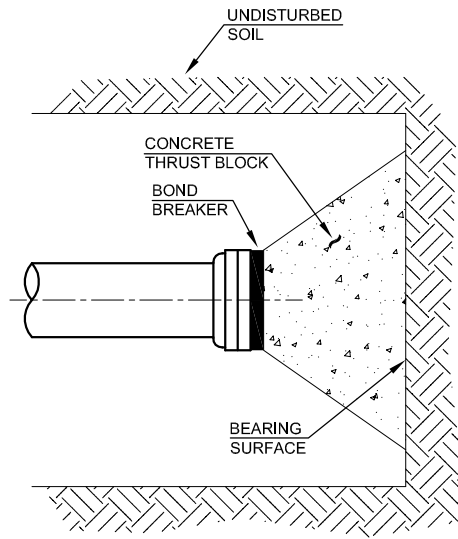
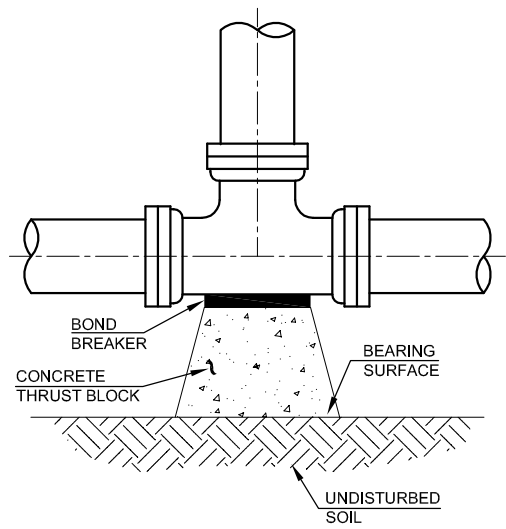


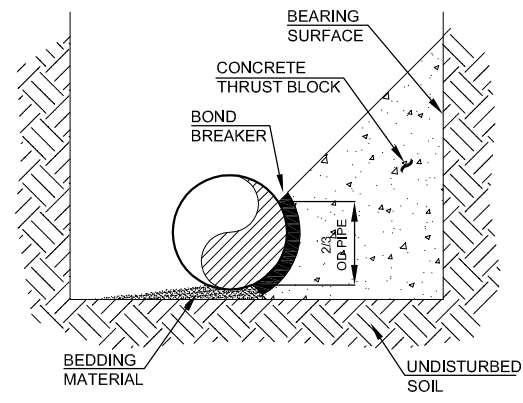
**TYPICAL HORIZONTAL BEND**



**DEAD END**



**TEE**




**TYPICAL CROSS-SECTION**

**MINIMUM BEARING SURFACE AREA  
(IN SQUARE FEET)**

SIZE OF PIPE	BENDS				TEE OR DEAD END
	11 1/4°	22 1/2°	45°	90°	
4"	1.0	1.0	1.2	2.3	1.6
6"	1.0	1.4	2.8	5.2	3.7
8"	1.3	2.5	5.0	9.2	6.5
12"	2.9	5.7	11.2	20.8	14.7
16" AND GREATER MUST BE ENGINEERED					

- NOTES:**
- BEARING SURFACES SHOWN IN CHART ARE MIN.
  - BASED ON:
    - INTERNAL PIPE PRESSURE = 150PSI
    - WATER HAMMER = 110PSI
    - 2,000 PSF SOIL BEARING CAPACITY
  - THRUSTS BLOCKS FOR GREATER THAN 12" DIAMETER PIPE TO BE ENGINEERED
  - BEARING SURFACE AREAS SHOWN IN CHART ARE A MINIMUM REQUIREMENT AND DO NOT RELIEVE THE DESIGN ENGINEER OF RESPONSIBILITY TO DESIGN EACH THRUST BLOCK.
  - PIPE INSTALLED UNDER CONDITIONS DIFFERENT THAN THOSE NORMALLY ENCOUNTERED SHALL REQUIRE THRUST BLOCKS DESIGNED FOR THOSE PARTICULAR CONDITIONS.
  - VERTICAL GRAVITY BLOCKS SHALL BE ENGINEERED.

P:\Engineering\Standard Drawings\Standard drawing.dwg

REV. DATE:	10/2008	<b>KICK BLOCK</b>	DWG. NO.
SCALE:	N.T.S.		
 NORTH TABLE MOUNTAIN WATER AND SANITATION DISTRICT		<b>W3</b>	
14806 WEST 52ND AVENUE GOLDEN, COLORADO 80403-1228			