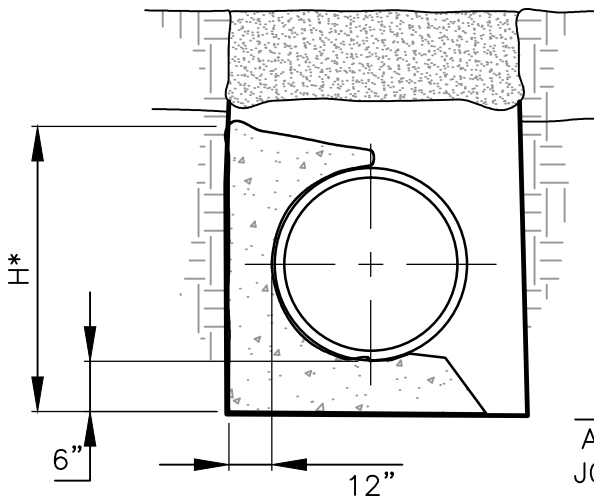


REINFORCEMENT SHALL BE PROVIDED AS FOLLOWS:

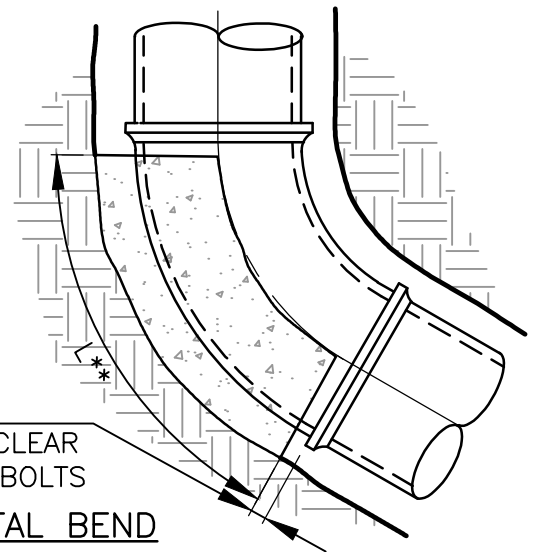
- 6" - 12" PIPE (1) NUMBER 5
- 14" - 30" PIPE (2) NUMBER 5'S
- 36" - 48" PIPE (3) NUMBER 7'S

VERTICAL DOWN BEND



ADEQUATE TO CLEAR JOINT AND/OR BOLTS

HORIZONTAL BEND



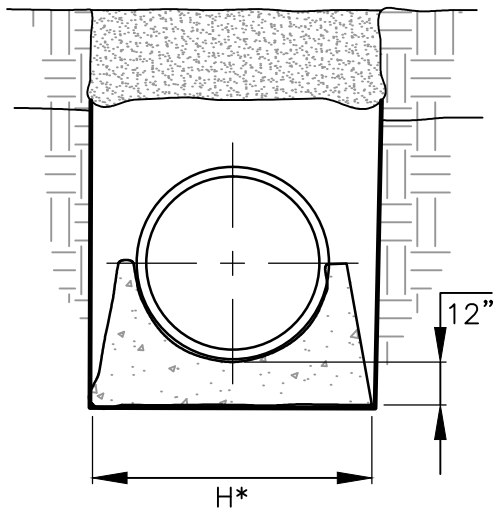
TRAVIS COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT No. 17
STANDARD DETAILS

ADOPTED:
03/01/2016

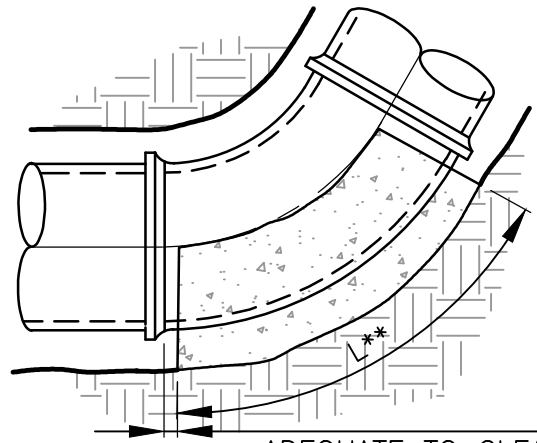
CONCRETE THRUST BLOCKING
(1 OF 3)

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

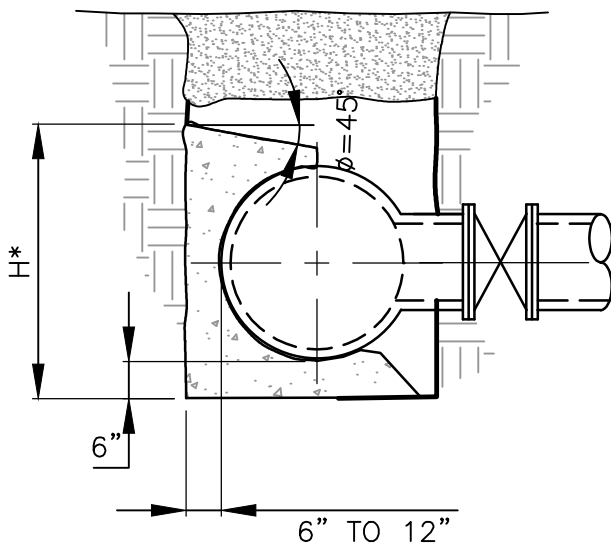
DETAIL NO.
W/WW08



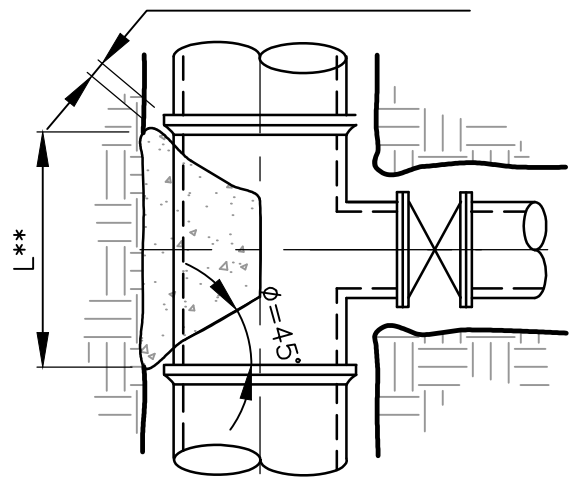
VERTICAL BEND UPWARDS



ADEQUATE TO CLEAR JOINT AND/OR BOLTS
ADEQUATE TO CLEAR JOINT AND/OR BOLTS



TEE/OUTLET



* THE DIMENSION FOR "H" MUST BE GREATER THAN DIAMETER OF THE PIPE

** LENGTH "L" ALONG THE BEND MUST BE GREATER THAN "H" AND LESS THEN 2 TIMES "H"

NOTES:

1. THE EARTH BEARING SURFACE SHALL BE UNDISTURBED MATERIAL, IF NOT POSSIBLE, THE FILL BETWEEN THE BEARING SURFACE AND THE UNDISTURBED SOIL MUST BE COMPACTED TO A MINIMUM OF 90% STANDARD PROCTOR DENSITY.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL ADEQUATE THRUST BLOCKING. THE CONTRACTOR SHALL MAKE THE DETERMINATION IN THE FIELD AS TO TYPE OF SOIL AND USE THE "THRUST BLOCKING DESIGN" TO ADJUST THE AMOUNT OF THRUST BLOCKING REQUIRED AT EACH PLACE OF USE.
3. ALL FITTINGS SHALL BE BLOCKED REGARDLESS OF THE ANGLE OF DIRECTION.



TRAVIS COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT No. 17
STANDARD DETAILS

ADOPTED:
03/01/2016

CONCRETE THRUST BLOCKING
(2 OF 3)

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.


DETAIL NO.
W/WW08

TABLE A			
UPWARD THRUST GRAVITY BLOCKS			
PIPE DIA.	MIN. TOP WIDTH W1	ANGLE (DEGREES)	BOTTOM WIDTH W2 (IN)
6"	6"	0-5	NOTE 2
		5-15	24
		15-25	48
		>25	NOTE 1
8"	6"	0-5	NOTE 2
		5-9	30
		9-15	36
		>15	NOTE 1
12"	6"	0-5	NOTE 2
		5-15	48
		>15	NOTE 1
16"	12"	0-5	NOTE 2
		5-10	60
		10-15	96
		>15	NOTE 1
24" THRU 36"		>5.0	NOTE 1
42" THRU 48"		>3.0	NOTE 1

THRUST BLOCK DESIGN AS FOLLOWS:	
A.	PRESSURE OF 150 P.S.I. (ACTUAL IF HIGHER) + 50% SURGE ALLOWANCE
B.	MAXIMUM SOIL BEARING SEE TABLE BELOW
SOIL TYPES	PRESSURE
LOOSE OR SPONGY SOIL	1500 Lb/SQ.FT.
UNDISTURBED SOIL, CALICHE	2000 Lb/SQ.FT.
LIMESTONE ROCK	4000 Lb/SQ.FT.

TABLE A NOTES:

- FOR ANGLES GREATER THEN THOSE INDICATED, RESTRAINT JOINTS SHALL BE INSTALLED.
- FOR JOINT DEFLECTIONS LESS THEN 5 DEGREES, NO HORIZONTAL OR VERTICAL THRUST RESTRAINT IS REQUIRED FOR PIPES LESS THEN 42" IN DIAMETER.

	TRAVIS COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT No. 17 STANDARD DETAILS	CONCRETE THRUST BLOCKING (3 OF 3)	
	ADOPTED: 03/01/2016	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	DETAIL NO. W/WW08