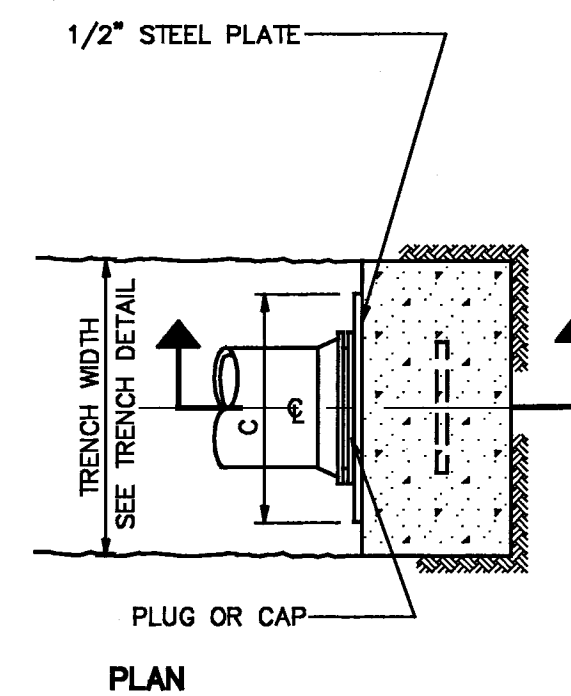
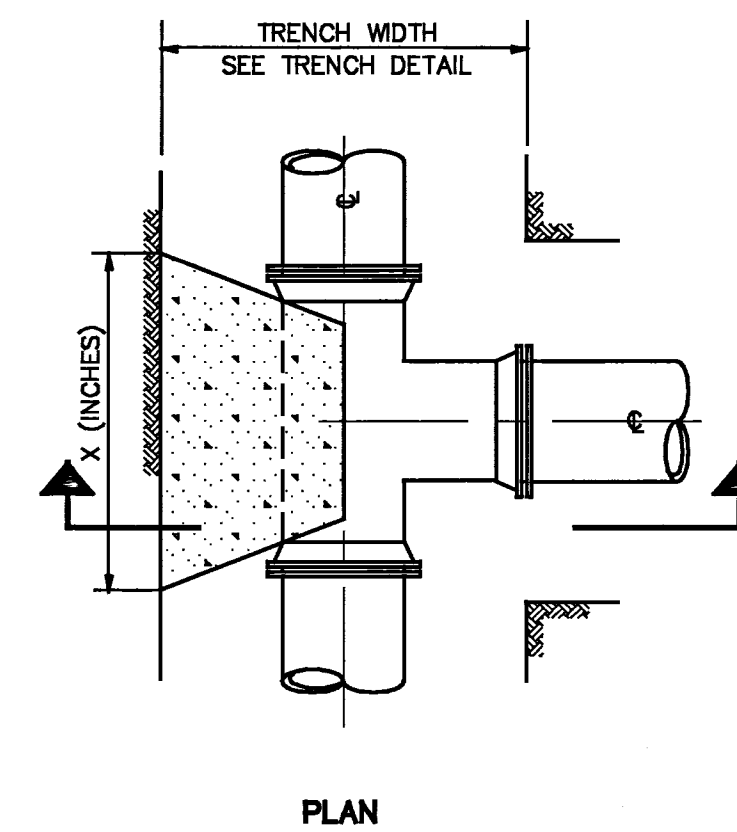


SIZE OF PIPE	DEGREE OF BEND											
	11 1/4"			22 1/2"			45°			90°		
	L	W	H	L	W	H	L	W	H	L	W	H
3"	4	3	6	4	10	4	10	4	10	4	10	4
4"	5	4	9	5	14	5	14	5	14	5	14	5
6"	8	6	12	7	20	8	18	9	18	9	18	9
8"	9	8	16	9	24	12	25	11	24	12	25	11
10"	12	10	20	12	30	15	28	15	28	15	28	15
12"	14	12	24	14	36	18	32	18	32	18	32	18
14"	18	16	32	18	36	24	41	26	36	24	41	26
20"	25	20	30	30	49	36	50	32	49	36	50	32
24"	27	24	39	34	60	42	58	40	58	40	58	40

HORIZONTAL & VERTICAL SAG BENDS

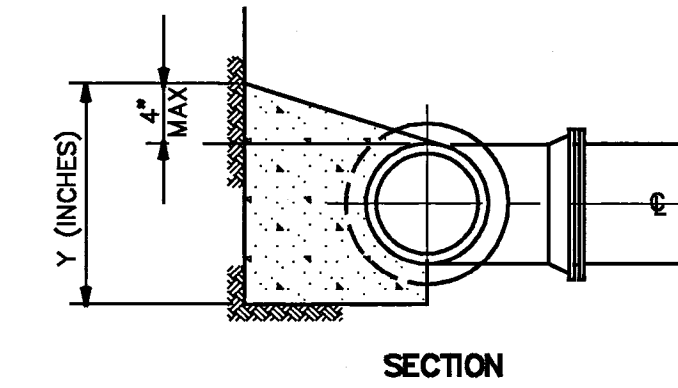
THRUST BLOCKING DETAILS

N.T.S.

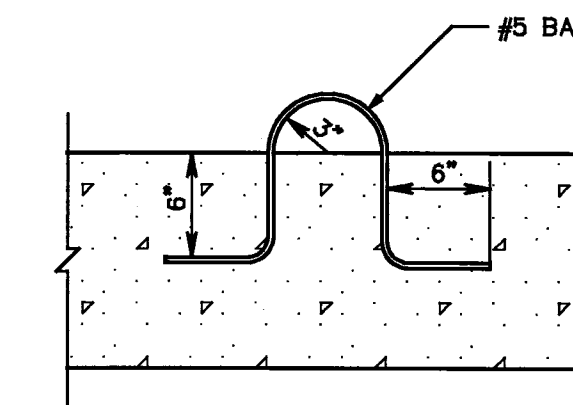


TEES

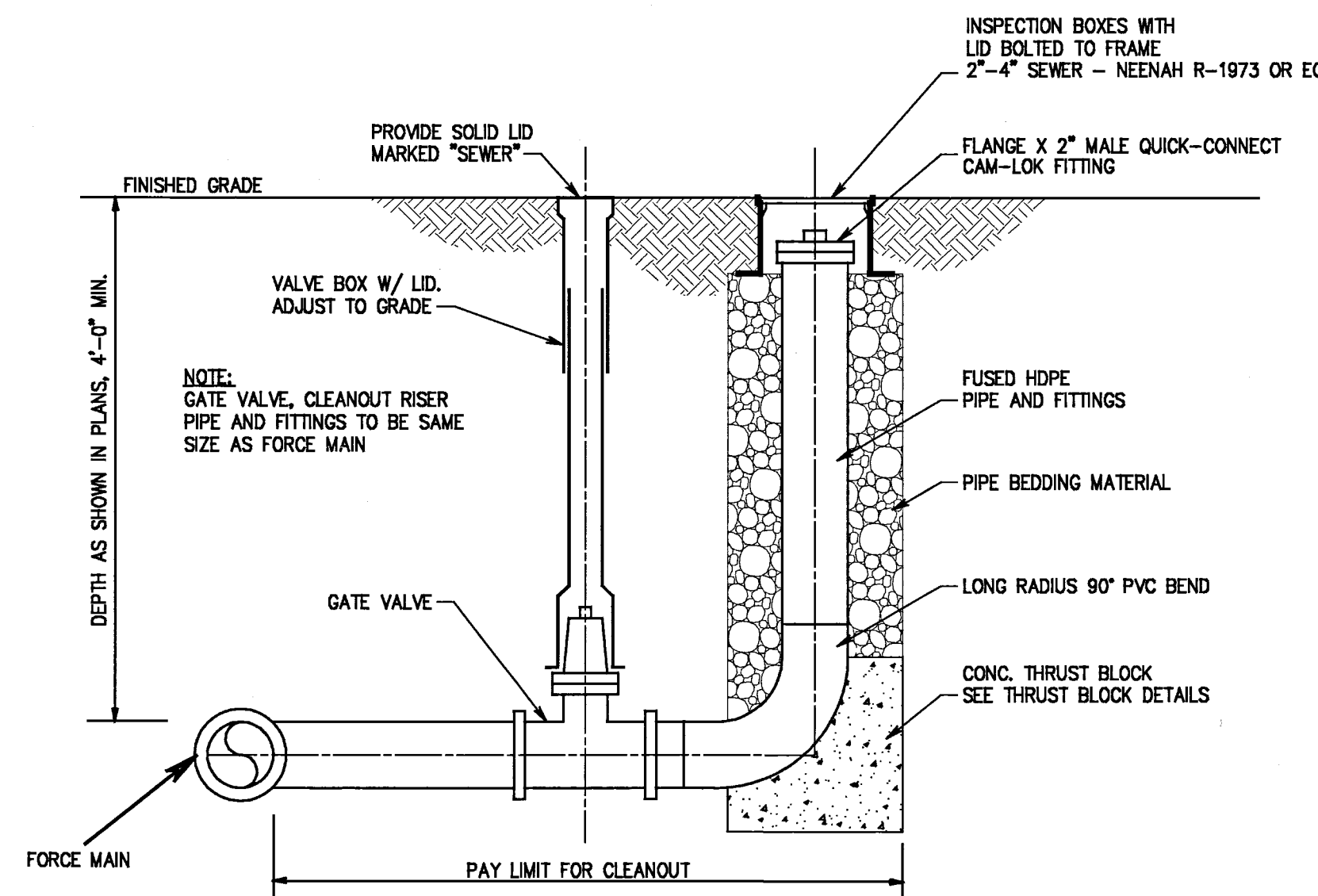
DEAD END



SIZE OF RUN	SIZE OF BRANCH																							
	3"		4"		6"		8"		10"		12"		14"		20"		24"		24"		24"		24"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
3"	12	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4"	10	6	11	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6"	9	7	11	8	18	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8"	8	8	10	9	18	12	23	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10"	7	10	9	11	18	12	23	16	32	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12"	6	12	8	12	18	12	23	16	30	20	38	22	—	—	—	—	—	—	—	—	—	—	—	—
14"	6	16	6	16	14	16	20	18	26	22	36	23	49	30	—	—	—	—	—	—	—	—	—	—
20"	6	20	6	20	11	20	18	20	24	24	35	24	46	32	60	38	—	—	—	—	—	—	—	—
24"	6	24	6	24	9	24	15	24	22	26	30	28	42	36	54	42	68	48	—	—	—	—	—	—



SIZE OF PIPE	A	B	C
3"	0'-8"	0'-8"	1'-3"
4"	0'-10"	0'-10"	1'-4"
6"	1'-0"	1'-0"	1'-6"
8"	1'-2"	1'-2"	1'-8"
10"	1'-4"	1'-6"	1'-10"
12"	1'-6"	2'-0"	2'-0"
14"	2'-0"	3'-2"	2'-4"



TYPICAL FORCE MAIN CLEANOUT DETAIL

NO SCALE

URS

ARCHITECTS • ENGINEERS • PLANNERS
277 W. NATIONWIDE BLVD.
COLUMBUS, OHIO 43215
(614) 464-4500 Fax: 464-0588

DATE ISSUED FOR BIDDING:

ADDENDUM REVISIONS

No.	DESCRIPTION	DATE	BY

DATE ISSUED FOR CONSTRUCTION:

REVISIONS

No.	DESCRIPTION	DATE	BY

DATE ISSUED FOR RECORD DRAWINGS:

**GAMBRO HEALTHCARE
LIFT STATION & FORCE MAIN**

MISCELLANEOUS DETAILS

DATE October 2003

JOB No. 14572464

DRAWN MAL

CHECKED FJS

SCALE NONE