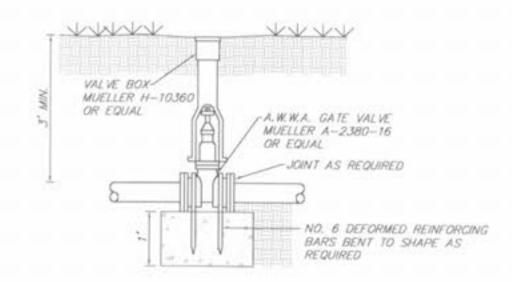
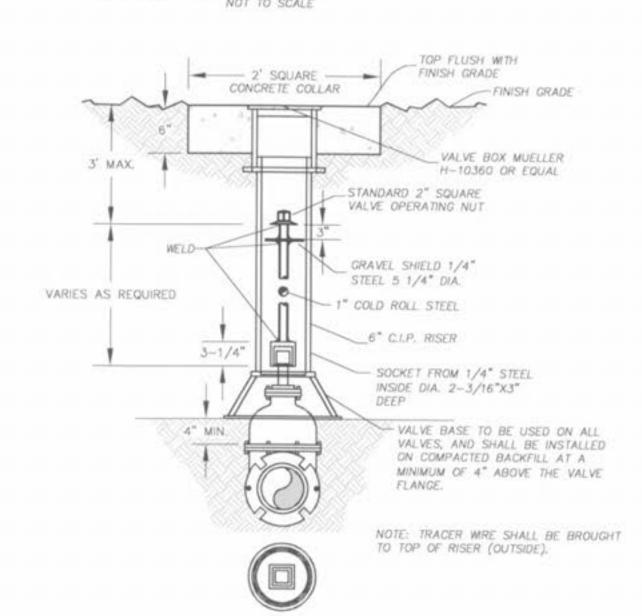


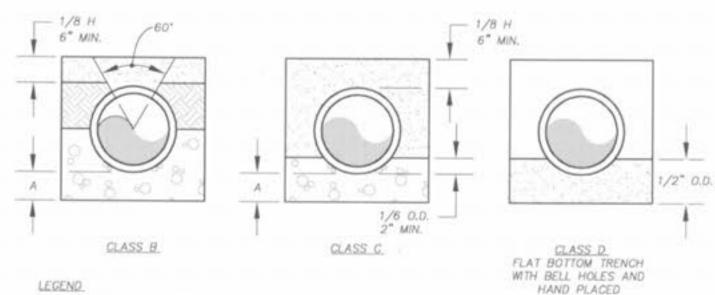
SECTION A-A

GATE VALVE W/THRUST BLOCK





WATER MAIN EMBEDMENT NOT TO SCALE



LEGEND LD NOMINAL PIPE SIZE		HAND P EMBED	LACED
O.D. — OUTSIDE DIAMETER OF PIPE H — COVER ABOVE TOP OF PIPE A — EMBEDMENT BELOW PIPE (SEE TABLE)		EMBEDME BELOW PIF	
TAMPED BACKFILL COMPACTED BACKFILL	1,0.	A MIN. SOIL	A. MIN. ROCK
GRANULAR BEDDING	27" & SMALLER	3"	6*
4. COANTE AN OCCOUNT OF AN OCCUPIED MAKES AN			

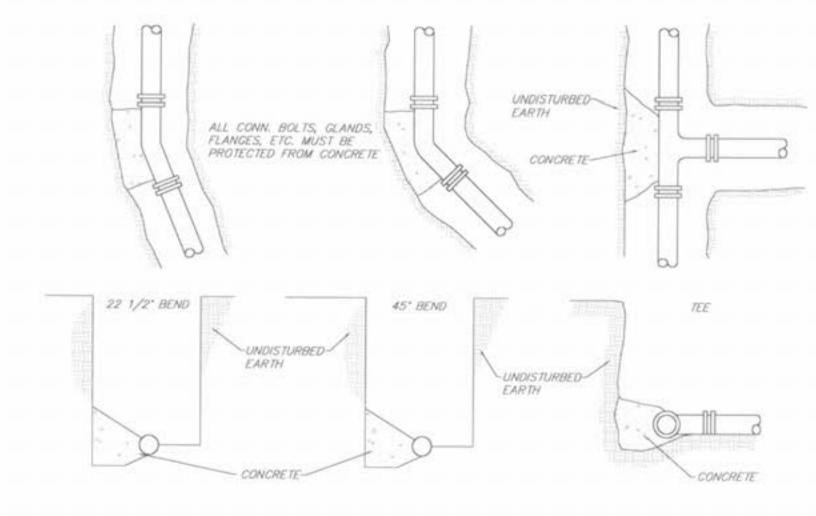
 GRANULAR BEDDING SHALL BE CRUSHED ROCK OR PEA GRAVEL WITH NOT LESS THAN 95% PASSING 1/2"
 (95% PASSING 3/4" FOR 30" AND LARGER PIPE) AND NOT LESS THAN 95% RETAINED ON A #4; TO BE PLACED IN NOT MORE THAN 6" LAYERS AND COMPACTED BY SLICING WITH A SHOVEL OR VIBRATING.

2. COMPACTED BACKFILL SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL AND STONES, PLACED IN UNIFORM LAYERS NOT MORE THAN 6" THICK, COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY A.S.T. D698, OR GRADED AGGREGATE. GRANULAR BACKFILL MATERIAL MAY BE SUBSTITUTED FOR ALL OR PART OF COMPACTED BACKFILL. 3. TAMPED BACKFILL SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC

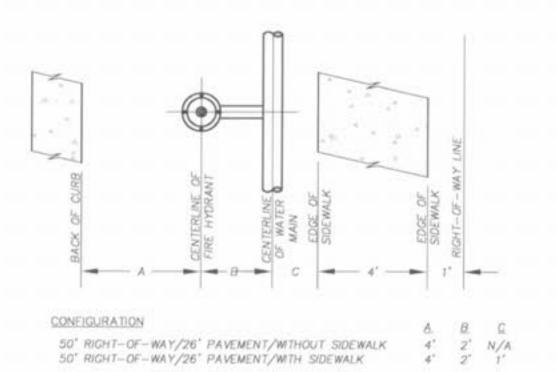
MATERIAL AND STONES, HAND PLACED IN UNIFORM LAYERS NOT MORE THAN 8" THICK AND TAMPED AROUND CONDUIT PIPE. GRANULAR BACKFILL MATERIAL MAY BE SUBSTITUTED FOR ALL OR PART OF TAMPED BACKFILL. 4. TRENCH BACKFILL SHALL BE AS REQUIRED IN THE "LAYING AND BACKFILL" SECTION OF THE DETAILED SPECIFICATIONS.

5. THE TYPE OF EMBEDMENT TO BE USED SHALL BE AS SPECIFIED IN THE PLANS AND SPECIFICATIONS. TRACER WIRE REQUIRED ON ALL WATER MAINS

TYPICAL THRUST BLOCK DETAILS NOT TO SCALE

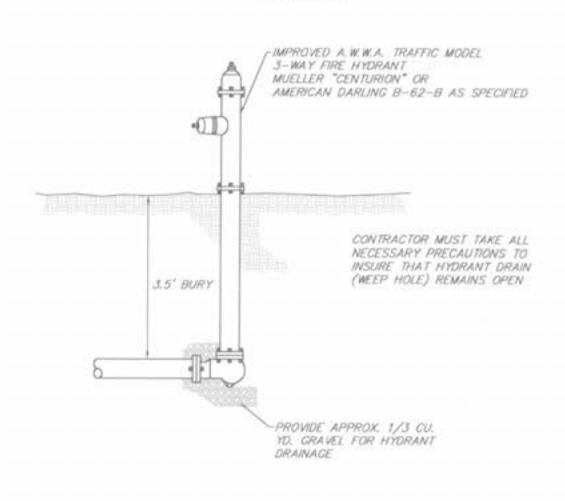


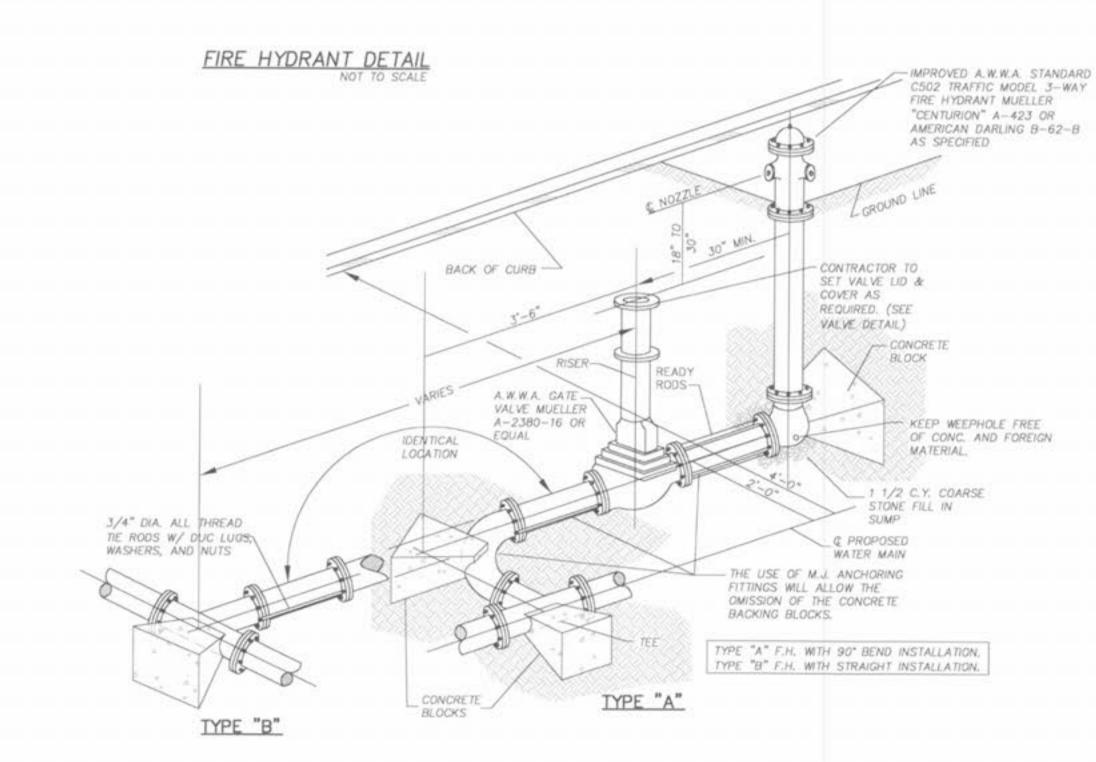
MAIN SIZE (I.D.)			BLOCK BEARING SAINST UNDISTURBE		
	45' BEND	22 1/2" BEND	TEE	VALVE	CROSS
2"	.5' X 1'	.5' X 1'	.5' X 1'	.5' X 1'	5' X 1'
4"	1' X 1'	1' X 1'	2' X 1'	2' X 1'	1' X 1"
6"	1.5' X 1'	1' X 1'	2' X 1'	2' X 1'	1' X 1'
8"	2' X 1'	1' X 1'	2' X 2.5'	2' X 2'	7' X 1.5'
10"	2' X 2.5'	1.5' X 2'	2' X 3.5'	2' X 3'	2' X 2'
12"	2' X 3.5'	1.5' X 2.5'	3' X 3.5'	3' X 3'	2' X 3'
16"	3' X 4'	2' X 3'	4' X 4.5'	3' X 4.5'	3' X 3.5



TYPICAL WATER MAIN AND FIRE HYDRANT LOCATIONS NOT TO SCALE

FIRE HYDRANT INSTALLATION DETAIL







	SUE DATE - REMARKS
	1/25/05 - Submittal to city for review.
N	6/15/05 - Revised per city's review.
-	7/29/05 - Revised per city's review.



DEVEL KAPLAN P.O. BOX 340 ST. PETERS, N (638) 946-6971

0 PHASE ONE WATER DETAILS

04021-00

DESIGNED BY: DRAWN BY: CHECKED BY: