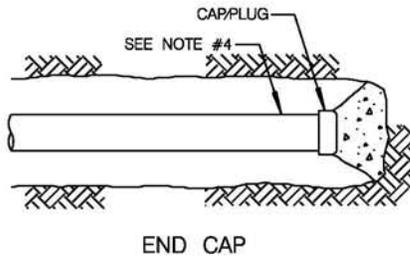
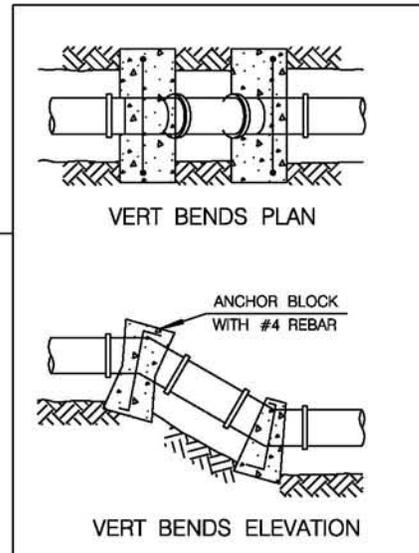


SEE NOTE 1 BELOW



NOTES:

- 1) THE ANCHOR BLOCKS ON VERTICAL BENDS REQUIRE ENGINEER APPROVAL.
- 2) A MINIMUM OF 6" OF CONCRETE SHALL BE POURED ON WETTED UNDISTURBED OR COMPACTED SOIL BENEATH EACH INSTALLATION.
- 3) TEE SHALL BE CONCRETE BLOCKED A MINIMUM OF 6" ON ALL THREE SIDES.
- 4) USE 12" - 18" LENGTH OF PIPE BETWEEN THE END CAP AND THE LAST JOINT AS A BOND BREAKER ON DEAD END BLOCKING.

SHEET 1 OF 3

REVISION	BY	APPROVED	DATE
ORIGINAL*	KA	J. NAGELVOORT	01/12

CITY OF SAN DIEGO - STANDARD DRAWING

RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE

H. Hadli 1/31/2012
COORDINATOR R.C.E. 65271 DATE

CONCRETE THRUST AND ANCHOR BLOCK INSTALLATIONS

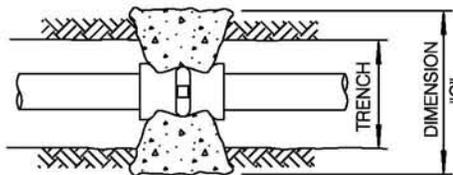
DRAWING NUMBER **SDW-151**

VALVE SUPPORT BLOCK

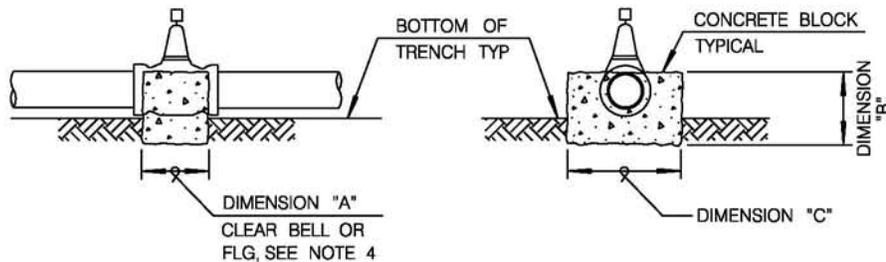
VALVE SIZE	DIMENSION "A"	DIMENSION "B"
4"	12"	12"
6"	12"	12"
8"	13"	14"
10"	14"	16"
12"	15"	18"
DIMENSION "C" = TRENCH WIDTH PLUS TWO TIMES THE PIPE DIAMETER		

THRUST AND ANCHOR BLOCKS

MINIMUM BEARING AREA IN SQUARE FOOT (SQ. METERS) SEE NOTE 2				
MAIN SIZE	TEES	90° BEND	45° BEND	22 ¹ / ₂ ° BEND
4"	4	5	3	1.5
6"	8	10	5	2.5
8"	12	16	9	4.5
10"	17	24	13	6.5
12"	24	33	19	9.5



VALVE SUPPORT PLAN



VALVE SUPPORT ELEVATION

NOTES:

- 1) BEARING AREA BASED ON SOIL BEARING VALUE OF 1500 PSF AND 225 PSI LINE PRESSURE AND A MINIMUM OF 36" COVER:
 FOR BEARING = 1000 PSF, 1.5 x AREA SHOWN
 FOR BEARING = 500 PSF, 3.0 x AREA SHOWN
- 2) ENGINEER SHALL DETERMINE SIZES, REFER TO SPECIFICATIONS FOR THRUST AND ANCHOR BLOCK SIZING.
- 3) THRUST BLOCKS SHALL BE CENTERED ON THE FITTING SO THAT THE BEARING AREA IS EXACTLY OPPOSITE THE RESULTANT DIRECTION OF THRUST.
- 4) CONCRETE SHALL BE PLACED SO THAT FITTINGS AND VALVES WILL BE ACCESSABLE FOR REPAIR OR REPLACEMENT.

SHEET 2 OF 3

REVISION	BY	APPROVED	DATE
ORIGINAL*	KA	J. NAGELVOORT	01/12

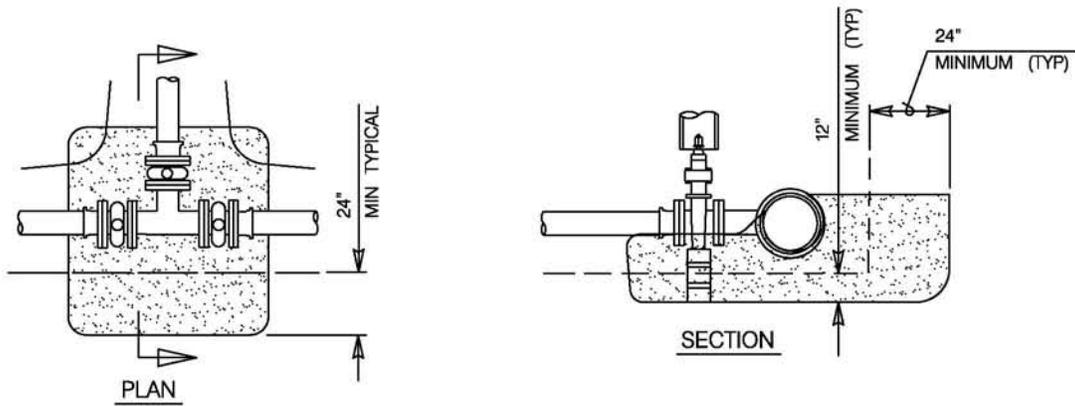
CITY OF SAN DIEGO - STANDARD DRAWING

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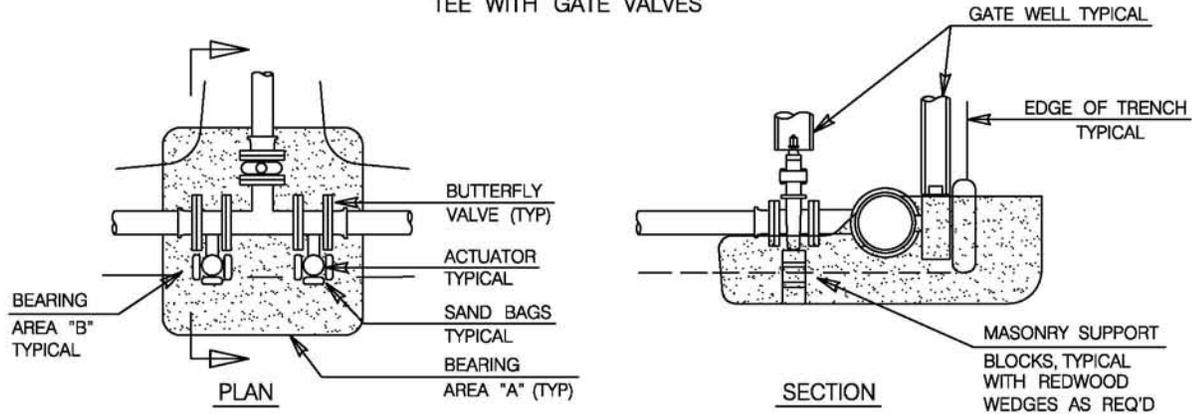
H. Hadli 1/31/2012
 COORDINATOR R.C.E. 65271 DATE

CONCRETE THRUST AND ANCHOR BLOCK INSTALLATIONS

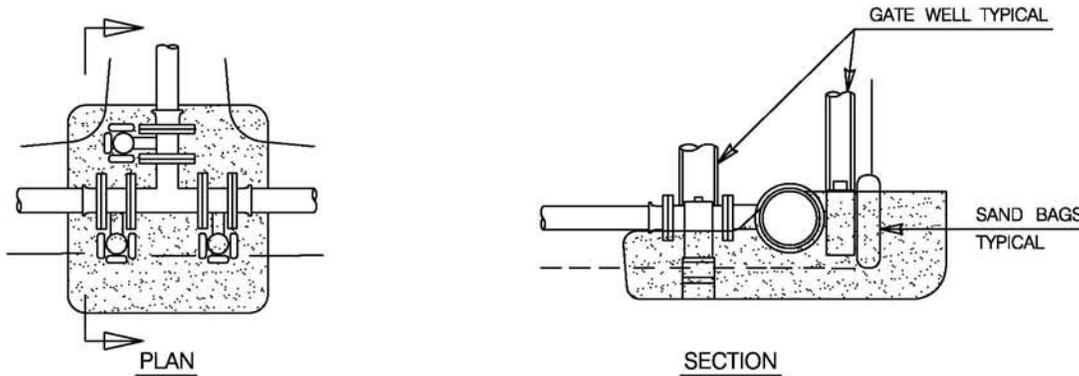
DRAWING NUMBER **SDW-151**



TEE WITH GATE VALVES



TEE WITH BUTTERFLY VALVES ON MAIN



TEE WITH BUTTERFLY VALVES

NOTES:

- 1) BEARING AREA "B" MUST BE EQUAL TO OR GREATER THAN THE AREA REQUIRED FOR A 90° ELBOW INSTALLATION.
- 2) INSTALL SAND BAGS AROUND BUTTERFLY VALVE ACTUATOR TO ISOLATE IT FROM CONCRETE.
- 3) BFV'S INSTALLED AT CROSSES OR TEES REQUIRE A FLANGED DUCTILE IRON SPOOL TO BE INSTALLED BETWEEN THE FITTING AND VALVE IN ACCORDANCE WITH THE SPECIFICATIONS.

SHEET 3 OF 3

REVISION	BY	APPROVED	DATE
ORIGINAL*	KA	J. NAGELVOORT	01/12

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CONCRETE THRUST AND ANCHOR BLOCK INSTALLATIONS

DRAWING NUMBER **SDW-151**